

ALASKA ENERGY SECURITY TASK FORCE REPORT

SUPPLEMENTAL INFORMATION









ALASKA ENERGY AUTHORITY

DECEMBER 1, 2023

VOLUME 2

ACKNOWLEDGMENTS

The Alaska Energy Security Task Force consists of 15 voting members and five (5) ex officio members appointed by and serving at the pleasure of the Governor.

The 15 voting members are as follows:

Lieutenant Governor Dahlstrom
(Chair of the Task Force)

Curtis W. Thayer
(Vice Chair of the Task Force and Executive Director of the Alaska Energy Authority)

Clay Koplin
(Vice Chair of the Task Force and Cordova Electric Cooperative - Member from a utility that represents rural Alaska or a community receiving power cost equalization)

Acting Commissioner Emma Pokon
(Commissioner of the Department of Environmental Conservation)

Commissioner John Boyle
(Commissioner of the Department of Natural Resources)

Nils Andreassen, Alaska Municipal League
(Member who represents a city, borough, or municipality)

Tony Izzo, Matanuska Electric Association
(Member with a Railbelt utility background)

John Simms, Enstar
(Member from the oil and gas industry)

Karl Hanneman, International Tower Hill Mines
(Member from the mining industry)

Robert Venables, Southeast Conference
(Member with a background in economic development)

Andrew Guy, Calista Corporation
(Member from the business community)

Jenn Miller, Renewable Independent Power Producers
(Member from any segment of the Alaskan energy industry)

Duff Mitchell, Juneau Hydropower
(Member of the general public)

Isaac Vanderburg, Launch Alaska
(Member of the general public)

Daniel White, University of Alaska Fairbanks

The five (5) ex officio members are as follows:

Commissioner Keith Kurber
(Regulatory Commission of Alaska)

Garrett Boyle
(Representative from the Denali Commission)

Erin Whitney
(U.S. Department of Energy, Arctic Energy Office)

Senator Click Bishop
(District R)

Representative George Rauscher
(District 29)

Michael Baker
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APPENDIX IV: ALASKA ENERGY SECURITY TASK FORCE ENERGY SYMPOSIUM SERIES

Energy Symposium Series Presentations contained in Appendix IV

July 13, 2023: Future Natural Gas Supply for the Alaska Railbelt

- Cook Inlet Gas Forecast
- Cook Inlet Gas Supply Project
- Alaska LNG Project

July 20, 2023: Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost

- Providing Electricity in Rural Alaska
- How is AVEC Doing?
- Standalone Rural Electric Utilities
- Challenges for Reducing Costs
- Intelligent Energy Systems

July 27, 2023: Global Trends and Grid of the Future

- Energy Transformation: South Australia as a Case Study
- Opportunities for Electric Load Growth in Alaska
- Insights into the Icelandic Energy Market

August 3, 2023: Railbelt Hydropower Development & Financing: Lessons Learned from the Past, Opportunities for the Future

- Small Hydropower in Southcentral Alaska
- Bradley Lake Operations and Governance
- Railbelt Hydropower: Current and Upcoming Projects
- Susitna-Watana Hydro

August 17, 2023: Alaska Energy Statistics & Economics

- Alaska Energy Data: The Good, the Bad, the Missing
- Alaska Comprehensive Economic Development (CEDS) Strategy
- CEDS Energy-Specific Goals and Objectives

August 24, 2023: Transmission and Storage: Building a More Resilient Grid

- *Energy Storage Options and Selection Considerations*
- *Beneficial and Equitable Electrification*
- *Tidal Power in Alaska*

August 31, 2023: Emerging Technology and Opportunities for Alaska: Small Scale Nuclear

- Copper Valley Electric Association
- Nuclear Energy: State of Micro Reactors
- Small Nuclear Power: An Option for Alaska?

September 7, 2023: Renewable Energy Standards: National Policy Comparisons

- Renewable Energy Standards and Clean Energy Standard Overview

FUTURE NATURAL GAS SUPPLY FOR THE ALASKA RAILBELT

Thursday, July 13, 2023, 11:00 AM – 1:00 PM

- Cook Inlet Gas Forecast
- Cook Inlet Gas Supply Project
- Alaska LNG Project

2022 Cook Inlet Gas Forecast
July 2023 AESTF Presentation

Presented by John Crowther, Derek Nottingham, Jhonny Meza, and John Burdick
Division of Oil & Gas
Alaska Department of Natural Resources






Introduction & Preface

- Department actively manages lease holdings and units in Cook Inlet – through the annual plan of development review process.
- We are evaluating other proactive management actions to support investment and development in Cook Inlet.
- Held last special lease sale in December 2022 to coincide with Congressionally directed federal sale – next state sale coming this Fall/Winter.
- Department is working to facilitate gas storage through lease amendments to existing leases and support further commercial, operational, and regulatory alignment around storage.
- Department is prioritizing the release of tax-credit seismic and well data that is statutorily eligible for release.
- Department continues to be informational resource for all interested parties.

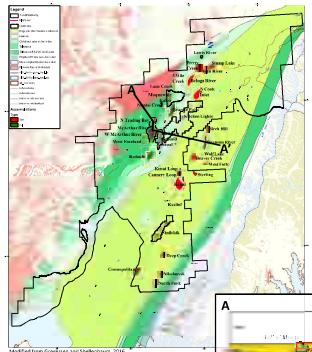


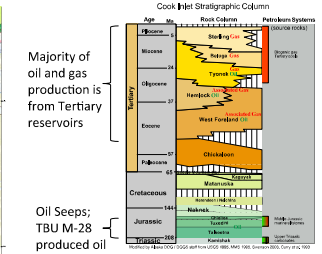
Outline

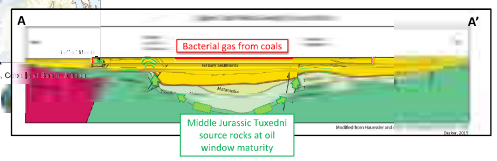
- **Cook Inlet Geology and Resource**
- **Cook Inlet Supply and Demand Evolution**
- **Cook Inlet Recovery Act and Resulting Activity**
- **Overview of Division of Oil and Gas Cook Inlet Studies**
- **2022 Cook Inlet Gas Forecast**
  - Methodology
  - Economic constraints
  - Forecast - outcomes
  - Comparison to previous studies



Cook Inlet Geology







Two Sources of Gas In Cook Inlet Basin

1. Biogenic gas from coals.
2. Oil migrated from source rocks, creating associated gas.

Cook Inlet Gas Resources

Known accumulations yet to be fully developed (based on various sources) and largely excluded from the scope of the forecast:

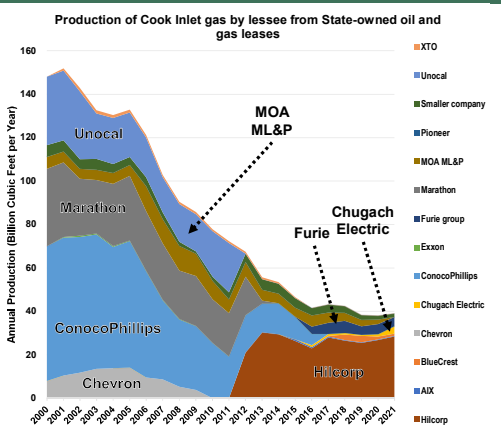
- Cosmopolitan (BlueCrest)
- Kitchen Lights Unit (Furie/HEX)
- North Fork (Vision)
- ~ a dozen additional known prospects
- **Total ~ 300 to 700 BCF**

Undiscovered gas in CI per USGS (Mean Values) – DNR's study is not an alternative or contrary review of this data:

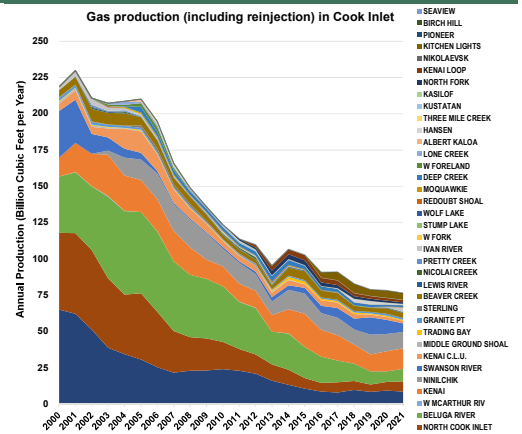
- Conventional gas ~ 13.7 TCF [USGS, 2011]
- Unconventional gas ~ 5.3 TCF [USGS, 2011]
- Southern Cook Inlet OCS ~ 1.2 TCF [BOEM, 2011)
- **Total ~ 20 TCF**

U.S. Department of the Interior
U.S. Geological Survey
USGS science for a changing world

Cook Inlet Fields Overview: Gas Production History



Note: State Lands Only



Note: State + Federal + Private Lands



INTELLIGENCE THAT WORKS

BRG Cornerstone

Working Group Participants

Demand Group

ENSTAR Natural Gas Company
CHUGACH
AMEA
HEA Homer Electric Association, Inc.
GVEA
IGU INTERIOR GAS UTILITY

State Agencies

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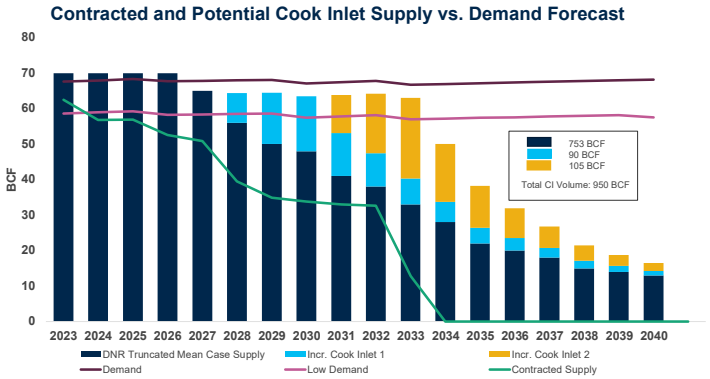
Key Conclusions

- Cook Inlet gas cannot fully meet demand forecast beyond 2026 with current proved reserves or beyond early/mid 2030s assuming incremental local supply development
- While continuing to work on Cook Inlet options, other project(s) must be pursued due to lead time to implement
- It is vital for the Alaska utilities to have control of the pace of option development due to the impending gas shortage
- Several viable options to supplement and Cook Inlet gas supply need to be progressed further in the next phase of this project ("Phase II") to enable a sanction decision on one option by the end of 2023

Supply and Demand Assumptions

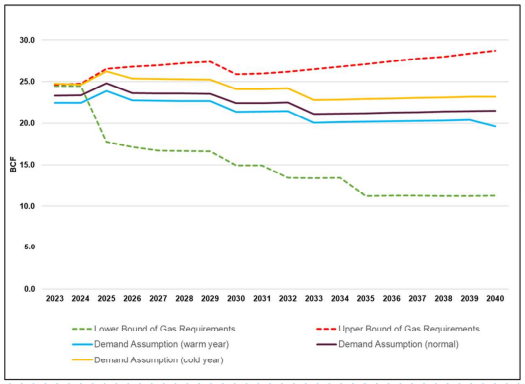
1. Long-term natural gas demand for interconnected Alaska utilities
   - Forecast supplied by the utilities, and provides basis for capacity planning assumptions
   - ENSTAR's stable gas demand for heating, GVEA's plan to incorporate more natural gas generated electricity into its system, and potential range of outcomes for renewable power generation and beneficial electrification all impact potential demand outcomes
   - High, Medium, and Low natural gas demand forecast represents reasonable expectations and timelines for clean energy uptake and a range of winter temperatures
2. Cook Inlet Supply
   - Used DNR's 2022 Cook Inlet Mean Truncated supply forecast as the base case assumption for future gas coming from Cook Inlet
   - Uncontracted Cook Inlet reserves are ~290 BCF in 2027-2040
   - DNR anticipates gas supply gap to develop in 2027
   - Used DNR's 2018 gas availability study to estimate incremental Cook Inlet supply and price levels beyond base case

Supply and Demand Assumptions (Cont.)



Range of Potential Gas Requirements Associated with Renewable Power Adoption

Electric Utility Gas Demand



Scope and Assessment of Options

1. Option scope development and screening-level evaluation
   - Created or adopted (from project developers) conceptual scope and cost estimates for ten most viable options
   - Developed estimated cost of supply in $2023 (today's dollars) using consistent volumes up to each option's ability to supply gas

Scope and Assessment of Options (Cont.)

2. Created a prioritized system of scoring different options with guidance from the utilities' Working Group on prioritization. Options were scored based on ten criteria. Uniformly, the top three criteria received the highest priority scores.

1) Schedule risk
2) Reliability of supply during operations
3) Delivered cost of supply per Mcf
4) Flexibility / Scalability
5) Project complexity and integration into current system
6) Permitting
7) Environmental impact
8) Size of direct investment by utilities
9) Local economic impact
10) Carbon efficiency

Key Project Option Metrics

Gas Supply Options (Private Ownership)

Option		Timeline from decision YE2023	Capital Investment	Supply Volume	Cost of Supply		
					Gas	Midstream	Total
		years	$ mm	Bcf/year	$/Mcf	$/Mcf	$/Mcf
1	Cook Inlet Gas	3 - 4	up to $1500 - $2000	up to ~23	$9.3 - $25.5	Included	$9.3 - $25.5
2 (a)	In-State Pipeline (Private)	6 - 7	~ $8,790	up to 105	$1.3 – $2.6	$26.8 – $34.2	$28.1 - $37.0
3	Kenai LNG	4 - 5	$768	up to 55	$8.6 - $8.9	$3.4 - $4.7	$12.0 - $13.6
4	Greenfield Port and Regas	6 - 7	$876	up to 55	$8.6 - $8.9	$4.0 - $5.3	$12.6 - $14.2
5	FSRU - Own/Lease	4 - 6	$698	up to 55	$8.6 - $8.9	$3.6 - $5.0	$12.2 - $13.9
6	Barge / Small LNG Carrier	4 - 5	$563	up to 25	$8.6 - $8.9	$13 - $14	$21.6 - $23.0
7	Alaska LNG	7 - 8	~$43,000	up to 183	$1.3 – $2.6	$3.1	$4.4 - $5.8
8	LNG Truck and/or Rail	3 - 4	$321	~9	$2.50	$22.5 - $29.5	$25 - $32
9	Renewable Natural Gas	Unknown	n/a	~1	~$25	Included	~$25
10	Hydrogen (green)	12+	unknown	n/a	n/a	n/a	$>32

Key Project Option Metrics (Cont.)

The assessment also considered how cost of supply of certain options with long-term benefits to the State of Alaska can be impacted by alternative financing with State participation

Gas Supply Options (State Participation)

Option		Timeline from decision YE2023	Capital Investment	Supply Volume	Cost of Supply		
					Gas	Midstream	Total
		years	$ mm	Bcf/year	$/Mcf	$/Mcf	$/Mcf
2 (b)	In-State Pipeline (Subsidized 80%)	6 - 7	~ $8,790	up to 105	$1.3 – $2.6	$7.8 - $9.9	$9.2 - $12.6
2 (c)	In-State Pipeline (State Owned)	6 - 7	~ $8,790	up to 105	$1.3 – $2.6	$5.9 – $7.4	$7.3 - $10.0
4 (b)	Greenfield Port and Regas (Subsidized 80%)	6 - 7	$876	up to 55	$8.6 - $8.9	$2.3 - $3.3	$10.9 - $12.2
4 (c)	Greenfield Port and Regas (State Owned)	6 - 7	$876	up to 55	$8.6 - $8.9	$2.2 - $3.1	$10.8 - $12.0

Top Scoring Options for Meeting Future Demand

A. In-State Pipeline

- Construct a 24-inch pipeline that can meet local demand and provide opportunity for future industrial customer supply
- Only viable with state participation / subsidy due to relatively small utility demand
- Provides broad benefits across the state
- Current forecast indicates that this is a long-term option, and would not meet schedule for near-term shortfall

B. Kenai LNG

- In cooperation with owner, modify existing export facility to utilize dock and potentially storage tanks in the short term, accelerating project timeline to meet shortfall

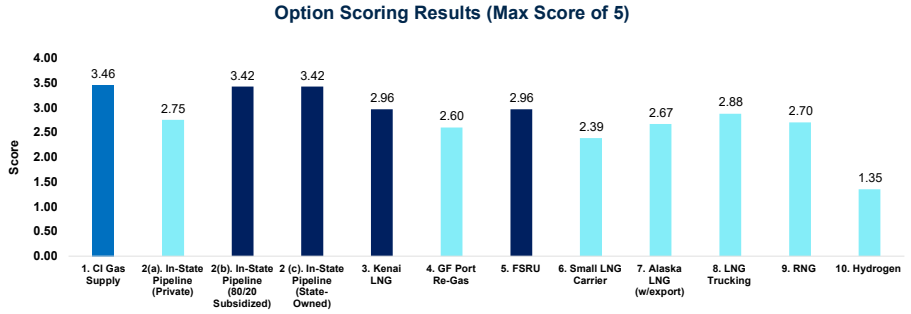
C. Floating Storage and Regasification Unit (FSRU)

- Pursue options to utilize FSRU at existing or modified dock facilities in Nikiski, accelerating project timeline to meet shortfall

D. Cook Inlet Gas Supply

- Remains a preferred top-scoring option but is not sufficient to meet long-term demand forecast

Results of Options Scoring



Recommendations and Next Steps

A. Utilities individually continue to work with Cook Inlet producers and the State to secure additional contracted supply and promote alternative development

B. As the utilities' Working Group, pursue several top-scoring options in order to further define scope, schedule and commercial viability, specifically:

- Modification of existing Kenai LNG facility (via commercial discussions with owner)
- Scope definition and planning for FSRU option
- Greenfield site selection and feasibility assessment for LNG imports if retrofit options become unavailable
- Market survey to further define availability and cost of LNG
- Optimization and feasibility assessment of the In-State Pipeline option with AGDC and State of Alaska in areas of permitting critical path and financing structure

Recommendations and Next Steps (Cont.)

C. Refine cost of supply estimates for the three top-scoring options (FRSU, Kenai LNG, In-State Pipeline), develop procurement strategy

D. Complete permitting due diligence of all top-scoring options and identify key bottlenecks and showstoppers

E. For top-scoring options, develop draft venture model, project finance structure and plan of engagement with capital markets

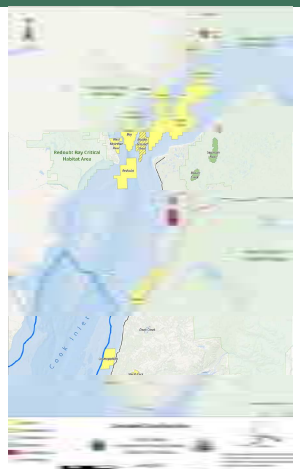
F. Identify one permanent solution or multiple short and long-term options to pursue by 1Q 2024 in order to meet the supply shortfall projected in 2027-2028

Cook Inlet Fields Overview: Production by Field

Field	Operator and lessees	2022 Gas Production	2022 Oil Production
Kenai Loop	AIX Energy LLC	1.17 bcf	
Nicolai Creek	Amaroq Resources, LLC	0.1 bcf	
Hansen	Bluecrest Alaska Operating LLC	0.58 bcf	770 bopd
Redoubt Shoal	Cook Inlet Energy, LLC.	0.07 bcf	879 bopd
West McArthur River	Cook Inlet Energy, LLC.	0.00 bcf	240 bopd
Kitchen Lights	Furie Operating Alaska, LLC; Cornucopia Oil & Gas Company; A. L. Berry; Danny Davis; Taylor Minerals, LLC; Corsair Oil & Gas	4.02 bcf	
Beaver Creek	Hilcorp Alaska, LLC	3.72 bcf	629 bopd
Beluga River	Hilcorp Alaska, LLC; Chugach Electric Association	11.07 bcf	
Deep Creek	Hilcorp Alaska, LLC	1.17 bcf	
Granite Pt	Hilcorp Alaska, LLC	1.16 bcf	2,199 bopd
Ivan River	Hilcorp Alaska, LLC	3.37 bcf	
Kenai	Hilcorp Alaska, LLC	5.53 bcf	
Kenai C.L.U.	Hilcorp Alaska, LLC	0.68 bcf	
Lewis River	Hilcorp Alaska, LLC	0.24 bcf	
McArthur River	Hilcorp Alaska, LLC	6.08 bcf	2,631 bopd
Middle Ground Shoal	Hilcorp Alaska, LLC	0 bcf	0 bopd
Nikolaevsk	Hilcorp Alaska, LLC	0.08 bcf	
Ninilchik	Hilcorp Alaska, LLC	11.52 bcf	
North Cook Inlet	Hilcorp Alaska, LLC	10.93 bcf	
Seaview	Hilcorp Alaska, LLC	0.06 bcf	
Swanson River	Hilcorp Alaska, LLC	3.65 bcf	705 bopd
Trading Bay	Hilcorp Alaska, LLC	0.4 bcf	794 bopd
North Fork	Vision Operating, LLC	1.13 bcf	

bcf = billion cubic feet bopd = barrels of oil per day

https://dog.dnr.alaska.gov/Information/MapsAndGis



Southcentral Gas Demand: Demand by User Type

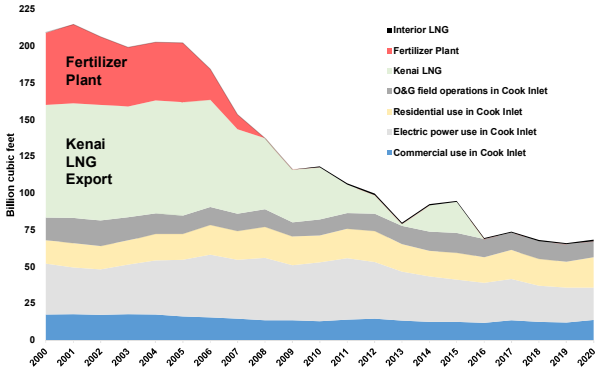
Kenai LNG Plant

- Nikiski liquified natural gas (LNG) facility is operated by Trans-Foreland Pipeline Co. LLC – which is a sub of Marathon Petroleum.
- Last exported LNG was 2015.
- Department of Energy (DOE) authorization for exporting LNG expired in 2018.
- Dec. 2020 Federal Energy Regulatory Commission (FERC) approved LNG Imports to this facility an annual capacity up to 1.8 billion cubic feet (bcf) per year.

Nutrien Fertilizer Plant

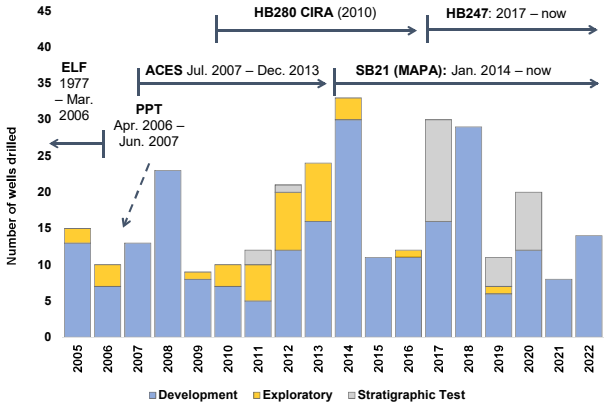
- Second largest ammonia/urea plant in U.S.
- Shut down and mothballed in 2007, however Nutrien maintains permits and remains interested in reopening the plant.
- Gas prices relative to Lower 48 makes economics difficult.
- Potential source for blue hydrogen/blue ammonia.

Demand for Cook Inlet gas (source: EIA)



Cook Inlet Recovery Act and Resulting Activity

Cook Inlet Basin: Tax System and Wells Drilled



- **Active:**
  - Discovery royalty AS 38.05.180(f)(4)
- **Expired or repealed in 2016 or with HB 247:**

Before CIRA

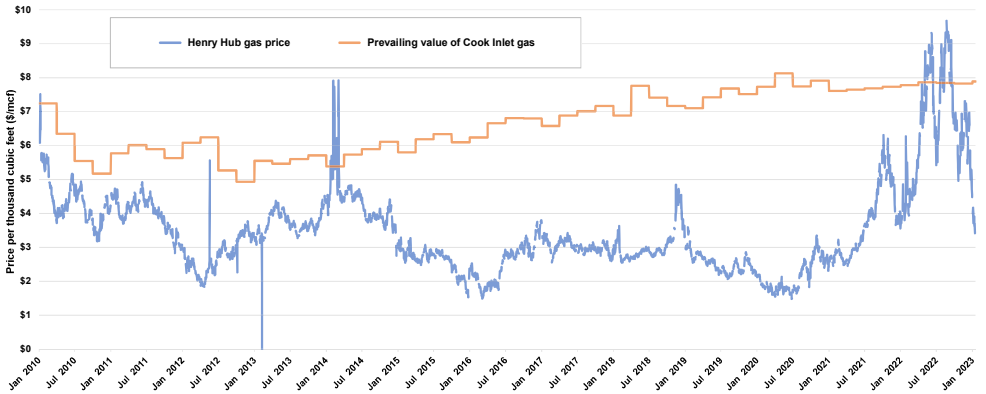
- Exploration Incentive credit: AS 38.05.180(i)
- Alternative Credit for Exploration: AS 43.55.025(a)
- Gas Exploration and Development credit: AS 43.20.043
- Qualified Capital Expenditure credit: AS 43.55.023(a)
- Small Producer Credit AS 43.55.024: Qualification deadline May 2016
- Carried Forward Annual Loss Credit: Expired with HB 247

CIRA

- Well Lease Expenditure Credit AS 43.55.023(l)
- Gas Storage Facility Credit AS 43.20.046
- Cook Inlet Jack-Up Rig Credit AS 43.55.025(a)(5) and (l)

Cook Inlet Natural Gas: Local Prevailing Value vs Henry Hub

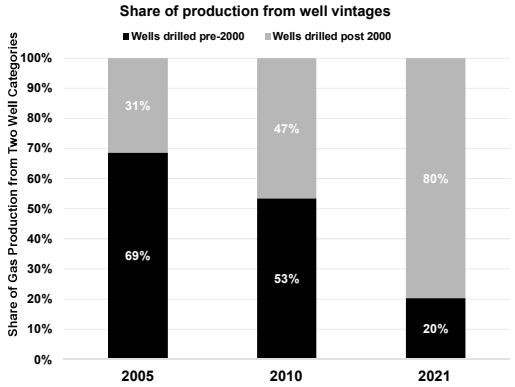
Natural gas prices: Cook Inlet vs. Henry Hub
Source: Department of Revenue



Exploration & Development in Cook Inlet: Cook Inlet Future Production

The CI Basin depends on successful exploration.

- The CI Basin has been producing for over 60 years.
- Continuous exploration has led to 13 new oil and gas units coming online, and over 450 wellbores drilled **since year 2000.**
- Of the ~200 million cubic feet per day (mmcfd) of produced gas in 2021, ~80% came from wells drilled less than 20 years ago.
- Exploration/delineation within and outside the units is crucial to continued security of gas supply for the basin.



Overview of Division of Oil & Gas Cook Inlet Studies

2009 - Preliminary Engineering and Geological Evaluation of Remaining Cook Inlet Gas Reserves

- Consisted of engineering and geologic evaluations of 28 currently producing Cook Inlet gas fields to derive estimates of remaining Proved and Probable reserves.
- Applied single deterministic Decline Curve Analysis (DCA) and Material Balance (MBAL) engineering methods to publicly available production and pressure data obtained from Alaska Oil and Gas Conservation Commission (AOGCC).
- Did not address economics of drilling additional wells, recompleting existing wells, optimizing infrastructure, and the ability to sell the gas into the Cook Inlet market.
- Proved + Probable reserves estimated at 1.14 trillion cubic feet (tcf).



2011 - Cook Inlet Natural Gas Production Cost Study

- Investigated investment requirements around various targeted reserves.
- Addressed commercial viability of remaining gas by postulating conceptual plans to produce natural gas from the Cook Inlet Basin to meet a demand of 90 billion cubic feet (bcf) per year.

Overview of Division of Oil & Gas Cook Inlet Studies (Continued)

2015 - Updated Engineering Evaluation of Remaining Cook Inlet Gas Reserves

- An update to 2009's study of 34 currently or historically producing Cook Inlet gas fields to derive estimates of remaining Proved and Probable reserves.
- Applied single deterministic DCA and MBAL engineering methods to publicly available production and pressure data obtained from AOGCC.
- Did not address prospective (undiscovered), contingent (discovered, non-producing), and 3P (Proved + Probable + Possible) reserves.
- Proved + Probable reserves estimated at 1.18 trillion cubic feet (tcf).



2018 - Cook Inlet Natural Gas Availability

- Built on three previous DOG Cook Inlet gas studies, while incorporating future supplies by formulating hypothetical development projects required to produce undeveloped volumes and estimate each project's economic viability.
  - 500–800 bcf of additional gas is economic to develop at a price range around $6-8/thousand cubic feet (real 2016 dollars).
- P50 reserves estimate of 700 bcf when price is $8 per thousand cubic feet (mcf).

Current Study – Scope and Assumptions

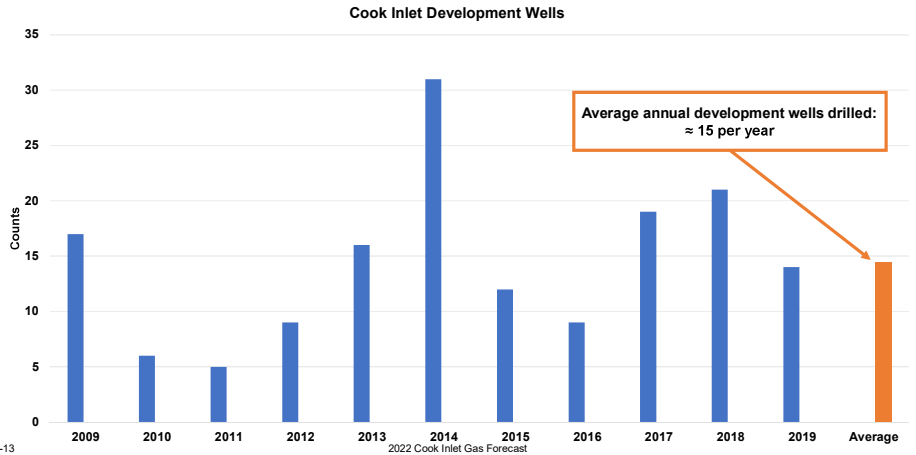
2022 - Cook Inlet Gas Forecast

- Technical reserves assessment of 90 different gas & oil pools using publicly available production data obtained from AOGCC.
- Decline Curve Analysis (DCA) used to estimate volumes from currently producing well set. Type Curve(s) were developed to estimate volumes from future development wells.
- Discovered resources contingent upon more favorable commercial conditions and undiscovered (prospective) resources were not included in the forecast.
- Estimated field level economic limits were used in the "truncated" forecast cases.
- Forecasted volumes do not account for gas produced from gas storage to avoid duplicative gas volumes produced.
- Flat gas demand of 70 billion cubic feet per year does not assume future additional requirements nor does it assume possible substitutes or increasing efficiency in consumption both for energy producers and commercial or domestic consumers.

Key Assumptions:

- Assumes 15 development wells per year until 2030, and no new wells beyond that. That is not a prediction that no drilling will occur after that date, it was the horizon for which 15 wells per year was assumed to be reasonable.
- Assumes gas price is flat, with escalation for inflation. Does not forecast market changes responding to supply/demand.
- Does not include contribution from non-producing known prospects and does not forecast likelihood of their development.

Cook Inlet Development Well History (Pre-Pandemic, 2009-2019)



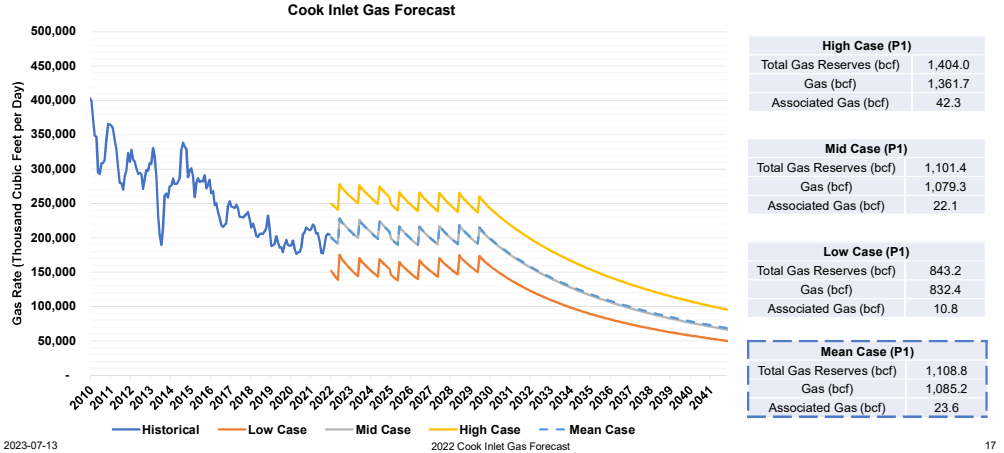
Modeling the Economic Limit for each Field: Structure of the Model

1. **The technical forecast of oil and gas is run through an economic model.**
   - Upstream companies unlikely to operate their fields at a sustained loss (i.e., negative cash flows).
   - If marginal revenue associated with production of oil and gas in a field is not large enough to cover marginal expenditure, then the operator will likely stop production.
   - Marginal expenditure includes costs, royalty / overriding royalty payments, and taxes.
   - Remaining technically recoverable gas production beyond the economic limit point will not be available to the market.
2. **Structure of the economic model:**

Production of gas for sale	Not all gas produced is available to the market: Small share used for in-field operations and enhanced oil recovery.
Revenue	Proxy for gas prices between some Cook Inlet producers and local utilities.
Costs	One-size-fits-all approach for costs allowing for differences based on proximity to infrastructure (offshore vs. onshore, West vs. East).
Royalty	Share of gross revenues: 12.5%.
Overriding royalty interest	Another claim on gross revenues: percentage varies.
Taxes	O&G production tax ($1/bbl and $0.177/mcf ceilings) and O&G property tax.

mcf = thousand cubic feet
bbl = barrel

Forecast Untruncated High-Mid-Low-Mean Streams



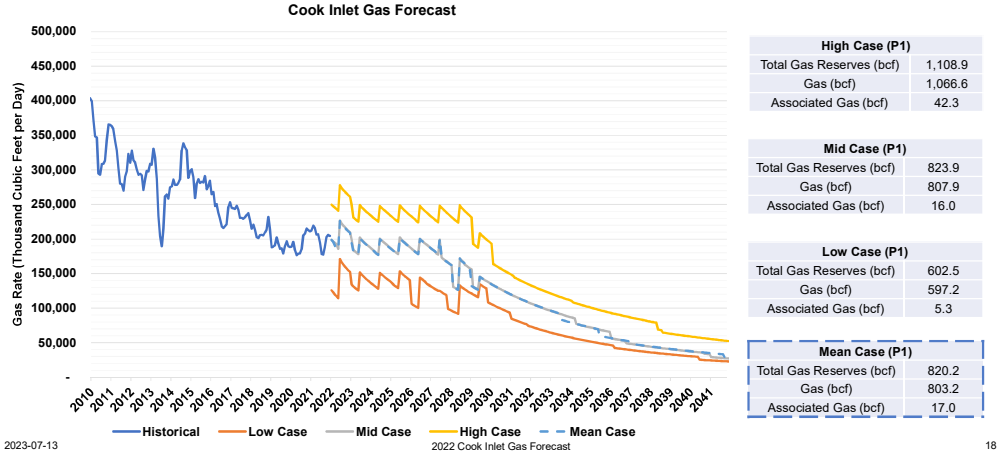
High Case (P1)	
Total Gas Reserves (bcf)	1,404.0
Gas (bcf)	1,361.7
Associated Gas (bcf)	42.3

Mid Case (P1)	
Total Gas Reserves (bcf)	1,101.4
Gas (bcf)	1,079.3
Associated Gas (bcf)	22.1

Low Case (P1)	
Total Gas Reserves (bcf)	843.2
Gas (bcf)	832.4
Associated Gas (bcf)	10.8

Mean Case (P1)	
Total Gas Reserves (bcf)	1,108.8
Gas (bcf)	1,085.2
Associated Gas (bcf)	23.6

Forecast Truncated High-Mid-Low-Mean Streams



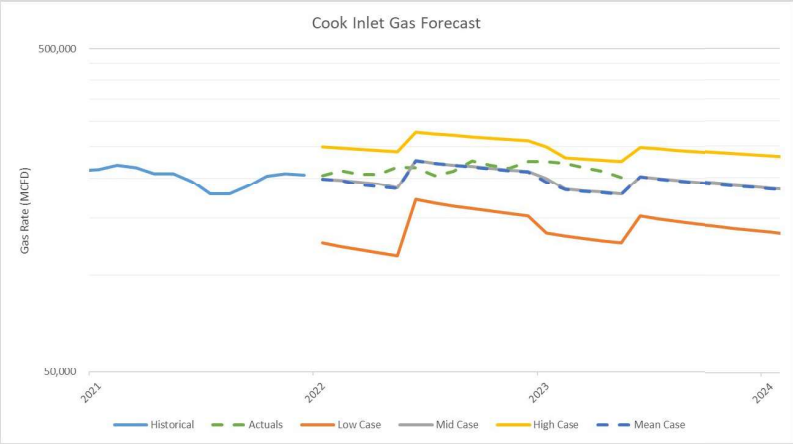
High Case (P1)	
Total Gas Reserves (bcf)	1,108.9
Gas (bcf)	1,066.6
Associated Gas (bcf)	42.3

Mid Case (P1)	
Total Gas Reserves (bcf)	823.9
Gas (bcf)	807.9
Associated Gas (bcf)	16.0

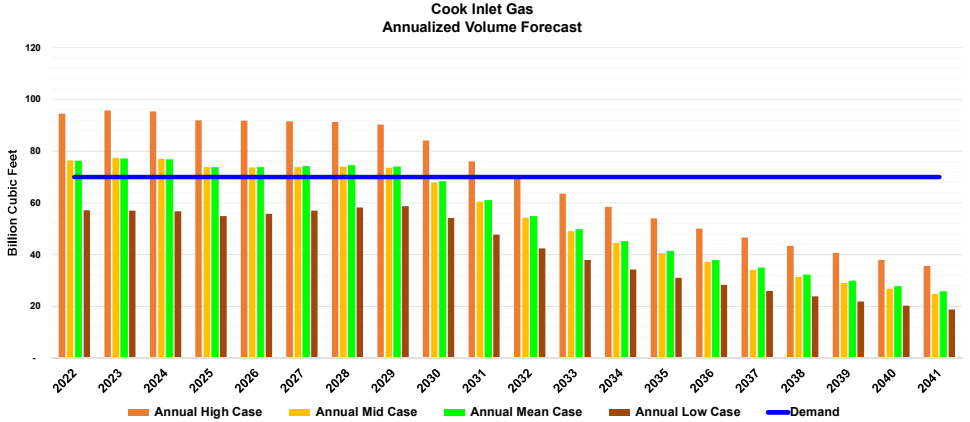
Low Case (P1)	
Total Gas Reserves (bcf)	602.5
Gas (bcf)	597.2
Associated Gas (bcf)	5.3

Mean Case (P1)	
Total Gas Reserves (bcf)	820.2
Gas (bcf)	803.2
Associated Gas (bcf)	17.0

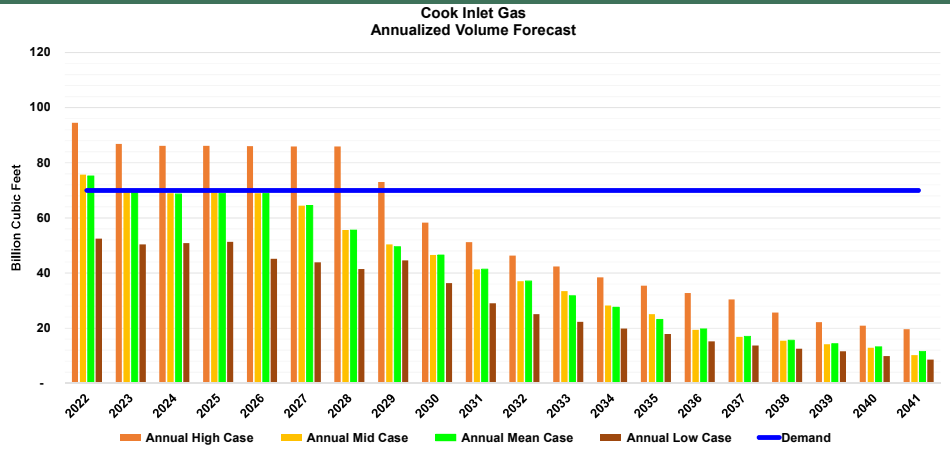
Forecast vs Actuals (Through May 2023)



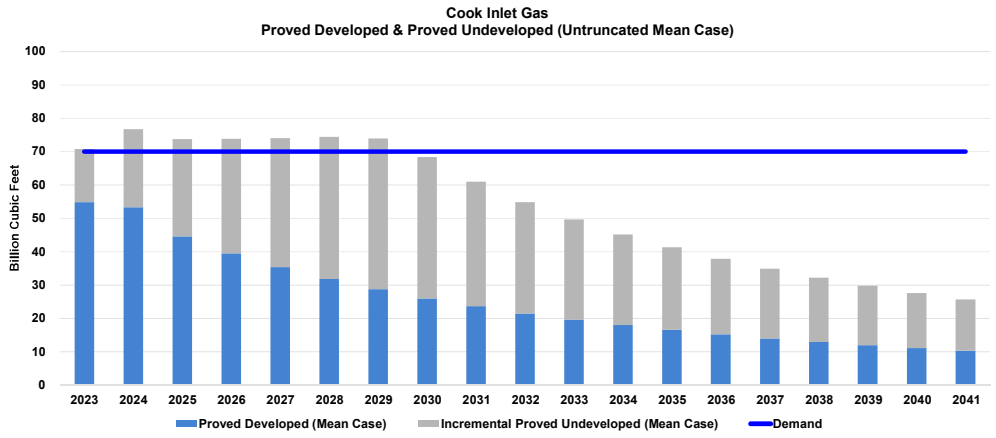
Forecast Annualized Gas Volume (Untruncated)



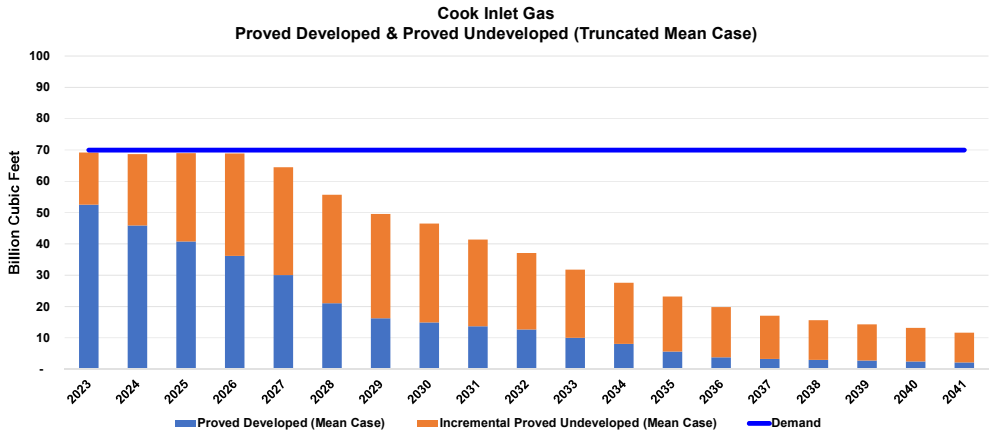
Forecast Annualized Gas Volume (Truncated)



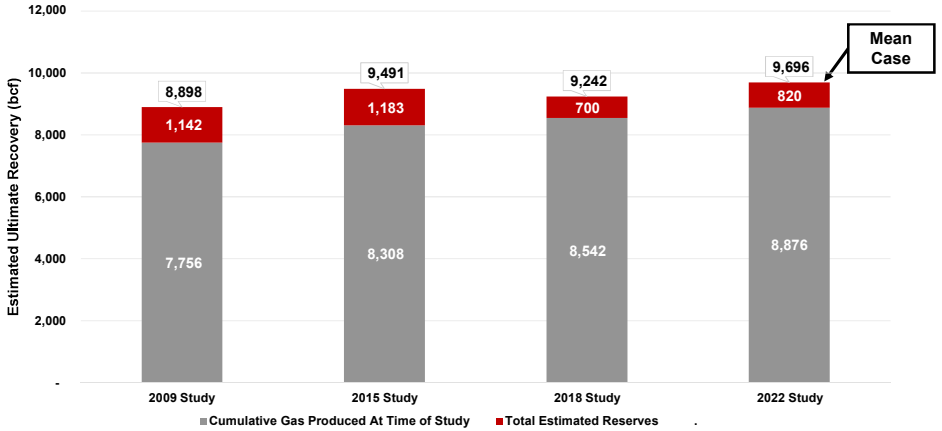
Forecast Proved Developed & Proved Undeveloped



Forecast Proved Developed & Proved Undeveloped



DOG Studies Compared



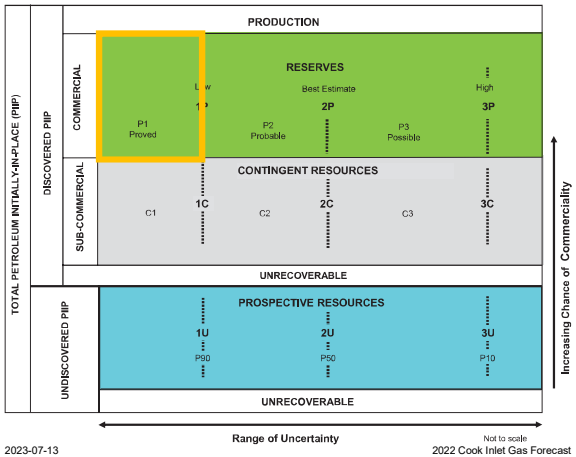
Exploration & Development in Cook Inlet: Cook Inlet Undiscovered Resource



- **Undiscovered, Technically Recoverable Oil & Gas (USGS 2011):**
  - mean conventional oil 599 million barrels of oil
  - mean conventional gas 13.7 trillion cubic feet
  - mean unconventional gas 5.3 trillion cubic feet
- **Undiscovered, Technically Recoverable Gas:**
  - 1.2 trillion cubic feet additional mean resource assessed in Southern Cook Inlet OCS (BOEM 2011) *South of the USGS study area.*
- In general, access to additional area provides opportunities for locating and commercializing currently undiscovered resources.

Questions?

Petroleum Resource Management System



Proved Reserves (P1)
=
Proved Developed Gas Pool-Level Decline Curve Analysis
+
Proved Developed Associated Gas Pool-Level Decline Curve Analysis
+
Proved Undeveloped Type Curve Analysis

Scope & Application

- **Evaluated 90 different gas & oil pools in the Cook Inlet Basin as defined by AOGCC.**
  - Historical production considered through year-end 2021.
- **Probabilistic High-Mid-Low DCA forecasts performed at Pool-level for gas and associated gas.**
  - Pool forecasts begin January 2022.
  - Length of *untruncated* forecast projections mostly held to 20 years, depending on reservoir performance.
  - Field-level oil forecasts were generated to determine economic field oil rate that directly impact produced associated gas forecasts.
- **Type Curves used for future development assumed a steady drilling pace of 15 development wells per year based on historical development wells drilled between 2009 and 2019.**
- **DCA & Type Curve forecasts are run through economic model to derive economic limits for each field by using revenue, fiscal, and cost factors to estimate remaining Proved & Proved Undeveloped reserves.**
- **DCA & Type Curve forecasts are then combined and aggregated to produce a basin-wide forecast.**



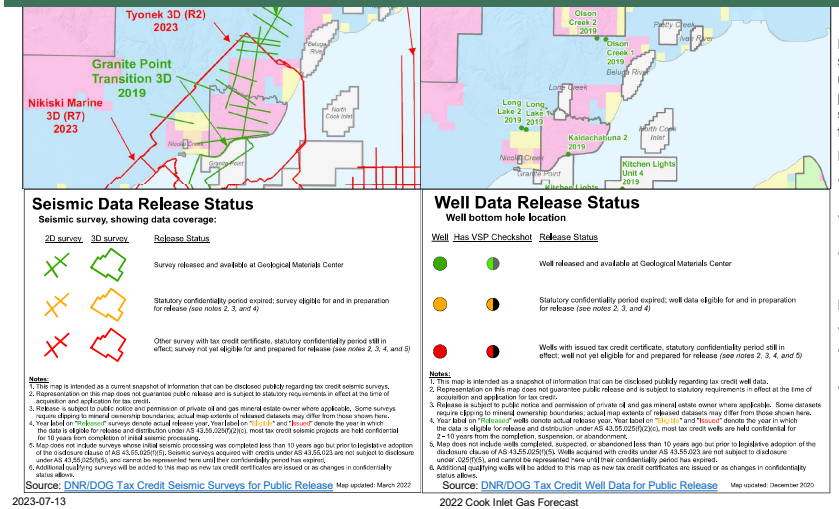
Technical Methodology

Decline Curve Analysis
- Extrapolates recent trends of production decline into the future.
- Probabilistic forecasts were generated for currently producing pools to show a range of possible production into the future.
  - Uses statistical bootstrapping method in addition to traditional DCA to derive a quantifiable probabilistic range of outcomes, including High (P10), Mid (P50), and Low (P90) cases.
- Weighted toward recent production history.
- Engineering judgement applied to honor field development and reservoir constraints.

Type Curve Analysis
- Generated from a population of representative wells in respective pools, intended to characterize behavior of future wells drilled in pools.
  - Accounts for both geological parameters and reservoir conditions.
- Grounded in decline curve & statistical analysis using historical production data.
- Based on both historical development wells drilled between 2009 and 2019 and confidential information received from operators for specific fields that remain active and continue to develop in the Cook Inlet basin.

DCA & Type Curve forecasts are then combined and aggregated to produce a basin-wide forecast.

Data Release through the Tax Credits Program

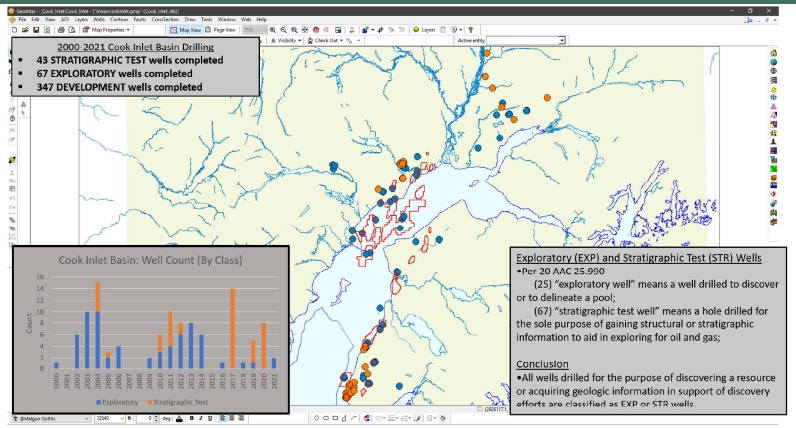


DNR releases well & seismic data collected under the tax credit program (past the statutory holding period) for a nominal charge.

For the State:
- Increases subsurface resource knowledge
- Utility in managing State lands
- Purposed to incentivize new and additional investment

For Industry/Research:
- Lower barrier to entry
- Further published research/training
- Development of new technologies

Exploration & Development in Cook Inlet: 2000 through 2021



Recent Cook Inlet exploration activity comprises seismic, aerial surveys, and drilling of exploratory and stratigraphic test wells.

History of Cook Inlet Tax Credit Program: Design and Purpose

The purpose of the Cook Inlet Tax credits is to "entice companies 'to invest more money in Alaska and drill more wells' so that the possibility of both discovery and production could be 'substantially' increased."

Minutes, Senate Finance Committee, May 13, 2003, summarizing comments from Sen. Wagoner regarding AS 43.55.025(a) tax credits contained in SB 185

Primary Cook Inlet Credits	***Other Major Tax Credits***
AS 43.55.023(l) *	**AS 43.55.023(a)**
Well Lease Expenditure Credit	***Qualified Capital Expenditure Credit***
• In effect from 2010 – 2017 for Cook Inlet • Credit equal to 40% of well or seismic cost (decreased to 20% in 2017) • Not available for North Slope	• In effect from 2006 – 2017 for Cook Inlet • Credit equal to 10% - 20% of capital expenditures
AS 43.55.025(a) *	**AS 43.55.023(b)**
Alternative credit for exploration	***Carried Forward Annual Loss Credit***
• In effect from 2003 – 2016 for Cook Inlet (2010 for Jack-Up Rig Credit) • Credit equal to 30% or 40% of well or seismic cost (increased from 20% in 2008) • Distance restrictions from existing wells or units to qualify	• In effect from 2006 – 2017 for Cook Inlet • Credit equal to 25% of annual loss (increased in 2007)
	Additional Considerations
	• Credits could be certificated, and either traded or repurchased by the State • * These credits have DNR data submittal requirements

Alaska LNG Project

ALASKA GASLINE DEVELOPMENT CORP.

Alaska Energy Security Task Force
July 13, 2023

Alaska Gasline Development Corporation

ALASKA GASLINE DEVELOPMENT CORP.

AGDC

- Independent, public corporation owned by the State of Alaska
- Created by the Alaska State Legislature

Mission

- Maximize the benefit of Alaska's vast North Slope natural gas resources through the development of infrastructure necessary to move the gas to local and international markets

Alaska Stand Alone Pipeline (ASAP)

- Environmental Impact Statement and Record of Decision Complete
- Put on hold when focus shifted to Alaska LNG

Alaska LNG Project

- Provides best opportunity for long term, low cost, secure energy for Alaskans

Alaska LNG Project

The Alaska LNG Project is not the project you heard or read about over the last 20 years.



Today's Project:

- Cost competitive
- Benefits the state
- Transitions to the private sector
- Environmentally friendly
- Has all major permits and authorizations

Alaska LNG: Gas for Alaskans & Export

North Slope Gas Supply

- 40 Tcf of natural gas stranded in Prudhoe Bay and Point Thomson
- More than enough gas for 30-years

Arctic Carbon Capture (ACC) Plant

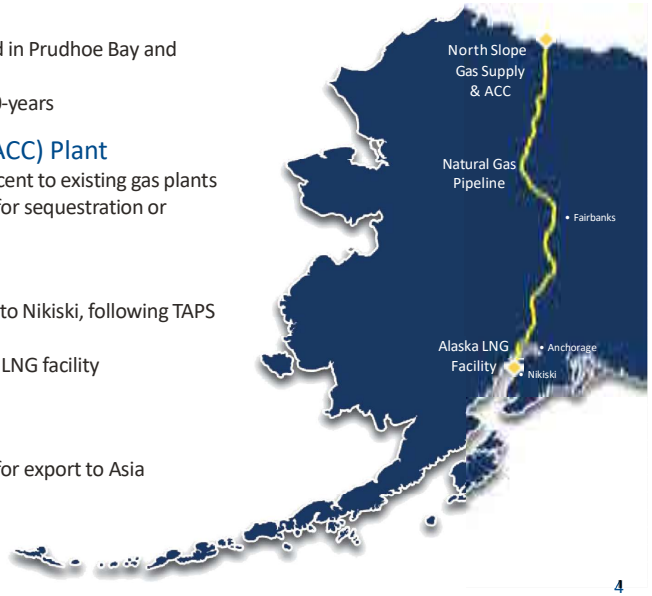
- Located in Prudhoe Bay adjacent to existing gas plants
- Removes CO_2 from feed gas for sequestration or enhanced oil recovery

Natural Gas Pipeline

- 807 miles from Prudhoe Bay to Nikiski, following TAPS and highway system
- Provides gas to Alaskans and LNG facility

Alaska LNG Facility

- 20-MTPA LNG Facility
- Converts natural gas to LNG for export to Asia



Major Permits and Authorizations

Completed

- Federal Energy Regulatory Commission (FERC) Environmental Impact Statement (EIS) and Order
- Department of Energy (DOE) Supplemental EIS and Export Orders
- Land rights-of-way (ROW): about 93% of Project area
- Approved Cultural Resources Management Plan
- Major Facility Air Permits



Regulatory Work Took Over a Decade

Major Permitting for Alaska LNG Occurred 2012 - 2023

- Scoping and pre-filing work
- Two major impact statements totaling over 6,000 pages of analysis
- Agency response documentation totally more than 150,000 pages
- Over a billion dollars

Permits and Approvals are Legally Tied to the Project - Not Easily Transferred to New Project/Scope

- Purpose and need
- Impacts
- Footprint

Can Build in Phases

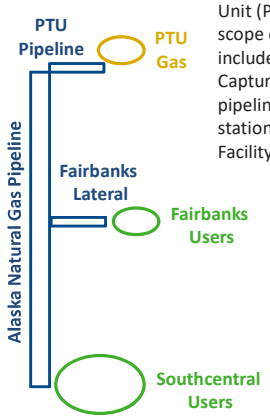
- Examples: Pre-build pipeline, start with one train at the liquefaction facility

Alaska LNG Phase 1 Pipeline

ALASKA GASLINE DEVELOPMENT CORP.

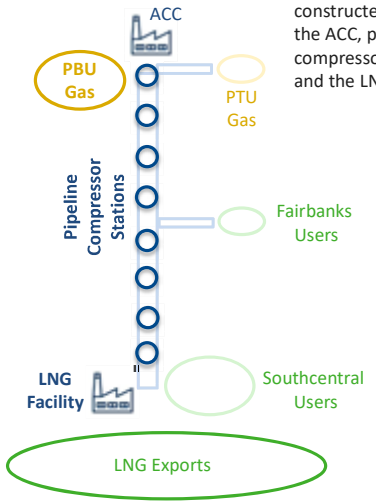
Phase 1: Gas to Alaskans

Gas is sourced from the Point Thomson Unit (PTU): Pre-build scope does not include Arctic Carbon Capture (ACC), pipeline compressor stations, or the LNG Facility.



Phase 2: LNG Exports

Full Alaska LNG Project scope is constructed, including the ACC, pipeline compressor stations, and the LNG Facility.



Positive Climate Impact

ALASKA GASLINE DEVELOPMENT CORP.

Alaska LNG can reduce GHG emissions by more than 77 million tonnes of CO_2 per year.

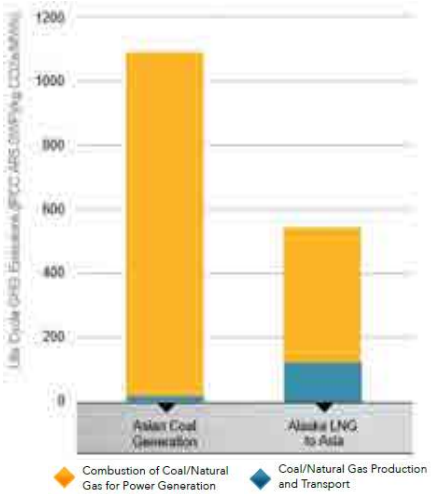
Alaska LNG can have one of the greatest GHG benefits of any project in the world.

Alaska LNG will have the same GHG impact as:

Eliminating — 19 coal power plants

Constructing — 16,0000 Wind Turbines

Lifecycle GHG Emissions for Natural Gas vs. Coal Power



Source: Greenhouse Gas Lifecycle Assessment: Alaska LNG Project

LNG Demand Forecast

ALASKA GASLINE DEVELOPMENT CORP.

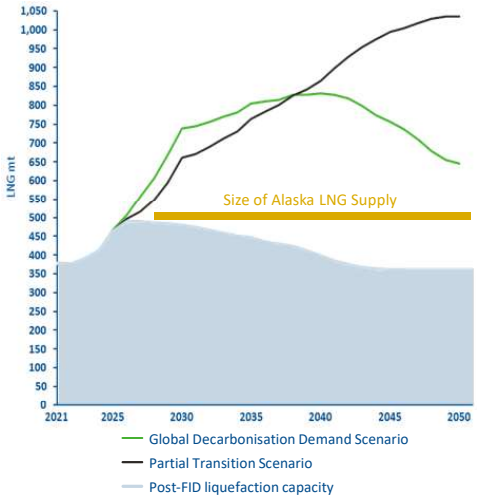
LNG Market is Still Growing

- Demand growth will outpace current and planned LNG capacity
- LNG growth expected as part of energy transition, as natural gas emits half the greenhouse gases as coal

Investors and Buyers want LNG

- New LNG projects expected to be sanctioned. Most new projects have some degree of energy transition planning
- Under both energy transition scenarios, LNG demand exceeds supply for the expected life of the Alaska LNG Project

Global LNG Supply/Demand Balance Forecast, 2021-2050



Source: Gas Strategies

Strong Economics

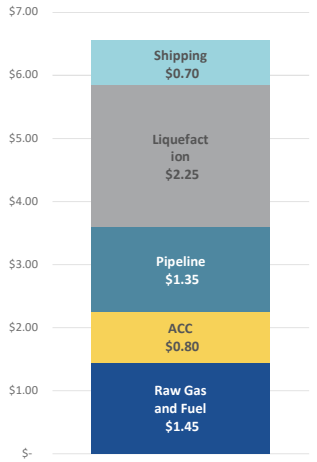
ALASKA GASLINE DEVELOPMENT CORP.

Alaska LNG's Cost of Supply is Well Below Market Prices

- $6.55 cost of supply delivered to Asia is lower than competing market prices*
  - Brent Linked: $9.24 *($77 Brent x 12%)*
  - U.S. Gulf Coast: $7.30 *($2.30 Henry Hub + $5.00)*
  - JKM: $19.50 *(spot price)*
- LNG will be sold at market prices, providing for significant financial upside to Alaska LNG investors and the State of Alaska
- 2023 update to account for recent construction inflation, 45Q tax credits, and financial return expectation

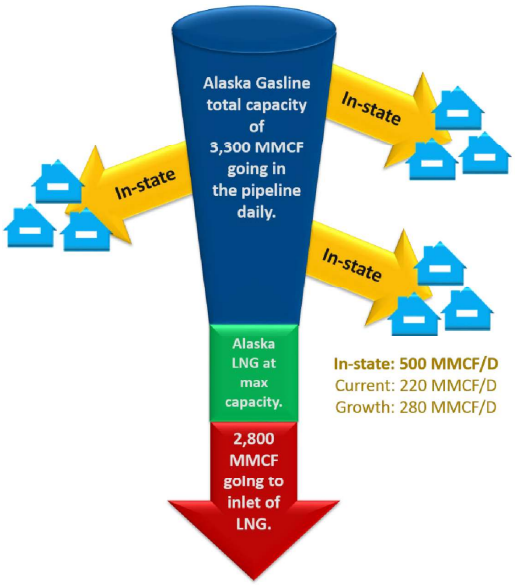
**As of June 8, 2023*

$6.55: Delivered Cost of Supply



Priority Supply for Alaskans

- Alaska LNG is designed to provide system capacity to ship natural gas to Alaskans
- The pipeline has 500 MMcfd of capacity in excess of the LNG Plant's needs
  - All 500 MMcfd is prioritized for Alaskans
  - Current Alaska natural gas demand is about 220 MMcfd
  - Allows for long-term Alaska natural gas demand growth



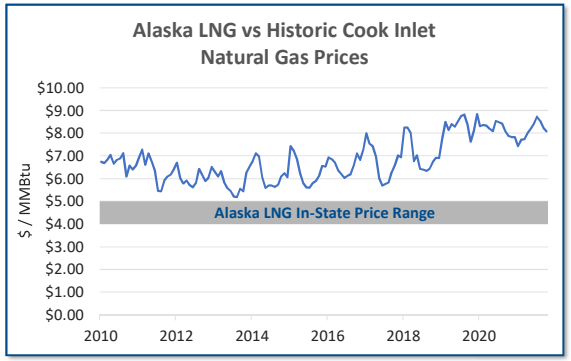
Lower Cost Energy for Alaskans

Low-Cost Gas for Alaskans

- The Alaska LNG in-state price is estimated to be between $4 - $5 per MMBtu
- Significant reduction from current prices, saving Alaskans hundreds of dollars per year*

Significant Energy Savings

- Southcentral households/businesses can save up to $1,000 in energy costs (more in the Interior)
- Communities without access to natural gas will benefit from Rural Energy Fund



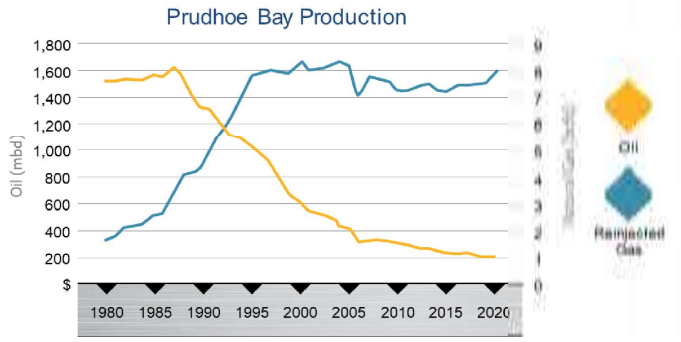
Not all Alaskans use natural gas. This table converts the price of natural gas to other energy sources used in Alaska.

Natural Gas	Heating Oil	Electricity
$/MMBtu	*$/gal*	*$/kWh*
5.00	0.69	0.02
10.00	1.38	0.03
15.00	2.07	0.05
20.00	2.76	0.07
25.00	3.45	0.09
30.00	4.14	0.10

* Source: Energy Information Administration

Alaska Resource Use

Revenue from gas sales will offset declining oil revenues

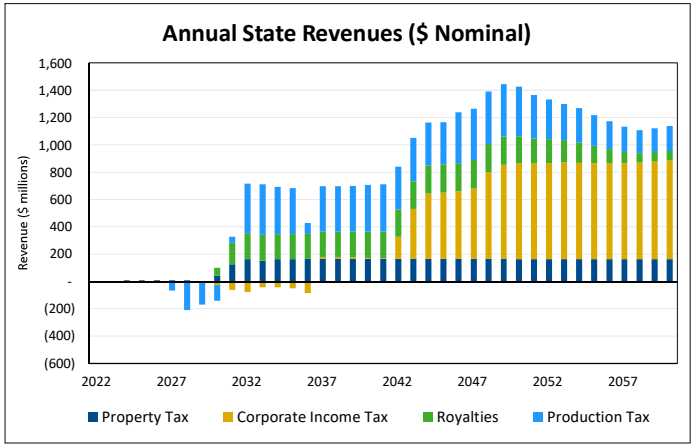


Project maximizes use of existing oil and gas infrastructure

- Upstream infrastructure and large-scale production facilities are already in place on the North Slope

Alaska LNG: New State Revenue

Significant revenue generated by Alaska LNG, even with no State of Alaska investment in construction.



State of Alaska Department of Revenue Analysis (April 2023)

**Does not include AGDC revenue from return on investment-to-date or future State investments.*

Alaska LNG Investment

- AGDC is seeking private investors to take Alaska LNG through Front-End Engineering and Design (FEED) and to a Final Investment Decision (FID)
- Goldman Sachs is under agreement to raise investment capital for Alaska LNG
- AGDC is targeting approximately $150M development capital to get to FID
  - 3rd Party FEED costs, project management, legal/commercial, 8 Star Alaska overhead
  - Investors will receive majority interest in 8 Star Alaska and Alaska LNG
- Capital Raise Process:
  - Goldman Sachs has set out a structured capital raise process and leading financial investment engagement
  - Goldman Sachs is only engaging with investors with the financial strength and expertise to advance the project



Alaska LNG CIM (Confidential Information Memorandum)

- Developed by Goldman Sachs
- Distributed to potential investors under confidentiality agreements
- Contains 60+ pages of detailed financial projections, commercial status, and investment terms

Alaska LNG Execution Strategy



8 ★ STAR

AGDC's Role: Transition to Private Investors

- AGDC is seeking qualified partners and investors to advance Alaska LNG to FID
- AGDC created the project company 8 Star Alaska, LLC (8 Star) to function as the parent company of the project
- AGDC is transitioning Alaska LNG assets under 8 Star and is selling 75% equity ownership of the company to investors in exchange for taking the project to FID
- AGDC will retain a 25% carried interest in 8 Star

8 Star's Role: Manage Alaska LNG through FID

- 8 Star will be managed by private investors with AGDC being a minority owner
- 8 Star will be the project manager and retain oversight of all 3 aspects of the project through to FID
- 8 Star ownership is likely to consist of one "lead party" with other strategic partners owning minority stakes
- At FID, 8 Star will raise the construction capital for each of the three project subcomponents

Now → **After Investment**

Investment Highlights

7 **Significant Existing Value from Regulatory Approvals, Permitting and Due Diligence**
Major government approvals obtained including FERC Order, DOE export license, Corps of Engineers wetland permit, air permits for both major facilities, and lease / Right of Way agreements covering ~93% of the Project footprint

8 **Attractive Pre-FID Returns**
Significant project tailwinds towards FID with potential to unlock significant value for pre-FID equity

9 **Leading Low-Carbon LNG Profile**
Amongst the leading projects globally for low-carbon emissions, access to world-class potential Carbon Capture and Sequestration (CCS) and a ready opportunity to expand into hydrogen

10 **Local Support Incentivizing Project Development**
Alaska LNG has strong local support, Alaska Native land claims resolution, and commercial relationships with Alaska Native Corporations

Utility Supply Agreement

- AGDC offered agreements to Alaskan utilities that will ensure they receive gas supply on preferential terms from Alaska LNG.
- These agreements are with 8 Star Alaska, LLC and will bind future investors in Alaska LNG
- Key Terms
  - Alaska utilities will be provided natural gas from Alaska LNG on priority terms to supply residential, commercial, and small industrial customers
  - The price will be no higher than that paid by the LNG facility for natural gas supply (lowest cost possible)
  - In the event of an interruption, Alaska utilities will be prioritized over LNG exports
  - Ensure utility demand growth up to 500 MMcfd, over 2x growth
  - Ability to adjust take-or-pay commitments in response to changes in demand or new renewable sources of energy

Alaska Affordable Energy for Rural Alaska

- Required by Alaska Statute 37.05.610
- The purpose is to provide a source of funds for appropriation to develop infrastructure to deliver **energy** to areas of the state that do not have direct access to the Alaska LNG pipeline
- The Alaska Affordable Energy Fund is to receive an annual deposit of 20% of state royalty revenue after paying into the Permanent Fund

Gas Sales Agreement – Producers

- Investors have identified that gas supply terms are needed prior to investing development capital
- Securing these agreements is a top priority for AGDC
- Need for gas supply terms has been communicated to the Producers
  - DOR Commissioner Crum and DNR Commissioner Boyle joined meetings to stress the importance of the project to Alaska
  - Goldman Sachs joined meetings to communicate investors' views on the importance of gas supply
- AGDC has transmitted gas supply precedent agreements to Producers
  - 8 Star Alaska, LLC is the buyer in the agreements so it will be binding on future investors
  - Establishes, price, term, volume, and commitment to buy and sell gas
  - Fully-termed gas supply agreements will be negotiated by the private project developer prior to FID
  - Mixed level of engagement from the Producers

LNG Sales Agreements

- Active negotiations with multiple LNG offtakers/buyers are underway
  - Negotiations are fairly advanced with ongoing price discussions
  - Buyers include traditional Asian utility buyers, LNG traders, and oil and gas companies
  - All buyers are credit worthy and large-scale market participants
- Alaska LNG is uniquely able to offer a combination of prices
  - Brent-linked, Henry Hub, JKM, and fixed-price offering
  - 20-year term with an aggregate price floor that can cover system tolls and debt service
- Some buyers are considering "equity offtake" where they would invest in the project at FID in exchange for LNG supplied at cost
- In total, AGDC is currently in discussions for 125% of project capacity (25 MTPA)
- All conversations under confidentiality agreements

In Summary – Alaska LNG...

Increases Production:

- Provides infrastructure to get stranded gas to market
- Provides another 30+ years of North Slope production and increases condensate production
- Provides lower cost, clean-burning gas for Alaskans (no imports needed)
- Contributes to state revenue
- Provides bridge to ammonia and hydrogen production

Minimizes Impacts:

- Extensively scrutinized with multiple requirements to minimize impacts
- Maximizes use of existing infrastructure and resources
- Lowers global greenhouse gas emissions
- Uses existing corridors – TAPS, utility corridor, highway
- Regulated under strict U.S. and Alaska legal requirements

Energy Security – Alaska

- Cook Inlet gas supply is uncertain
- Utilities are evaluating potential alternative natural gas supplies
- Alaska LNG is the best option to replace Cook Inlet gas
  - Secure, low-cost supply for Alaskans
  - Alaska LNG will ensure priority natural gas supply for Alaskans


ANCHORAGE DAILY NEWS

Hilcorp warns Alaska utilities about uncertain Cook Inlet natural gas supplies

Getting in Touch with AGDC

Contact Information

AGDC
http://www.agdc.us/
https://agdc.us/contact-agdc/

Alaska LNG
https://alaska-lng.com/
https://alaska-lng.com/contact-us/

Social Media
Twitter https://twitter.com/alaskalng
Facebook https://www.facebook.com/AKGaslineDevelopmentCorp
LinkedIn www.linkedin.com/in/alaska-gasline-development-corporation-607418245

Telephone
Phone: 907-330-6300
Toll Free: 1-855-277-4491

Post
3201 C Street, Suite 505
Anchorage, Alaska 99503

AGDC Common Acronyms

ACC	Arctic Carbon Capture
AFN	Alaska Federation of Natives
AGDC	Alaska Gasline Development Corporation
ANCSA	Alaska Native Claims Settlement Act
ANVCA	Alaska Native Village Corporation Association
AOGCC	Alaska Oil and Gas Conservation Commission
Bbl	Barrel
Bblsd	Barrels per Day
Bcf	Billion Cubic Feet
Bcfd	Billion Cubic Feet Per Day
BLM	Bureau of Land Management
CCS	Carbon Capture and Sequestration
CO2	Carbon Dioxide
CO2E	CO2 Equivalent
DOE	Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPC	Engineering, Procurement & Construction
FEED	Front End Engineering Design
FERC	Federal Energy Regulatory Commission
GTP	Gas Treatment Plant
HH	Henry Hub
Kbblsd	Thousand Barrels per Day
LNG	Liquefied Natural Gas
LOI	Letter of Intent
M3	Cubic Meters
MMBtu	Metric Million British Thermal Unit
MT	Metric Tons
MTPA	Million Tonnes Per Annum
NETL	National Energy Technology Laboratory
NPRA	National Petroluem Reserve Alaska
ROW	Right-Of-Way
TAPS	Trans-Alaska Pipeline System
Tbtu/yr	Trillion British Thermal Units per Year
Tcf	Trillion Cubic Feet
TPA	Tonne per Year

AGDC.us

ALASKA RURAL ENERGY: CHALLENGES & OPPORTUNITIES FOR REDUCING THE COST

Thursday, July 20, 2023, 11:00 AM – 1:00 PM

- Providing Electricity in Rural Alaska
- How is AVEC Doing?
- Standalone Rural Electric Utilities
- Challenges for Reducing Costs
- Intelligent Energy Systems

PROVIDING ELECTRICITY IN RURAL ALASKA

ALASKA ENERGY SECURITY TASK FORCE

JULY 20, 2023

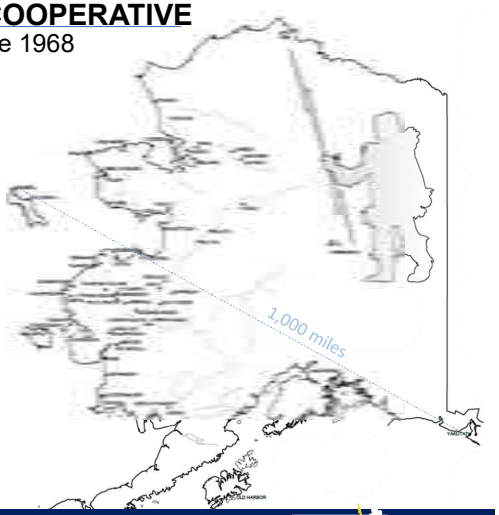
Kasigluk, AK

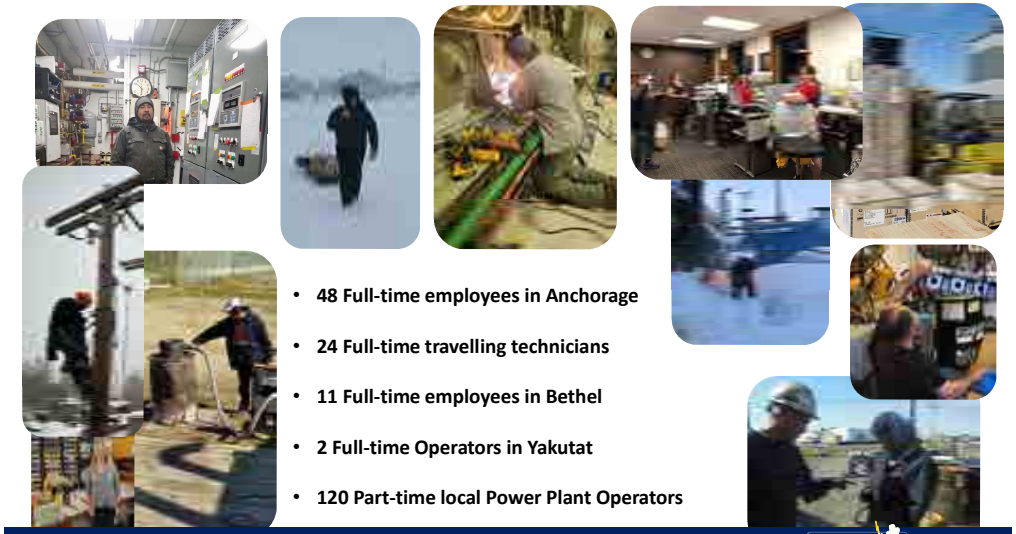
Alaska Village Electric Cooperative
Bill Stamm President & CEO

ALASKA VILLAGE ELECTRIC COOPERATIVE

Energizing Rural Alaska since 1968

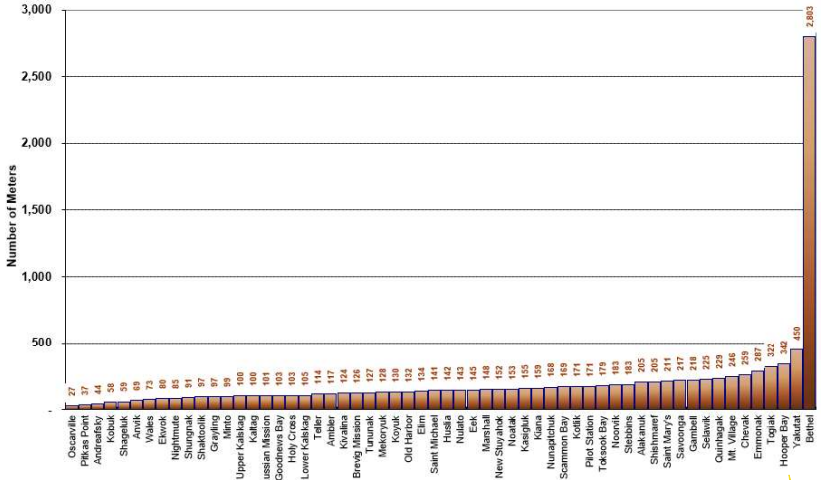
- Nonprofit 501(c)12 -Electric Cooperative
- 8,300 Members, 11,500 Meters
- 58 Rural Communities, 31,000+ Residents
- 48 Power Plants, 160 Diesel Generators
- 9.1M Gallons of Diesel in 2022 ($35.3M)
- 515 miles of Distribution Lines, 4,752 Poles
- 12 Wind Sites, 32 Wind Turbines, Serving 20 Communities
- $60.7M Annual Revenue
- 2022 Total Electricity Sold 124.5 MWh





- **48 Full-time employees in Anchorage**
- **24 Full-time travelling technicians**
- **11 Full-time employees in Bethel**
- **2 Full-time Operators in Yakutat**
- **120 Part-time local Power Plant Operators**

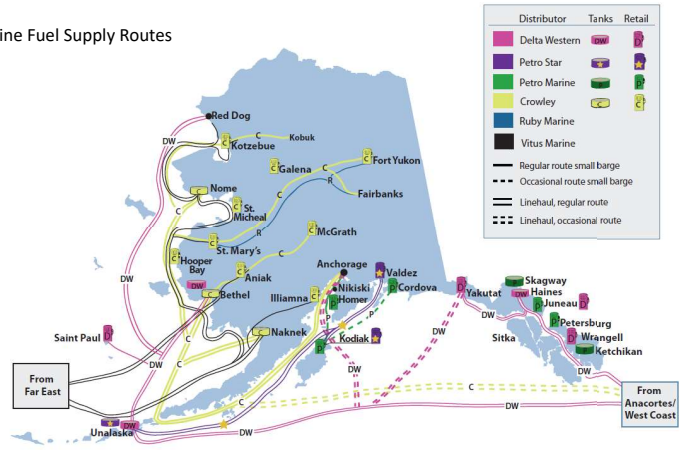
Relative "Size" of Community by Meter Count



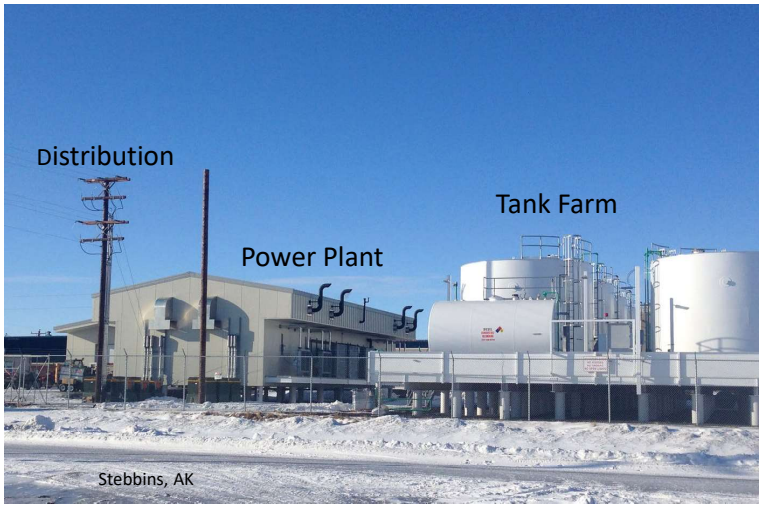




Marine Fuel Supply Routes



Components of Alaska Fuel Costs: An Analysis of the Market Factors and Characteristics that Influence Non-Railbelt Fuel Prices. 2010, Szymoniak, Fay, Villalobos-Melendez, Charon and Smith.




Pitka's Point/Saint Mary's

Renewable Generation System-wide 2022

Net Wind Generation	4.5 MWh
Net Solar Generation*	0.2MWh
Total Renewable Gen	4.7MWh (5%)
Diesel Fuel Displaced (based on 13.7 kWH/gal)	343,000 gallons
Equivalent Cost of Diesel (based on $3.90/gal)	$1,338,000

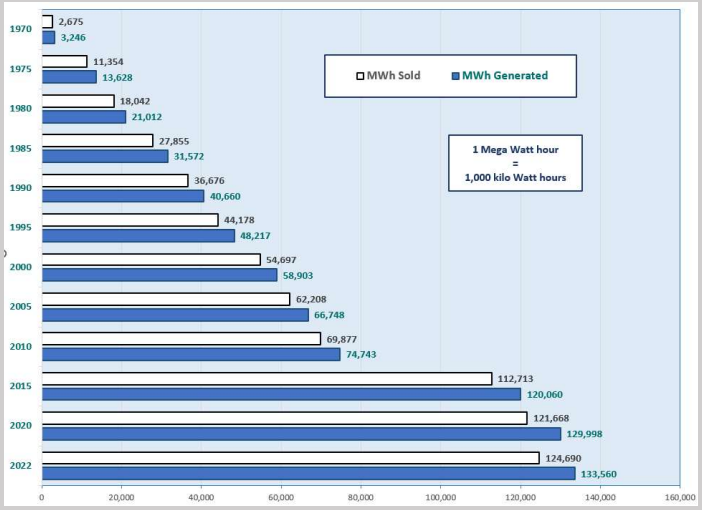
* Primarily due to Shungnak-Kobuk Solar IPP

Togiak

AVEC

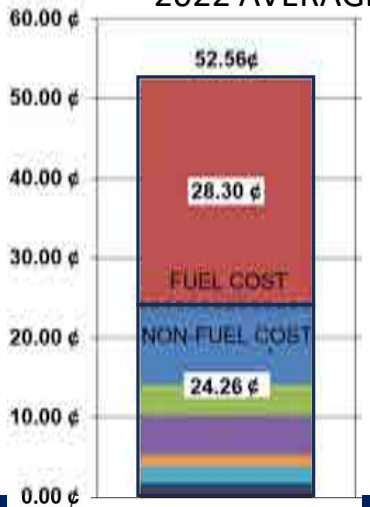
POWER CONSUMPTION

- Steady load growth due to increased electrification and acquisitions since 1970
- Large step increase due to acquisition of Bethel in 2014
- Consistently low Line Loss, 6.6% in 2022
- Comparatively low power consumption for population size of 31,000 people. (< ½ of Juneau or Fairbanks)



AVEC

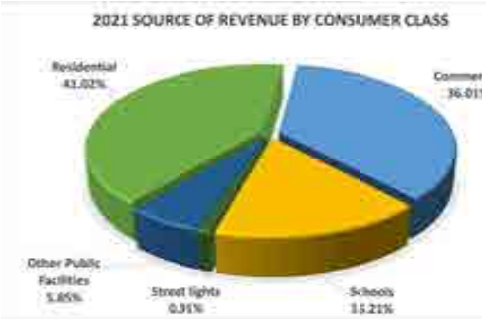
2022 AVERAGE COST TO OPERATE PER KWH SOLD

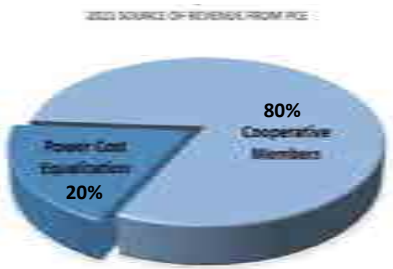


- Cost of Fuel per kWh Sold
- Power Generation Expense Less Cost of Fuel per kWh Sold
- Depreciation Expense per kWh Sold
- Administrative and General Expense per kWh sold
- Distribution Expense per kWh Sold
- Interest Expense per kWh Sold
- Consumer Accounts Expense per kWh sold
- Payroll Taxes, Gross Receipt Taxes & Other per kWh Sold

AVEC

Where the Money Comes From





AVEC

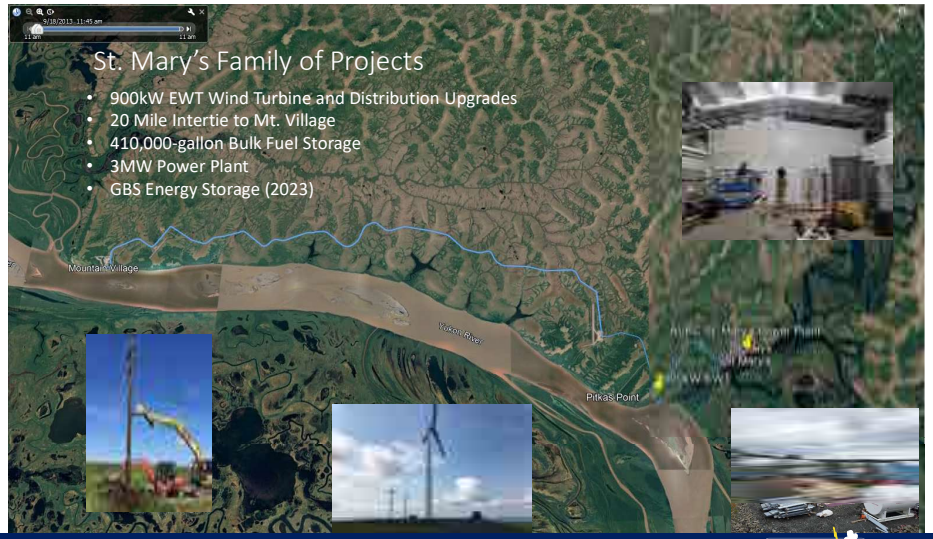
Why is electricity expensive in rural Alaska?

- Small populations – AVEC's average village is ~400 people
- Small loads – AVEC's average village load is ~160 kW
- No economies of scale, minimal commercial and industrial loads

  (Expensive power = Less Development)
- Utilities are capital intensive; require lots of physical plant
- Isolated systems - reliability relies on self-redundancy
- Remote and difficult to access, limited infrastructure, equipment, resources
- Fuel is expensive – diesel delivery and storage cost often exceeds purchase cost
- Operations and maintenance is more expensive, freight, travel, lodging, it all adds up
- Availability of qualified personnel is limited, especially as complexity increases

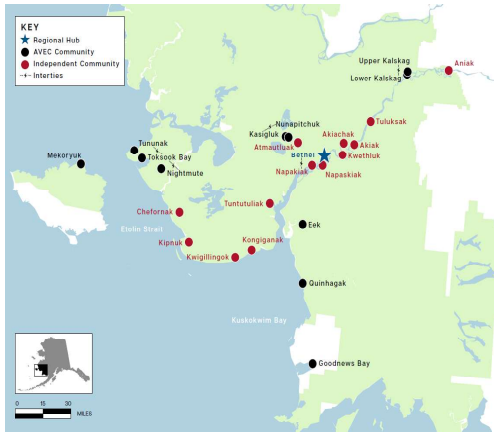
AVEC strategies to reduce power cost

- Improve generation efficiency whenever possible
- Minimize distribution losses whenever possible
- Interconnect villages to improve economies of scale
- Welcome cost-effective new communities
- Add renewables and energy storage where economically feasible
- Capture and sell recovered heat, excess wind energy
- Promote energy education, workforce development, and economic opportunity





How is AVEC doing?

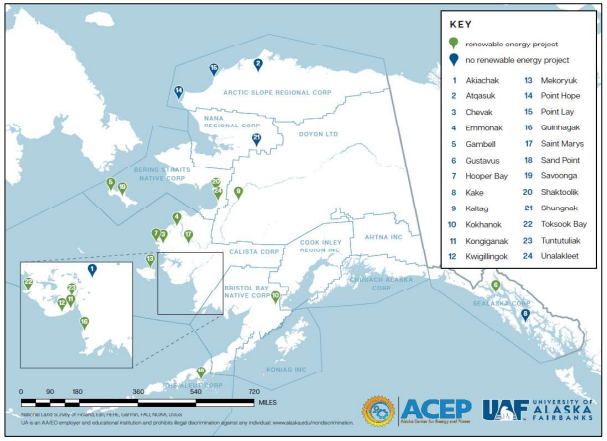


Bethel Census Area Communities (excluding Bethel)

11 AVEC Communities (median number of residents = 377)

14 Independent Communities (median number of residents = 441)

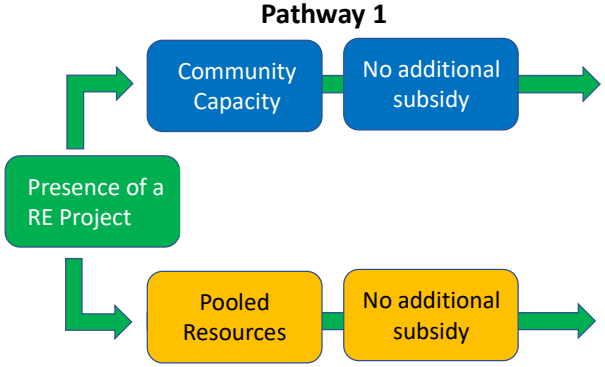
Pathways to Renewable Energy Development



- 37 conditions/factors analyzed using qualitative comparative analysis
- 24 communities included in the analysis
- 3 explanatory factors: high capacity, pooling of resources, no additional subsidy beyond PCE

		Economic	Technological	Social	Political	Environmental	Infrastructural
Screening Criteria	Community is eligible for PCE subsidy	●		●	●		
	Community has economically viable renewable energy resource		●			●	●
	Community is not a regional hub but has >100 residents	●		●	●		
Utility Ownership	Utility ownership type (community or private)			●	●		●
	Membership in the Alaska Village Electric Cooperative				●		●
	The utility shares or pools resources across multiple communities	●		●	●	●	
	Partial or total postagestamp rate[a]	●					●
Power Costs	Fuel price paid by utility for diesel ($)	●					
	Annual total fuel costs	●					
	The average fuel cost per kilowatt hour ($/kWh)	●					
	The average nonfuel cost per kWh ($)	●					
	The cost to generate 1 kWh of electricity before subsidies[b]	●					
	The residential rate for 1 kWh (of electricity) after subsidies	●					
	The commercial rate for 1 kWh after subsidies	●					
Community Power Sales	Total annual electricity sales in kWh		●				●
	The average number of kWh sold to residential customers	●	●				
	Total annual residential electricity sales in kWh		●				●
	The number of the utility's residential customers			●	●		
	Industrial anchor tenant in community is purchasing electric from the local utility			●		●	●
Subsidy	Total PCE eligible kWh sold by the utility		●				●
	The non-PCE eligible kWh sold by the utility		●				●
	Percentage of total kWh sold that are not eligible for PCE		●				●
Community Capacity	The community has an additional subsidy (beyond the PCE)	●		●	●		
	The number of residents in the community			●	●		
	The number of community facilities eligible for PCE			●	●		●
	% of qualifying facilities (i.e., >20 % eligible for PCE subsidies)	●		●	●		
	The % of kWh claimed under the PCE program			●	●		
	The total number of PCE eligible kWh for a community			●	●		●
	Community capacity (as a fuzzy variable)	●		●	●		
Regional Government	The community is located in an organized borough			●	●		
	Total residents in the borough, including remote & non-remote communities			●	●		
	Total number of remote communities within borough			●	●		
	Total tax revenue collected by the borough in 2015	●		●	●		
	Median household income in area (borough)	●		●			
Poverty	Poverty levels (% of residents under the poverty line)	●		●	●		●
	Utility costs to average household income (ratio)	●		●	●		●
	Average household income in the community[c]	●		●			

[a] Whether the community has a partial or total postagestamp rate. Inside Passage Electric Cooperative (IPEC) communities have a total postage stamp rate, while Alaska Village Electric Cooperative communities only have a postage stamp rate for non-fuel costs.
[b] The cost to generate 1 kWh of electricity before utility and end-user subsidies have been applied.
[c] Based on census data [50].



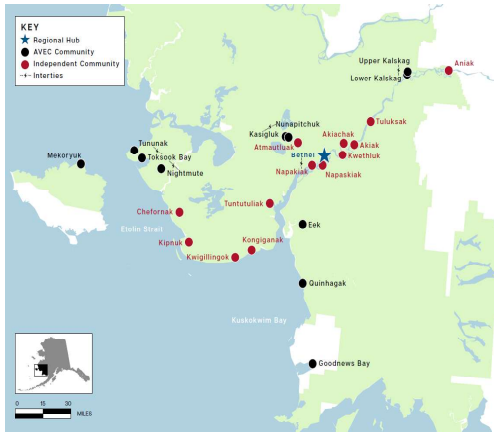


Example: Unalakleet



Example: Kongiganak

Analysis of AVEC's Performance



Statistically significant variables:

1) Delivered cost of fuel
2) Non-fuel costs
3) Line loss (kWhs of electricity produced but not sold)
4) Diesel efficiency
5) Non-PCE rate ($/kWh)
6) PCE rate ($/kWh)
7) Proportion of available PCE credits for qualifying community facilities used

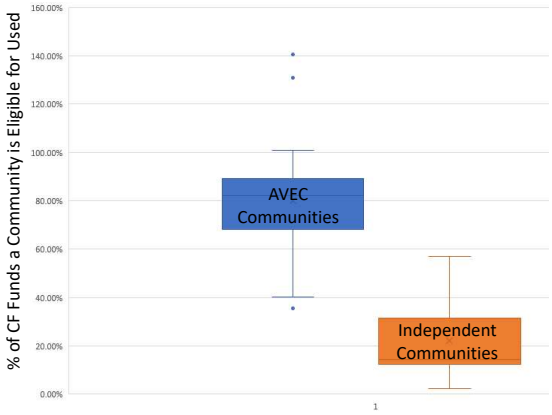
Variables – Statistically Significant

	AVEC (avg)	Independent (avg)	Difference
Line Loss (%)	4.49	8.78	4.29%
Fuel Cost ($/gal)	2.89	3.11	$0.22/gal
non-Fuel Cost ($/kWh)	0.21	0.27	$0.06/kWh
Fuel Efficiency (kW/gal)	13.4	11.97	1.43 kW/gal
Subsidized Rate ($/kWh)	0.25	0.32	$0.066/kWh
Unsubsidized Rate ($/kWh)	0.52	0.66	$0.14/kWh

PCE-Eligible Community Facilities

The PCE Program allows communities to apply a subsidy to power used by community facilities such as the washeteria, tribal hall, street lights or water/sewer treatment plant

The maximum allowable sales eligible for the PCE credit (70 kWhs/month/resident)



References (published)

Renewable Energy Integration in Alaska's Remote Islanded Microgrids: Economic Drivers, Technical Strategies, Technological Niche Development, and Policy Implications

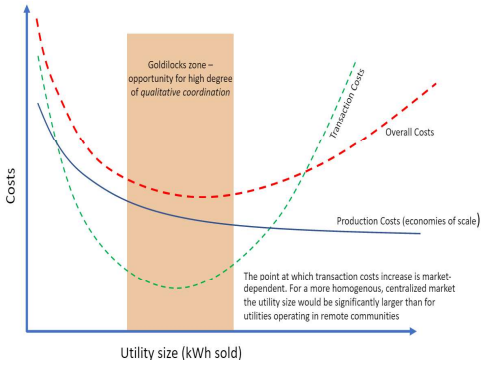
by Holdmann, Wies, Vandermeer. Published in Proceedings of IEEE (2019):
https://ieeexplore.ieee.org/document/8801901

Critical pathways to renewable energy transitions in remote Alaska communities: A comparative analysis

by Holdmann, Pride, Poelzer, Nobel, Walker. Published in Energy Research and Social Science (2022):
https://www.sciencedirect.com/science/article/abs/pii/S221462962200216X

References (to be published … soon)

- Case History of the Alaska Village Electric Cooperative
- Does Ownership Matter: Quantitative Analysis of AVEC's Performance
- Goldilocks Zone: Balancing Local Control Versus Economies of Scale in Remote Rural Electricity Utilities



Standalone Rural Electric Utilities

Municipalities and Tribes may choose to retain ownership/operation of the community electric utility because:

- The Council, with community input, gets to determine how the utility will make power and run the utility. Or…
- It creates local jobs, including board/council seats that pay stipends for attending meetings. Or…
- The Council can control customer rates and payment plans. Or…
- A utility can be a source of revenue. Or…
- AVEC said no.

Challenges	Solutions?
Personnel – Finding and Keeping: • Utility clerk, power plant operators, meter readers • Diesel mechanic, electrician, lineman, bookkeeper • Hybrid power plants require high level of training for complex controls and equipment integration/repairs	• Detailed Job Descriptions • On-site training and pay enough hours to do the job right • Compensation commensurate with performance – evaluate annually • Bring in student interns (14+ can work in office, 16+ in power plant) • Partnerships with nearby communities • Tribal Consortium/Borough/ANCSA Corp ("loose" coop) - Assistance that doesn't require giving up local control • Hire high end consultants/technicians to do complex services on hybrid systems
High Costs – Extremely Low Sales • Lime Village (pop. 6) (utility has 15 R, 6 CFs, 1 C, 1 F/S) $1.77/kWh - $.76	• Self-generation? Utility consist of a repairman and fuel sales?
Collections – hard to collect from family and friends	• Pre-Pay Metering – limited stock remaining reserved for existing installations. AMPY system no longer in production.
Board Members must navigate complicated issues	• Board training

Standalone Rural Electric Utilities

Several do an exceptional job under tough circumstances - mostly due to the good fortune of having a motivated and devoted staff – and good partners. It doesn't matter how many people are left; it matters who is left.

Creative Solutions

Chaninik Wind Group – villagers help each other install wind turbines, install dual meter bases, and repair equipment whenever possible.

NWAB Independent Power Producers/Community Solar – Tribe/Community owns renewable generation and sell kWhs to the utility. The kWhs become a fuel cost and eligible for PCE with each fuel report. The utility's customer and PCE rates don't change much if at all, but the IPP can use the revenue to repair/replace/increase renewable energy generation.

Nikolski (pop. 41 and growing) – Use Power Plant Operator Pairs (1 woman and 1 man). Man does the generator work while the woman documents everything on the plant log.

Started with TDX Power training 3 pairs. Those folks trained 2 more pairs.

They pay someone in Anchorage to do administrative work for utility as none of them want to do that job.

Standalone Rural Electric Utilities

POWER COST EQUALIZATION BUTTS HEADS WITH RENEWABLE ENERGY

ONE EXAMPLE:

Puvurnaq Power Company – Kongiganak, AK. According to Manager Rod Phillip, PPC has reduced imported diesel fuel for village heat and power by 50% since installing (5) 100 kW wind turbines and Electric Thermal Stoves (ETS) that utilize excess wind kWhs to produce heat for residential customers.

The RCA included those excess wind kWhs when calculating the utility's PCE rate. This caused a decrease in the PCE rate. They further reduced the PCE rate by deducting the revenue (which sells for $0.10/kWh) from the utility's expenses when calculating their PCE rate.

PPC's PCE rate was only reduced by $0.03 this time, which seems a small difference - $22.50 on 750 kWhs. But it will become more significant with the planned addition of more wind turbines, more ETS, and EV charging.

Reducing diesel should be incentivized, not penalized.

Standalone Rural Electric Utilities

Connie Fredenberg
Utility Management Assistance
907-444-6220
conniefredenberg@mtaonline.net

Working hard to work myself out of a job.



Alaska Rural Energy: Challenges & Opportunities for Reducing Costs







Public Private Partnerships & The case for Community – IPP's

Why are we here ?

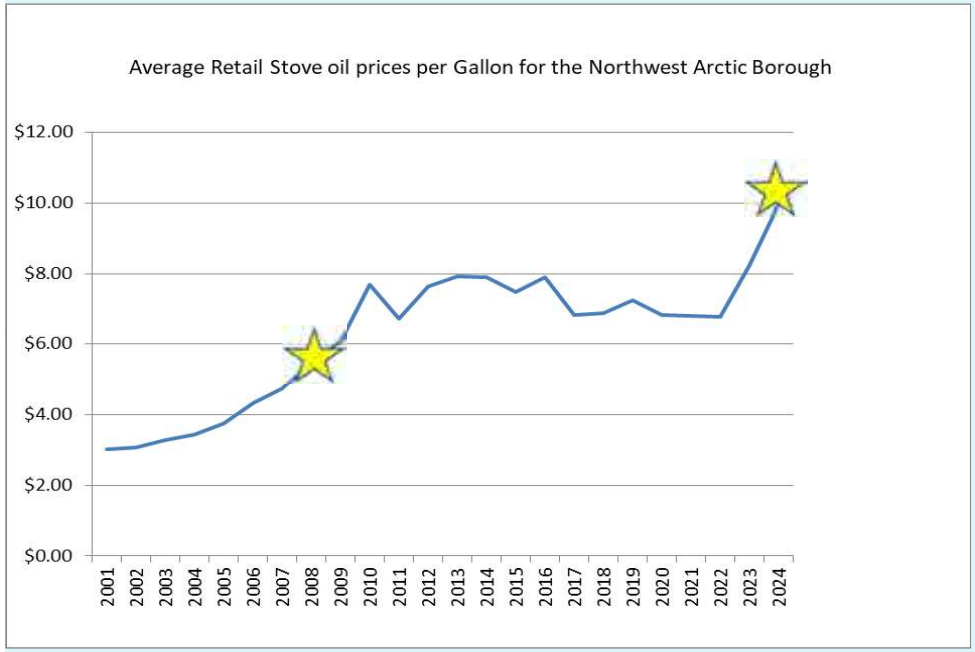


Challenges

2008 Energy Summit



Brent Crude oil prices over time



Fuel prices (tax included on retail) April. 2023 & FY24

Community	Gasoline $/G Retail	Stove oil $/G Retail	Sales Tax included	Util. & AVEC Cost $ Barge/Air FY2022- FY2023	NWABS Cost $ FY2023- FY2024
Kotzebue KIC and KEA	8.99	9.12	6%	3.71 KEA/ 3.20	4.54/4.7605
Kotzebue Vitus	7.99	7.57	6%		
Kotzebue Crowley	7.80	7.97	6%		
Ambler	14.42	14.42	3%	4.49 /11.50	6.07/6.2505
Kobuk	13.91	15.45	3%	N/A	6.07/6.2505
Shungnak	14.03	15.05	2%	5.45 / 11.50	6.07/6.2505
Kiana	7.98	7.73	3%	2.82/4.18	4.71/5.0005
Noorvik	7.21	6.18	4%	2.96/4.63	4.71/5.0005
Selawik	5.68	6.58	6.5%	2.854.52	4.71/5.0005
Buckland	7.65	7.66	6%	2.13-3.547	5.25/5.0005
Deering	5.50	5.20	3%	2.13-4.057	4.71/5.0005
Kivalina	6.52	6.52	2%	2.78/4.18	5.16/5.0005
Noatak	14.49	15.31	6%	8.10/10.75	7.24/10.96

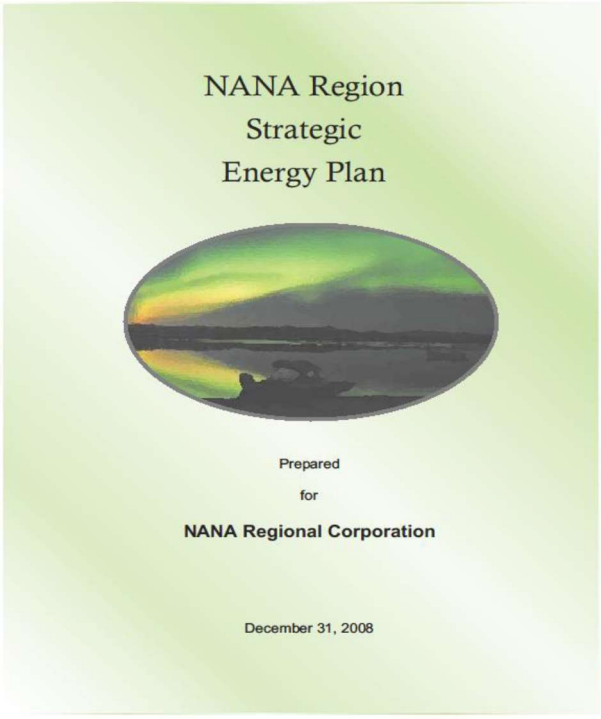
NAB Electric rates, Apr 6 2023

Community	1-750Kwh $/Kwh with PCE	Tax	1-750 Kwh Actual cost/Kwh with tax	0-750 $/Kwh No tax	750-up $/Kwh No tax	Utility Non firm power purchase rate $/Kwh 1/30/2023
Kotzebue KEA	0.2275	6%	0.24	0.3949	0.3918	N/A
Ambler AVEC	0.2651	3%	0.2731	0.8621	0.7566	0.3949
Kobuk AVEC	0.3348		0.3348	1.0988	0.9933	N/A
Shungnak AVEC	0.3348	2%	0.3414	1.0988	0.9933	0.6138
Kiana AVEC	0.2553		0.2647	0.6654	0.5599	0.2733
Noorvik AVEC	0.2545	4%	0.2647	0.6490	0.5435	0.2507
Selawik AVEC	0.2521	7%	0.2697	0.6027	0.4972	0.2053
Buckland BEC	0.2781		0.2781	0.4900	0.4900	0.2823
Deering IEC	0.4081		0.4081	0.6747	0.6747	0.3575
Kivalina AVEC	0.2535	2%	0.2586	0.6295	0.5240	0.2442
Noatak AVEC	0.3724	6%	0.3947	1.1364	1.0309	0.6682

2008

NANA Regional
11 communities

Kotzebue
Noorvik
Selawik
Kiana
Deering
Buckland
Noatak
Kivalina
Ambler
Shungnak
Kobuk



Northwest Arctic Energy Steering Committee

Co-Hosted & Sponsored by:

Northwest Arctic Borough – Energy Program

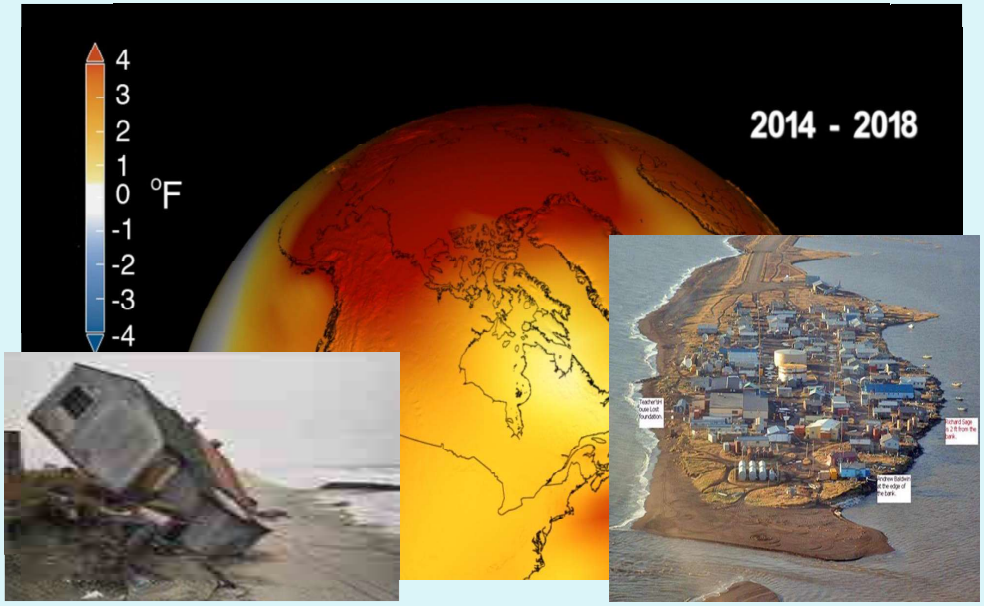
NANA Regional Corporation – Alternative & Village Energy Program

2009-2023

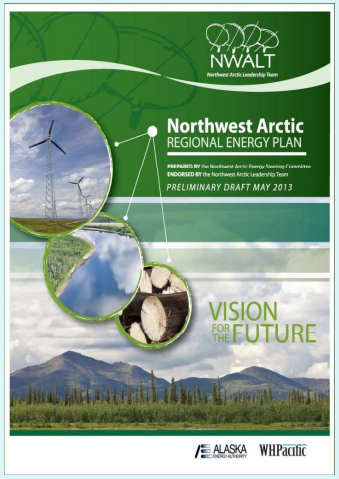


The Artic Warming up faster than the rest of the world

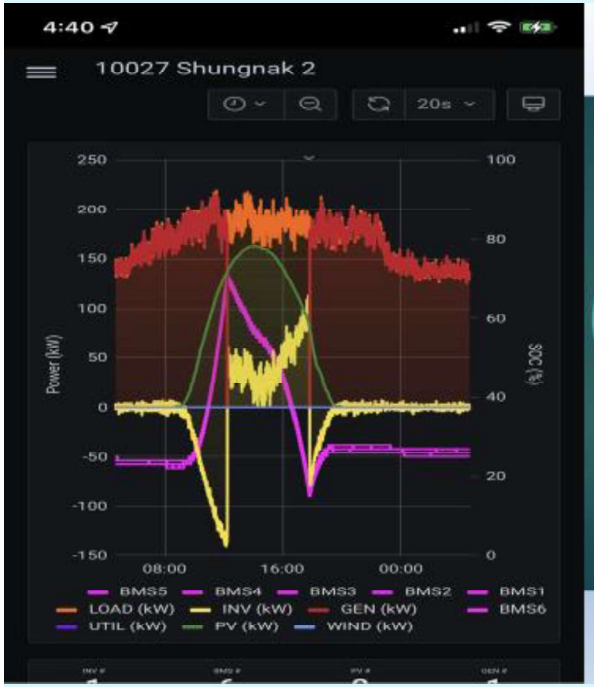
Climate Change Mitigation Plans was needed



NANA-NAB Energy planning
Started in 2008-2009
Current version 2020
Available @Nwabor.org



The vision is for the Northwest Arctic region to be 50 percent reliant on regionally available energy sources, both renewable and non-renewable, for heating and generation purposes by the year 2050. And to combat rapid climate change due to greenhouse gas emissions like Co2, Methane and other harmful effects of fossil fuel usage.



To get there, we need to go;

Diesels Off

<u>The progression is planned as follows:</u>

10 percent decrease of imported diesel fuels by 2020
On track
25 percent decrease of imported diesel fuels by 2030
50 percent decrease of imported diesel fuels by 2050

Our Single Focus in 2008-2012

- To try to stabilize the cost of electricity by developing local energy resources as much as possible (Wind-Hydro) and possibly bring down cost/Kwh
- Projects were funded and then implemented by Electric Utilities to offset the use of Diesel fuel.
- However, the cost to the Households $/Kwh, did not change in communities that receives PCE funding,
- Instead, as more Alternate Energy projects were built by grants, the allocation of PCE decreased to the communities.

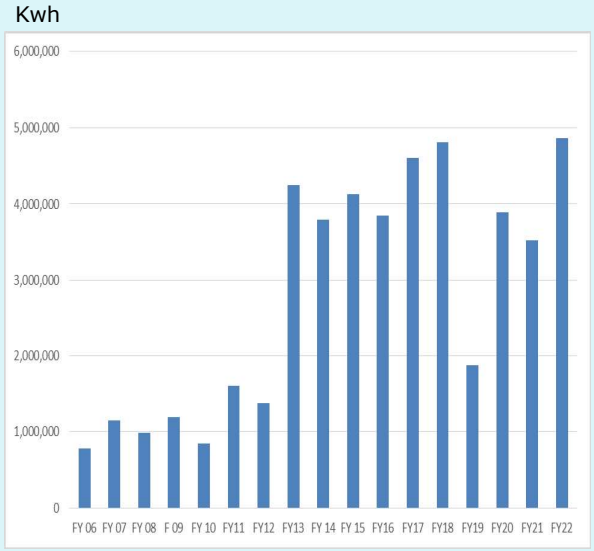
2007-2012 Wind diesel projects







Wind projects and data



	Total Kwh	Diesel Gallon saved	Value $ 3.75/Gallon
Selawik	1,158,985	82,785	$310,442.41
Buckland	1,105,121	78,937	$296,014.55
Deering	559,725	39,980	$149,926.34
Kotzebue	44,662,843	3,190,203	$11,963,261.52
Total	47,486,674	3,391,905	$12,719,644.82

3.4 Mil Gallons of Diesel not needed

Independent Power producers shows up in Alaska Fire Island

- September 2012
- The project started production in September 2012 and supplies approximately 2% of Chugach's retail load under a 25-year power purchase agreement with Cook Inlet Region Incorporated and its subsidiary Fire Island Wind LLC, who owns and operates the facility.



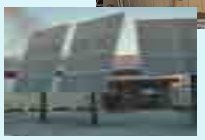
2012 NAB Synergy project over 10 Years has saved 50,000 Gallons









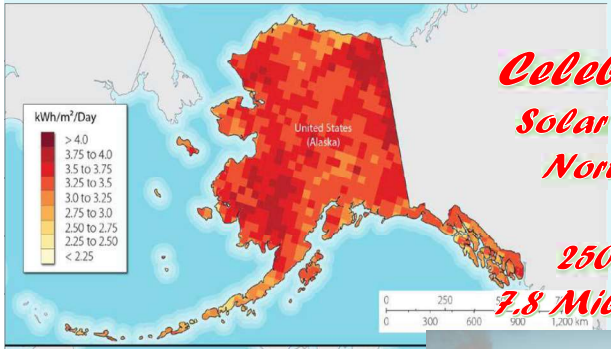


- Borough population: 7,810
- Electricity for village water / sewer plants
- Launched in Ambler, replicating across borough
- 10,000 kWh/year from 10 kW array
- Peak production April-July
- Long sunlight hours in summer + 30% reflection from snow-covered ground in spring



Powering water treatment facilities with renewable energy

Photos: Northwest Arctic Borough



2022

Celebrating 10 Years of Solar PV development in the Northwest Arctic Borough

2013-2023

250,000 Gallons saved

7.8 Mil lb of CO2 not released









Approximate minimum value per year of behind the meter Solar projects at NAB Water plants due to PCE. Based on actual value for consumer.

	Installed Kw	Production Kwh	Value/Kwh	Value Peryear
Ambler	8.4	8400	0.2547	$2,139.48
Kobuk	7.38	7380	0.2505	$1,848.69
Shungnak	7.5	7500	0.2555	$1,916.25
Noorvik	12	12000	0.2422	$2,906.40
Noatak	11.27	11270	0.2669	$3,007.96
Deering	11.13	11130	0.3575	$3,978.98
Kotzebue-1	10.53	10530	0.2180	$2,295.54
Kotzebue-2	10.53	10530	0.2180	$2,295.54
Selawik	9.72	9720	0.2478	$2,408.62
Kivalina	10.53	10530	0.2363	$2,488.24
Kiana	10.53	10530	0.2318	$2,440.85
Buckland	10.53	10530	0.2823	$2,972.62
Total	120.05	120,050		$30,699.17

Total Estimated savings per year

$ 30,699.17

However, the production is invisible to the utility, and no PCE is collected for it from AEA.

Value of utility size Solar arrays to the Households

Community	Installed Kw	Production Kwh	Behind meter PCE value / Kwh	Avoided Diesel rate $/Kwh	Value under IPP Management $/Kwh
Shungnak Ut	233	200,000	$51,100.00	0.5600	$ 112,00.00
Noatak Ut	275	250,000	$66,725.00	0.4868	$ 121,700.00
Noorvik Ut	23.4	23,400	$5,667.48	0.1685	$ 3,942.90
Deering Ut	48.5	48,500	$17,338.75	0.3500	$ 17,338.75
Buckland Ut	45.99	45,000	$12,703.50	0.2823	$ 12,703.50
Kotzebue Ut	966	920,000	$ 220,800.00	0.18	$ 165,600.00

July 2017
Noorvik 23 Kw Utility array
80 Mwh produced so far
Saving 5,700 Gallons of Diesel so far



Nov 2018
Buckland & Deering Electric
Utility Arrays 48.5 & 46 Kw
169 Mwh produced to date, saving 12,500 Gallons of Diesel so far



Courtesy
NANA

6/15/2020
Kotzebue Electric
Utility Array 576 Kw
Building out an additional 631Kw in 2023
822.47 Mwh produced to date,
saving 58,800 Gallons of Diesel



Courtesy
ANRI

9/26/2021
Shungnak-Kobuk IPP
233Kw/350Kwh Community Solar/Battery
273 Mwh produced to date,
Saving 19,500 Gallons of Diesel to date
And 818 Hours of Diesel off operation



Courtesy
ANRI

Transition to Village Independent Power Producers IPP's, 2020





Courtesy NANA



- **So why develop Independent power producers**

- The Communities taking control of their Energy future, developing their local resources. This creates buy in and good relationships with the utility.
- Being able to sustain PCE support to the communities and stabilize energy cost.
- Better economics, Circular economy
- Funding collected pays for further development and local workforce expertise. The money stays in the community instead of sending the money to far off countries for oil.

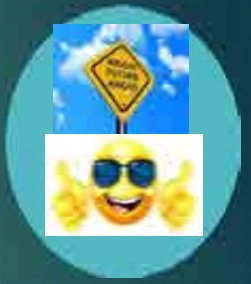


Reasons for Regional approach to Alternate Energy Development

- *Regional* support to apply for and manage Energy grants, including access to Dept. of Energy and other funding.
- Economy of Scale and Increasing Efficiency
- (Small, single projects are too expensive).
- Develop Regional Energy infrastructure:
- Wind, Solar, Hydro, Interties, bulk fuel storage & direct Household involvement.



- Admin help for Independent power producers (IPP's) for PCE calculations, utility rates & billing.
- Job Creation - Workforce Development and Training/Capacity building.
- The Region speaking with one voice. Can advocate on behalf of PCE and State wide Energy Policy.
- This creates Energy Security and is needed to stop the increasing cost of Energy and hedge against fuel increases and supply disruptions.



The Shungnak Solar IPP Project

Shungnak-Kobuk 223.5 DC/200 AC Kw Solar/battery PV array.
Using 550pc Bifacial 405W panels

Blue Planet environmentally friendly LFP Battery.
Capable of holding the two communities for 2 Hours without Generators or Solar power.
Capacity 250Kw/352Kwh



Start of construction April 2021 completed Sep 2021.

Total project cost $ 2,363,215.11

Funded by USDA HECG @ $ 1,291,675.00
In-kind VIF and NAB funds $ 1,071,540.11



Shungnak-Kobuk Solar IPP example

- **A Grant opportunity from USDA HECG was secured by the 2 Tribes by allowing NAB to apply on behalf of the Communities.**
- **The communities are interconnected with a power line so the proposed Solar project benefits both.**
- **Through an MOA a working agreement is executed between the 2 tribes to become an IPP (independent power producer)**
- **A power purchase agreement is executed with the utility AVEC.**
- **AVEC pays for the Solar power and recover the cost partly from the PCE fund.**
- **Another MOA is executed with NAB for help with admin and investment of funds.**
- **An Energy fund is established for the communities.**
- **Funds dispersed for insurance and maintenance and eventual further build-out of the Solar array.**

Alaska Tribes Recognized with Sunny Award for Equitable Community Solar





Congratulations! The DOE Solar Energy Technologies Office awarded a Sunny Awards Grand Prize to the Shungnak-Kobuk Community Solar Battery Independent Power Producer project, in Shungnak, Alaska.

This solar and battery project led by the Shungnak and Kobuk tribes in the Northwest Arctic Borough region aims to stabilize the cost of electricity and allow the communities to take charge of their energy future. The Shungnak project also received the 2022 Microgrid Project of the Year from *Solar Builder* magazine.

Following suit: Among current Office of Indian Energy projects, the Northwest Arctic Burrough 2021 Project with the Native Village of Noatak is emulating the Shungnak project and is making progress on a high-penetration distributed solar-battery hybrid system.



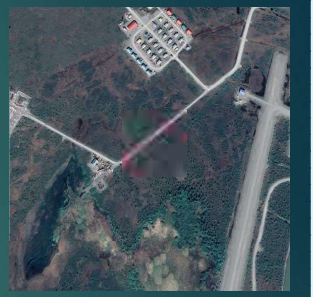
A Loud Shout-out to all Partners; USDA, Shungnak IRA, Kobuk IRA, NAB, NANA, AVEC, TECK, ANRI, AGETO, Blue Planet, Deerstone, Daylight services, Launch Alaska & others that contributed to the success of the project

Shungnak-Kobuk IPP Yearly financials FY22

Estimated Gross Annual Revenue	$120,000.00
Insurance	$3,771.32
Electric	$1,958.05
Ageto service fee	$3,242.28
Tribe Employee	$8,683.44
Fuel	$3,150.00
Total Estimated Expenses	$20,805.09
Estimated Net Income	$99,194.91
Estimated Administrative Fee (10% Annual Net)	$9,919.49
Annual Income Less Admin Fee	$89,275.51

The Noatak Solar IPP Project 2023

Noatak 280.6 DC/250Kw AC Kw Solar/battery PV array phase 1.
Using 432 pc Canadian solar Bifacial 650 W panels
Expansion to 380.6 Kw available for phase 2.



Kronus/Pylontech LFP Battery 438.5 Kwh
Capable of holding the to communities for 2 Hours without Generators or Solar power.

Construction Sep 2022 to July 2023.

Total project cost $ 2,946,886.00
Funded by DOE Tribal grant @ $ 2,008,765.00
Denali Commission $ 134,079.00
Teck (Red Dog) $ 100,000.00
NANA VEI and inkind $ 309,998.00
In-kind VIF and NAB funds $ 394,123.00

The Selawik Solar IPP and REPOP

Selawik 130kw DC/100Kw AC Kw Solar/battery PV array phase 1.
Using 200 pc Canadian solar Bifacial 650 W panels
Expansion to 500 Kw available for phase 2.



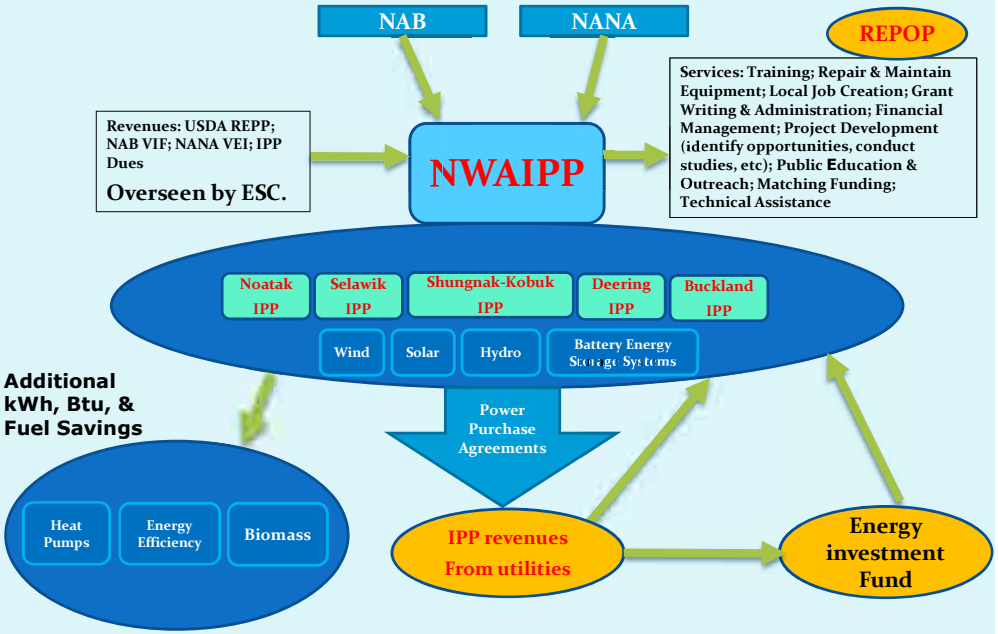
Blue Planet LFP Battery, 1 Mw
Capable of holding the to community for 4 Hours without Generators or Solar power.

Start of construction Sep 2023 completion by July 2024.
Total project cost $3,611,190.00
Funded by USDA REPP @ $1,998,820.00
AEA REF 14 $ 250,000.00
AVEC $ 100,000.00
Teck (Red Dog) $ 100,000.00
NANA VEI and inkind $ 130,000.00
In-kind VIF and other NAB funds $ 1,032,370

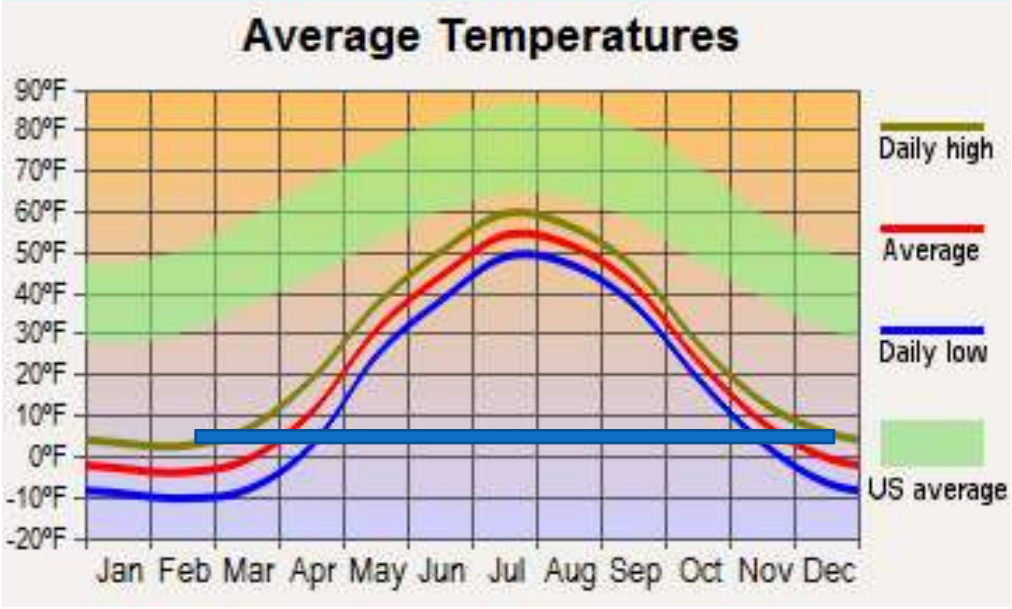
5 Year plan
Solar IPP's full build out

Community	Total Solar PV	BESS	Combined	Total Diesel offset
	kW	MW	MWh/year	Gallons/year
Ambler	400	1	360	25,714
Buckland	450	1	405	28,929
Deering	250	0.5	225	16,071
Kiana	400	1	360	25,714
Kivalina	450	1	405	28,929
Noatak	550	1	495	35,357
Noorvik	550	1	495	35,357
Selawik	500	1	450	32,143
Shungnak-Kobuk	500	1	450	32,143
TOTALS	4,050	8.5	3,645	260,357

Regional IPP Organizational Structure

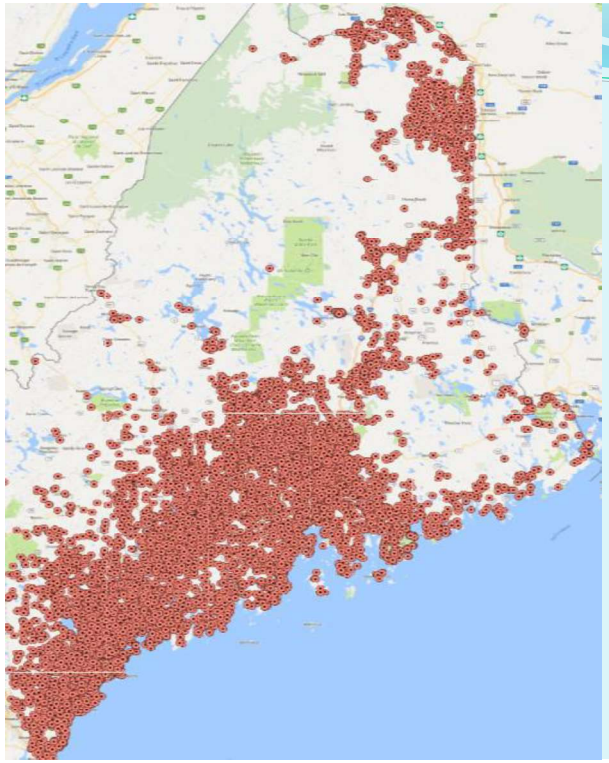


2016-17 Harvest season for Solar PV
Is the same as for Heat pumps



Heat-pump COP level for Diesel displacement
if cost of Electric-Diesel and cost of Heating fuel is the same

Break Even COP for Diesel displacement	
	COP
Toyostove:	2.43
Boiler:	2.42
Furnace, Standard Fan:	2.4
Furnace, Efficient ECM Fan	2.33



Map showing 17,500 ductless heat pump installations in the first 3.5 years.

Installation density correlates directly with population.

Very popular in far northern areas where systems are reported to continue to provide heat even at -27F.

Courtesy Efficiency Maine

Heat pump advantages

•**Low-cost heat** – The cost of heating with a heat pump is similar to heating with natural gas or wood. This is typically half the cost of heating with oil, kerosene, electric baseboard or propane to compare heating costs of different heating systems.

•**Low-cost air conditioning** – Today's best heat pumps are twice as efficient as typical air conditioners.

•**Comfort** – With advances in controls, heat pumps can maintain very constant temperatures.

•**Safety** – Because heat pumps are electrically powered, there is no risk of combustion gas leaks.

•**Air quality** – Heat pumps filter air as they heat/cool/dehumidify it.

•**No CO_2 emissions** – Cleaner environment and resilience to Global Warming.

13 Air to Air Heat-pump installations
Pilot Project- CIAP Funded 2017-18.
Panasonic MHP MXZ4C36NA2-U1



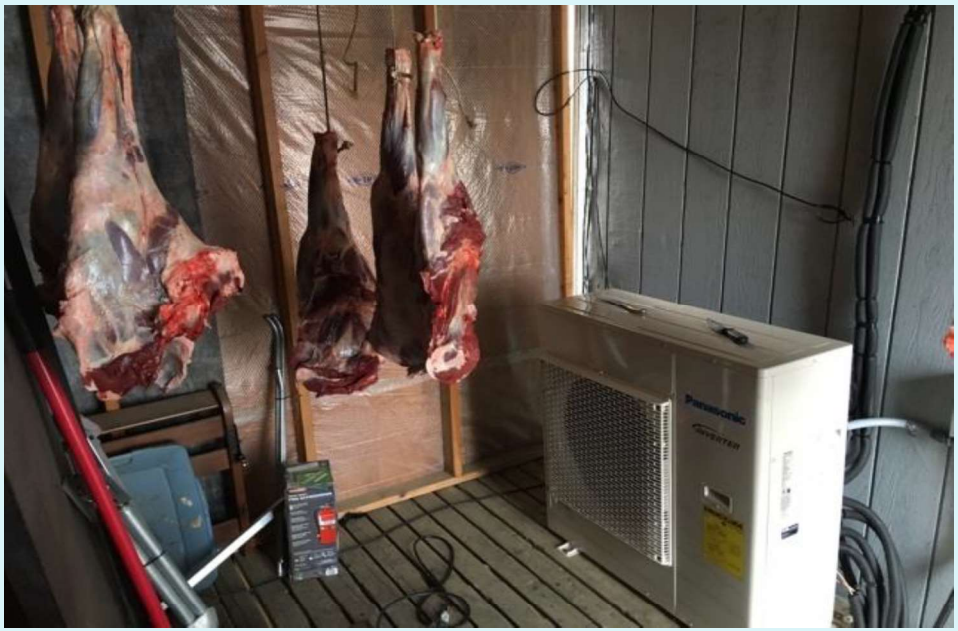




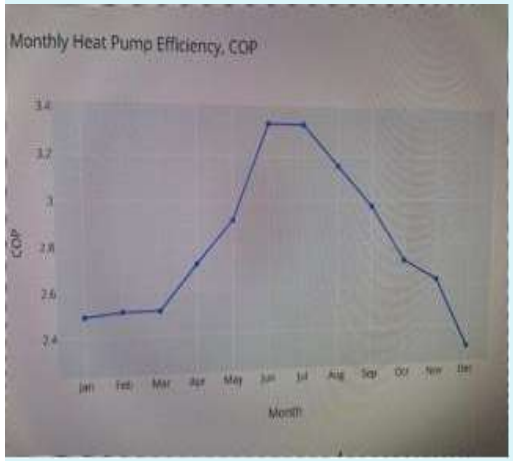


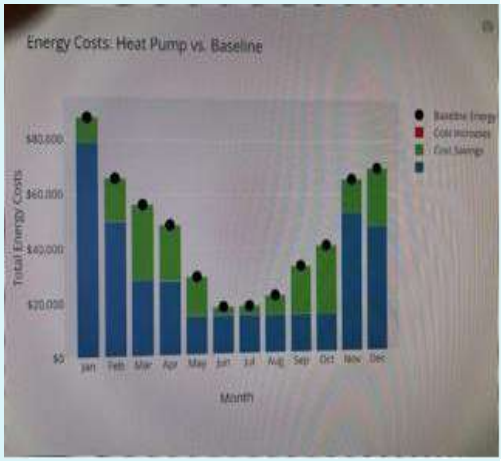


Cooling tent for Meat



COP curve and cost savings According to Heat-pump Calc.





All Alaska Online Calculator

Thank you to our sponsors:

NORTHWEST ARCTIC BOROUGH

Homer Electric Association, Inc.

ALASKA ENERGY AUTHORITY

Alaska Housing FINANCE CORPORATION

NANA

AP&T

AVEC ALASKA VILLAGE ELECTRIC COOPERATIVE

Web access @ https://heatpump.cf/

The Calculator has been updated with the latest Fuel and electric rates and additional new Heat-pump models

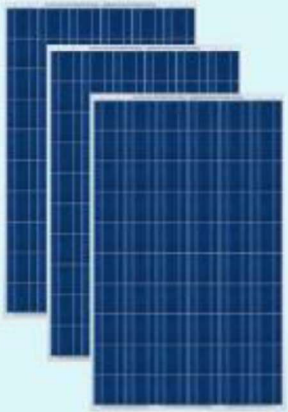
Here are some results from Ambler average size House

Heat-pump; Low temp. Mitzubishi HI-Heat single zone 38,000 BTU
Annual Heating Fuel Savings: 463 gallon of #1 Oil
Annual saving: $ 2,500/year @ $ 12.36/G Fuel cost
Savings over 14 Year life: $ 35,065

DC4812VRF Solar/DC Mini split Air Conditioner/heater







Pilot Energy Efficiency Project for Ambler

12,000-38,000 BTU 48V DC Heat Pump VRF Dynamic Capacity Compressor 100% DC - No Inverter with AC backup

65 Households out of 68 Completed in Ambler July 2021.

1 Kw of Solar for every Household

Data to be collected 2021-2022

Ambler VPSO Building & House installations.











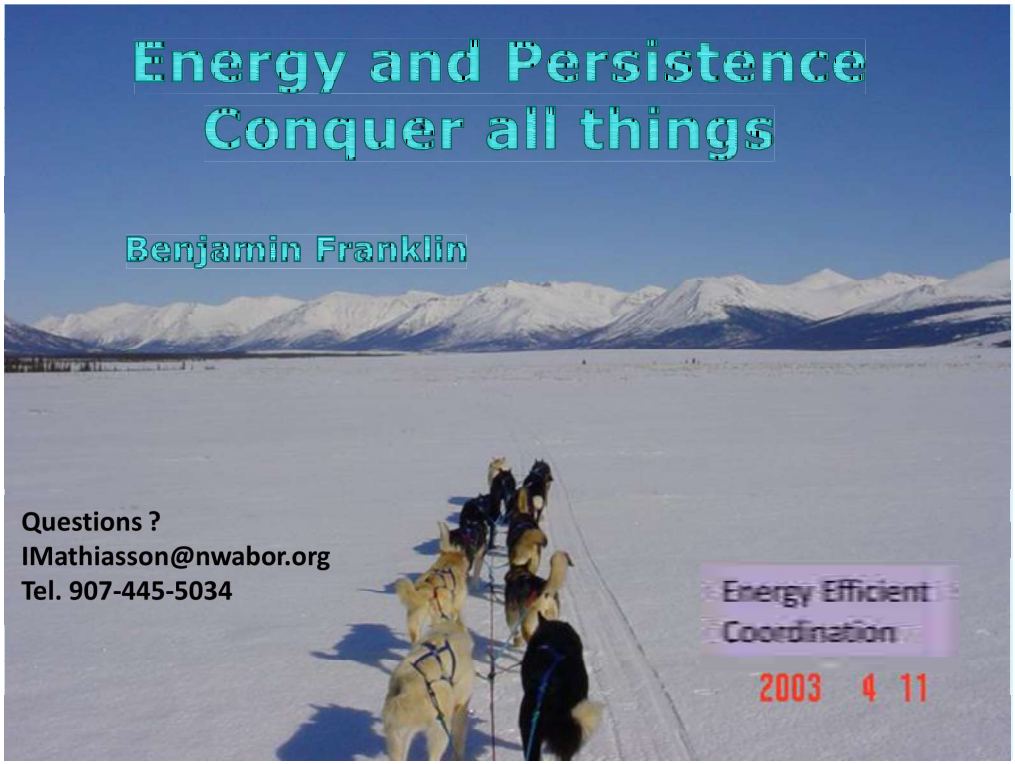
The Energy Steering Committee
15 Years and Going 2009-2023

Goals and lessons learned

- **Make a sustained effort, realize that changes comes slowly with understanding of new ways and operation.**
- **Continue to work with the Regional Energy Plan**
- **It is the "Vision" for the future, from the people for the people.**
- **Make sure the document gets updated periodically as it is a "Dynamic" living document and needs to be able to "Adapt" to changes when new thinking and resources comes along.**
- **Hopefully it will never be completed.**

Energy Policy

- **Do we develop Energy resources for short time profits ?**
- **Or do we develop Local Energy resources that can sustain the Region for the foreseeable future and create a cleaner environment for our Children ?**



Intelligent Energy Systems: Anchorage, Alaska



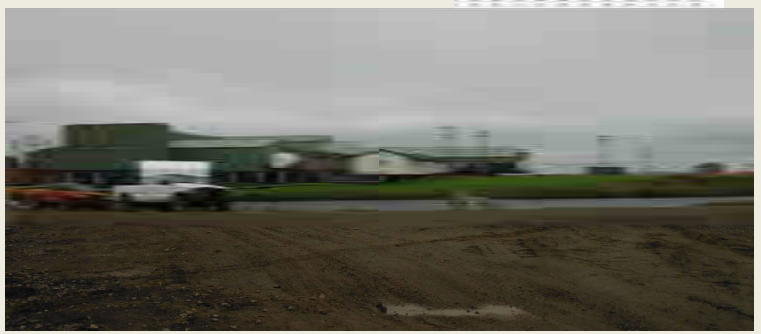
FROM THE FRONTIER TO THE FUTURE

One community at a time.

Things can't stay the same

Must invest to maintain quality of life





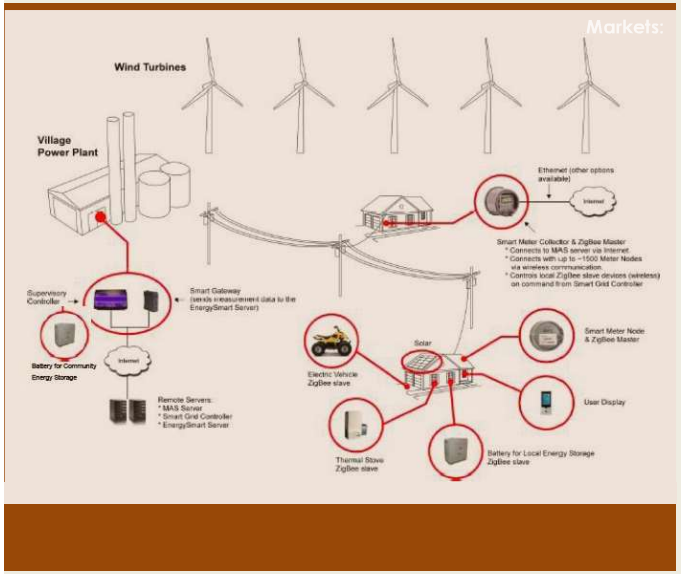


Intelligent Energy Systems, LLC

Hypothesis

- **Renewable based microgrids Common**
- **Deployments will accelerate, number, scope, size**
- **Progress here has impacts**

Markets:



Hallucination

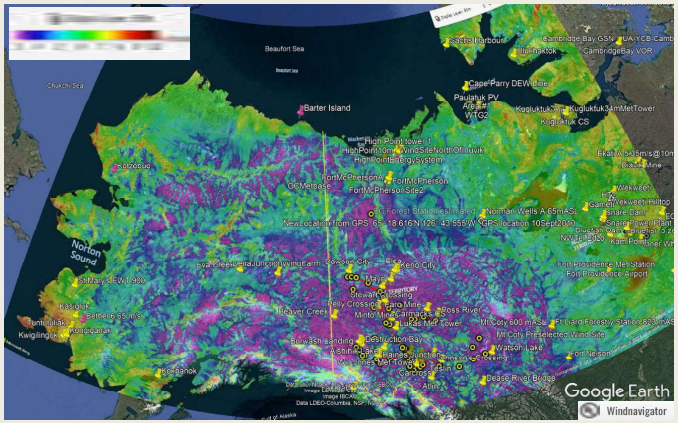
2003 =Reduce Diesel

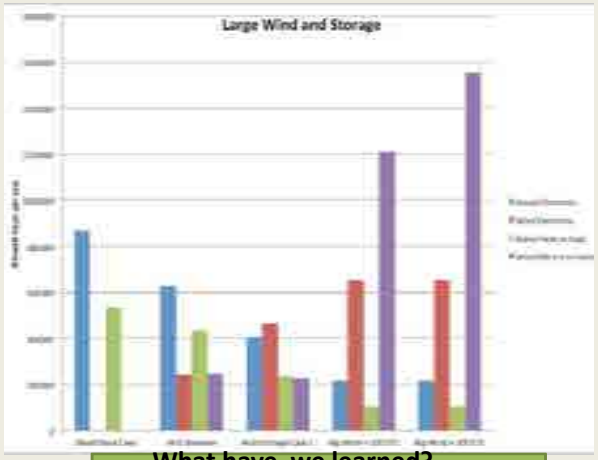
- Control/integration?
- Wind turbines?
- Wind Heat?
- Distribution ?
- Capacity?
- Funding?

2023 **(100% Clean, secure, resilient, cross sector)**

- Internet
- Energy Storage
- Heat
- Solar PV
- EV's
- Biz models
- Water
- Hydrogen

Why Wind





What have we learned?

Coherent Technology

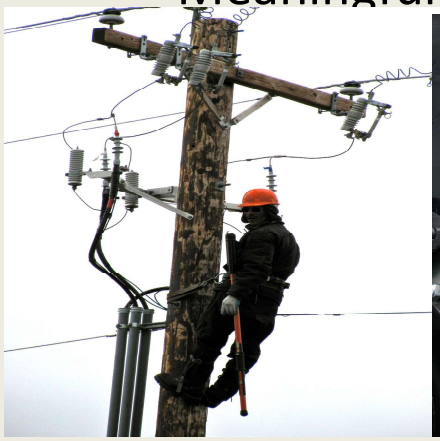


- A family of appliances working together



IES

Meaningful Projects/Jobs





Not just install a few solar panels



Learn by doing
And innovating

Lower Costs
- Increase deployment
- Expand Scope
- Grow Scale

Progress:
- Define state of the art
- Invest in reducing risk
- Generate a history of investment performance

Lessons:

Don’t always assume, Remove roadblocks, Pull goalie



GLOBAL TRENDS AND GRID OF THE FUTURE

Thursday, July 27, 2023, 11:00 AM – 1:00 PM

- Energy Transformation: South Australia as a Case Study
- Opportunities for Electric Load Growth in Alaska
- Insights into the Icelandic Energy Market

Sandia National Laboratories

Energy Transformation:
It Can Happen Faster Than You Think!

South Australia as a Case Study

Abraham Ellis | June 27, 2023



Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia, LLC., a wholly owned subsidiary of Honeywell International, Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

Abstract

- The case study describes the ongoing rapid energy transition in South Australia.
- Many of the illustrations were compiled from presentations given at the 2022 IRED conference in Adelaide, accessible here: https://research.csiro.au/ired2022/

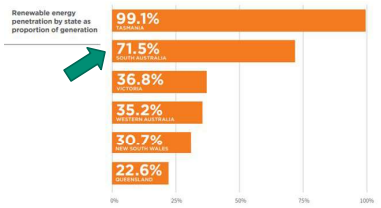


- Alaska is charting its own path to energy transformation that reflects unique challenges and opportunities

Province of South Australia



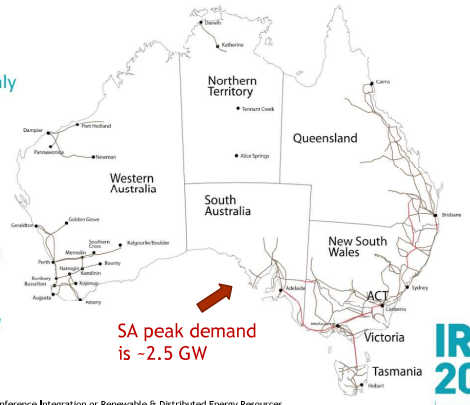
- Area is ~57% of the size of Alaska AK
- 1.8 million in 2020 (**2.5X** that of AK), highly concentrated in Adelaide (77%)
- Latitude: 26° to 38° S (Anchorage at ~61° N)
- Leads states in renewable energy generation
- State Target: 100% RE by 2030



Source: https://assets.cleanenergycouncil.org.au/documents/Clean-Energy-Australia-Report-2023.pdf

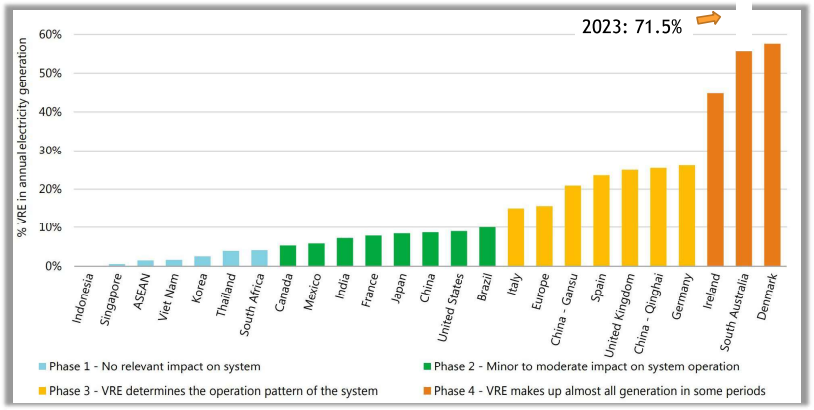
Australia's Electric Systems

- Eastern interconnection (NEM)
  - 56 GW of electricity generation capacity
  - 15 - 35 GW demand
  - 5 minute generation dispatch, Energy-Only market, since 1998
  - Security constrained economic dispatch, with co-optimised energy and ancillary services
- WEM for SWIS
  - 5.8GW of electricity generation capacity
  - comprises a wholesale electricity trading component and a capacity component.
- Significant increase in wind, solar and battery connections. (NEM: 15GW small solar, 7GW wind, 4GW large solar)



Source: CSIRO, John Hard, IRED 2022, 9th International Conference Integration or Renewable & Distributed Energy Resources

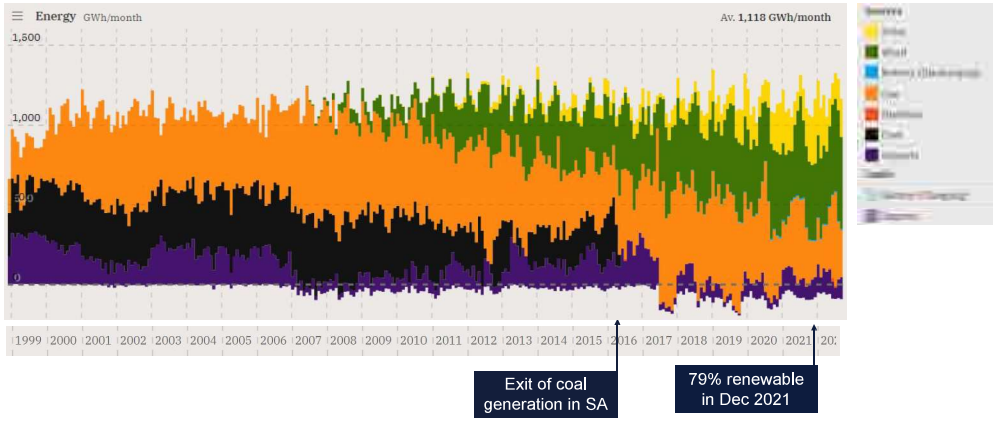
Pushing the limits on VRE penetration



Source: IEA, Secure Energy Transitions in the Power Sector, 2021. Note China = The People's Republic of China

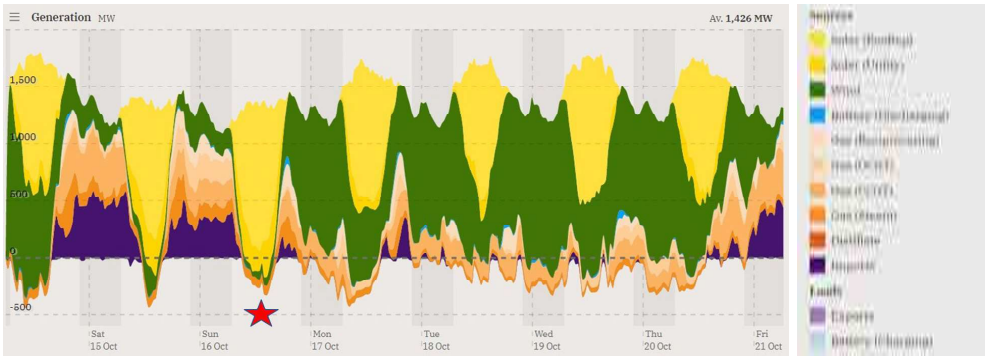
What can we learn from SA's experience?

It can happen fast!



Source: www.opennem.org.au

Dealt with difficult operational challenges



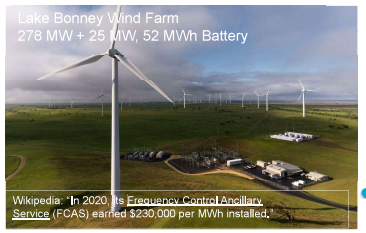
Sunday 16 Oct 2022

- New minimum operational state demand record of 100MW (after rooftop solar), lowering last year's record by 4MW
- New solar PV generation record of 116.7% of state demand, beating last year's record of 110%
- 76.2% renewable energy generation for the week (note the record of 88.3%, 17 –23 January 2022)

Source: www.opennem.org.au

Incentivized flexibility by wind/solar & storage

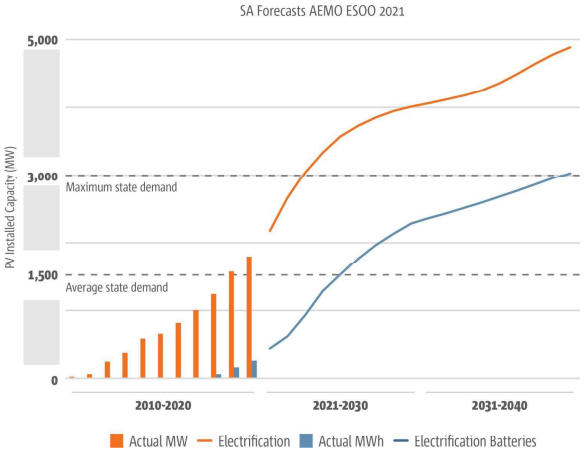






Source: IRED 2022, 9th International Conference Integration or Renewable & Distributed Energy Resources

… and also promoted grid-friendly DER!



~300,000 Rooftop solar systems

>1 in 3 customers, world's highest

State's largest generator

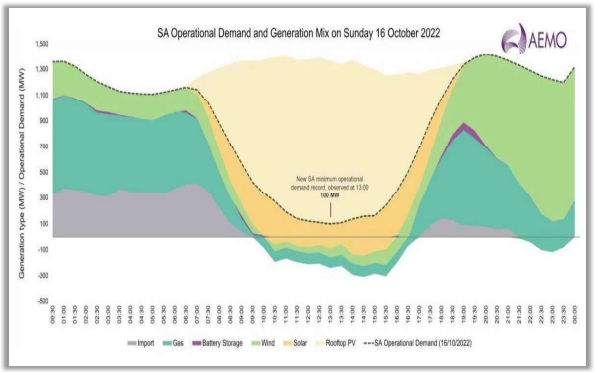
Record growth continues

~30,000 Home batteries

9 Virtual Power Plants operating in SA

Source: SAPN

Supply flexibility is critical for security/reliability



Source: SAPN



It sure helps to have strong connections!



Technology innovation has been key…

SA as a test bed for leading edge concepts

- Grid scale batteries
- Home batteries & VPPs
- Synchronous condensers
- Fast gas

Adapted from: Richard Day, Government of South Australia

The institutional foundations are also critical

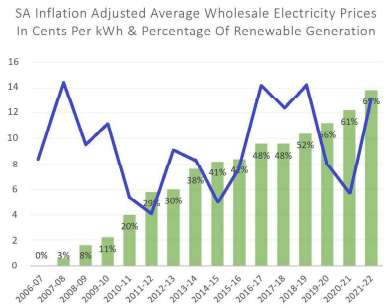
Decisive, well-functioning, innovation-friendly Policy, Regulatory & Market Constructs

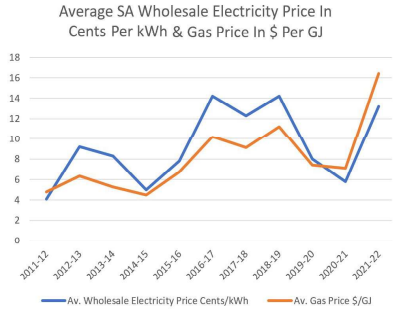


Source: Luke Robinson. A/Group Manager Modeling & Engineering

Is RE increasing electricity costs?

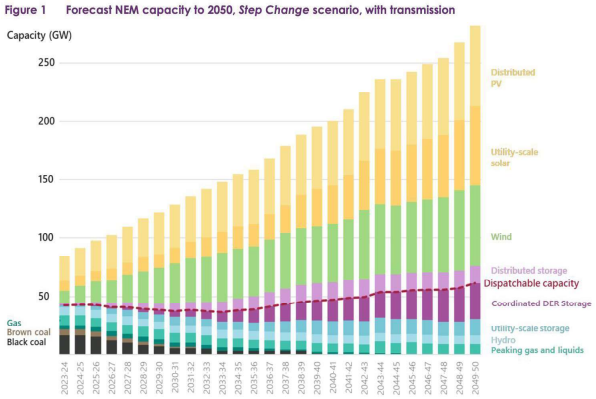
It's complicated… Wholesale electricity prices are driven more by the cost of natural gas.





Source: https://www.solarquotes.com.au/blog/cheap-renewables-expensive-electricity/

What's next? More RE (mainly solar) and storage



Source: IRED 2022, 9th International Conference Integration or Renewable & Distributed Energy Resources

AEMO ISP (2050):

- **5x** Distributed Solar
- **9x** Large Scale Solar
- **30x** Storage
- **2x** Electricity usage !

2X electricity usage by 2050.

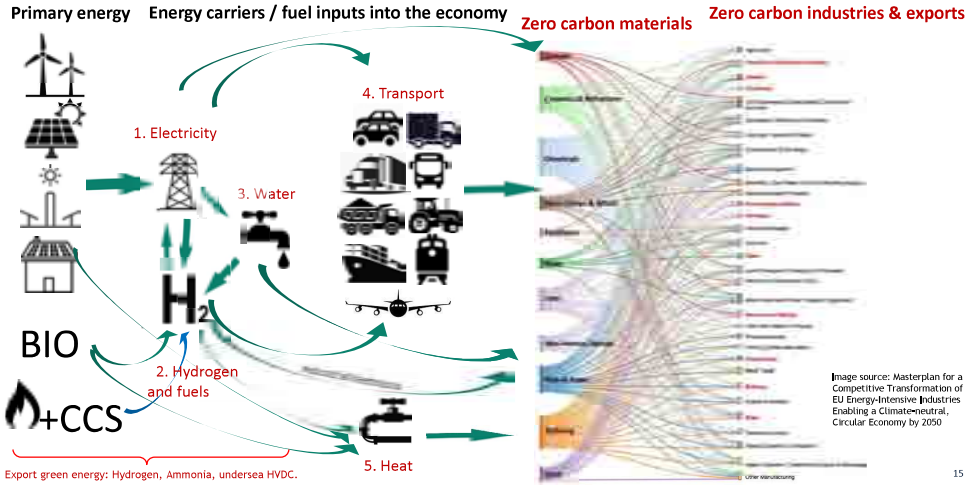


Image source: Masterplan for a Competitive Transformation of EU Energy-Intensive Industries Enabling a Climate-neutral, Circular Economy by 2050

Looking out for Consumers

"For the changes that we see as necessary to become reality, requires **a kind of grand bargain** between consumers and those who run the system."

"Consumers care most about affordability."

"Least cost also means unlocking the potential of the demand side."

"Energy inclusion is essential to our energy transformation… The first thing is nobody gets left behind."

"Delivering a transition with affordability for all requires optimizing consumer participation."

"And participation? Well, that requires trust."



Credit: Lynn Galagher, "The Role of Consumers in the Energy Transformation" Presentation at the IRED 2022 conference, Adelaide, Australia, October 2022

Discussion



Contact:

Abraham Ellis

Senior Manager, Renewable Energy Technologies

Sandia National Laboratories

aellis@sandia.gov

Exceptional service in the national interest

Opportunities for electric load growth in Alaska

Andrea Mammoli

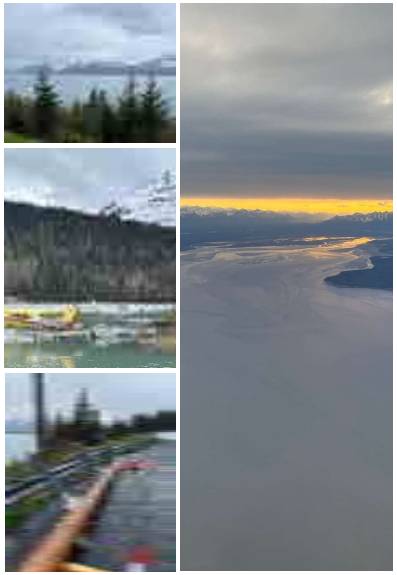
Principal Member of the Technical Staff

Renewable and Distributed Systems Integration

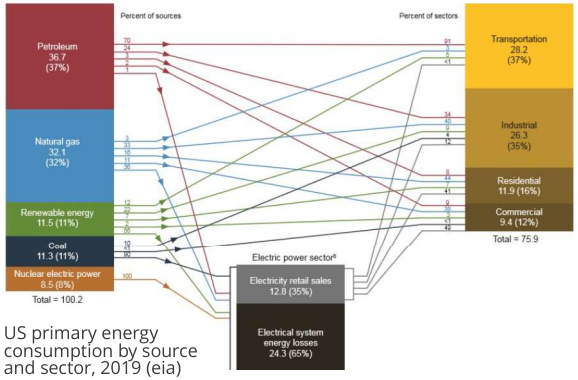
ALASKA ENERGY SECURITY TASK FORCE MEETING
SAND2023-07070PE

July 27, 2023

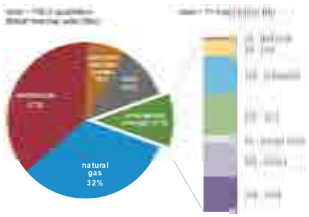
Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia LLC, a wholly owned subsidiary of Honeywell International Inc. for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.



The rapidly evolving context

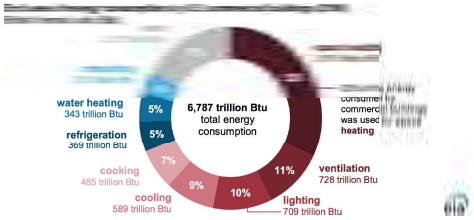


US primary energy consumption by source and sector, 2019 (eia)

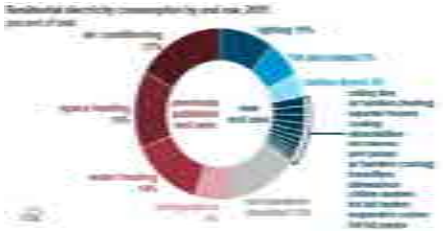


US primary energy consumption by source, 2019 (eia)

What buildings do with their energy



Heating is the elephant in the conference room. CBECS has all the gory details.



Heating stuff is the elephant in the living room too. Cooling stuff is a slightly smaller elephant. RECS has the entire story.

What buildings do with their energy in Alaska

Figure 34: Total non-residential energy end-use consumption in MMBTU/yr, Climate Zones 6, 7 and 8.

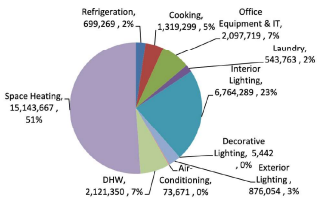
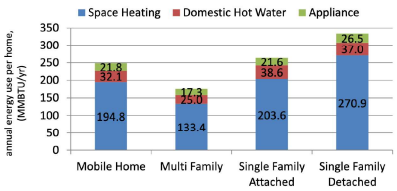


Figure 6: Total energy use per home for major energy uses by residence type (pop wt, MMBTU)

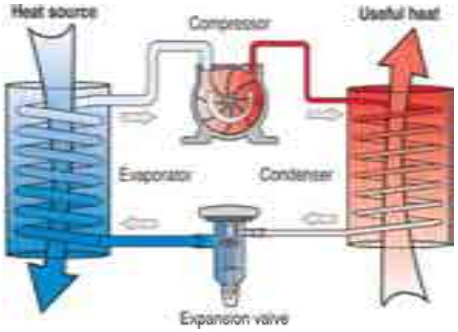


Space and water heating heating are even bigger elephants in AK conference rooms

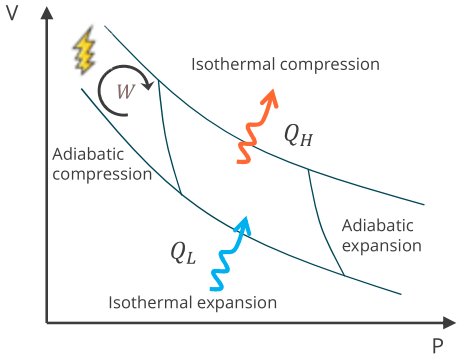
Heating space and water is *by far* the biggest Alaskan home energy user

Source: Alaska Energy Authority End Use Study: 2012

Heat pumps 101



In the weeds – the Carnot efficiency

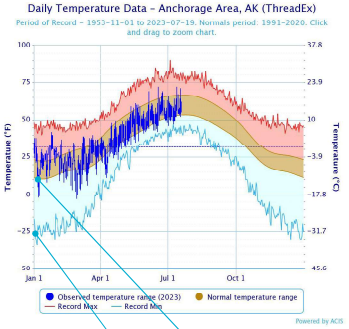


$$COP = \frac{Q_H}{W} = \frac{T_H}{T_H - T_L}$$

The COP, or Coefficient of Performance, is the ratio of amount of heat delivered to a space Q_H and the amount of work done by the compressor W, usually provided by electricity

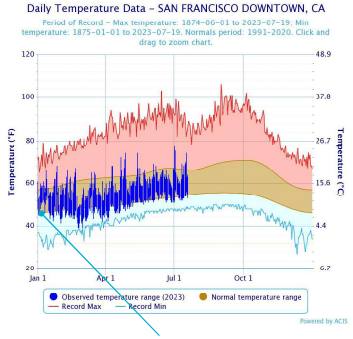
Can heat pumps work in Alaska (at least in theory)?

NATIONAL WEATHER SERVICE



COP=8.97

COP=5.57



COP=22.05

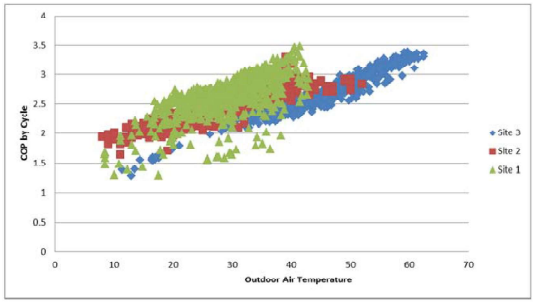
Note: these are ideal COPs!

How practical heat pumps compare to ideal ones

- A Carnot heat pump operates at equilibrium – meaning it transfers no power
- Real, practical heat pumps have much lower COP because:
  - Need temperature gradient to transfer heat, hence higher T_H and lower T_L
  - Compressor not 100% efficient
  - Motor not 100% efficient
  - Fans
  - Defrost cycles
  - Etc.

"But I heard heat pumps don't work in cold climates"

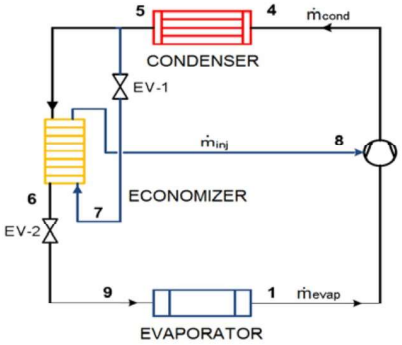
- There is some truth to this statement: the COP and capacity of a heat pump decreases as outside temperature drops
- However, recent advances have improved cold-climate performance substantially
- But are they good enough for Alaska conditions?



Schoenbauer, Ben, Nicole Kessler, David Bohac, and Marty Kushler. "Field assessment of cold climate air source heat pumps." In *ACEEE Summer Study on Energy Efficiency in Buildings*. 2016.

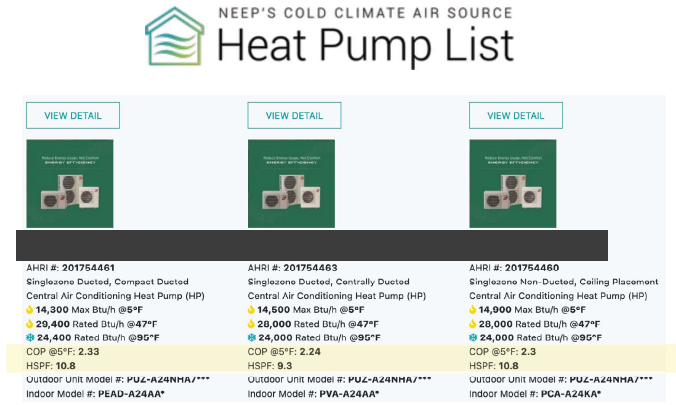
Recent improvements in ccASHP technology

- Cold-climate Air Source Heat Pumps take advantage of:
  - Refrigerants with lower boiling point
  - Variable speed compressor
  - Vapor injection
- Modern ccASHPs can function effectively at temperatures down to 0°F



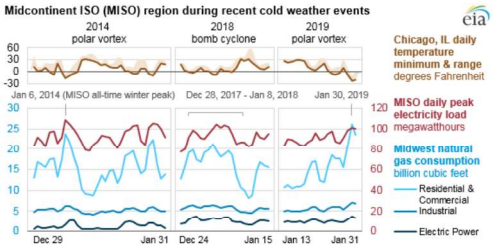
Tello Oquendo, Fernando M., Emilio Navarro-Peris, and José Gonzálvez-Maciá. "A Methodology for Characterization of Vapor-injection Compressors." (2016). Purdue e-pubs.

How does an installer know what to select?



Potential problem with widespread HP adoption

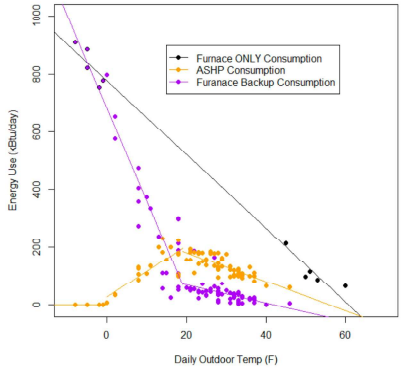
- On very cold days, ASHP may not have sufficient capacity to heat the space
- No problem, backup resistance heater comes on and provides necessary heat!
- This could place an excessive strain on the electric grid





Solution 1: dual fuel heat pumps

- Several manufacturers offer integrated gas / ccASHP system
- Existing furnace systems can be run in parallel with new ccASHP
- The transition between gas and ccASHP operation is adjusted to suit user requirements



Schoenbauer, Ben, Nicole Kessler, David Bohac, and Marty Kushler. "Field assessment of cold climate air source heat pumps." In *ACEEE Summer Study on Energy Efficiency in Buildings*. 2016.

Solution 2: better building envelope

- Passivhaus principles:
  - Highly insulated walls
  - High-performance windows
  - Minimize thermal bridges
  - Minimize infiltration
  - heat recovery ventilation
  - Thermal storage
  - Radiant heat
- Retrofitting to passivhaus standard can be expensive
- What is a reasonable compromise?



What's wrong with this picture?

Solution 3: geothermal heat pump

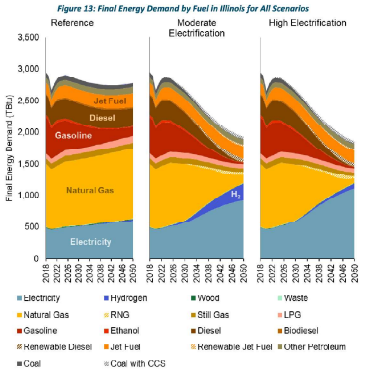
- Ground temperatures are generally constant even during cold parts of the year
- Alaska conditions are more challenging, depending on location
- Higher upfront cost are offset by energy savings in the long run
- Another option: heat exchange with ocean or other water bodies – as in the case of the Prince William Sound Science Center in Cordova, under construction now



Installation work on the ground source heat pump loop for Juneau airport, 2012

Back of the envelope calculation for heating buildings

- 1.41M metric tons of CO_2 equivalent for heating and cooking in 2020
- This corresponds to 0.512M metric tons of natural gas burned
- Assuming efficiency of 70% for a typical furnace / boiler, this corresponds to 20M GJ of heat
- Assuming an average COP of 2, this is equivalent to 2.78M MWh of electricity
- Chugach 2021 retail sales were 1.92M MWh
- Detailed study under way at ACEP



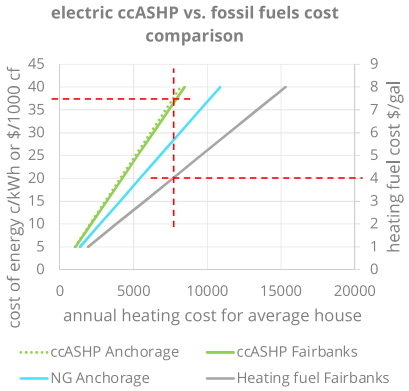
Illinois Decarbonization Study
Climate and Equitable Jobs Act and Net Zero by 2050, Energy+Environmental Economics 2022

What are the economics?

- The cost of installing a ccASHP can be from $6k to $35K in Alaska. There are rebates but these are capped and this is still a major investment
- The cost of retrofitting a house to Passivhaus standard can be 30% of the value of the house. For the “average” Anchorage house (median cost $410K in 2023), this is about $123K, not exactly pocket change, and about twice the cost of the average major remodel
- The average monthly heating cost in Alaska is $291, with a 7-month heating season
- So, does an energy retrofit make sense? What can be done to change this?

How much does it cost to run heating?

- The COP of a heat pump changes with temperature, so the cost of a unit of heat varies throughout the cooling season
- The published Heating Seasonal Performance Factor is a measure of the ”average” performance of a heat pump over a heating season and can be used to get seasonal cost
- On the other hand, NG and Heating Fuel cost per unit heat is constant



Recap so far

- Buildings use about 40% of total primary energy production in the US, but 17% in Alaska, due to large industrial energy consumption. However, 77% of all electricity sales go to commercial and residential buildings.
- Heating is the largest residential energy user in Alaska, between 76% and 83%
- Heating is also the largest commercial building energy user in Alaska, at 58% for space and water heating combined
- Most of the heat is from burning fuels, so there is an opportunity for decarbonizing heating – but how?
- Much of the decarbonization could be in the form of heat pumps
- Cold climate heat pumps have improved substantially in recent years
- The Alaska climate still poses challenges, but solutions exist
- Deep electrification of building heating could produce almost 150% electric load growth in Anchorage

Electrification of the chemicals industry

- The chemicals industry is responsible for 37% of all industrial emissions in the US (EPA 2021)
- Petrochemicals are organic chemicals made primarily using oil, gas and coal
- Petrochemicals are used in a wide variety of consumer products ranging from pharmaceuticals to shampoo to plastic bottles
- There is vast potential to shift the source of carbon from fossil to CO_2 contained in flue gases or even the atmosphere

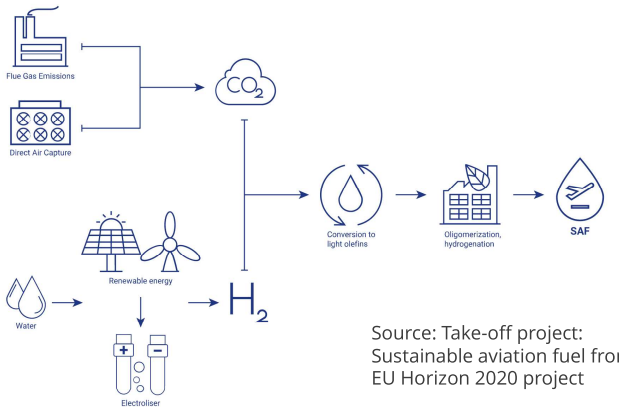


Sustainable aviation fuel



- Aviation is developing drop-in solutions for existing fleet and infrastructure
- Feedstocks:
  - Waste oil / fats
  - Municipal waste
  - Non-food biomass
  - Synthetic route via DAC and H_2
- SAF is carbon neutral because carbon released in combustion is derived from carbon absorbed from atmosphere
- But – currently only 0.1% of total fuel used in aviation industry is SAF (IEA)
- ANC uses almost 2M gal of jet fuel per day!

One route to production at scale



Source: Take-off project: Sustainable aviation fuel from CO2. EU Horizon 2020 project

How far are we from chemicals by electrolysis?

- 175 million tons of ethylene are produced per year* (this is one of the highest production chemicals)
- All the renewable energy produced in 2022 (8,500TWh) would not be enough to electrify ethylene production alone (energy need estimated at ~12,000TWh*)
- Is this good news or bad news?



* Source: Xia, Rong, Sean Overa, and Feng Jiao. "Emerging electrochemical processes to decarbonize the chemical industry." *JACS Au* 2, no. 5 (2022): 1054-1070.

Emerging trends

- Electrification of the production of high-carbon-footprint commodity chemicals such as ammonia, nitric acid, ethylene, urea is key to meeting emissions goals
- Production of commodity chemicals by electrolysis to date has not been adopted due to high cost of electricity and lack of technology to allow production at scale
- The cost of renewable electricity, particularly solar PV, continues to drop, from an average of 5c/kWh today to a target of 2c/kWh in 2030 (DOE)
- Rapid progress is being made on suitable catalysts / reactors
- The global petrochemicals market is projected to grow from $582.4 billion in 2021 to $888.3 billion in 2028 (Fortune Business Insights 2022)
- Ammonia and other nitrogen compounds hold similar potential



Ethylene molecule



Ethanol molecule

Opportunities for Alaska

- Massive increase in solar, wind, hydro (and nuclear?) generation needed to meet decarbonization targets
- There is potential for large curtailment of solar or wind during certain parts of the year
- Curtailed energy can be absorbed by synthetic fuels or chemicals manufacturing
- Modular, non-steady-state production routes are also being investigated by many
- Hydro power can also play a major role
- Fills a need for aviation and maritime transportation
- TEA needed to establish economic viability of a new type of seasonal industry



Ethylene molecule



Ethanol molecule

Questions?

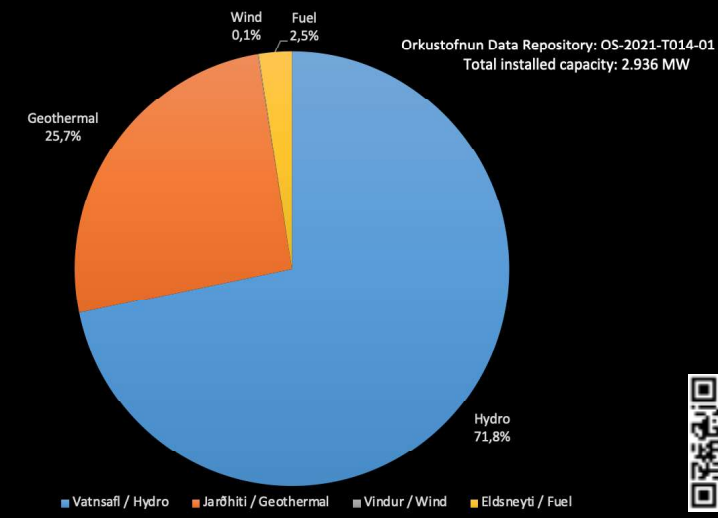


Insights into the Icelandic Energy Market

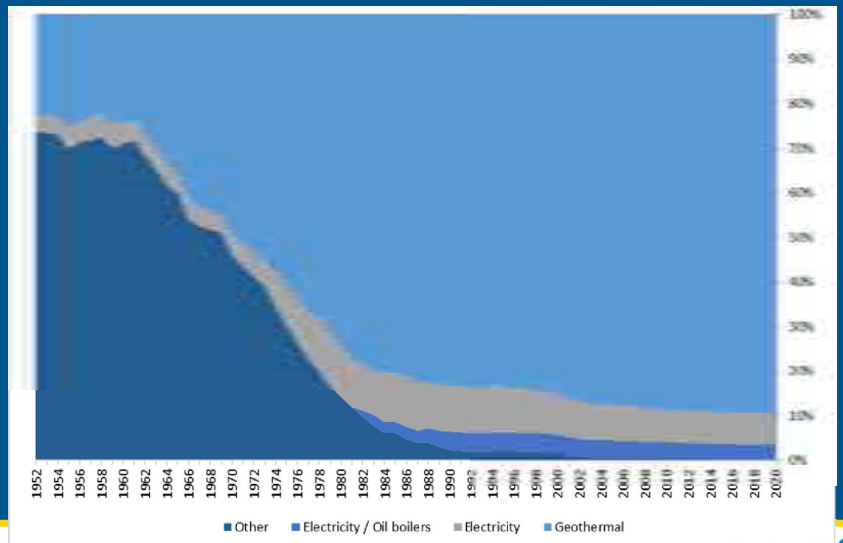
Gwen Holdmann & Erlingur Gudleifsson
Alaska Center for Energy and Power



Installed Capacity by Source (2020)



Space Heating by Energy Source – Iceland 1952-2020

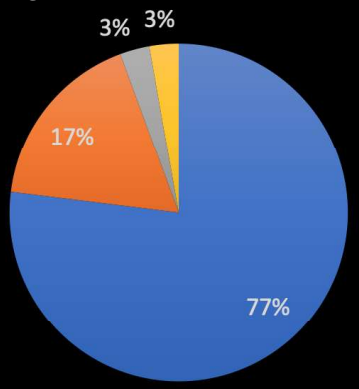






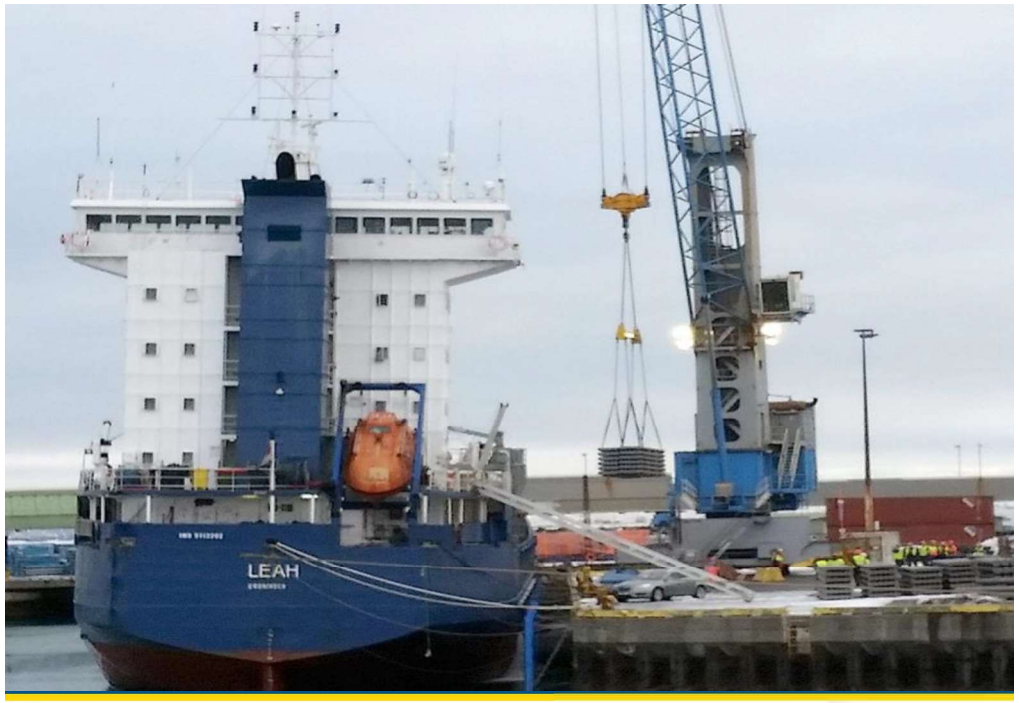
Iceland Electricity Sales/Production

Iceland Total Production 19.8 GWh
Population = 372,000



Alaska Statewide 6.5 GWh
Population = 732,000

Heavy industry Public sector Unsecured energy Losses





Ring Grid/Railbelt Grid Comparison

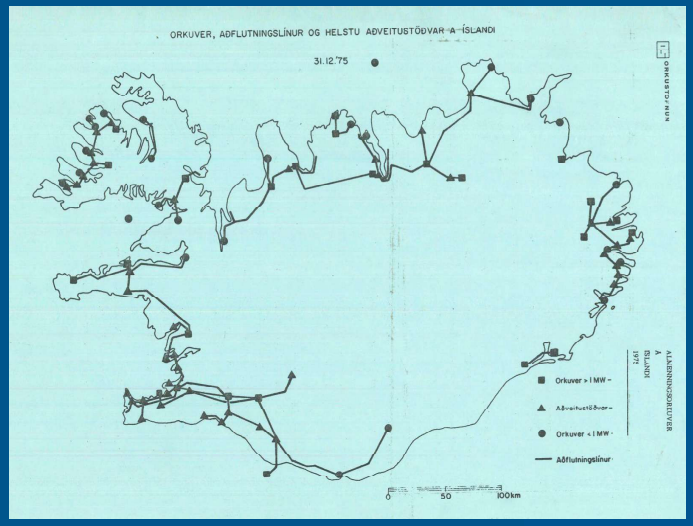
	Installed capacity	Annual sales	Length	Per capita sales
	[MW]	[GWh]	miles	[MWh/capita]
Railbelt Grid	2,000	4,400	~650	845 MWh/capita
Ring Grid	2,900	19,100	~2000	51.6 MWh/capita

Ring Grid/Railbelt Grid Comparison

	Installed capacity	Annual sales	Length	Per capita sales
	[MW]	[GWh]	miles	[kWh/year]
Railbelt Grid	2,000	4,400	650	845 kWh/yr
Ring Grid	2,900	19,100	2000	51,620 kWh/yr

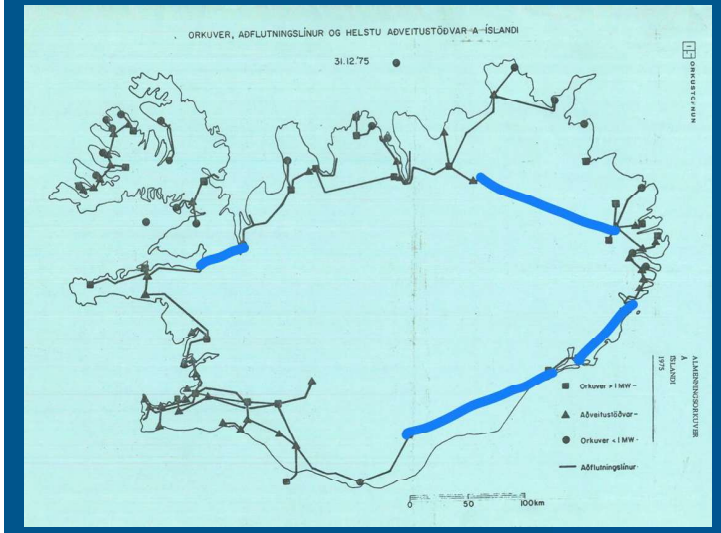
On a per capita basis, Iceland produces and sells 6 times more electricity than the Railbelt grid

"Closing the Gap"



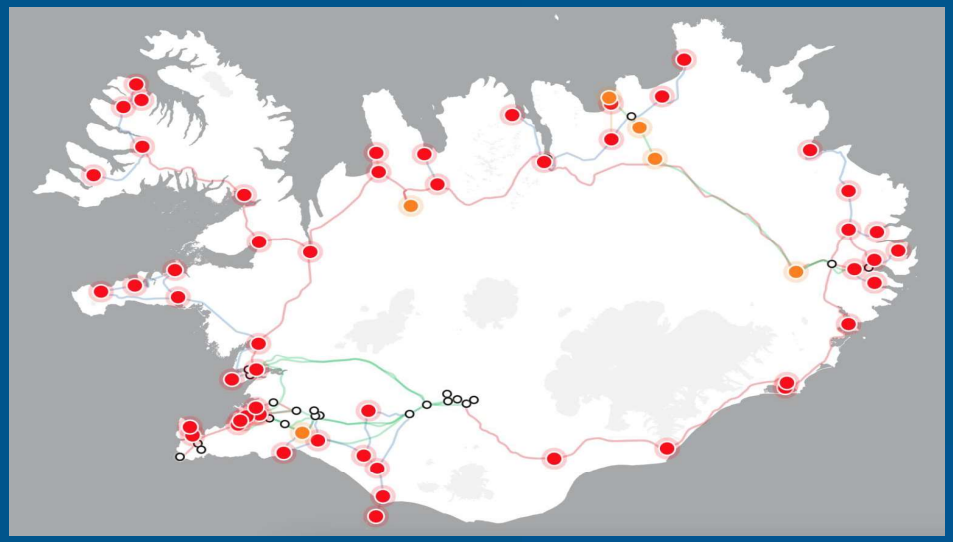
Iceland circa 1975 had 4 independent non-interconnected generation "regions"

"Closing the Gap"



Transmission interconnections completed in 1984

TSO Grid and Generation Stations (2023)



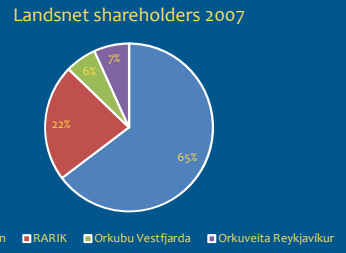
Unbundling G&T Assets

Required by EU Policy – 3 stages over a decade

EFTA

Landsvirkjun

LANDSNET



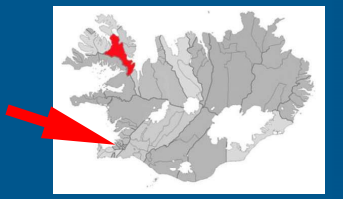
Transmission assets primarily owned by Icelandic state (through Landsnet);

maintains generation and distribution ownership diversity

Consumer Energy Price Structure (Iceland)

		Energy price (general)	Energy price (general)	Energy price (heating)	Energy price (heating)	Heating discount
		kr/kWh	*cents/kWh*	*kr/kWh*	*cents/kWh*	%
	Straumlind	6,98	**4,99**	6,25	**4,46**	10,5%
	N1 Rafmagn	6,98	**4,99**	6,25	**4,46**	10,5%
	Orkubú Vestfjarða	7,50	**5,36**	6,72	**4,80**	10,4%
	Orka Heimilanna	7,30	**5,21**	6,54	**4,67**	10,4%
	Fallorka	8,67	**6,19**	7,56	**5,40**	12,8%
	Orkusalan	9,16	**6,54**	7,68	**5,49**	16,2%
	HS Orka	9,24	**6,60**	7,79	**5,56**	15,7%
	Orka náttúrunnar	9,18	**6,56**	8,04	**5,74**	12,4%

Consumer Pricing – bottom line



		Example 1	Example 2
Energy unit price	cent/kWh	4,02	4,02
VAT		0,97	0,97
Total	cent/kWh	4,99	4,99
Wheeling cost	cent/kWh	10,78	4,66
Equalizing fee	cent/kWh	0,29	0,29
Gov. subsidy	cent/kWh	-3,93	
VAT		1,71	1,19
Total	cent/kWh	8,86	6,14
Total cost	cent/kWh	13,84	11,12
	ISK/kWh	19,38	15,57

Example 1 = rural area;
Example 2 = urban area

Electrical prices: Industrial Customer



Small commercial example: Construction company; 150-200 MWh annual sales

Electricity bill brake down

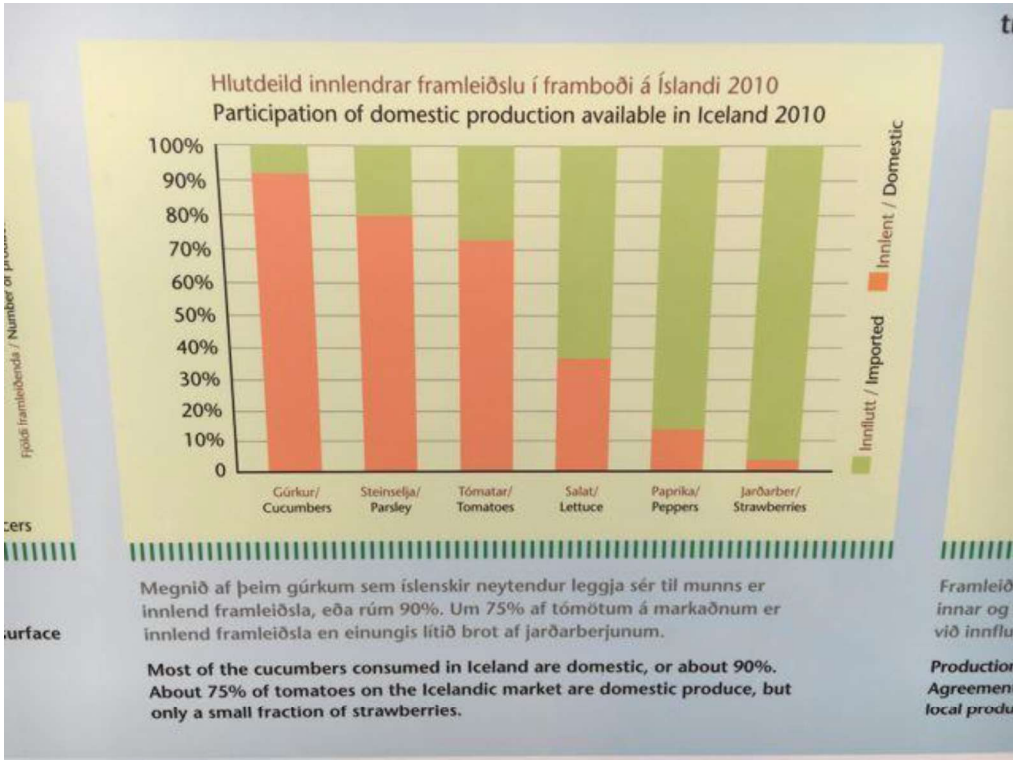
Usage	Qty	Unit	Unit price	Unit	Total (USD)	VAT	Total w. VAT (USD)
Energy (general)	14.114	kWh	4,99	cent/kWh	704,79	24%	873,94
Total usage	14.114	kWh			704,79		873,94

Transmission

Usage	Qty	Unit	Unit price	Unit	Total (USD)	VAT	Total w. VAT (USD)
Connection fee (general)	31	Days	2,32	USD/day	71,93	24%	89,20
Transmission (general)	14.114	kWh	4,51	cent/kWh	636,14	24%	788,81
Equalizing fee	14.114	kWh	0,29	cent/kWh	41,33	24%	51,25
Total usage					749,41		929,26

To be payed per month (USD)	1.803,21
Average price (cent/kWh)	12,78







Large commercial:

- Located in Reykjavik
- Steel Fabrication and Construction
- ~1200 MWh annual sales

Electricity bill brake down

Usage	Qty	Unit	Unit price	Unit	Total (USD)	VAT	Total w. VAT (USD)
Energy (general)	100.013	kWh	3,52	cent/kWh	3523,46	24%	4.369,10
Total usage	100.013	kWh			3523,46		4.369,10

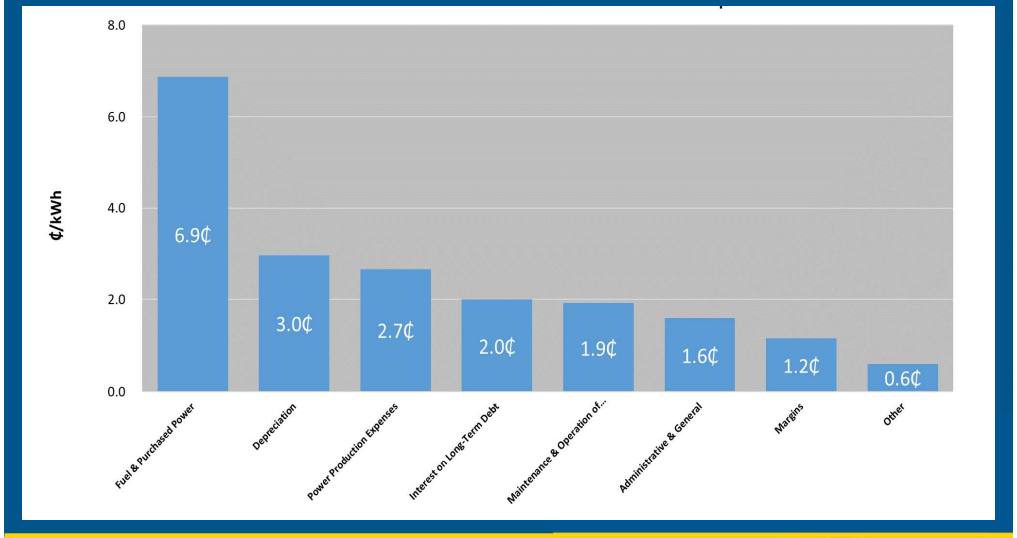
Transmission

Usage	Qty	Unit	Unit price	Unit	Total (USD)	VAT	Total w. VAT (USD)
Connection fee (general)	28	Days	2,32	USD/day	64,97	24%	80,57
TSO fee	100.013	kWh	0,62	cent/kWh	623,37	24%	772,98
DSO fee	100.013	kWh	1,16	cent/kWh	1.159,80	24%	1.438,15
Equalizing fee	100.013	kWh	0,29	cent/kWh	292,90	24%	363,19
Total usage					2.141,03		2.654,88

To be payed per month (USD)	7.023,97
Average price (cent/kWh)	7,02

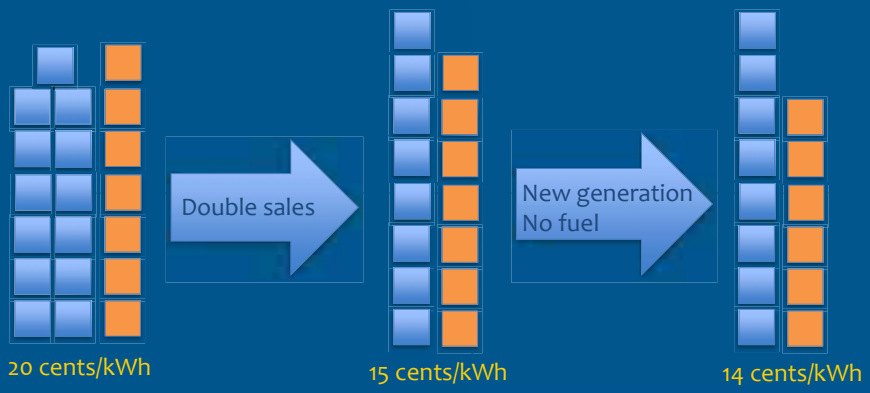


Railbelt Utilities Cost per kWh (2021)



Economies of scale

Many caveats here!!!!



"Cheaper by the dozen" - https://www.uaf.edu/acep-blog/cheaper-by-the-dozen-reducing-alaskas-electricity-costs.php

Iceland's Policies (high level)

- Commitment to energy independence
- Industry partnerships to build up infrastructure
- Investment in transmission
- Subsidies for high-cost regions (heat and power)
- Iceland drilling fund – loan fund to reduce risk
- Iceland energy plan – selecting projects
- Hesitancy to develop intertie
- Investment in knowledge economy

Overseas Activities of Geothermal Companies



Thank you!

Gwen Holdmann
University of Alaska Fairbanks
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RAILBELT HYDROPOWER DEVELOPMENT & FINANCING: LESSONS LEARNED FROM THE PAST, OPPORTUNITIES FOR THE FUTURE

Thursday, August 3, 2023, 11:00 AM – 1:00 PM

- Small Hydropower in Southcentral Alaska
- Bradley Lake Operations and Governance
- Railbelt Hydropower: Current and Upcoming Projects
- Susitna-Watana Hydro

Small Hydropower in Southcentral Alaska

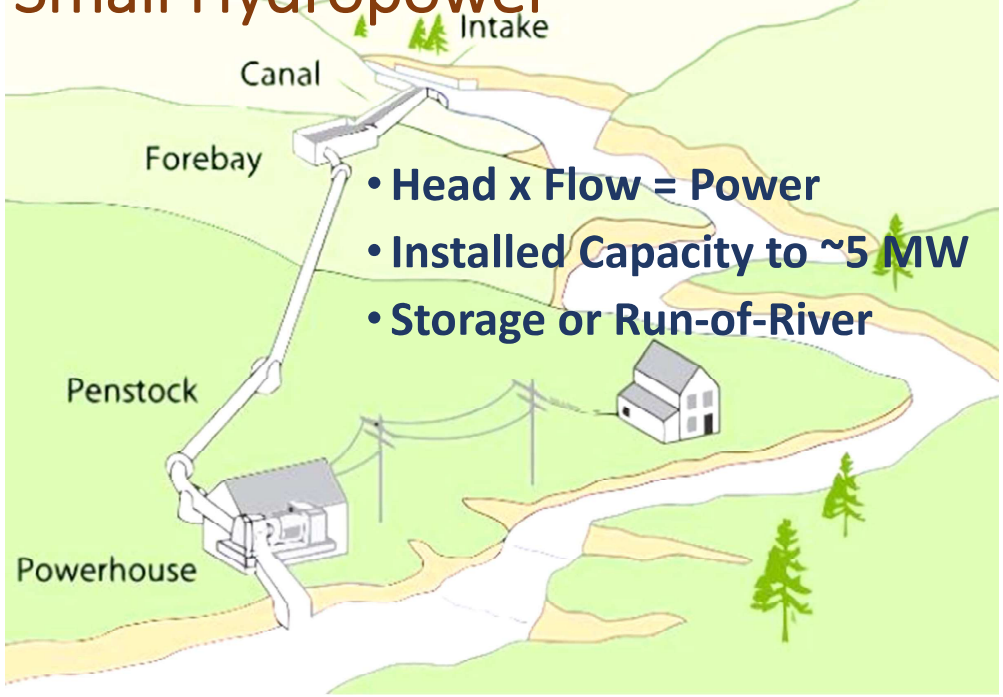
Governor's Energy Security Task Force Symposium
August 3, 2023

Joel Groves, P.E
Polarconsult Alaska, Inc

Presentation Outline

- What is hydropower?
- Small Hydro History in Southcentral
- What is the resource potential?
- How might we build this?

Small Hydropower



- Head x Flow = Power
- Installed Capacity to ~5 MW
- Storage or Run-of-River



Big Storage Hydro

Bradley Lake
Homer, Alaska
120 MW

Small Storage Hydro

Chuniisax Creek
Atka, Alaska
270 kW





Big ROR Hydro

Forest Kerr Project
British Columbia, Canada
195 MW

Small ROR Hydro

Juniper Creek
Eagle River, Alaska
300 kW



2. Small Hydro History

Early generation in Southcentral

- Canneries – 1910s
- Mines (Hatcher Pass, etc.) 1910s – 1950s
- Communities (Seward, Valdez, others…)
- Eklutna River (2 MW, 1920s)

…Hydro History & Lessons

Hydro Independent Power Producers (IPPs)

- 1991 – 100 kW McRoberts Creek ($0.04 / kWh)
- 2013 – 1.1 MW South Fork ($0.07 / kWh)
- 2021 – 300 kW Juniper Creek ($0.07 to 0.08 / kWh)
- No government subsidies!
- Short lead (2 to 50 years)!
- Unique circumstances – not commercially replicable
- Intriguing potential…

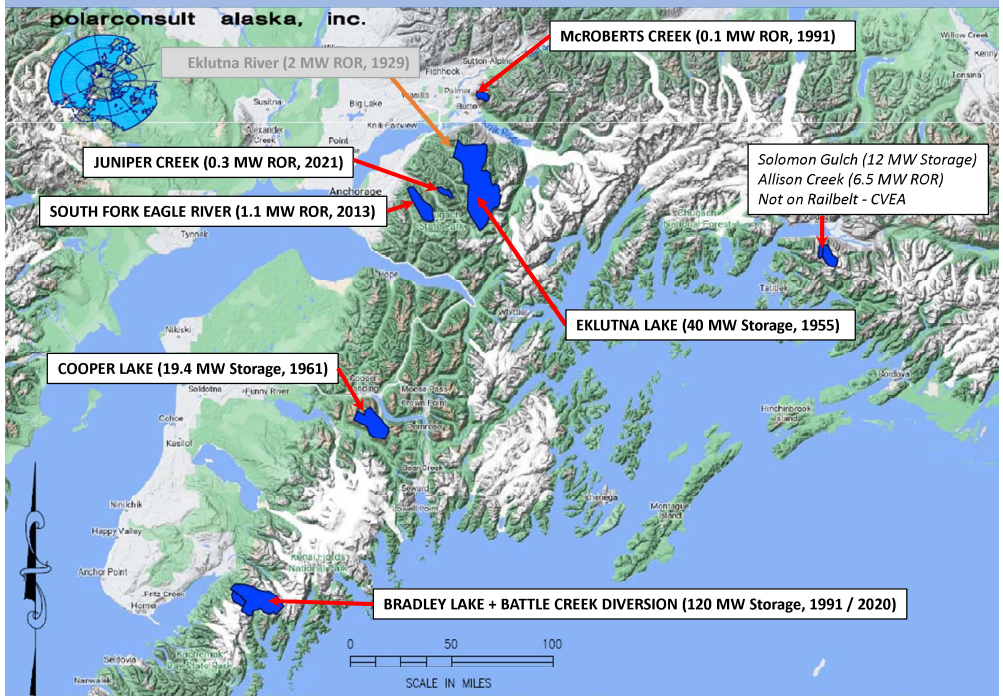
→ **OLD HYDRO IS THE CHEAPEST POWER THERE IS.**
→ **IPP SMALL HYDRO IS ON THE CUSP OF COMM. VIABILITY.**

3. Small Hydro Resource Potential

How much are we talking about?

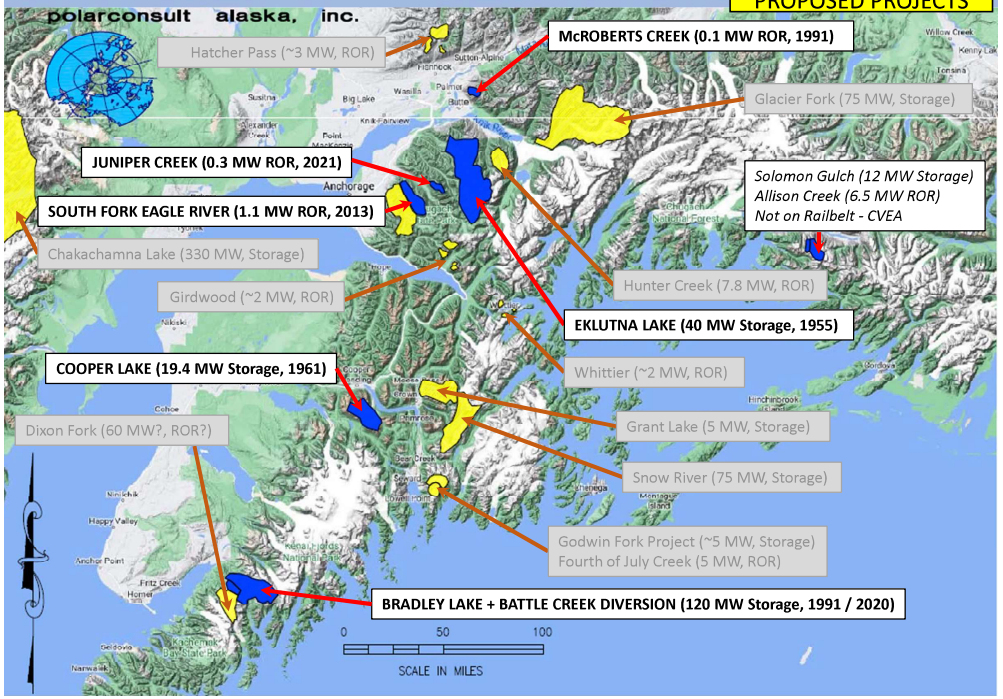
Existing Grid-tied Hydropower in SCAK

EXISTING PROJECTS



Existing / Proposed Grid-tied Hydropower

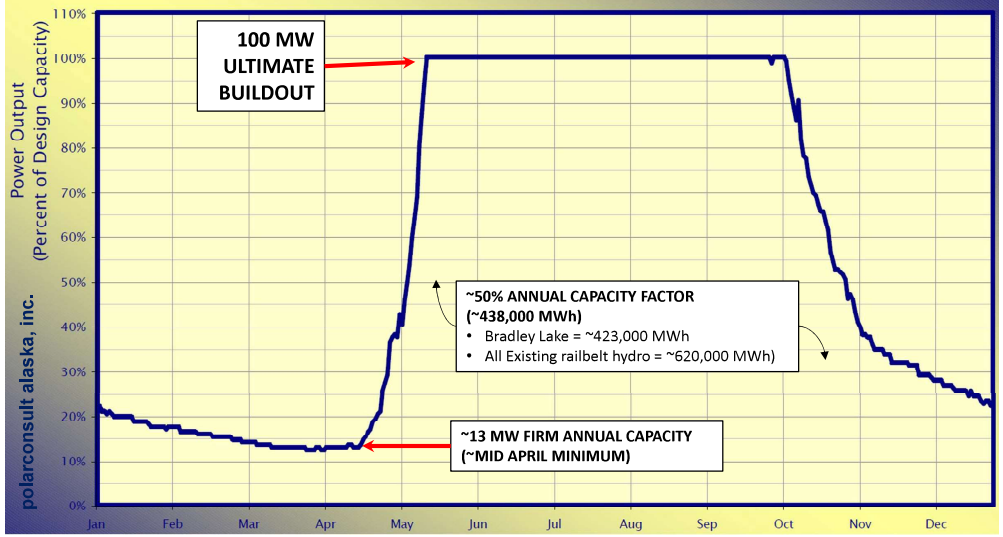
EXISTING PROJECTS
PROPOSED PROJECTS



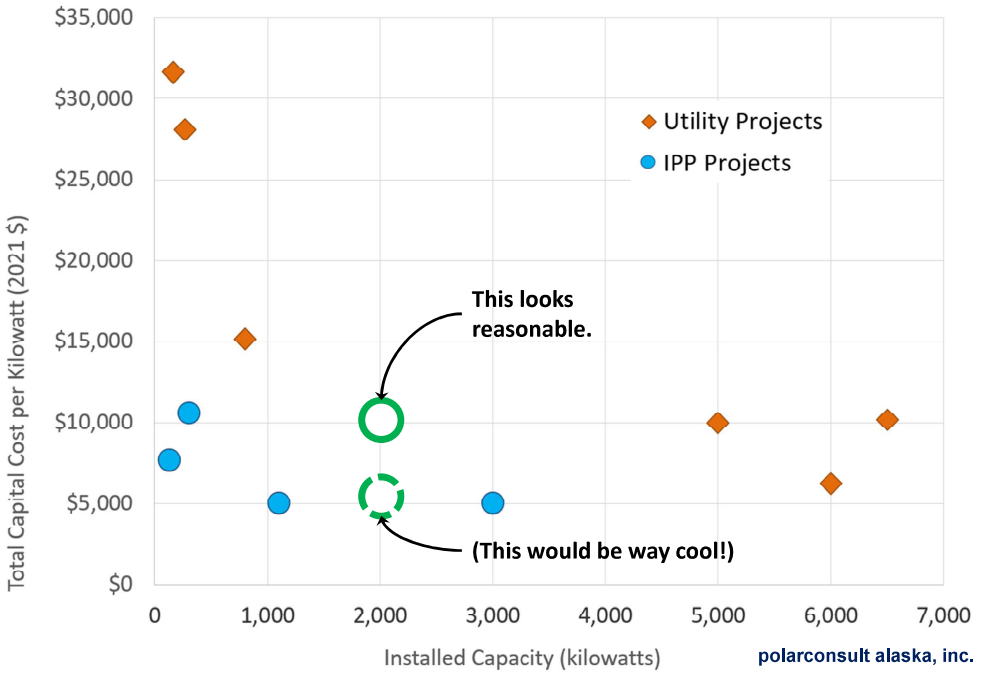
SOUTHCENTRAL SMALL HYDRO RESOURCE POTENTIAL

- 100 MW small hydro capacity is achievable
- Roughly equal to 2nd Bradley Lake Project
- Environmentally sustainable
- Distributed Generation (~40-60 projects)
- Recreational Enhancements
- Grid Resiliency Benefits
- Distributed Risk (development, operation, natural disaster, etc.)

RUN-OF-RIVER HYDROPOWER GENERATION



COST?



What's the Bottom Line?

- $500M to $1B Capex over many years
- 40 to 60 individual, independent Projects
- Project commissioning 2-5 years after commitment
- 100 MW Cumulative Capacity
- 438,000 MWh annually (~10% Railbelt Demand)
- ~25 MW firm capacity at peak load (Dec / Jan)
- ~15 MW minimum firm capacity (April / May)

→ 100 MW capacity is probably conservative
→ More progress needed before fine-tuning

4. Barriers to Small Hydro on the Railbelt

Three new projects totaling 1.5 MW in 30 years is not a solution.

Small Hydro Barriers

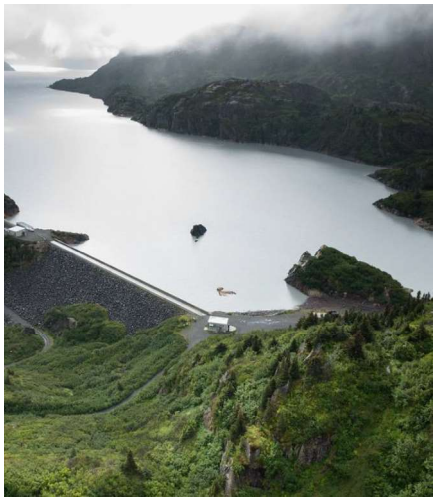
- **Regulatory Reform**
  - →Permit Agencies need binding, uniformly applied decision deadlines
  - →Reform to state land authorization processes
- **Market Reform**
  - →Utilities recognize full value of hydro projects
  - →De-monopolize (monopsonize) energy market

Thanks for Listening!

Questions?



Bradley Lake Operations and Governance



The Bradley Lake Hydroelectric Project

- Net 120 MVA hydroelectric project
  - Limited to 90MW during normal operation due to transmission constraints
- Vertical shaft high-head Pelton Turbine
  - 1100 feet of head pressure
- Lake and Penstock
  - 125-foot dam
  - 3.5 Mile tunnel mostly rock and in some cases steel lined
  - 11 feet in diameter
  - ~ 400 GWH annual energy
- Transmission assets
  - Static VAR Compensators- Soldotna and Cooper Landing
  - Transmission lines -Bradley to Bradley Junction and Soldotna to Quartz Creek,
  - Batteries- Southern, Central, and Northern Regions
- Due to tunnel pressure constraints, the project exhibits a very slow response rate to underfrequency events
  - Zero to full output; theoretical response is 90 sec, but is more typically measured in minutes
- However, when considering divider performance (excluding batteries), it is the fastest responding machine in the Railbelt to overfrequency events
  - Full out put to zero in ~2 seconds

Contractual Framework

The Bradley Lake Hydroelectric Project (the Project) is organized through a single primary agreement	• The Agreement for the Sale and Purchase of Electric Power (Power Sales Agreement (PSA)) • Includes Power revenue bond resolutions The Project was 50% State funded and 50 % Bond funded, with a mechanism to pay the State back for its funding after paying off the Projects bonds at zero interest
Two secondary agreements forming "a paper intertie"	• The Amendment to Agreement for Sale of Transmission Capability (the Capability Agreement) • Terms and conditions for the pledge of the Homer transmission system for Project use • The Agreement for the Wheeling of Electric Power and for Related Services (the Services Agreement) • Terms and conditions for the pledge of the Chugach transmission system for Project use
And several sub-agreements governing system operations, field operations, maintenance, and control	
Key stakeholders include utilities, and the State via AEA (Alaska Energy Authority)	• The Project and the related transmission agreements are exempt from RCA regulation under AS 42.05.431 (c) (1)
The PSA requires the creation of the Project Management Committee (BPMC) and tasks the committee with	• creating rules of procedure (bylaws) • And, subject to AEA approval, delegates operations and maintenance responsibility to the BPMC

Roles and Responsibilities

Utilities: known as the "Participants" and are power purchasers via a "take or pay" contract (the PSA) and are members of the BPMC

State via AEA: As owner of the Project provides oversight and support for the Project's operations and is a member of the BPMC

The BPMC is made up of the participants and AEA

- Responsible for Improvement, Operations and Maintenance of the Project
- Decisions are made based on majority plus 50% of load voting mechanism
- AEA has a unique role, most topics require the affirmative vote of AEA

Public: Project meetings are open to the public and subject to AS 44.62.310 - AS 44.62.312.meetings act.

Power Delivery and Transmission

- The Services and Capability agreements formed a back stop "paper intertie" to deliver Project power to the participants
  - It became apparent that lack of funding for interties might delay or kill the project
- The Capability Agreement outlines the performance and operational aspects of the Project's utilization of the HEA system to transmit Project power from Bradley Junction to Quartz Creek (formerly Soldotna).
  - This includes the capacity purchase terms for the Bradley Junction to Soldotna 115 Line, which was constructed and is owned by HEA. The participants contributed funds based on their Project shares, and in return, they obtained proportional capability rights.
- The Services Agreement outlines the performance and operational aspects of the Project's utilization of the HEA system to transmit Project power from Quartz Creek (formerly Soldotna) to various delivery points north of Quartz creek.
  - Includes calculation of firm and non firm wheeling with a 15 year phase in, capped at 90% of the Chugach fully allocated rate less the Beluga Point Mackenzie costs
  - Names Chugach as the Project dispatcher subject to review of performance by the BPMC
- AEA is not signatory to either of these agreements

Energy Pricing

- The Project's energy is priced based on cost and energy generated during the year
  - Budgeted in advance with a true-up mechanism

ALASKA ENERGY AUTHORITY

RAILBELT HYDROPOWER: CURRENT & UPCOMING PROJECTS

Bryan Carey, PE
Director, Owned Assets

Alaska Energy Task Force
Energy Symposium
August 3, 2023

ALASKA ENERGY AUTHORITY



Bradley Lake Hydroelectric Project

ALASKA ENERGY AUTHORITY



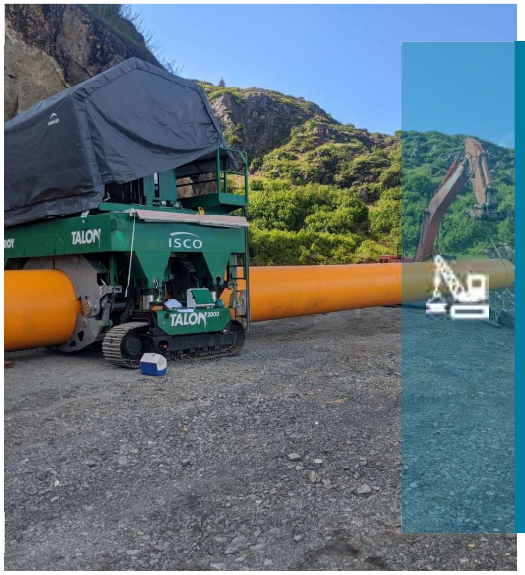
Alaska's largest source of renewable energy, the 120-megawatt facility generates about 10% of the total annual power used by Railbelt electric utilities at some of the lowest-cost to more than 550,000 Alaskans.

- Funding by State of Alaska and Railbelt utilities
- Owned by AEA and managed to maximum extent by Railbelt utilities
- Largest hydroelectric Project in Alaska
- Annual average energy 400,000 MWh — and increasing

Battle Creek Project



- Located 2 miles southwest of Bradley Lake and serves Railbelt
- Completed in 2020
- Funding by State of Alaska and Railbelt utilities
- Diversion of upper Battle Creek to Bradley Lake by two-mile pipe
- Annual energy ~37,000 MWh
- Low-cost energy



Battle Creek Project Schedule

- 2010-2013: Studies
- 2015: Submit license amendment to Federal Energy Regulatory Commission (FERC)
- 2016: Environmental Assessment
- 2016: Receive license amendment
- 2017: Financing and bid project
- 2018-2020: Construction

Dixon Glacier



Dixon Diversion Project

- AEA is investigating generating energy from the outflow of Dixon Glacier five miles southwest of the Bradley Lake Hydroelectric Project.
- The Dixon Diversion Project would be largest renewable energy project in Alaska since Bradley Lake was completed in 1991.





Dixon Diversion Project

- Drainage area is ~20 square miles.
- Watershed receives more than 100 inches precipitation per year (106,000 ac-ft/yr).
- Ice melt average 94,500 ac-ft/yr.
- ~200,000 ac-ft/yr.

Diversion to Bradley Lake

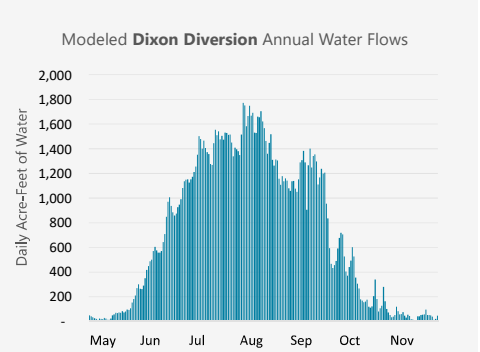
- 4.7 mile tunnel from intake to Bradley Lake
- Water goes through Bradley Lake powerhouse
- Raise Bradley spillway/dam to capture seasonal flow and allow for additional water storage for winter
- Entire project on State land



Energy Generation Comparison

Project	MWh/yr
Bradley Lake Hydro	~400,000 MWh/yr
Dixon Diversion	***~160,000 MWh/yr***
Fire Island Wind	~49,000 MWh/yr
Battle Creek Diversion	~37,000 MWh/yr
Net Metered Solar	~3,500 MWh/yr

Source: This comparison slide is courtesy of Chugach Electric Association.



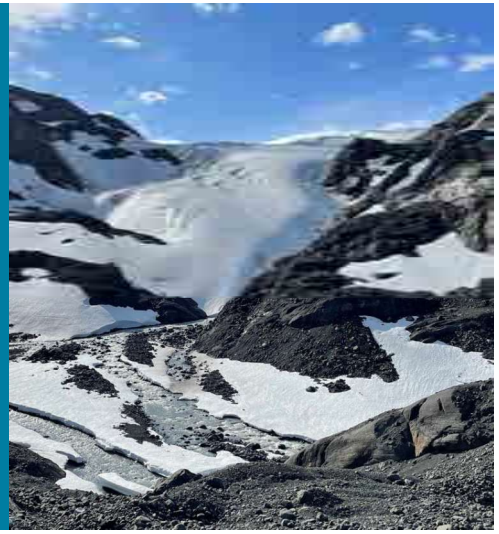


Dixon Diversion Value

- Dixon Diversion provides:
  - Energy (more water)
  - Higher capacity factor (from 37% to 53%), but no increase of maximum capacity (no new turbine)
  - Increased long-duration energy storage (higher dam)
  - Low-cost, long-duration energy storage
- A new turbine/generator could be added at Bradley Lake power plant in the future

Dixon Diversion Next Steps

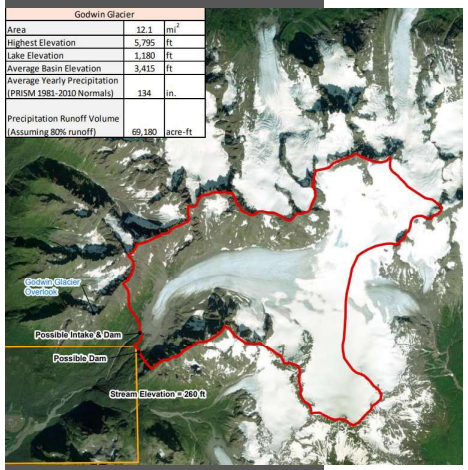
- Verify energy (2023)
  - Discharge measurements
  - Water Quality measures
- Optimism facilities and revise cost (2023)
  - Need for road
  - Geologic Site Review
- Consultation (2024)
- Studies (2024)



Dixon Diversion Schedule

ALASKA ENERGY AUTHORITY

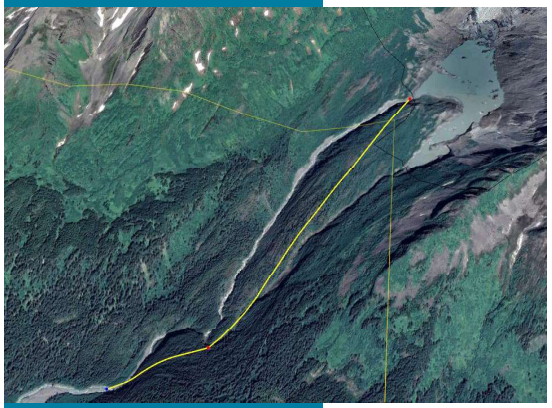
2022	2023-2025	2026-2027	2028	2028-2032
April File Amendment June Agency/Public Meeting Homer Fall Agency Study Requests	Studies	Federal Energy Regulatory Commission Amendment	Bid	Construction



ALASKA ENERGY AUTHORITY

Godwin Hydropower Project

- If average ice melt 10 feet/year then an additional 77,000 ac-ft above annual precipitation for coming decades
- Power plant less than 2 miles from roads and 115 kVA lines
- Port to bring in equipment and materials



Godwin Hydropower Project

- River drop ~920 feet over 1.5 miles.
- Intake downstream of lake has entire project on State land (likely non-FERC). Intake at lake provides regulating ability.
- Chugach Electric Association performing feasibility work.
- Could be online ~ 10 years.



Alaska Energy Authority

813 W Northern Lights Blvd.
Anchorage, AK 99503

Main: (907) 771-3000
Fax: (907) 771-3044

akenergyauthority.org

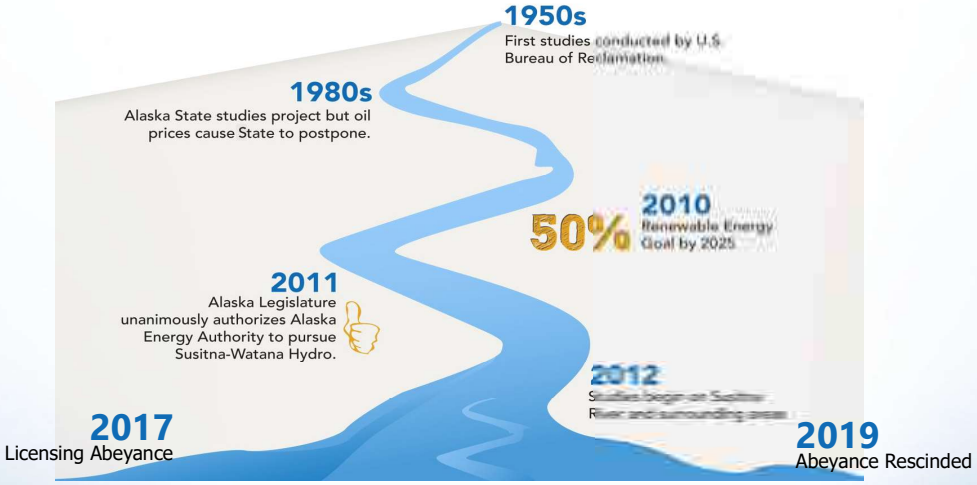
@alaskaenergyauthority

@alaskaenergyauthority

15



Susitna Hydro: History



SUSITNA-WATANA HYDRO *Clean, reliable energy for the next 100 years.*

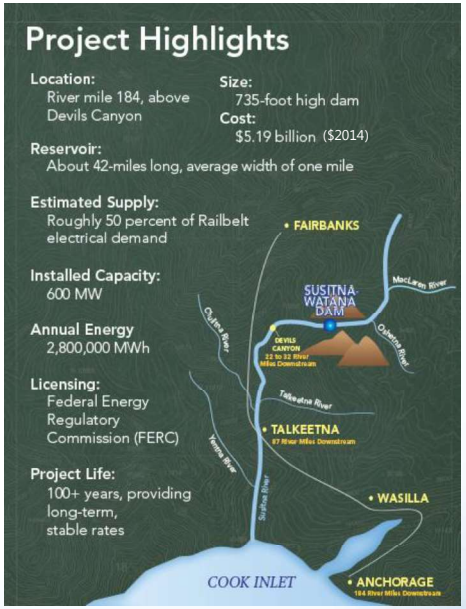
Why Susitna-Watana Hydro

- Serves ~80% of state's population
- 1,000 jobs during peak construction
- Stable electricity rates for 100+ years
- Long-term diversification
- Clean, reliable energy source
- Promotes integration of variable power sources
- Reduce CO2 emissions by more than 100 million tons annually (equivalent to 250,000 cars)

SUSITNA-WATANA HYDRO *Clean, reliable energy for the next 100 years.*

Project Highlights

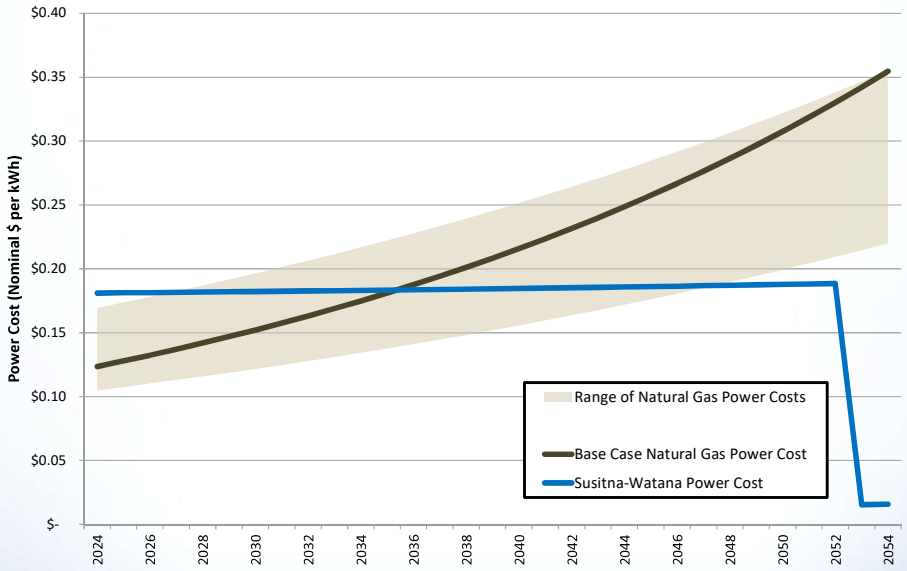
- Susitna-River Mile 184
- 87 River Miles from Talkeetna
- 22-32 River Miles upstream from Devils Canyon
- ~50 percent of Railbelt's Energy Demand



Next Steps

- Governor and legislature would need to re-initiate FERC licensing process, restart process with FERC
- Collaborate with Alaska Native land owners and utilities
- Update construction cost and financing approach
- Conduct public engagement
- File license application

Susitna-Watana vs. Natural Gas Power Costs



Key Takeaways

- Susitna-Watana Hydroelectric Project can significantly reduce future power cost uncertainty
- Potential to be competitive with natural gas in the early years, lower cost over long term
- More than doubles Alaska's renewable energy
- Enhances Alaska energy security
- Allows for other renewables generation sources

ALASKA ENERGY STATISTICS & ECONOMICS

Thursday, August 17, 2023, 11:00 AM – 1:00 PM

- *Alaska Energy Data: The Good, the Bad, the Missing*
- *Alaska Comprehensive Economic Development (CEDS) Strategy*
- *CEDS Energy-Specific Goals and Objectives*

Alaska Energy Data:
The Good, the Bad, the Missing



ACEP Energy Symposium
August 17, 2023

prepared by Steve Colt, Research Professor
sgcolt@alaska.edu

ACEP Alaska Center for Energy and Power

UAF University of Alaska Fairbanks

Outline

- Focus on "meso-scale" data corresponding to our day-to-day economic realities
  - Building, utility, community, regional scales
  - Monthly, annual time periods
- *Alaska Energy Statistics* – views from the trenches
- What about Heat?
- What about Transport?
- A few final thoughts

Prepare to be bored….or fascinated

AK Energy Statistics:
A View from the Trenches

Mini Case Study 1: Southeast Diesel Generation

What's wrong with this picture?

Net Generation by Fuel Type by Operators/Utilities (MWh) by AEA Energy Regions, 2014

AEA Energy Region	Oil	Gas	Coal	Hydro	Wind	Solar
Aleutians	102,128	0	0	2,498	1,695	0
Bering Straits	48,287	0	0	0	3,205	0
Bristol Bay	52,816	0	0	3,908	14	0
Copper River/Chugach	42,095	0	0	74,580	0	0
Kodiak	2,019	0	0	134,174	23,323	0
Lower Yukon-Kuskokwim	59,020	0	0	0	3,912	0
North Slope	29,378	130,548	0	0	0	0
Northwest Arctic	31,297	0	0	0	4,673	0
Railbelt	325,635	3,213,640	558,292	547,735	124,092	0
Southeast	-243,316	0	0	774,201	0	0
Yukon-Koyukuk/Upper Tanana	35,028	0	0	0	0	9
Total	**484,387**	**3,344,188**	**558,292**	**1,537,096**	**160,914**	**9**

What's wrong with this picture?

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Kodiak	2,019	0	0	134,174	23,323	0
Lower Yukon-Kuskokwim	59,020	0	0	0	3,912	0
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Northwest Arctic	31,297	0	0	0	4,673	0
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Yukon-Koyukuk/Upper Tanana	35,028	0	0	0	0	9
Total	**484,387**	**3,344,188**	**558,292**	**1,537,096**	**160,914**	**9**

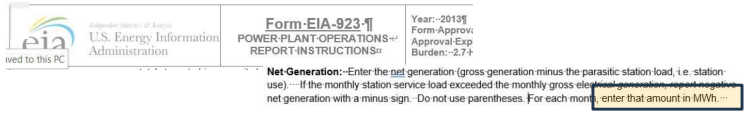
Energy Stats T2.3c

Utility Name	Plant Name	Intertie Name	Energy Region	Fuel Type	Prime Move	Net Generation
Ketchikan Public Utilities	S W Bailey	SEAPA_grid	Southeast	DFO	IC	
Metlakatla Power & Light	Centennial	Metlakatla_grid	Southeast	DFO	IC	
Alaska Power & Telephone Compan	Thorne Bay Plant	Prince of Wales Is._grid	Southeast	DFO	IC	-24
Alaska Power & Telephone Compan	Viking	Prince of Wales Is._grid	Southeast	DFO	IC	-15

EIA 923 data:

		Electricity Net Generation (MWh)											
Plant Nan	Operator Name	Netgen Januar	Netgen Februa	Netgen March	Netgen April	Netgen May	Netgen June	Netgen July	Netgen Augus	Netgen Septemt	Netgen Octobe	Netgen Novemb	Netgen Decemb
Swan Lake	Ketchikan Public Utilities	6,081	5,488	4,965	5,322	4,653	4,321	4,086	5,081	7,857	5,721	5,891	6,723
Ketchikan	Ketchikan Public Utilities	2,245	2,026	1,832	1,964	1,717	1,595	1,508	1,875	2,900	2,112	2,174	2,481
S W Bailey	Ketchikan Public Utilities	-27,254	-25,859	-25,243	-23,718	-20,026	-11,936	-21,102	-16,978	-19,975	-26,406	-19,301	-25,105
Beaver Falls	Ketchikan Public Utilities	4,161	3,774	3,414	3,659	3,199	2,971	2,809	3,493	5,402	3,934	4,050	4,622
Silvis	Ketchikan Public Utilities	1,261	1,138	1,029	1,103	965	896	847	1,053	1,629	1,186	1,221	1,394

EIA 923 instructions



EIA 923 form



https://www.eia.gov/survey/#eia-923

Another View from the Trenches

Mini Case Study 2: Northwest Arctic Renewables

What's wrong with this picture?

Operators/Utilities Net Generation by Fuel Type (MWh), 2021

Plant Name	Intertie Nam	Energy Region	Oil	Gas	Coal	Hydr	Wind	Solar
Deering	Deering_grid	Northwest Arctic	679	0	0	0	61	43
Ambler	Ambler_grid	Northwest Arctic	1,331	0	0	0	0	0
Kivalina	Kivalina_grid	Northwest Arctic	1,874	0	0	0	0	0
Kiana	Kiana_grid	Northwest Arctic	1,715	0	0	0	0	0
Noatak	Noatak_grid	Northwest Arctic	1,853	0	0	0	0	0
Shungnak	Shungnak_grid	Northwest Arctic	1,634	0	0	0	16	0
Noorvik	Noorvik_grid	Northwest Arctic	1,963	0	0	0	13	0
Buckland	Buckland_grid	Northwest Arctic	1695.8	0	0	0	239.392	0
Selawik	Selawik_grid	Northwest Arctic	2,860	0	0	0	0	0
Kotzebue	Kotzebue_grid	Northwest Arctic	18343.458	0	0	0	2583.924	594.163

Hint



Photo: USDOE

Again, What's wrong with this picture?

Operators/Utilities Net Generation by Fuel Type (MWh), 2021

Plant Name	Intertie Nam	Energy Region	Oil	Gas	Coal	Hydr	Wind	Solar
Deering	Deering_grid	Northwest Arctic	679	0	0	0	61	43
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Kivalina	Kivalina_grid	Northwest Arctic	1,874	0	0	0	0	0
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Noatak	Noatak_grid	Northwest Arctic	1,853	0	0	0	0	0
Shungnak	Shungnak_grid	Northwest Arctic	1,634	0	0	0	16	0
Noorvik	Noorvik_grid	Northwest Arctic	1,963	0	0	0	13	0
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Noorvik	Noorvik_grid	Northwest Arctic	1,963	0	0	0	13	0
Buckland	Buckland_grid	Northwest Arctic	1695.8	0	0	0	239.392	0
Selawik	Selawik_grid	Northwest Arctic	2,860	0	0	0	0	0
Kotzebue	Kotzebue_grid	Northwest Arctic	18343.458	0	0	0	2583.924	594.163

Look at installed capacity

Installed Capacity by Prime Mover by Plant (MW), 2021

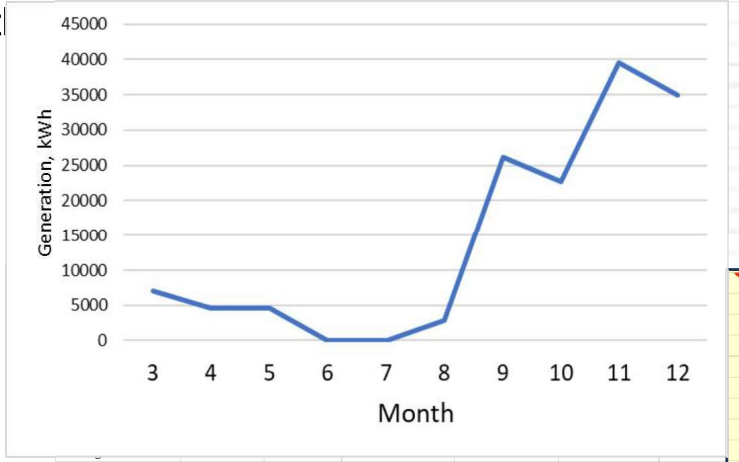
Plant Name	Total Capaci	Fossil Fuel Turbine	Internal Combu	Hydroelectric	Wind Turbin	Solar P
Ambler	1.1	0	1.1	0	0	0
Buckland	1.675	0	1.152	0	0.2	0.046
Deering	0.7955	0	0.37	0	0.1	0.0485
Kiana	1.2	0	1.2	0	0	0
Kivalina	1.1	0	1.1	0	0	0
Kotzebue	17.1	0	11.8	0	3.3	0.8
Noatak	1.252	0	1.252	0	0	0
Noorvik	1.649	0	1.626	0	0	0.023
Selawik	2.51	0	2.25	0	0.26	0
Kobuk	0.18	0	0.18	0	0	0
Shungnak	1.959	0	1.5	0	0	0.224

Look at source data: PCE monthly from AEA

Community	Fiscal Year	Fiscal Month	Fuel Used Gallons	Diesel kWh Generated	Hydro kWh Generated	Other 1 kWh Type	Other 1 kWh Generated
Shungnak PCE	2021	1	7303	94002	0		0
Shungnak PCE	2021	2	8330	112699	0		0
Shungnak PCE	2021	3	9035	124409	0		0
Shungnak PCE	2021	4	9839	138106	0		0
Shungnak PCE	2021	5	12696	157918	0		0
Shungnak PCE	2021	6	12641	151974	0		0
Shungnak PCE	2021	7	12819	160909	0		0
Shungnak PCE	2021	8	13648	176437	0		0
Shungnak PCE	2021	9	12484	166480	0		0
Shungnak PCE	2021	10	11732	146645	0		0
Shungnak PCE	2021	11	8049	108751	0		0
Shungnak PCE	2021	12	9075	97146	0		0
Shungnak PCE	2022	1	7444	108869	0		0
Shungnak PCE	2022	2	9691	118978	0		0
Shungnak PCE	2022	3	8968	111507	0	WIND	6976
Shungnak PCE	2022	4	9481	125223	0	WIND	4659
Shungnak PCE	2022	5	14523	125223	0	WIND	4659
Shungnak PCE	2022	6	27862	187520	0	WIND	8
Shungnak PCE	2022	7	12088	166939	0	WIND	39
Shungnak PCE	2022	8	14448	205579	0	WIND	2904
Shungnak PCE	2022	9	11006	136300	0	WIND	26128
Shungnak PCE	2022	10	9565	118552	0	WIND	22682
Shungnak PCE	2022	11	6786	87048	0	WIND	39492
Shungnak PCE	2022	12	5393	64116	0	WIND	34806

13

Granular data to t rescue?



14

Granular data to the rescue!!

This is SOLAR.

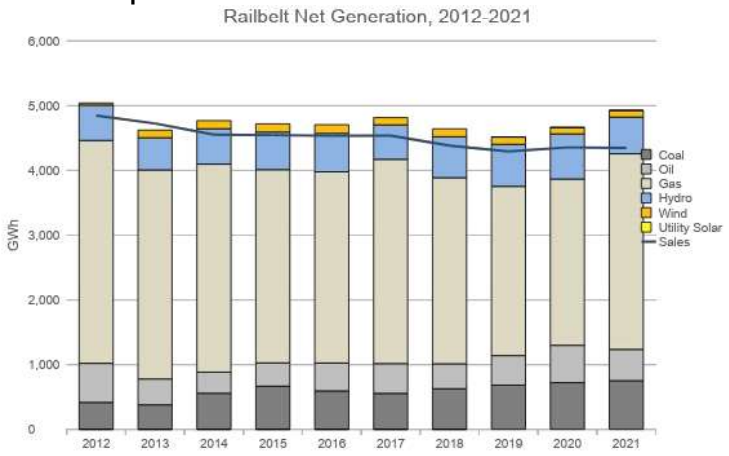


15

View from the Trenches

Trends vs snapshots

Trends vs Snapshots



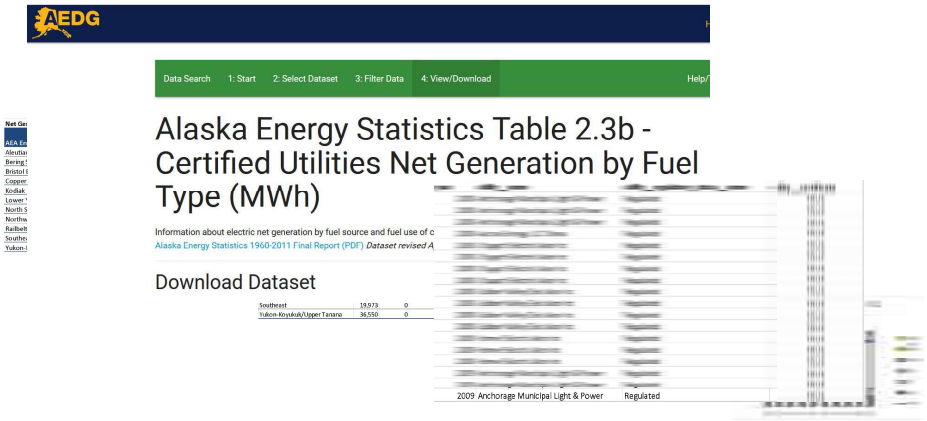
Trends can be tedious to compile



Net Generation, GWh (compiled from above, divided by 1000, pasted as values)

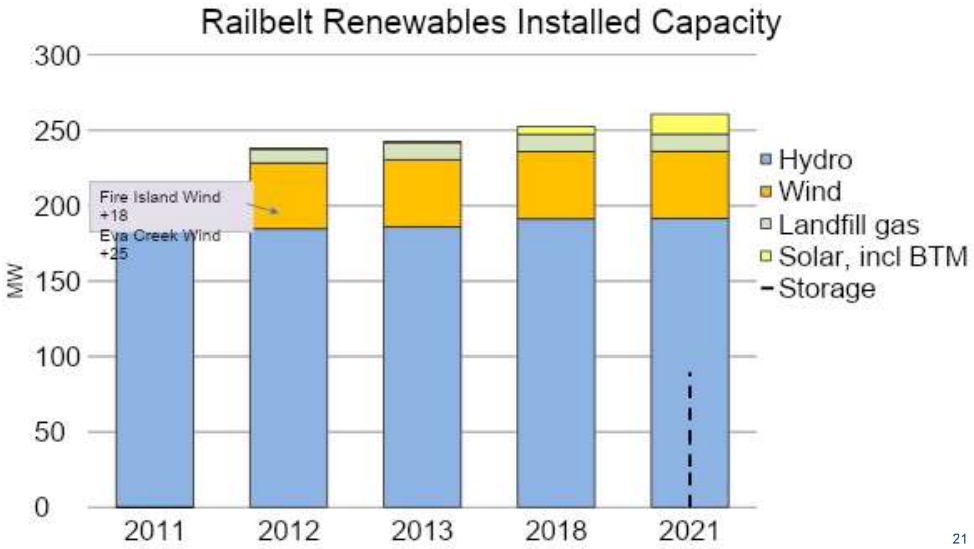
Year	ACEP Energy Region	Oil	Gas	Coal	Hydro	Wind	Utility Solar	Storage	Other	Total
2012	Railbelt	603	3,044	417	546	32	0	0	0	4,643
2013	Railbelt	400	3,230	379	498	117	0	0	0	4,624
2014	Railbelt	326	3,214	558	548	124	0	0	0	4,769
2015	Railbelt	360	2,986	668	580	127	0	0	0	4,721
2016	Railbelt	431	2,954	594	594	134	0	(2)	0	4,705
2017	Railbelt	400	3,157	556	532	112	0	(3)	0	4,654
2018	Railbelt	365	2,876	629	632	122	0	(2)	0	4,621
2019	Railbelt	456	2,615	683	651	112	0	(3)	0	4,514
2020	Railbelt	577	2,569	722	698	97	2	(3)	0	4,662
2021	Railbelt	483	3,022	753	567	102	2	(3)	0	4,925

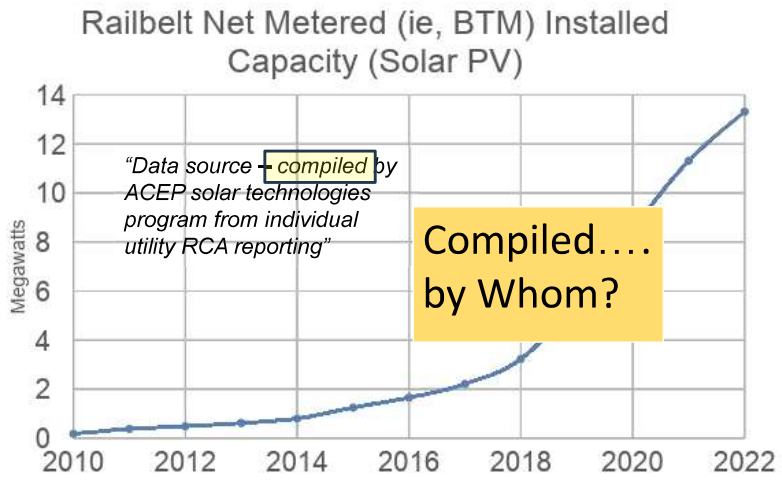
The Alaska Energy Data Gateway automates this process…at least somewhat. (AEDG is not maintained.)

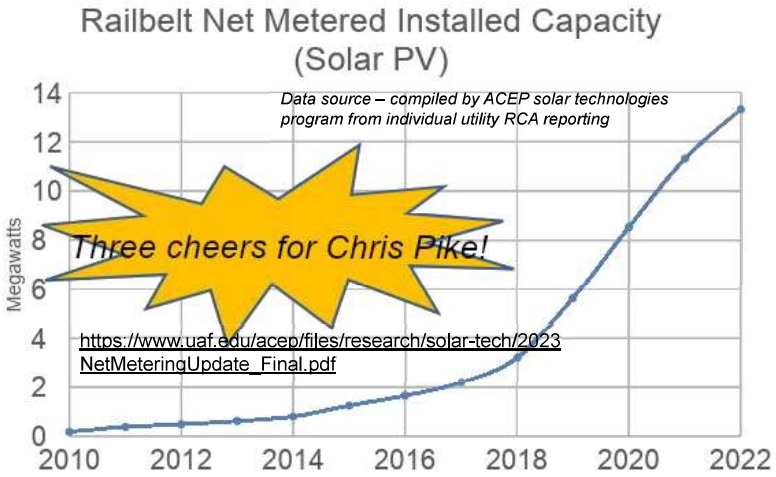


Bonus view from the Trenches

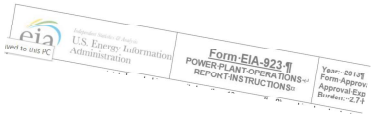
Where’s Rooftop Solar?







Possible Takeaways



- Much potentially useful energy data comes from fallible people.
- Unreliable/uncleaned data is worse than no data. GIGO.
- Clean, timely, consistent data requires sustained human effort.
- Who is / should be accountable for spotting glitches and cleaning data?
  - Not obvious – recall that the mighty EIA did not catch SW Bailey Plant kWh vs MWh – a 1000-fold error
  - How can "peer review" be used to ensure data quality
- No good substitute for people developing and sustaining relationships with key energy data sources and the raw data therefrom. (Three cheers for P. Haldane!)

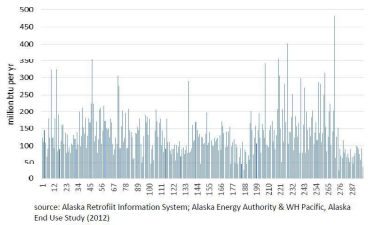
WHAT ABOUT HEAT?

Heat: *The Good……*

- ARIS* data is now publicly available!

Three cheers for AHFC!

- Big sample, data at individual building level
  - *There is no "typical house" or "typical household"*

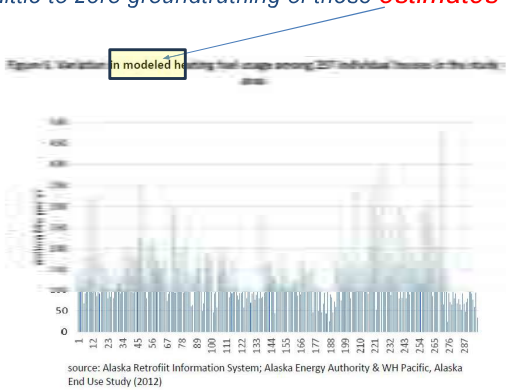


*Alaska Retrofit Information System

From: http://hdl.handle.net/11122/9564

Heat: *The "Bad"…*

- ARIS energy consumption "data" is mostly modeled estimates
  - *There has been little to zero groundtruthing of these* ***estimates***



From: http://hdl.handle.net/11122/9564

Heat: *The Missing*

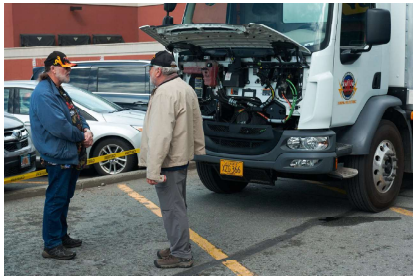
We have almost zero measured fuel oil consumption data.

"we're working on it!" at ACEP, but it is slow going

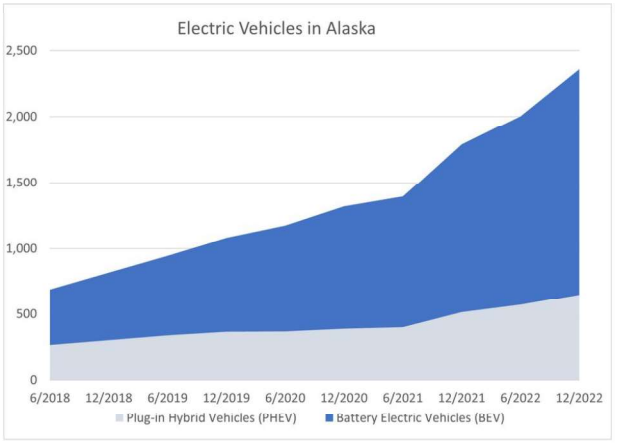
We have almost zero publicly available fuel use data from fuel tax (exemption) data collected by DOR

For decades, we had no publicly available demographic data from the PFD application dataset….but now we do!

WHAT ABOUT TRANSPORTATION?



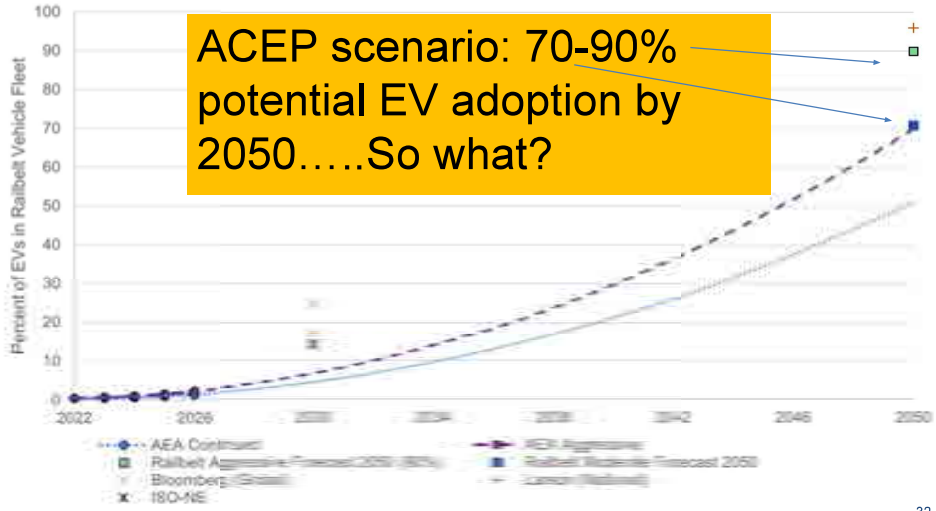
Q: Where did this chart come from?



A: The good folks at Chugach Electric[30]

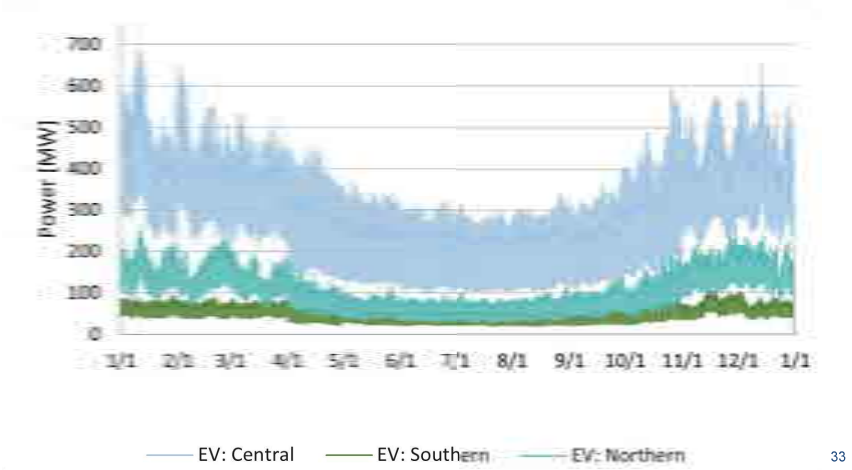
Final view from the Trenches

How might EV and Heat Pump load increase total Railbelt electricity demand?

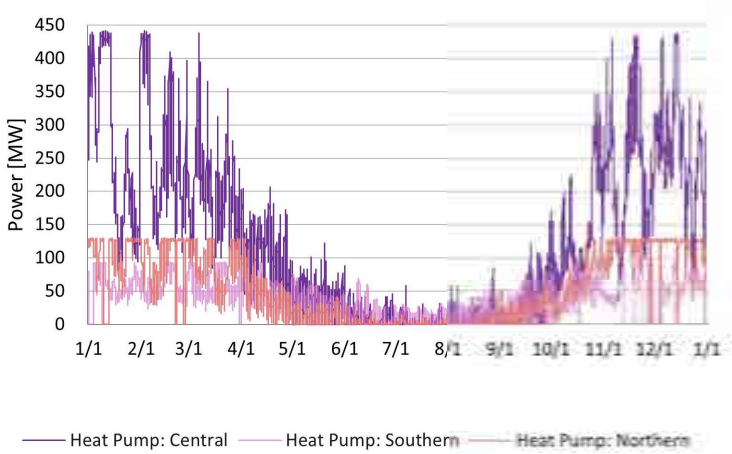


Cicilio et al. *Energies*, forthcoming. This slide from author.

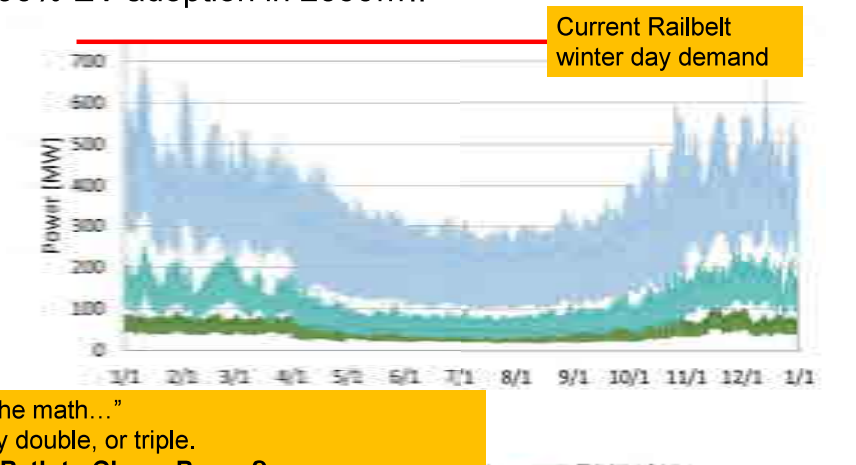
With 90% EV adoption in 2050…..



With 90% Heat Pump adoption in 2050…..



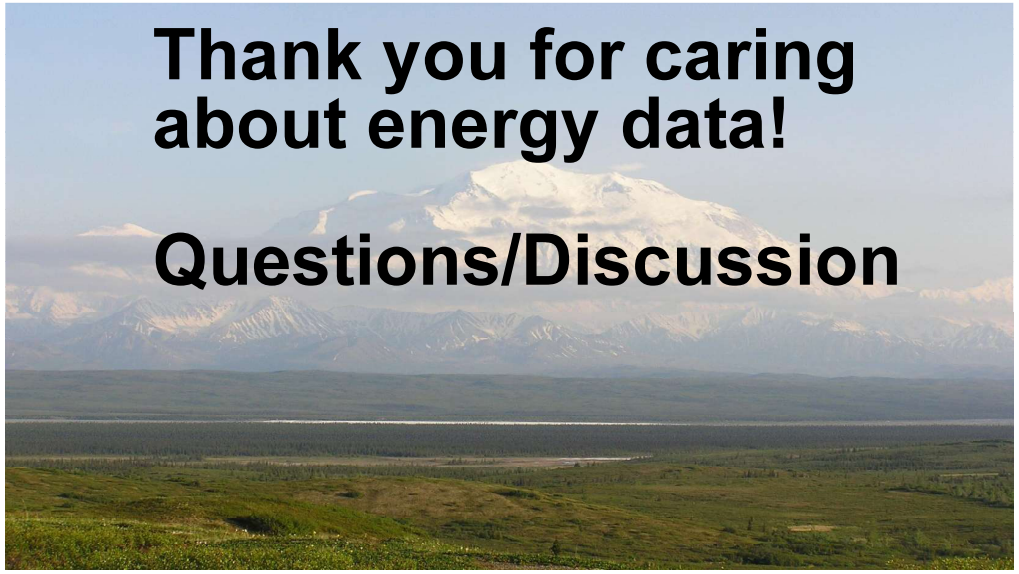
With 90% EV adoption in 2050…..



"You do the math…"
Load may double, or triple.
The Path to Cheap Power?

Final thoughts and a question

- This slide deck was messy because energy data is inherently messy
  - *Only people, applying sustained effort, can clean up messy energy data and make it accessible in useful formats*
- Our understanding of Alaska's energy picture is messy because much data is not collected
  - *Only people, working together and trusting one another, can collect, compile, and clean the heat and transportation data that will dominate policy choices during the next 20 years*
- GIGO
  - Bad raw data in □ [cleaning?] □ ??bad ??better ??good data out
  - Bad data in □ bad policy out
    - No data in □ ???
  - Bad policy in □ ???
- Is energy data a **useful byproduct** of program admin, or a **primary outcome**?
  - Can we live with data served up one pdf at a time?

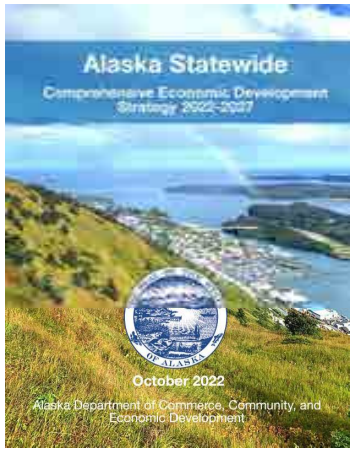


Alaska Comprehensive Economic Development Strategy (CEDS)

University of Alaska Center for Economic Development
for
Alaska Department of Commerce, Community, and Economic Development

What is a CEDS?

- A **strategic plan** for economic development of a locality, region, or state
- Requires a **public process**
- Necessary for some **federal funds**
- Valid for **5 years**, updated annually (2022-2027)
- Must be approved by the **Economic Development Administration** (EDA)

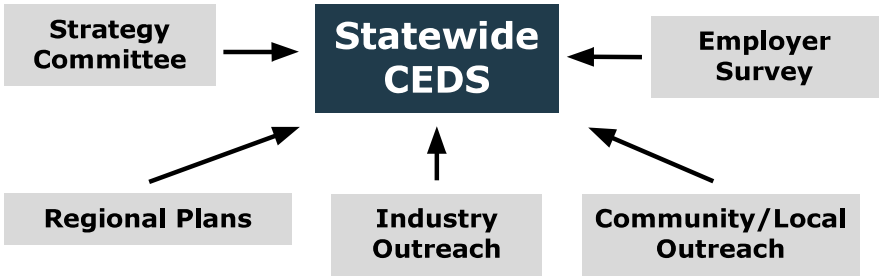


Why have a statewide CEDS?

- Most industries **span multiple regions**
- Many **infrastructure needs are statewide** (i.e. broadband)
- Serve **regions without a CEDS**
- Promote **statewide growth and recovery**
- Attract **strategic federal investments**

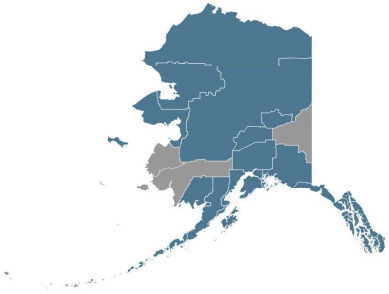


A robust public process



CEDS outreach included

- **Strategy Committee** meetings (50+ members)
- 32 **listening sessions**: all parts of Alaska
- 25 **key informant interviews**
  - Industry associations
  - Government leaders
- **Employer survey**: 200+ responses



Alaska's economic position, condensed

Challenges

- Recession, stagnation, slow recovery
- Declining oil and gas production
- Workforce shortages
- High operating costs
- Regulatory hurdles to development

Opportunities

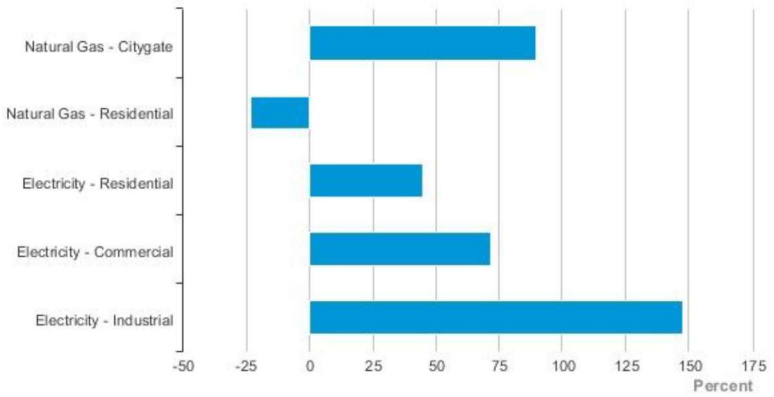
- Resource development opportunities
- Emerging sectors: energy, mariculture, aerospace, marine services, etc
- Geographic position: Arctic and Pacific Rim
- Federal infrastructure investment

Energy's multifaceted role in Alaska's economy

1. We are a major **producer** of energy, via oil and gas
2. High energy **costs** are a significant economic constraint
3. Energy **innovation** is a potential source of economic opportunity
4. Supply of energy is a **resilience challenge**

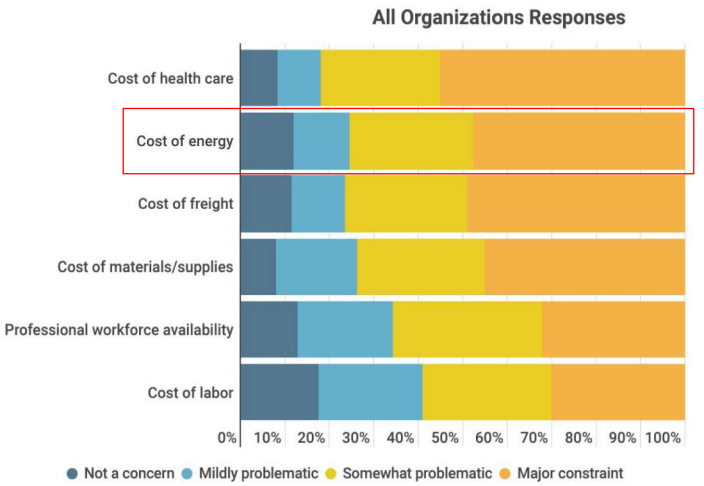


Alaska Price Differences from U.S. Average, Most Recent Monthly



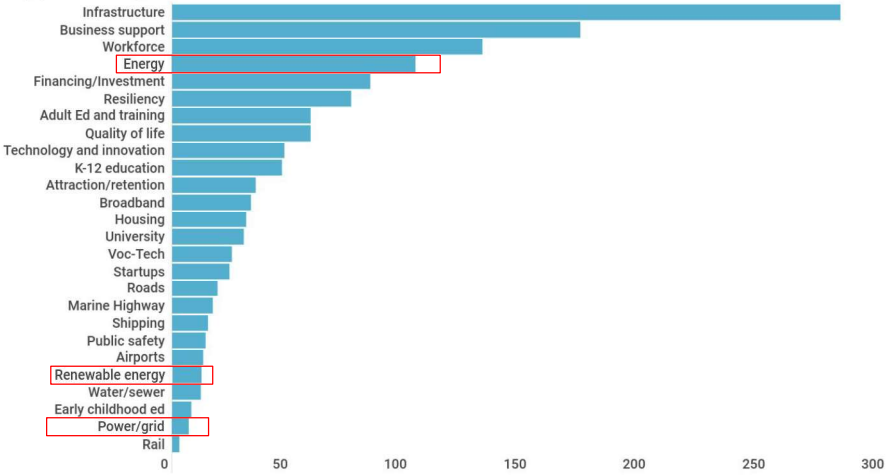
eia Source: Energy Information Administration, Petroleum Marketing Monthly; Natural Gas Monthly; Electric Power Monthly

What Barriers do Respondents See for their Organizations?



All types of organizations found the cost of doing business (healthcare, energy, freight, materials/supplies, and labor) to be a constraint for their organization.

Types of goals mentioned in AK CEDS documents



Most frequently mentioned in listening sessions

- Workforce shortages and gaps
- Housing availability and affordability
- Energy costs
- Availability of child care

Major CEDS Goals

1. Strengthen Alaska's **Economic Engines**
2. Cultivate and Grow **Emerging Sectors**
3. Support Alaska **Businesses** and the **Entrepreneurial** Ecosystem
4. Build and Update **Economic Foundations**
5. Develop Alaska's **Workforce** and Human Capital
6. Build a **Resilient** State Economy



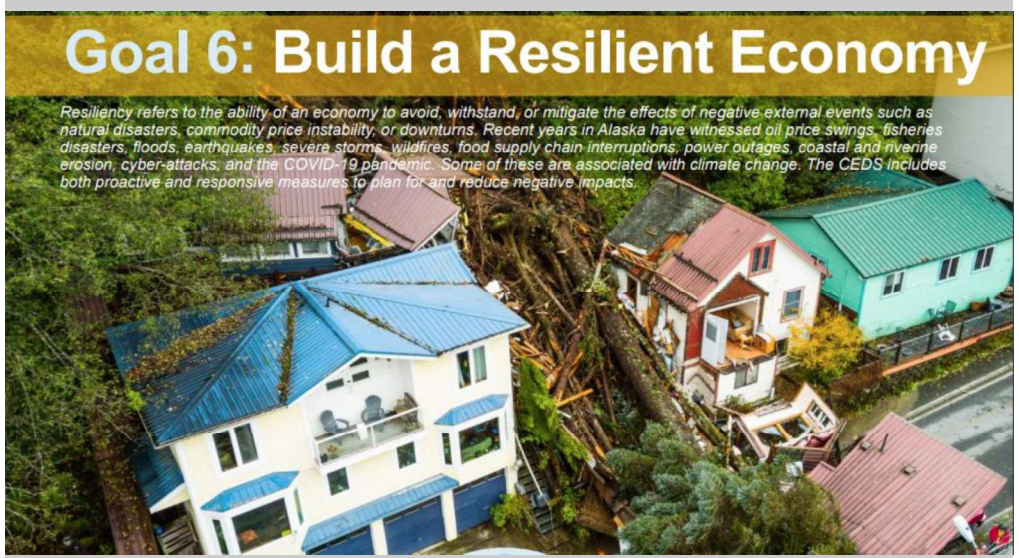







Goal 4: Build & Update Economic Foundations
Valdez
Photo by Jeremy Talbott


Goal 5: Develop Alaska's Workforce & Human Capital


Goal 6: Build a Resilient Economy
Resiliency refers to the ability of an economy to avoid, withstand, or mitigate the effects of negative external events such as natural disasters, commodity price instability, or downturns. Recent years in Alaska have witnessed oil price swings, fisheries disasters, floods, earthquakes, severe storms, wildfires, food supply chain interruptions, power outages, coastal and riverine erosion, cyber-attacks, and the COVID-19 pandemic. Some of these are associated with climate change. The CEDS includes both proactive and responsive measures to plan for and reduce negative impacts.


CED
Center for Economic Development
UAA Business Enterprise Institute
Thank You!
University of Alaska

DEPARTMENT OF COMMERCE, COMMUNITY, AND ECONOMIC DEVELOPMENT

ALASKA STATEWIDE COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS) 2022-2027

ENERGY-SPECIFIC GOALS & OBJECTIVES

Laura Vaught
Project Manager

Energy Security Task Force
Energy Symposium Series
August 17, 2023

Background

- Alaska Statewide CEDS 5-year update was funded by an Economic Development Administration (EDA) Statewide Planning Grant, one-time American Rescue Plan Act (ARPA) funding intended to fund economic development initiatives to help states recover from the pandemic.
- Existing 2017-2022 CEDS was due to expire in September 2022.

Project Team

The State of Alaska was ultimately responsible for the CEDS creation and adoption.

Contracted by the State of Alaska, UACED led research, meeting facilitation, and CEDS development.

Strategy Committee

Approximately 50 community and industry leaders critiqued, vetted, and contributed ideas to steer the CEDS.

Regional EDOs

Regional economic development organizations and partners guided outreach sessions in their regions.

Roles & Responsibilities

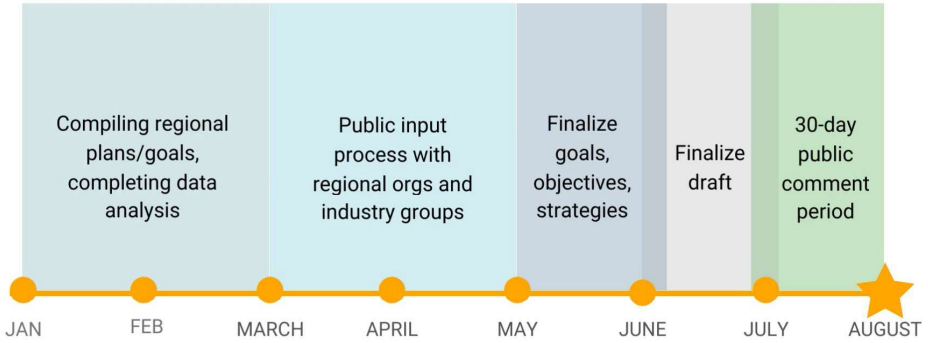
State of Alaska – DCCED and Governor's Office

- Managed grant that funded this effort. Ensured compliance with project scope.
- Composed CEDS Strategy Committee.
- Coordinated with economic development organizations to conduct regional outreach.
- Identified communities and industries critical for inclusion in engagement sessions.
- Reviewed, approved, and published final Statewide CEDS Report.

University of Alaska Center for Economic Development

- Compiled regional CEDS information.
- Researched and updated economic, demographic, and geographic data.
- Facilitated Strategy Committee meetings and regional and industry engagement sessions.
- Processed and refined objectives and action items identified through public engagement.
- Prepared draft Report. Incorporated public comment and graphic design into final Statewide CEDS Report.

Timeline of 2022 CEDS Update Process



CEDS Strategy Committee



Areas of Expertise:

- Aerospace
- Agriculture
- Banking
- Business Development
- Energy
- Housing
- Intellectual Property
- Manufacturing
- Resource Development
- Seafood
- Telecommunications
- Tourism
- Transportation
- Workforce

Regional Outreach

Alaska Regional Development Organizations (ARDORs)

- Anchorage Economic Development Corporation
- Copper Valley Development Association
- Fairbanks North Star Borough Economic Development Commission
- Kawerak, Inc.
- Kenai Peninsula Economic Development District
- Northwest Arctic Borough Economic Development Council
- Prince William Sound Economic Development District
- Southeast Conference
- Southwest Alaska Municipal Conference



CEDS Goals



Goal 1: Strengthen Alaska's Economic Engines



Goal 2: Cultivate and Grow Emerging Sectors



Goal 3: A Strong Business Climate & Entrepreneurial Ecosystem



Goal 4: Build & Update Economic Foundations



Goal 5: Develop Alaska's Workforce & Human Capital



Goal 6: Build a Resilient Economy

CEDS Objectives

Strengthen Economic Engines
- 1.1: Regulatory
- 1.2: Oil & Gas
- 1.3: Stranded Resources
- 1.4: Mining
- 1.5: Alternative Energy
- 1.6: Military
- 1.7: Timber
- 1.8: Air Cargo
- 1.9: Seafood
- 1.10: Tourism

Cultivate and Grow Emerging Sectors
- 2.1: Mariculture
- 2.2: Aerospace
- 2.3: Agriculture
- 2.4: Maritime
- 2.5: Manufacturing
- 2.6: Minerals
- 2.7: Sustainable Energy

A Strong Business Climate & Entrepreneurial Ecosystem
- 3.1: University
- 3.2: Training
- 3.3: Start-Ups
- 3.4: Access to Capital
- 3.5: Technical Expertise
- 3.6: Inclusivity
- 3.7: Regulatory
- 3.8: Entrepreneurs
- 3.9: Promote Alaska

Build and Update Economic Foundations
- 4.1: Broadband
- 4.2: Ferries
- 4.3: Air
- 4.4: Housing
- 4.5: Marine Infrastructure
- 4.6: Affordable Energy
- 4.7: Affordable Health Care
- 4.8: Transportation Infrastructure
- 4.9: Recreation

Develop Alaska's Workforce and Human Capital
- 5.1: Workforce Coordination
- 5.2: Education
- 5.3: Workforce Attraction
- 5.4: Remote Workers
- 5.5: Childcare
- 5.6: WIOA
- 5.7: Infrastructure Bill Preparedness
- 5.8: Planning
- 5.9: Alternative Energy Workforce
- 5.10: Regulatory

Build a Resilient Economy
- 6.1: Resiliency Planning
- 6.2: Resilience Capacity
- 6.3: Resilient Infrastructure
- 6.4: Rural Resilience

Objective 1.2: Develop Alaska's North Slope natural gas and heavy oil for in-state and export markets.

Action Item
Attract private co-investment to build a natural gas pipeline and liquefaction facilities for export to the Lower 48 and abroad.

Potential Lead Entity:
AGDC

Potential Partners:
Governor's Office

Action Item
Where economically feasible, build infrastructure to supply natural gas to Alaska communities to reduce greenhouse gas emissions and energy costs.

Potential Partners:
AGDC
Gas utilities
Local governments

Action Item
Support research, pilot testing, development, and production of North Slope heavy oil using existing infrastructure.

Potential Lead Entity:
Governor's Office

Potential Partners:
Oil and gas producers
University of Alaska
Department of Natural Resources

Objective 1.5: Develop alternative, low emission uses for existing natural resources.

Action Item
Pursue public and private investment to utilize North Slope natural gas to produce hydrogen fuel.

Potential Partners:
Governor's Office
AGDC

Action Item
Continue R&D in the utilization of natural gas to produce hydrogen for world markets.

Potential Lead Entity:
UAF

Potential Partners:
Governor's Office
AGDC

Action Item
Explore alternative uses for coal, such as gasification and hydrogen production.

Potential Partners:
University of Alaska
Mining companies

Action Item
Pursue carbon capture and sequestration to make existing resources cleaner.

Action Item
Develop and implement Hydrogen Roadmap for Alaska.

Potential Lead Entity:
UAF

Potential Partners:
Governor's Office
AGDC
University of Alaska Center for Economic Development
ACEP

Objective 1.7: Revitalize Alaska's forest products industry.

Action Item
Support access to other resources and uses in National Forests, such as hydroelectric development.

Potential Partners:
Southeast Conference
Division of Forestry
National Forest Service
DCCED
Governor's Office

Action Item
Encourage utilization of local timber to meet in-state lumber and biomass needs, including from beetle-killed spruce.

Potential Partners:
Division of Forestry
ARDORs
Economic Development Organizations
DCCED
Governor's Office

Objective 2.7: Develop Alaska as a global center of clean, sustainable energy innovation to attract and grow innovative firms.



Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item
Adopt a clean energy portfolio standard that targets 80% clean energy while simultaneously reducing energy costs for users in the Railbelt by 2040.	Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Execute pilot and demonstration projects for energy technology through entities such as AEA, Launch Alaska, and the National Laboratories.	Deploy clean energy sources such as geothermal, tidal, and microreactors.	Conduct and implement a statewide strategic plan for energy development.	Conduct a study on state level energy incentives programs across the U.S. with a goal of expanding energy incentive programs in Alaska.	Support the establishment of an Alaska Hydrogen Hub and an Alaska Carbon Capture, Utilization and Storage (CCUS) Hub.
Potential Lead Entity: Governor's Office	**Potential Lead Entity:** AEA	**Potential Lead Entity:** AEA	**Potential Lead Entity:** AEA	**Potential Lead Entity:** AEA	**Potential Lead Entity:** AEA	**Potential Lead Entity:** Governor's Office
Potential Partners: REAP	**Potential Partners:** ACEP, Launch Alaska, Alaska Power Association	**Potential Partners:** ACEP, Launch Alaska	**Potential Partners:** ACEP, Launch Alaska	**Potential Partners:** ACEP, Launch Alaska, REAP, Alaska Power Association	**Potential Partners:** State of Alaska, Launch Alaska	**Potential Partners:** AEA, Governor's Office, Congressional delegation

Objective 3.1: Utilize the assets of the University of Alaska System to grow knowledge-economy firms in Alaska.



Action Item

Align university research with the R&D needs of Economic Engines and Emerging Sectors, especially in energy, Arctic technologies, resource development, ocean sciences, health care technologies, biosciences, and aerospace.

Potential Lead Entity:
University of Alaska

Potential Partners:
UAA Business Enterprise Institute
UAF Center ICE
UA intellectual property offices
Alaska Blue Economy Center
UAF ACUASI

Objective 4.6: Reduce the cost of energy for industrial and residential use through any realistic means throughout the state.



Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item	Action Item
Build natural gas infrastructure to increase the supply of natural gas to the Interior, leveraging public and private investment.	Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas.	Use industrial access roads and bulk purchasing power to supply low-cost fuel to rural communities located near natural resource development sites.	Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value.	Utilize federal infrastructure funds to retrofit commercial and industrial buildings for greater efficiency.	Build new, and upgrade existing hydroelectric facilities to provide low cost, low emissions power.	Fully implement Commercial Property Assessed Clean Energy (CPACE) financing to help commercial building owners increase energy efficiency and reduce costs at the local government level.	Establish a green bank to finance energy efficiency projects in partnership with the private sector.	Increase the reimbursement for Power Cost Equalization (PCE) from 500 kWh to 750 kWh.	Upgrade Railbelt transmission lines to increase transmission capacity, per announced $200 million capital plan.
Potential Lead Entity: AGDC	**Potential Lead Entity:** AEA	**Potential Lead Entity:** AIDEA	**Potential Lead Entity:** AEA					**Potential Lead Entity:** AEA	**Potential Lead Entity:** AEA
Potential Partners: FNSB, Interior Gas Utility, AIDEA	**Potential Partners:** Electric utilities, Local governments, Tribal governments, ACEP	**Potential Partners:** Local governments, Tribal governments, Alaska Native Corporations	**Potential Partners:** Local governments, Tribal governments, Electric utilities	**Potential Partners:** AEA, AHFC, DCCED	**Potential Partners:** AEA, Electric utilities, Local governments, Tribal governments	**Potential Partners:** AEA, Local governments, Commercial lenders	**Potential Partners:** AEA, AIDEA, Commercial lenders, Local governments, REAP	**Potential Partners:** Governor's Office, State Legislature	**Potential Partners:** Electric utilities

Objective 5.9: Prepare the Alaska workforce for job opportunities in low and no emissions energy technologies, such as electric vehicles, renewable energy systems, and other



Action Item

Obtain federal grants under the IIJA to train mechanics and maintenance workers on electric and hydrogen vehicles.

Potential Partners:
University of Alaska
Training providers
Unions
Employers
K-12 system
Industry associations

Objective 6.2: Leverage Economic Engines and Emerging Sectors to promote the resiliency to supply chain disruptions, natural disasters, and external shocks.

Action Item
Develop in-state timber resources for construction lumber and biomass energy.

Potential Partners:
Division of Forestry
Southeast Conference
Southeast Sustainable Partnership
Private sawmills

Action Item
Utilize natural gas resources for power and heating needs.

Potential Partners:
AIDEA
Electric utilities
Gas utilities

Action Item
Incorporate decarbonization, climate change, and the energy transition into economic development efforts.

Potential Partners:
ARDORs
Economic Development Organizations
DCCED
Governor's Office
Tribal governments
Local governments

Objective 6.3: Build new, and upgrade existing, infrastructure capable of withstanding resiliency shocks such as natural disasters.

Action Item
Ensure power reliability for certain forms of infrastructure, such as ports and airports, which require an uninterrupted supply.

Potential Partners:
Local governments
Electric utilities
AEA

Action Item
Invest in redundancy for transmission lines and broadband fiber when feasible to continue service during interruption.

Potential Partners:
Alaska Broadband Office
AEA
Electric utilities
Telecommunications companies

Action Item
Upgrade rural energy infrastructure such as power houses and bulk fuel farms.

Potential Lead Entity:
AEA

Potential Partners:
Denali Commission
Rural electric utilities

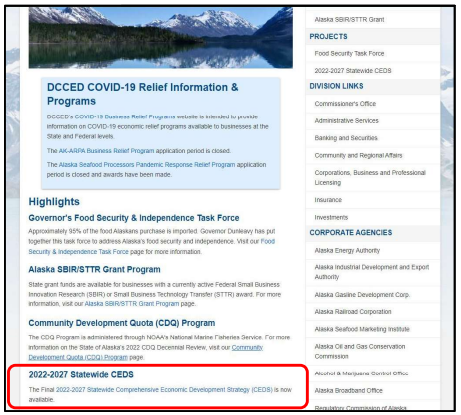
Action Item
Deploy clean energy systems to reduce dependence on diesel fuel, including renewable and micronuclear sources.

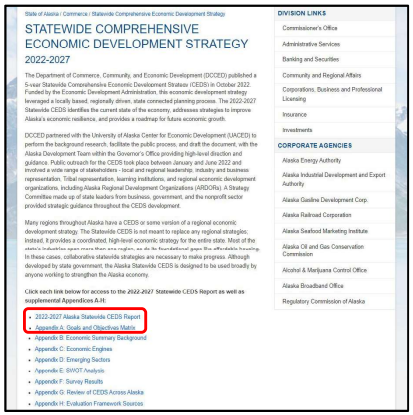
Potential Lead Entity:
AEA

Potential Partners:
U.S. Department of Energy
Electric utilities

Find the Statewide CEDS Online

DCCED homepage – www.commerce.alaska.gov





Thank You

Laura Vaught
Project Manager
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(907) 269-7387

TRANSMISSION AND SHORTAGE: BUILDING A MORE RESILIENT GRID

Thursday, August 24, 2023, 11:00 AM – 1:00 PM

- *Energy Storage Options and Selection Considerations*
- *Beneficial and Equitable Electrification*
- *Tidal Power in Alaska*

Exceptional service in the national interest

Energy Storage Options & Selection Considerations

Sandia National Laboratories

AESTF Energy Symposium

Presenter: Luke McLaughlin, Ph.D.

Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia LLC, a wholly owned subsidiary of Honeywell International Inc. for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

OUTLINE

Energy Storage
- Importance
- Promising Technologies
- Modeling
- Influence of Key System Parameters

Summary



Energy Storage

Importance
Promising Technologies
Modeling

Energy Storage

Energy Storage (LDES) needed to achieve full decarbonization

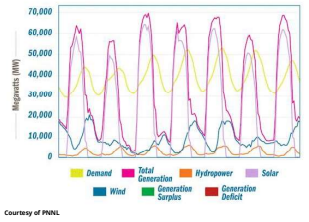
"...energy storage is not a luxury, but a necessity..." – Jeremy Twitchell of PPNL

Long Duration Energy Storage (LDES)
- 8+ hrs (approximate duration)
- Dispatchable at maximum deficit

85-140 TWh LDES needed by 2040 to enable global net zero goals
- LDES Council Report: A path towards full grid decarbonization with 24/7 clean Power Purchase Agreements

Cost Reduction of LDES systems necessary

Importance



Courtesy of PNNL





Courtesy of DOE

Energy Storage

Commercially Available Technologies

- Lithium-ion (Li-ion) Iron Phosphate (LFP)
- Lithium-ion Nickel Manganese Cobalt (NMC)
- Lead Acid
- Vanadium Redox Flow (VRF)
- Zinc-based
- Compressed Air Energy Storage (CAES)
- Pumped Storage Hydropower (PSH)
- Thermal Energy Storage (TES)
- Gravity Energy Storage
- Hydrogen

Technology solutions are scenario specific

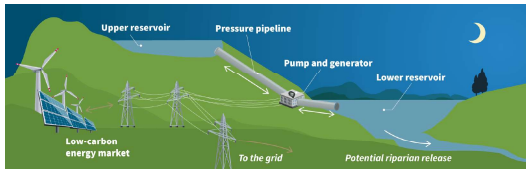
Promising Technologies



https://electrek.co



https://www.renewablethermal.org



https://www.advisian.com

Energy Storage

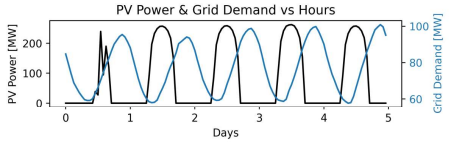
8760 Modeling

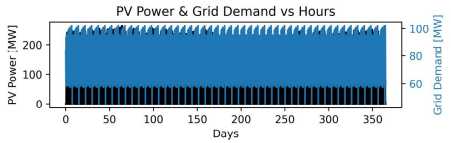
- Models energy storage system (ESS) using hourly data over a year
- Utilizes hourly grid demand and energy availability data
- Assesses system performance in dynamic environment

SNL 8760 Modeling

- Compare ESS within the same setting
- Assesses Impacts of:
  - Power purchase agreement
  - Energy available for charging
  - System efficiency

Modeling





Fixed Parameter	Value	Units
Peak grid demand/discharge	100	MW
Operational life	30	Years
Loan percentage	50	%
Interest rate	8	%
Base Electricity Price	0.05	$/kWh

Energy Storage

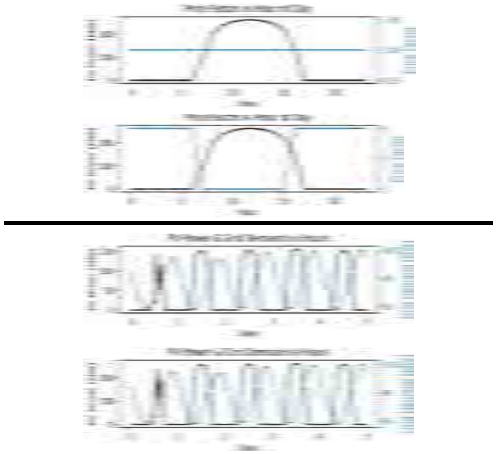
Model assesses standalone ESS

Excess PV energy for charging

Varied Model Parameters

- **Electricity Pricing**
  - Flat
  - Hypothetical "100% RE" Scenario
- **Power available for charging**
  - 100 MW max charge
  - 200 MW max charge
- **System Efficiency**
  - TES system RTE
  - 35-60 %

Modeling



Energy Storage

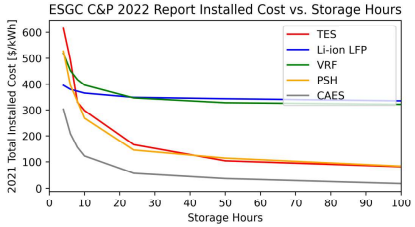
Systems Analyzed

- Li-ion LFP
- Vanadium Redox Flow (VRF)
- Pumped Storage Hydropower (PSH)
- Compressed Air Energy Storage – Caverns (CAES)
- Thermal Energy Storage (TES)

ESGC Cost & Performance 2022 Report used as basis for analysis

- Installed Cost
- RTE
- Lifespan
- O&M Cost

Modeling



ESS	Life Time [years]	RTE [%]	O&M [$/kW-yr]
PSH	59.9	79.9	28.19
Vanadium Redox Flow	11.9	65.5	12.08
Li-ion LFP	16.0	82.5	9.87
CAES	59.9	51.9	16.11
Thermal	33.9	51.7	32.31

Energy Storage

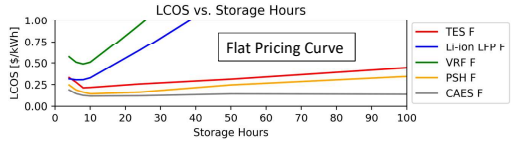
$$LCOS = \frac{\sum_1^n (CAPEX + O\&M + I - Net\ Profit)}{\sum_1^n E_{out}}$$

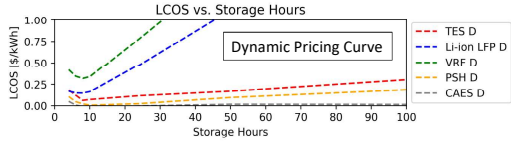
200 MW Charge General Trends

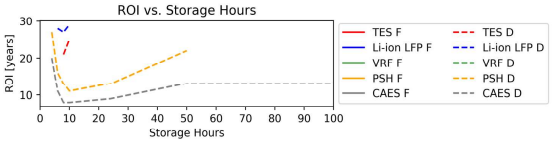
- CAES & PSH lowest LCOS
- TES lowest LCOS 8+ hours without geographical constraint
- Li-ion LFP lowest LCOS 4 hours without geographical constraint

Influence of Electricity Pricing

- Buying "low" and selling "high" reduces system cost via increased Net Profit of electricity sold
- Enables return on investment (ROI)







Energy Storage

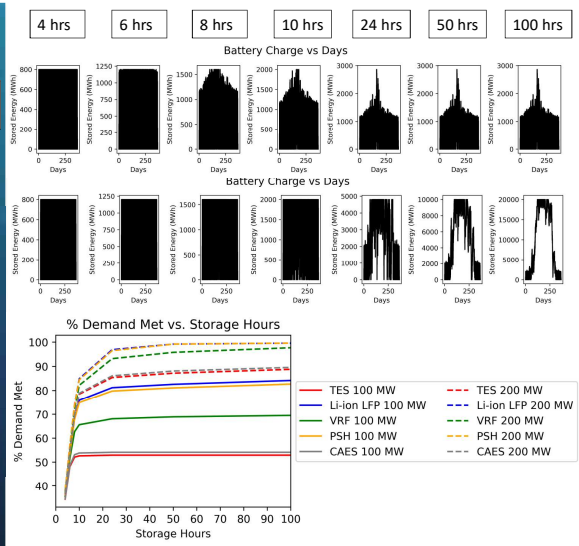
Influence of Available Charging Energy

- Increased storage duration requires sufficient power to charge
- Increased charging power increases % demand met by system

$$\%_{demand} = \frac{E_{out,ESS}}{E_{grid\ demand}}$$

100 MW Charge

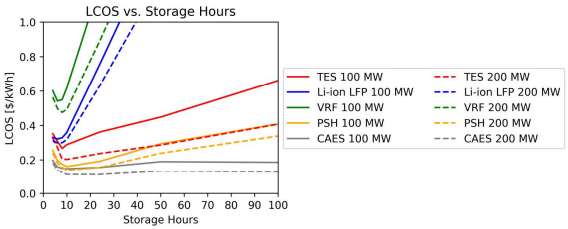
200 MW Charge

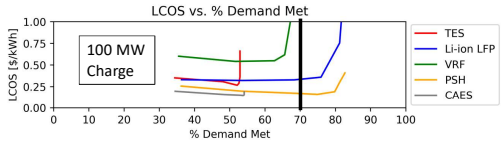


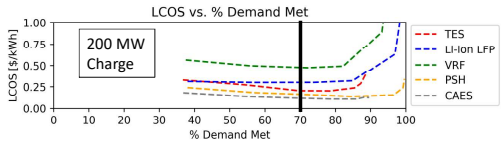
Energy Storage

Influence of Available Charging Energy

- Increased battery utilization decreases system cost
- Lowest cost solution may not meet % met demand requirement



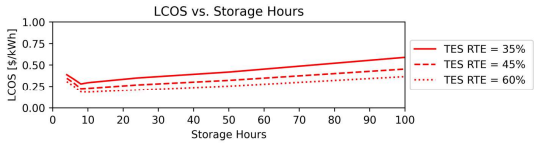


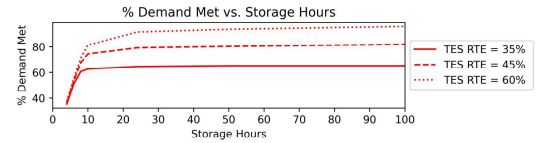


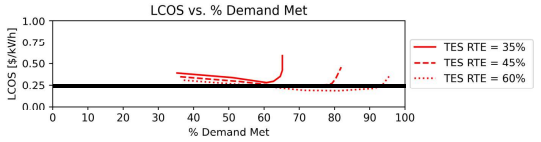
Energy Storage

Influence of Round Trip Efficiency

- Increased ESS RTE reduces LCOS
- Increased ESS RTE increases % demand met for specific scenario
- Higher % demand met for same LCOS







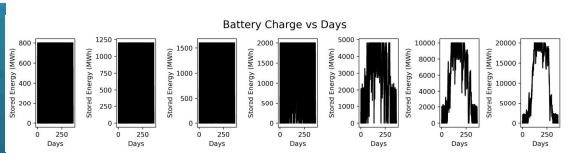
Summary

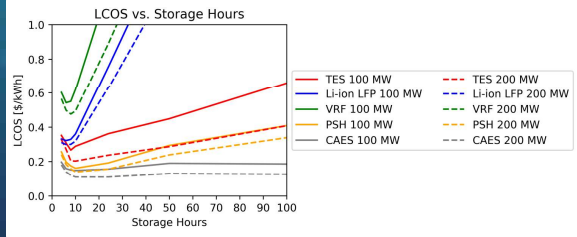
Summary

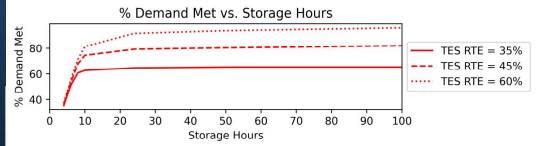
ESS selection is scenario specific

Key ESS selection considerations:

- Power purchase agreement
- Grid demand
- Available energy for charging
- System RTE
- % demand met requirement
- LCOS requirement/ROI requirement







Questions?

BENEFICIAL AND EQUITABLE ELECTRIFICATION



ACEP
acep.uaf.edu

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The ARCTIC program is an initiative supported by the Office of Naval Research (ONR) Award # N00014-18-S-B001.

UAF ALASKA



Harnessing local, sustainable, and cost-effective energy resources to electrify energy loads such as transportation and heating.

Behavioral and Socio-Economic Adoption Factors

Microgrids and Cold Regions

Outreach and Engagement

Costs and Performance

ACEP

acep.uaf.edu

projects and reports at:
https://acep.uaf.edu/projects-(collection)/bee.aspx

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The ARCTIC program is an initiative supported by the Office of Naval Research (ONR) Award # N00014-18-5-B001.

UAF

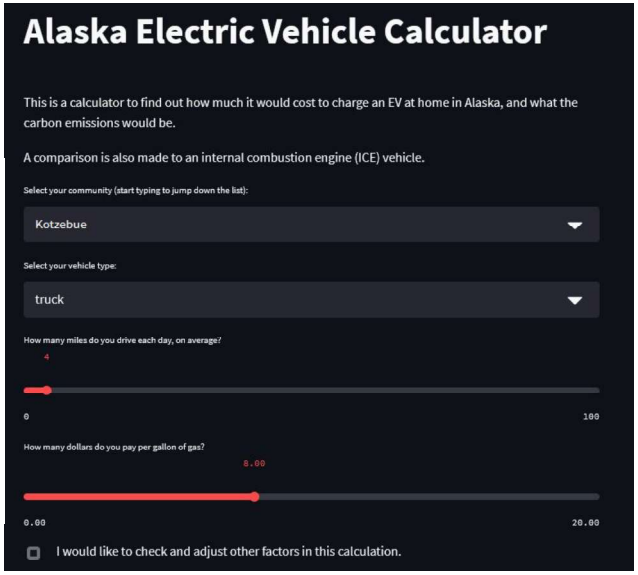
Tinyurl.com/AKEVCalc

User Input

- Community
- Vehicle type
- Daily mileage
- Price of gas

Advanced:

- Utility info (rate/emissions)
- Vehicle efficiency
- Home solar
- Block heater use and idling for gas vehicle
- Garage/temperature
- Weekend mileage



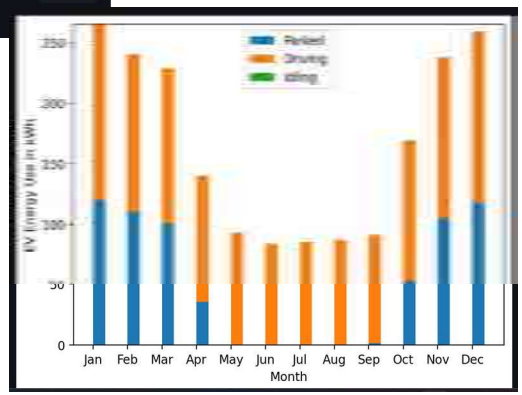
Output

Total cost of Electric Vehicle fuel per year = $ 397.0

Total cost of Internal Combustion Engine (gas) fuel per year = $ 646.0

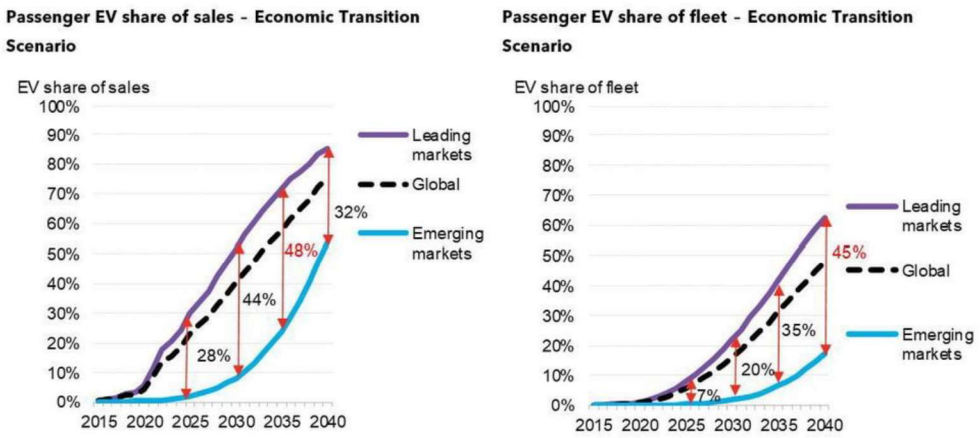
Total kg CO2 emissions of Electric Vehicle per year = 683.0

Total kg CO2 emissions of Internal Combustion Engine per year = 1428.0



- Cost comparison
- Climate emissions comparison
- Monthly electricity use for EV

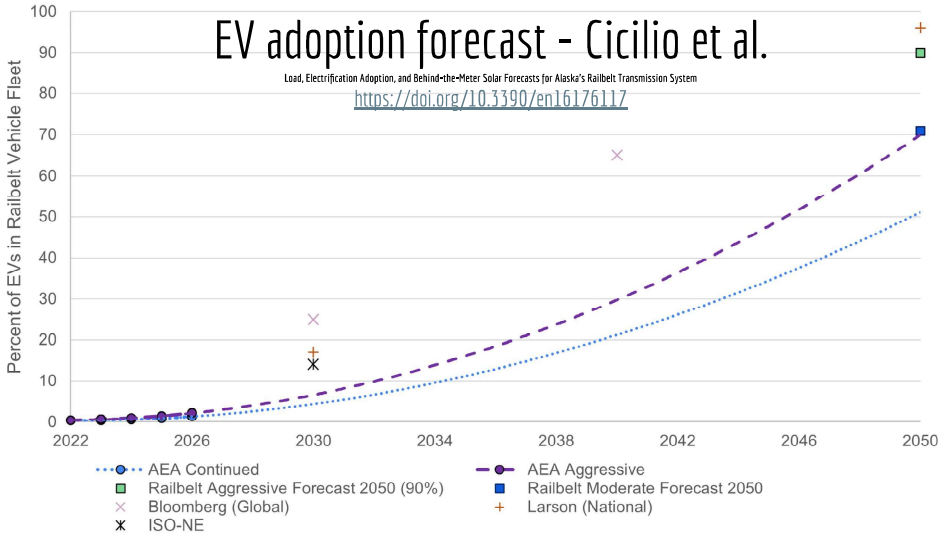




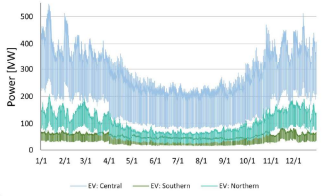
Source: BNEF. Note: EV includes battery electric, plug-in hybrid and fuel cell vehicles.

EV adoption forecast - Cicilio et al.

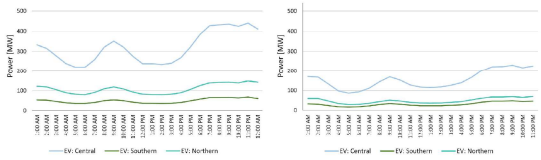
Load, Electrification Adoption, and Behind-the-Meter Solar Forecasts for Alaska's Railbelt Transmission System
https://doi.org/10.3390/en16176117



2050 EV load forecast - Cicilio et al.



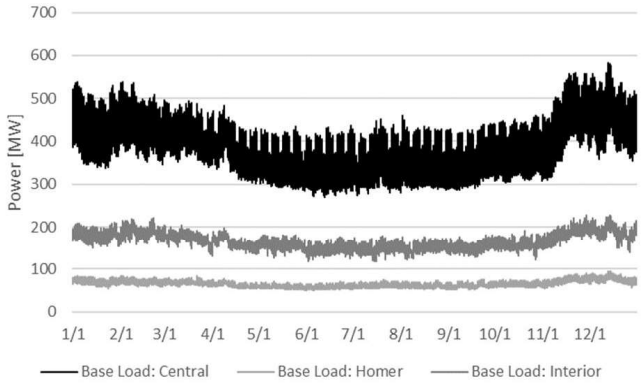
(a) Year 2050.



(b) 1 January 2050.

(c) 1 June 2050.

2050 Baseline Load Forecast - Cicilio et al.

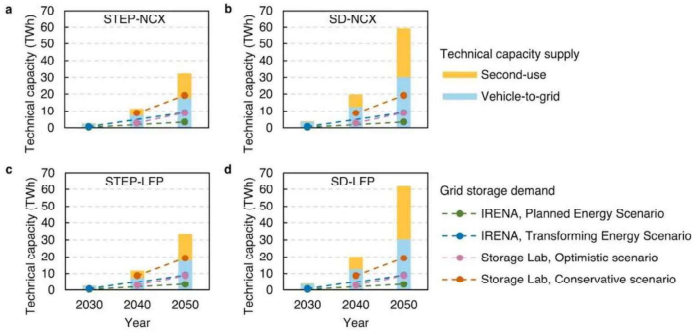


EVs could satisfy global short-term grid storage by 2030

Xu et al – Nature Communications 1/17/23

Fig. 2: Total technical capacity for EV batteries and comparison to grid storage demand.

From: Electric vehicle batteries alone could satisfy short-term grid storage demand by as early as 2030



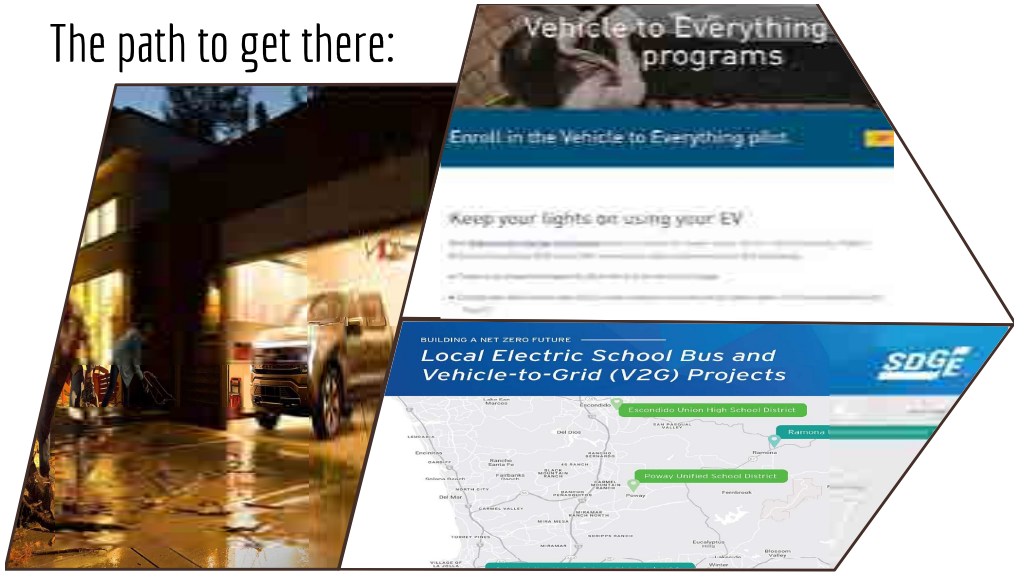
a STEP-NCX scenario. **b** SD-NCX scenario. **c** STEP-LFP scenario. **d** SD-LFP scenario (see details in Supplementary Table 1). IRENA = International Renewable Energy Agency.



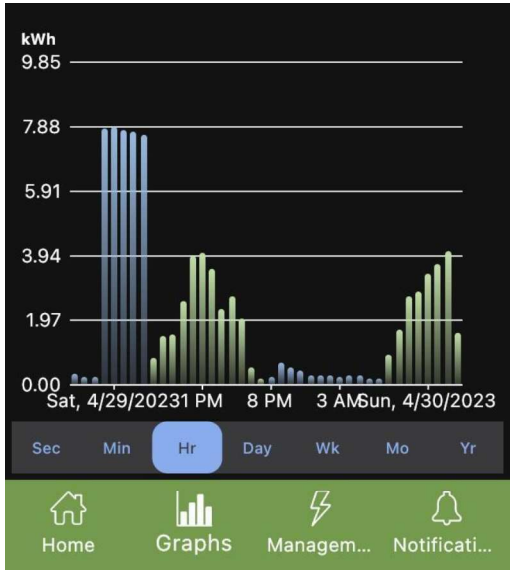
CEC EV Use Case Grid BESS vs. EVs

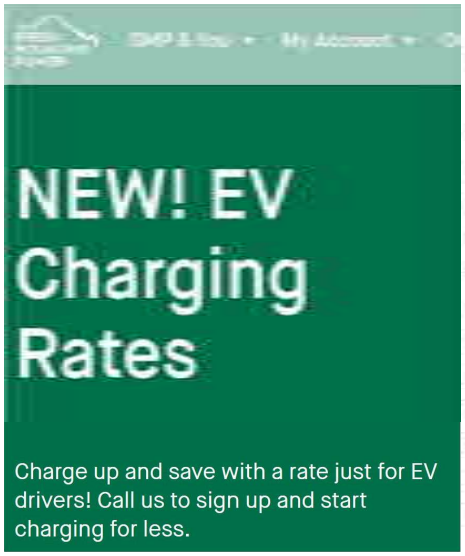
- CEC BESS COST: $2,000,000
- 1MW, 1 MWh Storage
- Equivalent 52 '20 Nissan Leaf Cost
- 52 Nissan Leafs = 3.2 MWh Storage
- Can Balance CEC Grid with 16 Leafs
- Can Balance localized microgrids
- Substantial Customer Benefits:
  - Free Car
  - Free Electricity
  - Energy Security
  - Reduces other's electric bills
  - Portability (take your microgrid anywhere)

The path to get there:



even managed charging could produce a lot of the benefits of storage...





Rate 72

GMP partners with you and manages the charging for you during peaks. We alert you to energy peaks (about 5-7 per month, they last a few hours and usually start around 5pm or 6pm). By not charging during peaks, you will save money. You can opt out, and still charge during a peak, and you will pay more. Off peak charging is $0.14274/kWh, which on average is like paying $1.03 per gallon. If you charge during a peak, it is $0.73388/kWh.

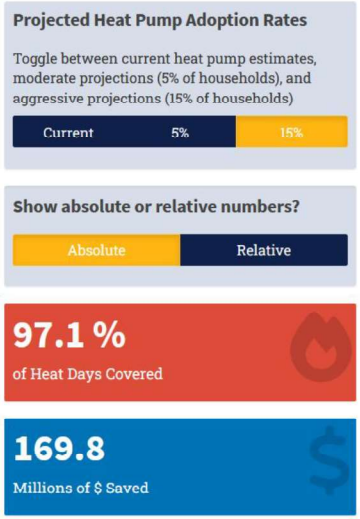
Twitter: The US Census musing on the load-balancing benefits of timed EV charging - in 1912.

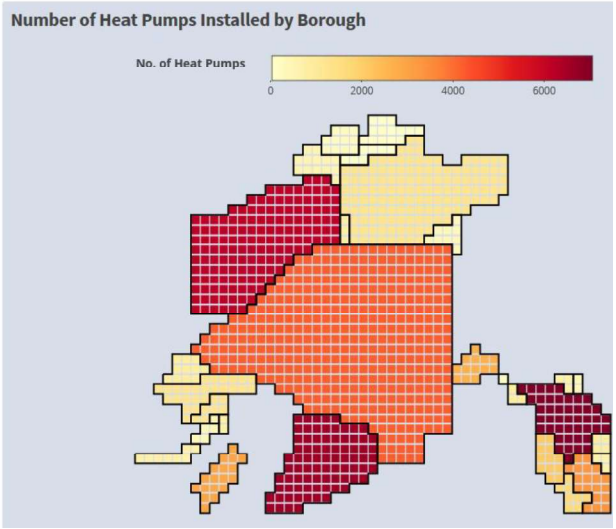
station circuits. It is only natural, therefore, that throughout the country an effort has been made to develop this new class of business and build up the vehicle "load." The opportunity thus offered is enormous. At the meeting of the Illinois Electrical Association in 1912 it was stated by Mr. George Jones that if half the horses in use in Chicago were replaced by electric vehicles, the central station load created would amount to 94,000,000 kilowatt hours per annum As such vehicles are usually charged late at night, when the ordinary demand for current is small, no additional investment in central station apparatus would be necessary, and this "off peak" business would improve the general load factor about 13 per cent.



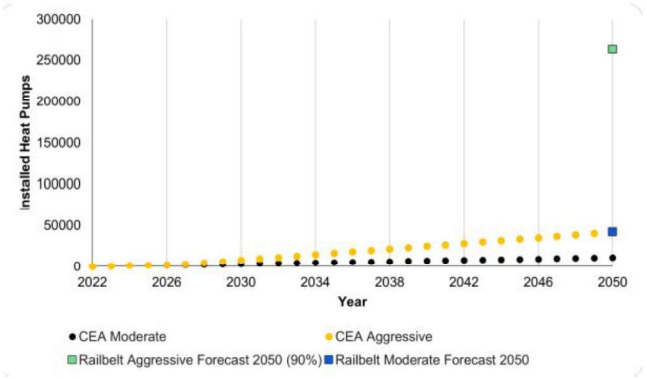
National Museum of American History



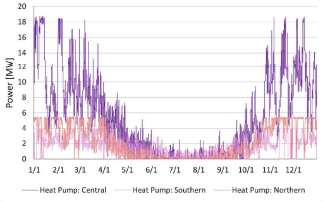




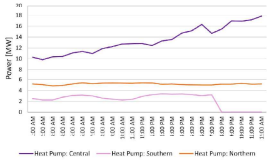
Heat pump adoption forecast - Cicilio et al.



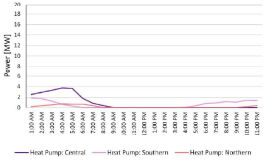
2050 Heat pump load forecast - Cicilio et al.



(a) Year 2050.

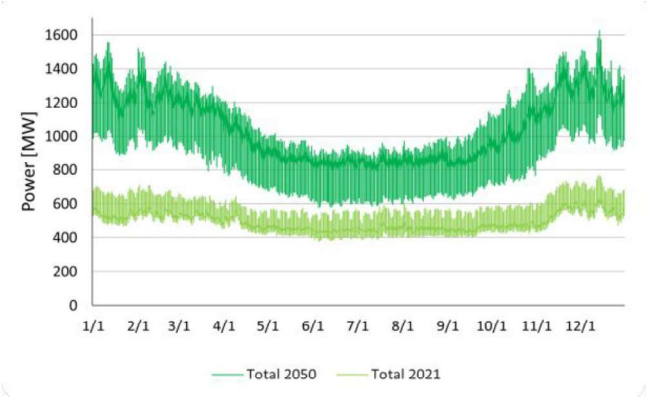


(b) 1 January 2050.

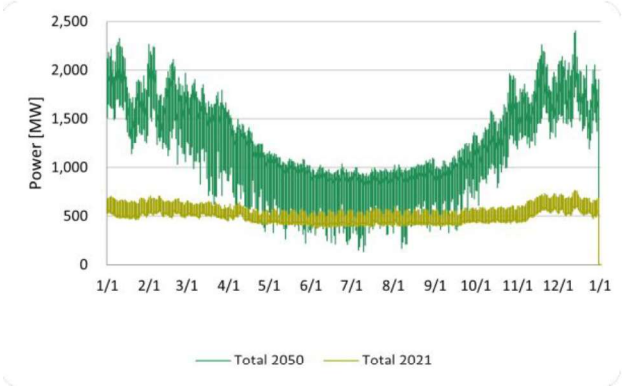


(c) 1 June 2050.

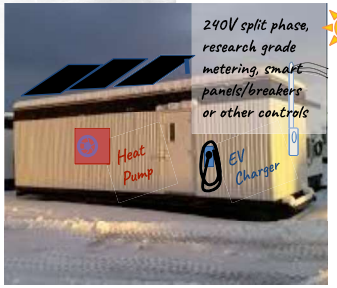
2050 load forecast (moderate) - Cicilio et al.

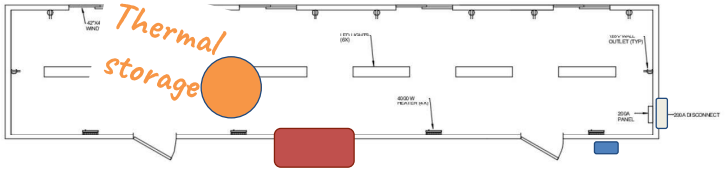


2050 load forecast (High adoption) - Cicilio et al.



Beneficial and Equitable Electrification Home InnoVation Experiment (BEEHIVE)





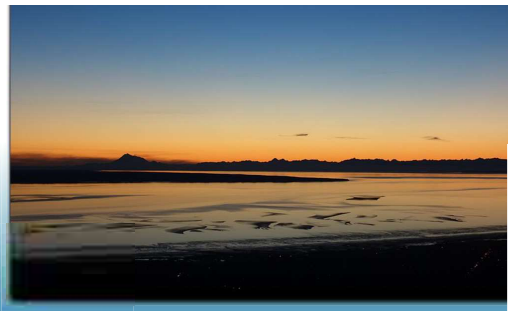
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Questions?



Michelle Wilber
mmwilber@alaska.edu

ACEP acep.uaf.edu
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- Alaska Marine Energy Overview
- Cook Inlet Tidal Focus
- Tidal technology overview
- NREL and PNNL Work
- ACEP/UAF Work (PMEC)
- Cook Inlet Tidal Energy Working Group
- Activities/opportunities

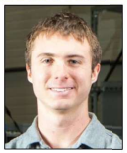
Tidal Space – DOE Research Efforts Intro

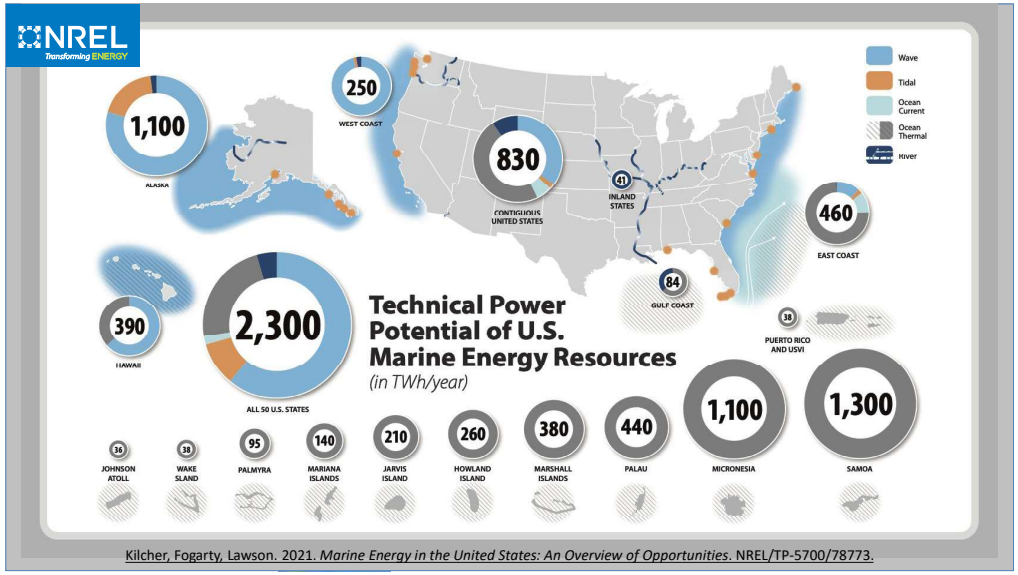
U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY | WATER POWER TECHNOLOGIES OFFICE

PMEC Pacific Marine Energy Center | OSU Oregon State University | UAF University of Alaska Fairbanks | ACEP Alaska Center for Energy and Power | NREL Transforming ENERGY | Pacific Northwest National Laboratory

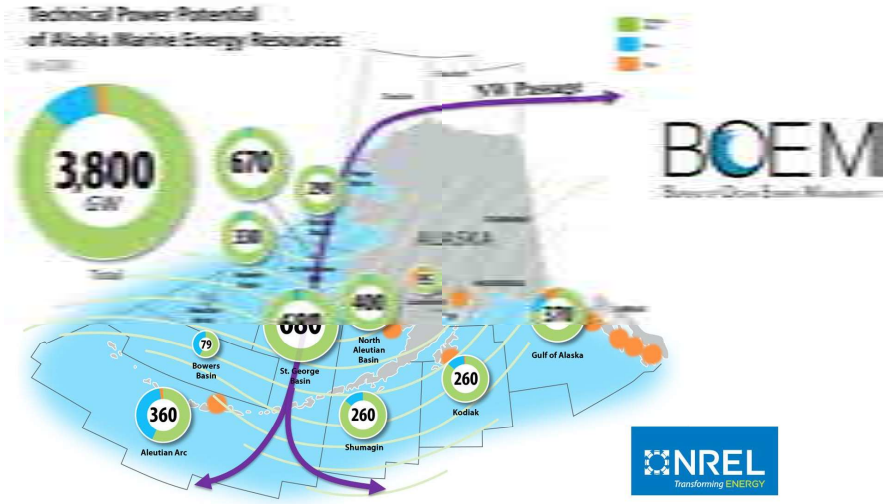

Levi Kilcher


Zhaoqing Yang

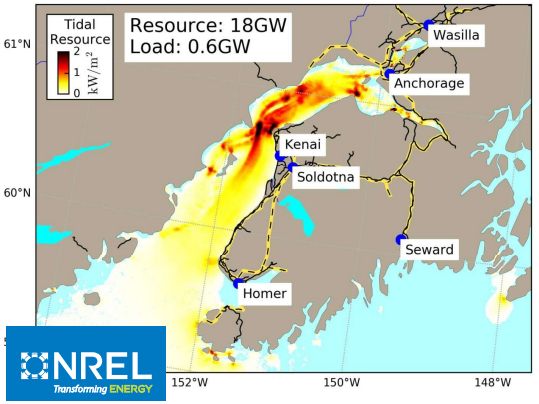

Ben Loeffler



Kilcher, Fogarty, Lawson. 2021. *Marine Energy in the United States: An Overview of Opportunities*. NREL/TP-5700/78773.



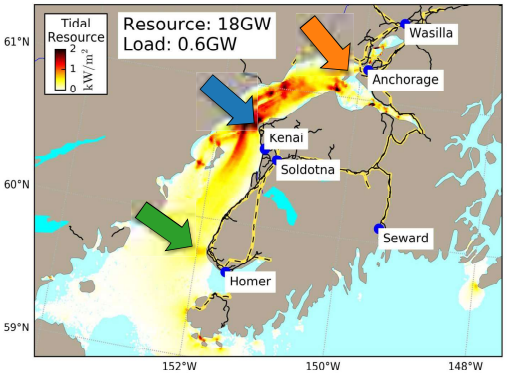
Cook Inlet Tidal Energy

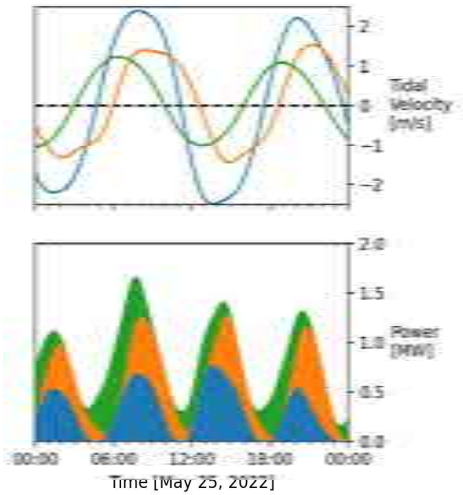


- 18 GW Resource: ~30x Railbelt load
- Infrastructure – platforms, shoreside
- 'Blue Economy' expected to double to $3T by 2030
- What will Alaska's role be?


Photo by Bureau of Safety and Environmental Enforcement

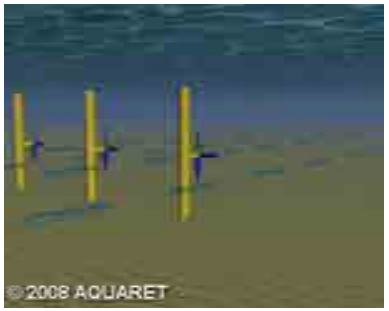
Tidal Energy is Predictable

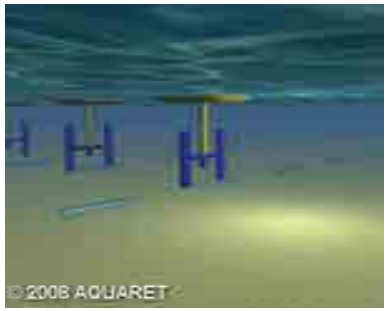




NREL | 7

Current Energy Converter Types (Tidal or Riverine)

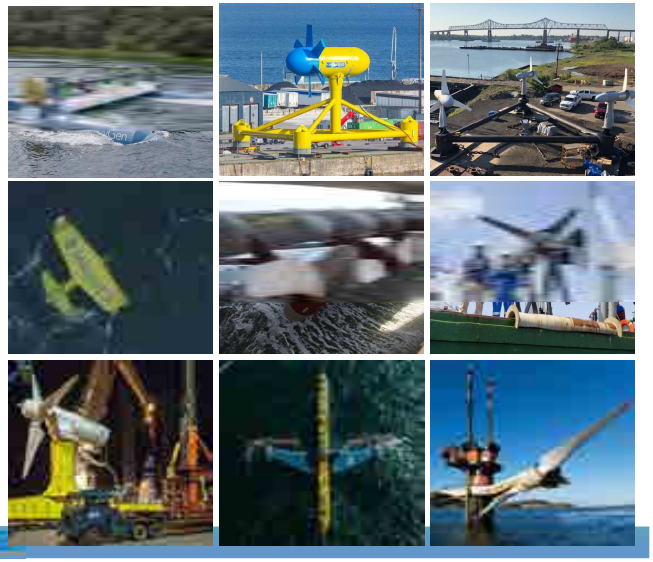




PMEC | UAF University of Alaska Fairbanks | 8

Tidal Energy Technology

- Utility MW-scale technology convergence on axial flow
- MW-scale demonstration projects in EU: e.g. Meygen - Scotland, 8 MW in 2017
- Many kW-scale demonstration projects in the US and around the world
- **Commercial pilot projects needed to prove viability of technologies**



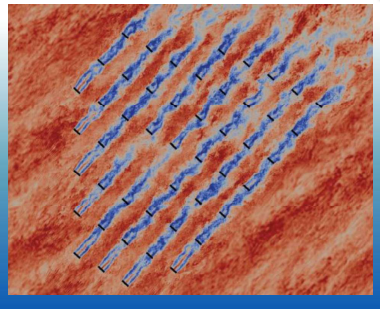


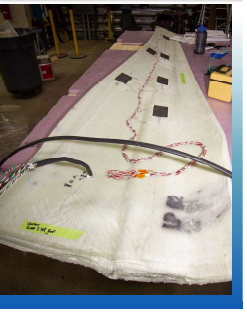


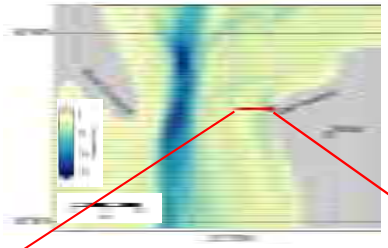
National Labs and Universities

Partners in Research, Development, and Testing















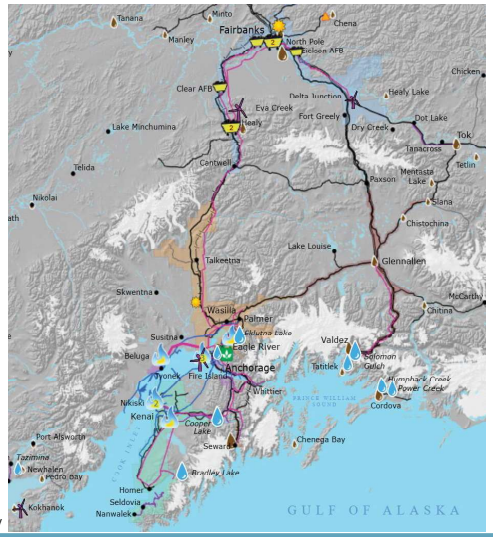


ENERGY
Energy Efficiency & Renewable Energy

NREL
Transforming ENERGY

Alaska "Railbelt"

- Homer to Fairbanks
- 70% of AK population
- ~600MW average load
  - ***42% natural gas***
  - 28% hydro
  - 27% coal & petroleum
  - 3% renewables
- Space heating
  - Fuel Oil
  - Wood
  - Natural Gas
  - ASHP (coastal)

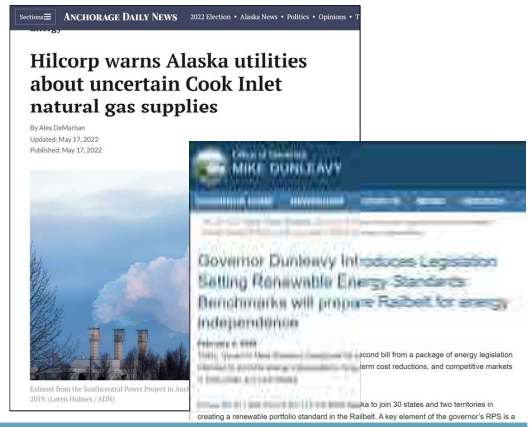


https://alaskarenewableenergy.org/initiatives/renewable-energy-atlas/

Cook Inlet Tidal Energy - Context

Motivations

- Declining gas reserves
- Immense and predictable tidal resource
  - Tech reaching MW scale
  - FERC permits being issued
- RPS scenarios
  - "it's time for Alaskans to consider where we want to be 20 years from now"
- Global interest in Hydrogen, carbon-free fuels


ANCHORAGE DAILY NEWS

Hilcorp warns Alaska utilities about uncertain Cook Inlet natural gas supplies

By Alex DeMarban
Updated: May 17, 2022
Published: May 17, 2022

MIKE DUNLEAVY

Governor Dunleavy Introduces Legislation Setting Renewable Energy Standards

Benchmarks will prepare Railbelt for energy independence

Cook Inlet Tidal Energy - Context

- Alternatives
  - North Slope Gas Pipeline
  - LNG import terminal
  - Traditional Hydroelectric
  - Advanced Nuclear
- Factors
  - Economics
  - Integration and Storage
  - Environmental Impact


MILITARY NEWS

FAIRBANKS Daily News-Miner

SEEK NATURAL GAS PIPELINE HERE

Mistake Made In Identifying Dead Youth!

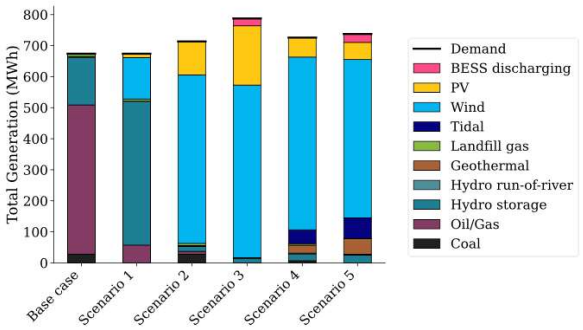
Arctic Resource Could Slash Living Costs, Bring Industry

Renewable Portfolio Standard Assessment for Alaska's Railbelt

Multiple pathways to achieving an 80% RPS

Balancing supply and demand under major outage conditions with appropriate system engineering

UAF working with OSU on Grid Integration Modeling



https://www.nrel.gov/docs/fy22osti/81698.pdf

Tidal Energy Progression

1. Tidal R&D, platform power
2. Tidal to electric utilities (RPS)
3. Tidal to synthetic fuels (export market)
   1. "Hydrogen Hub"
   2. Ammonia, Methanol, etc to export markets and rural Alaska
   3. AK heating and transportation
4. Tidal, synthetic fuels and carbon sequestration
   1. Natural gas export, CO2 import
   2. Synthetic fuel decarb and sequester



Cook Inlet Tidal - Roadmap Development

Topic Area	Date	Presenters	Participants
Working Group Intro	December 5	Levi Kilcher, NREL	30
Data Needs & Gaps	January 23	Katie Petersen, NREL	31
Permitting & Regulatory	February 13	Julianna Potter, Aleut Jonathan Colby, Streamwise	45
Global Tidal Energy Projects	March 27	Jonathan Colby, Streamwise	29
Tidal Array Modeling	April 12	Zhaoqing Yang, PNNL	18
Project Costs & Economics	May 18	Elena Baca, NREL	28

Participants include tidal tech developers, tidal project developers, electric utilities, user groups, state and federal regulatory agencies, university researchers, national lab researchers

Data Needs & Gaps - Feedback

WORKING GROUP HIGHLIGHT

Multiple development phases require different kinds of data and level of resolution. Key data needs now are for pre-demonstration phase

Resource data:
-Still need to validate data
-Have most of the resource data for pre-demo phase

Site data:
-Data gaps are bathy/sediment/ice/seafloor
-Private data on bathy, seafloor comp may exist

Environmental data:
-Salmon & belugas – major concerns; check with recreational & subsistence fishers too
-Review FERC dockets for enviro assessments

Socioeconomic data:
-Social license data thru lit review
-Funding for sustained stakeholder engagement?

Workforce development & engagement:
-NREL workforce dev program, engage with SeaGrant fellows
-Classroom outreach w/ STEM educators

Device design & performance:
-Would it be possible to have a generic testing facility? Single site presents some challenges wrt timing & suitability to different types of tech.

Economics:
-Cost of integration should be included.
-2nd Phase Renewable Portfolio Standard for the Railbelt is underway.

WORKING GROUP HIGHLIGHT

Key Regulatory Agencies

FEDERAL

Lead Agency dependent on scope and location

FERC
- Federal Power Act
- Energy Policy Act

USACE
- Rivers and Harbors Act Section 10
- Clean Water Act Section 404

BOEM
- OCS Lands Act
- Energy Policy Act

EPA
- Clean Water Act
- APDES/NPDES

FAA
- Determination of No Hazard to Air Navigation

NMFS
- Endangered Species Act
- Marine Mammal Protection Act
- Magnuson-Stevens Act

USCBP
- Jones Act (Merchant Marine Act of 1920)

USCG
- Notice to Mariners
- Movement Regulations
- Private Aids to Navigation

USFWS
- ESA
- MMPA
- Fish and Wildlife Coordination Act
- Migratory Bird Treaty Act

STATE

ADNR, DMLW/DOG
- Land Use Authorization
- Right of Way/Easement
- Tidelands Lease

ADEC, DOW
- Clean Water Act
- Section 401 Cert.
- APDES/NPDES
- *Domestic wastewater / Drinking water*

ADNR, SHPO
- National Historic Preservation Act Section 106

ADFG
- Title 16, Fish Habitat
- Public Safety
- Title 5, Special Area Permit

LOCAL

Native Corp.
- Land Use Authorization
- Letter of Non-Objection

KPB/KRC
- Multi-Agency Permit
- Floodplain Permit
- Vegetation Management

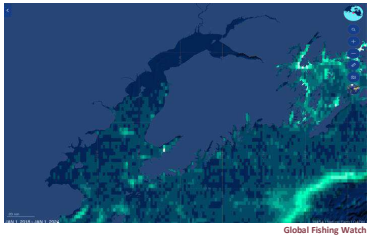
- Pre-Application Meetings are critical
- Engage with agencies early and often

Group Discussion:

1) What other Agencies should be included?
   → PLEASE PROVIDE THESE IN THE CHAT.
2) What strategies have been successful in your experience?

WORKING GROUP HIGHLIGHT

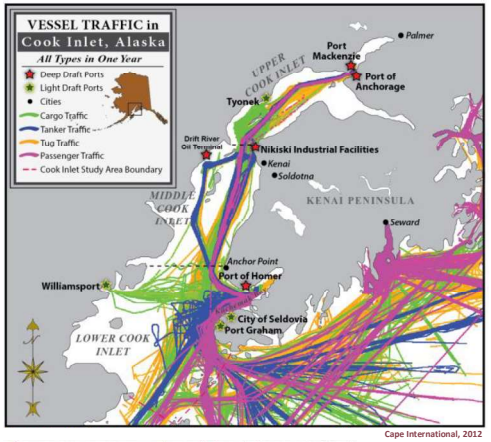
Considerations



Global Fishing Watch



Boats on Cook Inlet, 1898 – Alaska Digital Archives



Cape International, 2012

WORKING GROUP HIGHLIGHT

Marine Mammals

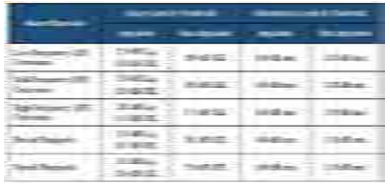
Marine Mammal Protection Act (MMPA)

- 13 species in middle Cook Inlet

Endangered Species Act (ESA)

- 5 species in Cook Inlet
- Cook Inlet DPS Beluga Whales are the most endangered population in the U.S.
- Population estimates of Beluga Whales in Cook Inlet have declined since the 1970s





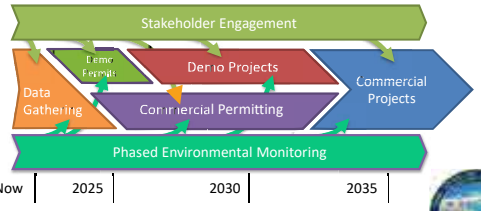
NOAA Technical Guidance, 2018



NOAA Fisheries Website

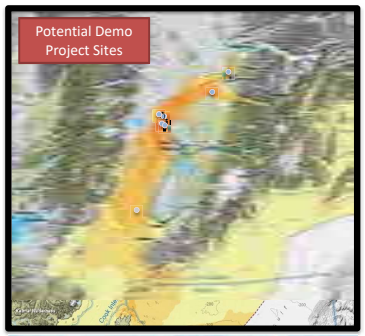
Cook Inlet Tidal Energy Roadmap

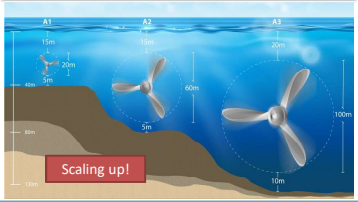
100MW by 2035



Demonstration projects are critical to proving technology, reducing cost, environmental monitoring, scaling up, and technology down-select.

Research & development is critical to meeting these objectives and making informed decisions.





Policy & Permitting Recommendations

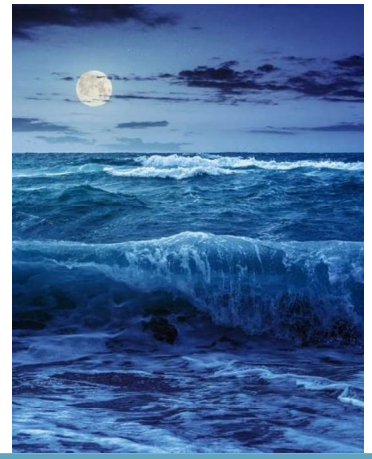
- Identify and Fill Regulatory Data Gaps
- Support Adaptive Management Approaches
- R&D Investment
  - Direct technology development
  - Skilled workforce development

$35M for Tidal and Current Energy Systems

DOE's WPTO - $35M funding from the Bipartisan Infrastructure Law

FOA Objectives and Goals

- Goal – 1-5MW pre-commercial tidal demonstration site
  - Build upon state clean energy strategies with local partners.
  - Attract competitive tidal and current energy developers for technology site integration.
  - Improve tidal and current energy research and development.
  - Build site infrastructure and supply chains with increased participation at the state level, including local agency, tribal, and university research involvement.
  - Establish a working business model covering site development to commercial scale.
- Multiple proposals included Cook Inlet
- Award decisions expected this November



Summary

- Resource is immense and predictable (storage requirements reduced)
- Alaska waters are challenging
- Technology is pre-commercial
- Environmental impacts not fully understood
- Variety of potential offtakes (electricity, hydrogen, ammonia, etc)

Alaska MHK History



Debris accumulation on surface turbine. Ruby, AK 2013



ORPC RivGen, prior to submersion. Igiugig, AK 2020

Tanana River Test Site



Data Collection

- Simrad EK60 Split Beam Sonar
- Reson 7125 Multibeam Sonar
- Trimble GPS
- ADCP and ADV – 3D velocity
- Campbell Scientific Dataloggers
  - CR1000
  - CR6
- DC voltage and current transducers
- Load Cells



Hydrokinetic Experience





Hydrokinetic Experience





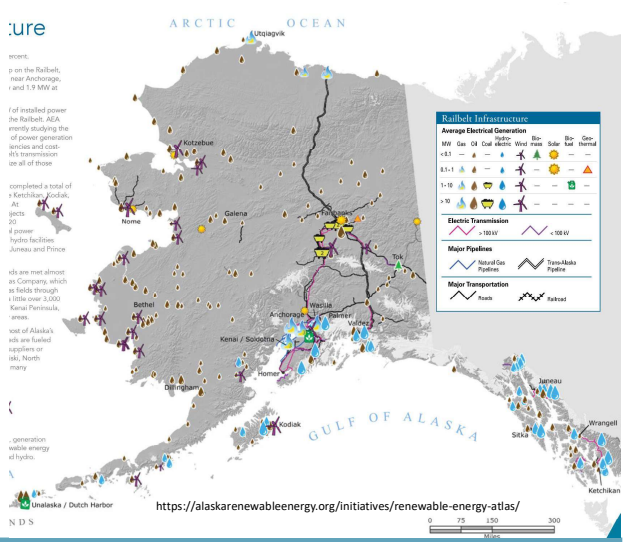
Alaska Energy Leadership

- State Level
  - Office of Energy Innovation
  - Alaska Energy Security Task Force
  - Alaska Energy Independence Fund (proposed)
  - Alaska Sustainable Energy Conference
- Federal Level
  - DOE Arctic Energy Office
  - National Lab Research Programs focused on Arctic
  - DOE Water Power Technologies Office
    - R&D in Alaska
    - National Marine Energy Centers

Alaska Energy Infrastructure

- 730,000 residents
- Railbelt Grid
- Remote Microgrids





EMERGING TECHNOLOGIES AND OPPORTUNITIES FOR ALASKA: SMALL SCALE NUCLEAR

Thursday, August 31, 2023, 11:00 AM – 1:00 PM

- *Copper Valley Electric Association*
- *Nuclear Energy: State of Micro Reactors*
- *Small Nuclear Power: An Option for Alaska?*

ULTRA SAFE NUCLEAR

Copper Valley ELECTRIC
A Touchstone Energy® Cooperative

Travis Million
CEO

RELIABLE ZERO-CARBON ENERGY ANYWHERE

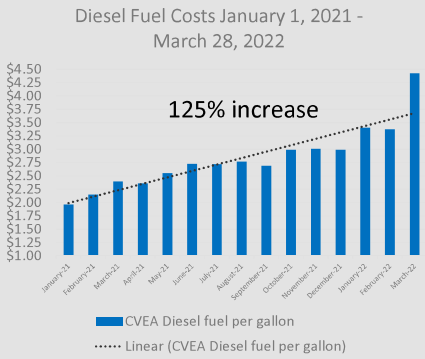
September 23

Agenda

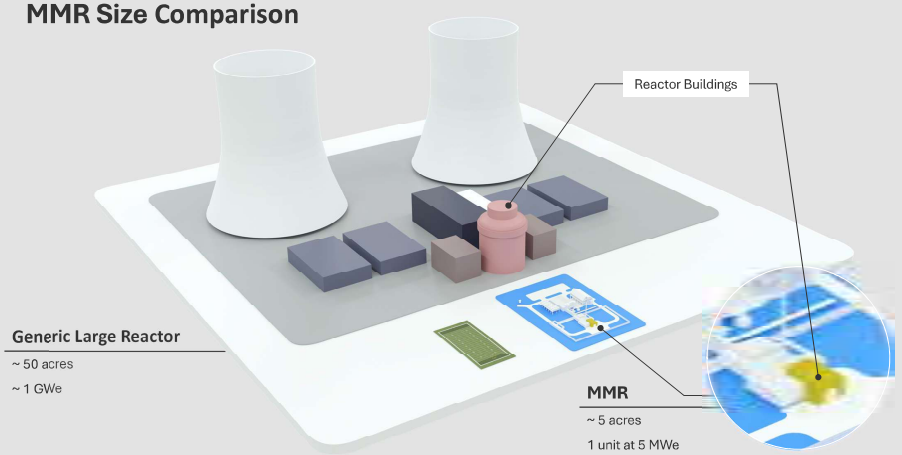
- Overview
- Feasibility Study Results
- Next Steps

Why Nuclear for Copper Valley

- Board Strategic Plan
  - Develop a plan to reduce use of diesel fuel
- Increasing, fluctuating winter energy costs
- Reduction in emissions from fossil fuel power plants
- Lack of solutions for winter energy
  - Wind, Solar, Geothermal, Biomass, Hydro, Intertie, etc.



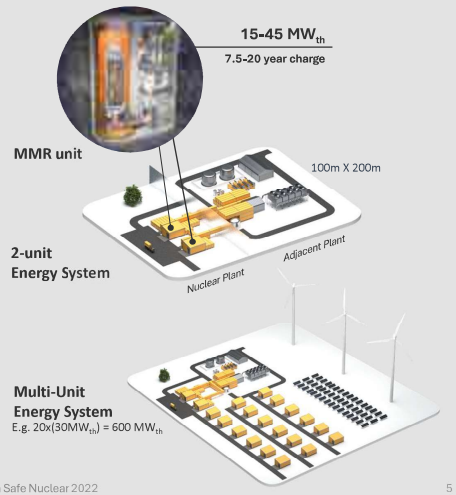
MMR Size Comparison



© USNC 2022

Micro Modular Reactor MMR™ Energy Systems Overview

- **Scalable and Flexible**
  - Standardized factory-produced units – commercial off-the-shelf parts (COTS)
  - Mass-production drives steep cost reductions
  - Projects scalable with multiple units
  - Flexible configurations to serve any customer
  - Energy cost visibility
- **Easy to Assemble**
  - 85% of construction costs in factory
  - Units are tested in approved factory before delivery
  - Modules are transported and assembled on site
  - Walk away AND walk back safe
- **Easy to decommission**
  - No environmental contamination
  - No fuel storage on site
  - Site is returned to green field after operations
  - Waste forever contained in FCM
- **Competitive Advantage**
  - Proprietary patented MMR and FCM technology
  - Vertical integration with strong regulatory barriers



© Ultra Safe Nuclear 2022

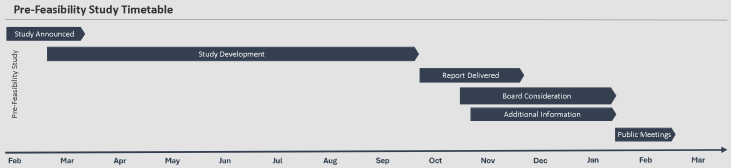
Pre-Feasibility Study Scope & Purpose

Questions the pre-feasibility study is intended to answer

- Is there anything that would prevent siting an MMR here?
- What are the preferred sites and their characteristics?
- What are the cost parameters and decision points?
- What are the benefits, concerns, and issues for the community?
- What operating specifics might apply in locating an MMR here?

CVEA, Ultra Safe Nuclear, contracted a local engineering firm for the study that knows the area utilities, power grid, customers and community factors well.

Pre-Feasibility Study Process Overview



Milestones

- Collaboration on Pre-Feasibility Study announced February 2, 2022
- Contracted with Alaska engineering firm (EPS) familiar with generation and power grid
- Study delivered to CVEA October 2022
- Internal economic analysis performed December 2022
- Board review and consideration October 2022 & January 2023

Stakeholder Engagement



Beyond Public Acceptance

- Participatory approach and space
- Diverse perspectives and values
- Opportunity for creative solutions



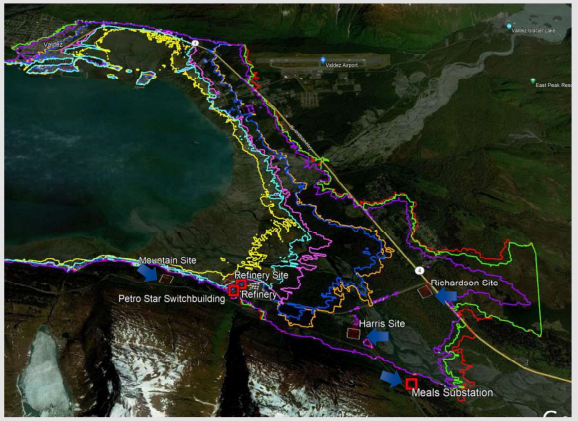
Stakeholder Engagement



- Outreach conducted primarily in Copper Valley basin and Valdez with local elected officials, Native Alaskan Communities, NGO's, industry and any interested public
- Preliminary conversations didn't show any significant opposition to siting an MMR in the CVEA service territory and generally very supportive
- Concerns expressed were primarily on issues of safety, environmental impacts and waste disposal
- Strong desire expressed by all to remain engaged in these conversations as the feasibility study progresses to a decision

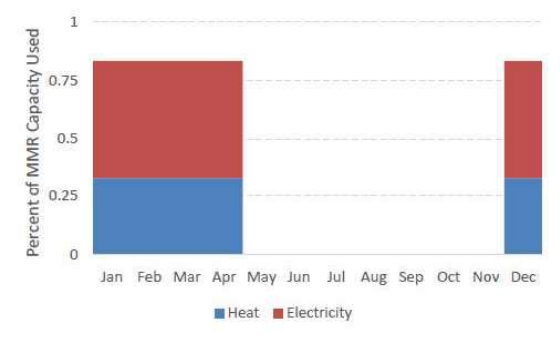
Locations

- Valdez
  - Richardson
  - Harris
  - Mountain
  - Meals
- Glennallen
  - Near existing transmission substation



FINANCIALS

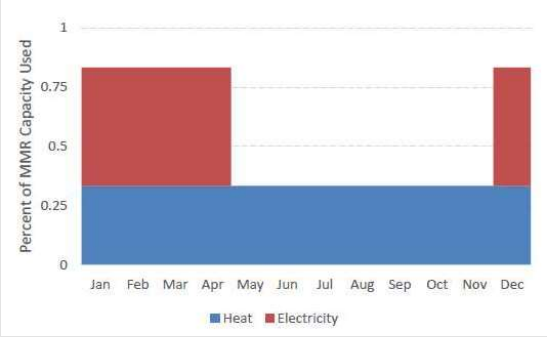
Electric only doesn't work economically



Current

FINANCIALS

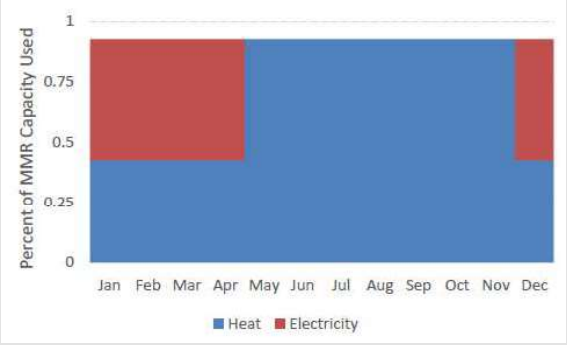
Using MMR to replace Cogen as it is currently operating is difficult economically



Year-round current rate

FINANCIALS

Year-round heat sales used in economic analysis



Maximized

Conclusions

- Suitable site locations
- Easily integrated into current system
- Public acceptance appears positive and will continue to engage broadly
- Potentially economically viable
  - High risk for CVEA members to own
  - Evaluated PPA with USNC

Conclusions

- With proper education many are supportive
- MMR could work in many Alaskan communities
- Could be economical
  - High-capacity factor
  - Heat off taker
  - Economy of scale

QUESTIONS



Nuclear Energy: State of Micro Reactors

Alaska Energy Security Task Force

August 31, 2023

Marc Nichol
Executive Director, New Nuclear

NUCLEAR ENERGY INSTITUTE



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Micro Reactor Technology

Designed to replace Diesel Generators



Oklo Aurora
1.5 MWe



Ultra Safe Nuclear Corporation
5 MWe



Westinghouse eVinci
5 MWe



BWXT BANR
17 MWe

- Very small size
  - Site as small as 0.1 acres, building ~size of a house
  - Reactor is road shippable, minimal site work
- Resilience – withstand, mitigate or quickly recover from
  - Extreme natural events
  - Man-made physical and cyber threats
- Operations
  - Automatic operations, island mode and black-start
  - Flexible – hybrid energy and renewables integration

Other Designs (not all inclusive)

- General Atomics
- HolosGen
- Hydromine
- NuGen
- NuScale
- Radiant
- X-energy

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System Benefits of Advanced Reactors

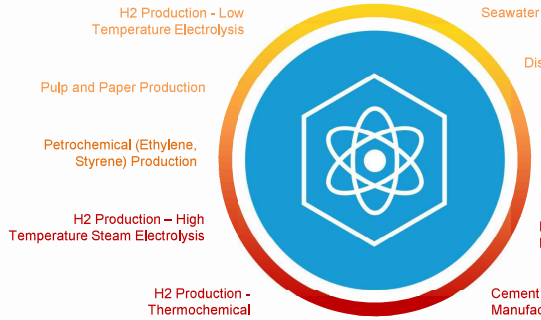
Long term price stability	• Low fuel and operating costs
Reliable dispatchable generation	• 24/7, 365 days per year, years between refueling (Capacity factors >92%)
Integration with renewables and storage	• Paired with heat storage and able to quickly change power
Efficient use of transmission	• Land utilization <0.1 acre/TWh (Wind =1,125 acre/TWh; Solar 144 acre/TWh)
Environmentally friendly	• Zero-carbon emissions, one of lowest total carbon footprints • Many SMRs are being designed with ability for dry air cooling
Black-start and operate independent from the grid	• Resilience for mission critical activities • Protect against natural phenomena, cyber threats and EMP

Source: SMR Start, *SMRs in Integrated Resource Planning*

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Gateway to Heat Markets

Process Heat Temperature Needs



Source: Nuclear Cogeneration, civil nuclear energy in a low-carbon future, The Royal Society, October 2020

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Market Opportunities



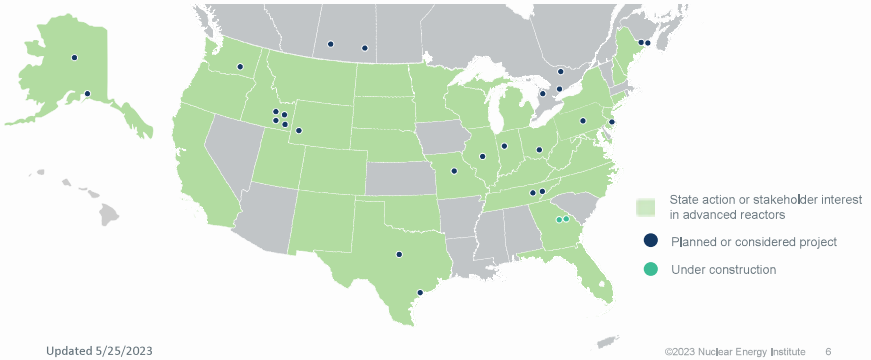







Advanced Nuclear Deployment Plans

Projects in planning or under consideration in U.S. and Canada >20; Globally >30



Updated 5/25/2023

Advanced Reactor Deployment Plans

Micro-reactors and low scale test reactors

Updated 5/25/2023

Developer	Utility / User	Location	Size	Target Online
Oklo	Oklo	Idaho, USA	15 MWe	2026
	Oklo	Ohio, USA	2 @ 15 MWe	2028
	Compass Mining	TBD	TBD (150 MWe total)	TBD
Ultra Safe Nuclear	Global First / OPG	CRL, Canada	5 MWe	2025
	University of Illinois	Illinois, USA	5 MWe	2027
	Copper Valley (CVEA)	Alaska, USA	5 MWe	TBD
Westinghouse	Sask Research Council	West Canada	5 MWe	2027
	Bruce Power	ON, Canada	5 MWe	2027
	Penn State University	USA	5 MWe	2027
Radiant	TBA	Idaho, USA	1.2 MWe	2026
TBD	Eielson AFB	Alaska, USA	1 – 10 MWe	2027
BWXT	DoD SCO	Idaho, USA	1.5 MWe	2024
Kairos Power	Kairos	TN, USA	35 MWth	2026
Natura	Abilene Christian University	TX, USA	1 MWth	2025
TBD	Univ. of Missouri	MO, USA	TBD	TBD

Advanced Reactor Licensing Progress

Approved	Under Review	Pre-Application
1.NuScale Power	1.Abiline Christian University	1.GEH BWR X-300
	2.Kairos Power	2.General Atomics
	3.NuScale (power uprate)	3.Holtec SMR-160
		4.Kairos Power
		5.Oklo
		6.TerraPower Natrium
		7.TerraPower MCFR
		8.Terrestrial
		9.Univ. of Illinois U-C
		10.X-energy
		11.Westinghouse

Micro-Reactor

Resource Planning

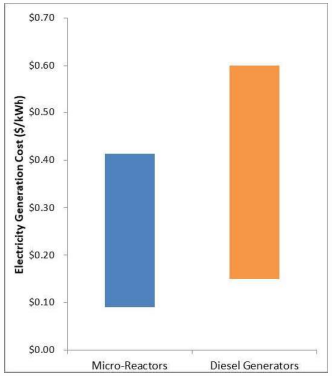
Benefits	Considerations	Planning Options
• Fuel diversity • Carbon-free • Flexible/dispatchable • Resilience/reliability • Renewables integration • Repower retired fossil sites	• Schedule • Cost • Risks • Environmental • Economic benefits	• Monitoring • Planning • Evaluating sites • Licensing • Project initiation

http://smrstart.org/wp-content/uploads/2020/02/SMR-Start-Public-SMRs-in-IRPs-APPROVED-2020-02-28.pdf

Cost Comparison

Full cost of micro-reactor vs only diesel fuel cost

- Diesel generator costs
  - Primarily fuel costs
  - Fuel from $2.86/gallon to $4.89/gallon
- Micro-reactor costs
  - Include used fuel disposal and decommissioning
  - 10 year fuel life
  - 40 year plant life
  - 95% capacity factor



NEI: *Cost Competitiveness of Micro-Reactors for Remote Markets*, April 2019

Figure 6: Micro-Reactor Cost Competitiveness

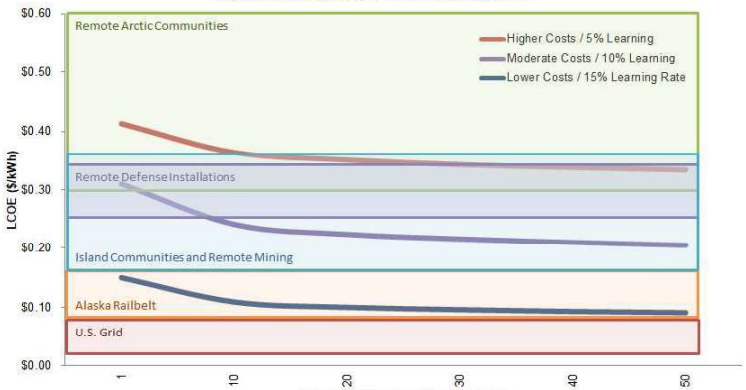
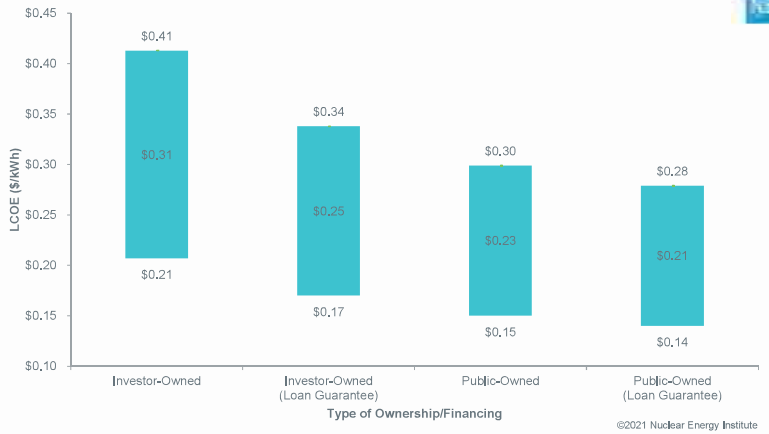
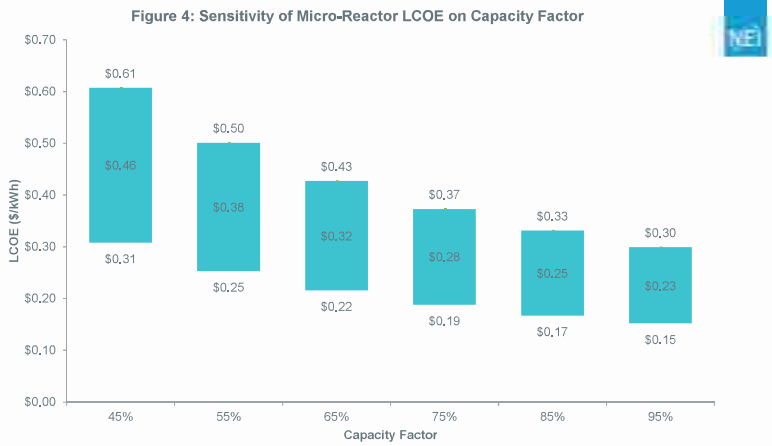


Figure 1: Estimated Levelized Cost of Electricity Generation for the First Micro-Reactor





Financing Micro-Reactors

Capital Costs of 5 MWe plant = $50M to $100M*

- Conventional business model
  - Local utility finances capital costs
  - Financing typically by debt at low rates, amortized
- New business models
  - Developer owns and operates plant, uses a Power Purchase Agreement
  - Local utility does not finance capital costs, only pays for power
- Similarities and differences
  - In both: customers only pay as levelized cost of capital
  - New business model: developer bears bulk of financial risk of project

*Derived from NEI *Cost Competitiveness of Micro-Reactors for Remote Markets*, April 2019
https://nei.org/resources/reports-briefs/cost-competitiveness-micro-reactors-remote-markets

Micro-Reactor Workforce

Target <10 employees to power rural areas

Technology enablers	NRC considering for micro-reactors
Safety and simplicity in design	Minimal worker training and qualifications
Automatic operations	Operators allowed additional duties (e.g., maintenance, administrative)
Remote operations	No operator needed on site
Security by design	No armed security guards needed

- Hub areas: population sizes that can supply workers
  - Direct use of electricity and heat with existing grid and district heating
- Spoke areas: population sizes that cannot supply workers
  - Electric transmission from hub region (if close by); OR
  - Use hydrogen or ammonia from hub region (low-cost due to economics of micro-reactors and short transport distances)

Lowest System Cost Achieved by Enabling Large Scale New Nuclear Deployment

Lowest Cost System

Nuclear is 43% of generation (>300 GW of new nuclear)

Wind and solar are 50%

Energy System with Nuclear Constrained

Wind and Solar are 77% of generation

Nuclear is 13% (>60 GW of new nuclear)

Increased cost to customers of $449 Billion

Both scenarios are successful in reducing electricity grid GHG emissions by over 95% by 2050 and reducing the economy-wide GHG emissions by over 60%

Source: Vibrant Clean Energy: https://www.vibrantcleanenergy.com/media/reports/

Strong Federal Support for Advanced Reactors

- DOE funding 12 different designs, >$5B over 7 years
- Infrastructure Bill
  - $2.5B funding for two demonstration projects
- Inflation Reduction Act
  - PTC: At least $30/MWh for 10 years
  - ITC: 30% of investment
  - Both can be monetized, include 10% bonus for siting in certain energy communities
  - Loan Guarantees – up to $40B in expanded authority
  - HALEU Fuel - $700M
- CHIPS Act
  - Financial assistance to States, Tribes, local governments and Universities

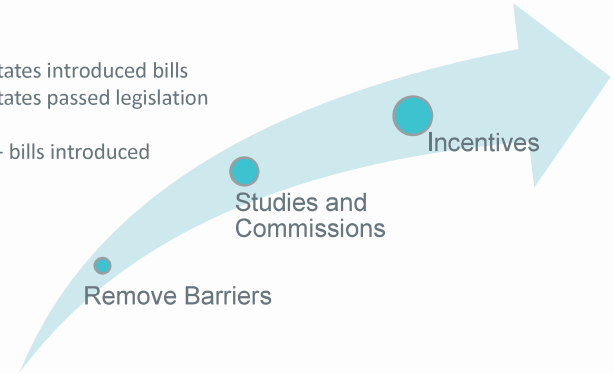


Current Federal Policies: https://www.nei.org/CorporateSite/media/filefolder/advantages/Current-Policy-Tools-to-Support-New-Nuclear.pdf

State Action for Advance Reactors

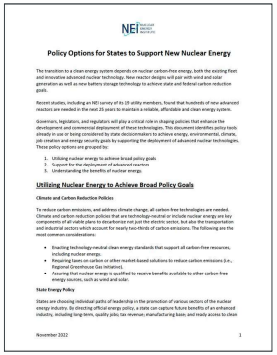
2022
- 19 States introduced bills
- 11 States passed legislation

2023
- 100+ bills introduced



State Options to Support Advanced Reactors

- Feasibility Studies
- Reducing Barriers
- Tax incentives (e.g., property)
- Advanced cost recovery
- Workforce and infrastructure



Policy Options for States to Support New Nuclear Energy

The transition to a clean energy system depends on nuclear carbon-free energy, both the existing fleet and innovative advanced nuclear technology. New reactor designs will pair with wind and solar generation as well as new battery storage technology to achieve state and federal carbon reduction goals.

Recent studies, including an NEI survey of its 19 utility members, found that hundreds of new advanced reactors are needed in the next 25 years to maintain a reliable, affordable and clean energy system.

Governors, legislators, and regulators will play a critical role in shaping policies that enhance the development and commercial deployment of these technologies. This document identifies policy tools already in use or being considered by state decisionmakers to achieve energy, environmental, climate, job creation and energy security goals by supporting the deployment of advanced nuclear technologies. These policy options are grouped by:

1. Utilizing nuclear energy to achieve broad policy goals.
2. Support for the deployment of advanced reactors
3. Understanding the benefits of nuclear energy.

Utilizing Nuclear Energy to Achieve Broad Policy Goals

Climate and Carbon Reduction Policies

To reduce carbon emissions, and address climate change, all carbon-free technologies are needed. Climate and carbon reduction policies that are technology-neutral or include nuclear energy are key components of all viable plans to decarbonize not just the electric sector, but also the transportation and industrial sectors which account for nearly two-thirds of carbon emissions. The following are the most common considerations:

- Enacting technology-neutral clean energy standards that support all carbon-free resources, including nuclear energy.
- Requiring loans on carbon or other market-based solutions to reduce carbon emissions (i.e., Regional Greenhouse Gas Initiative).
- Assuring that nuclear energy is qualified to receive benefits available to other carbon-free energy sources, such as wind and solar.

State Energy Policy

States are choosing individual paths of leadership in the promotion of various sectors of the nuclear energy industry. By directing official energy policy, a state can capture future benefits of an enhanced industry, including long-term, quality jobs; tax revenue; manufacturing base; and ready access to clean

November 2022 1

State Policy Options: https://www.nei.org/resources/reports-briefs/policy-options-for-states-to-support-new-nuclear



Small Scale Nuclear Power
an option for Alaska?

Gwen Holdmann,
Alaska Center for Energy and Power, University of Alaska Fairbanks



Presentation Agenda

PART 1: Context/intro

PART 2: Alaska Perceptions

PART 3: Alaska "Strategy" around nuclear energy

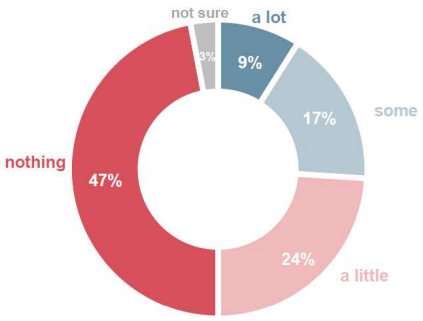


S360 Poll (Perception on Nuclear)

- Multi-modal survey 700 registered voters, oversample Fairbanks (172)
- Weighted to accurately represent Alaska's electorate
- Completed by phone May 23-June 4th
- Margin of error 4% (7.5% for Fairbanks)

When it comes to microreactors, there is a large information gap across subgroups.

Amount heard about nuclear microreactors*



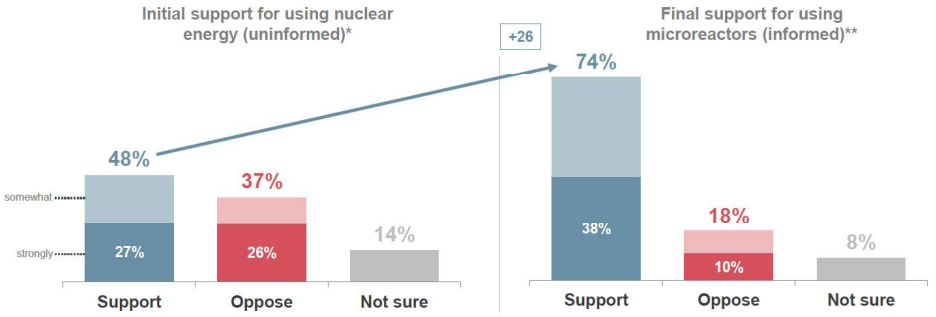
	total heard a lot/some
Anchorage	29
Fairbanks	32
Kenai	21
Matsu	23
Southeast	16
Rural*	23
Age 18-49	27
Age 50+	24
Democrat	28
Independent	28
Republican	24
Live comfortably	33
Struggling to get by	21

*Small sample size

*How much, if anything, have you heard about a new type of nuclear technology called advanced microreactors?

With little to go on, support for nuclear is tepid … after more information is provided, support grows considerably

Change in support for using nuclear energy and microreactors in Alaska



*Based on what you know right now, do you support or oppose the idea of using nuclear energy in Alaska?
**A nuclear microreactor is a small nuclear reactor that is much smaller than conventional nuclear technology. Microreactors are essentially a small nuclear-powered battery. They vary in size based on the manufacturer, but in general would be small enough to fit inside a shipping container and produce around 10 megawatts, which could power around 7,000 homes and also provide heat. Because of their small size, microreactors use much less nuclear fuel and cannot melt down. They also do not require water for cooling. After learning more, do you support or oppose the idea of Alaska exploring the use of microreactors to supply energy to Alaskans?

With little to go on, support for nuclear is tepid … after more information is provided, support grows considerably

**A nuclear microreactor is a small nuclear reactor that is much smaller than conventional nuclear technology. Microreactors are essentially a small nuclear-powered battery. They vary in size based on the manufacturer, but in general would be small enough to fit inside a shipping container and produce around 10megawatts, which could power around 7,000 homes and also provide heat. Because of their small size, microreactors use much less nuclear fuel and cannot melt down. They also do not require water for cooling. After learning more, do you support or oppose the idea of Alaska exploring the use of microreactors to supply energy to Alaskans?

*Based on what you know right now, do you support or oppose the idea of using nuclear energy in Alaska?
**A nuclear microreactor is a small nuclear reactor that is much smaller than conventional nuclear technology. Microreactors are essentially a small nuclear-powered battery. They vary in size based on the manufacturer, but in general would be small enough to fit inside a shipping container and produce around 10 megawatts, which could power around 7,000 homes and also provide heat. Because of their small size, microreactors use much less nuclear fuel and cannot melt down. They also do not require water for cooling. After learning more, do you support or oppose the idea of Alaska exploring the use of microreactors to supply energy to Alaskans?

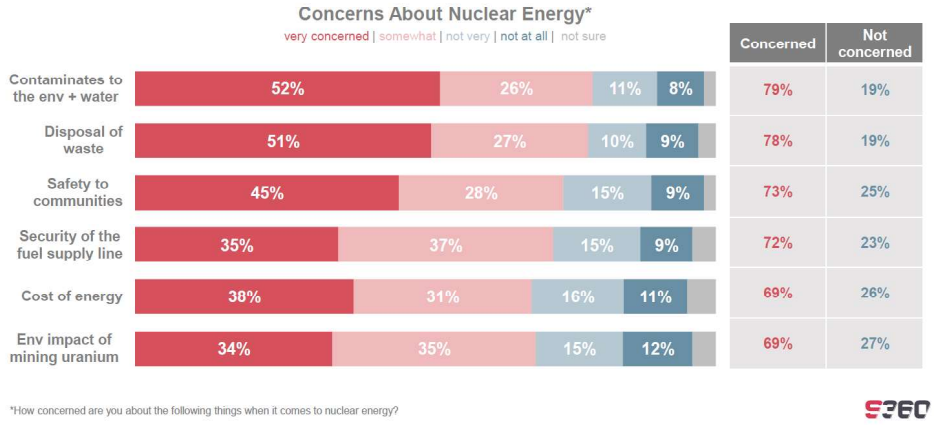
Information changes perceptions

Change in support for using nuclear energy and microreactors in Alaska

Support	Initial	Final	Δ
Total	48	74	+26
Anchorage	50	76	+26
Fairbanks	59	76	+17
Kenai	54	75	+21
Matsu	49	77	+28
Southeast	36	62	+26
Rural*	29	61	+32
Age 18-49	53	78	+25
Age 50+	42	68	+26
Democrat	42	76	+34
Independent	51	80	+29
Republican	56	72	+16

Support	Initial	Final	Δ
Total	48	74	+26
White	53	77	+24
POC	39	68	+29
Live comfortably	57	79	+22
Struggling to get by	43	72	+29
Affordable energy bills	52	74	+22
Unaffordable energy bills	41	72	+31
Heard of microreactors	71	80	+9
Haven't heard	41	72	+31

Voter concerns center on environmental contaminants and waste disposal



*How concerned are you about the following things when it comes to nuclear energy?

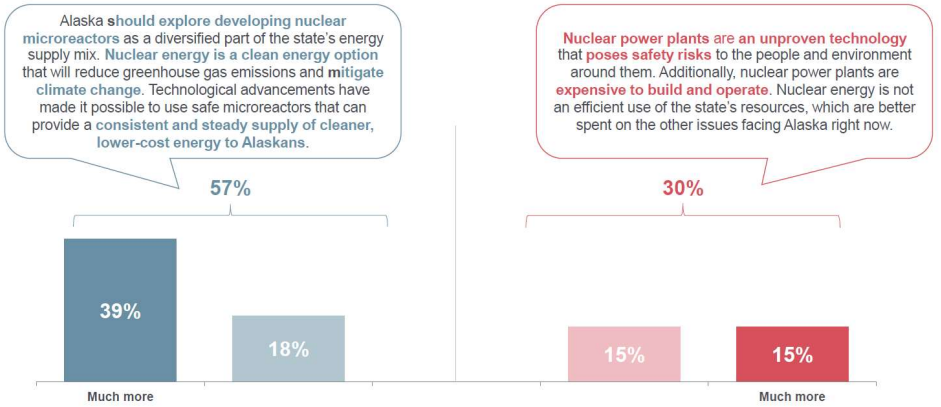
S3EC



ACEP

Messaging

Messaging on microreactors as a safe, reliable piece of Alaska's approach to clean energy and addressing climate change stands up well to criticisms of the technology.



*Please indicate which statement comes closer to your own view, even if neither is exactly right.

S3EC



ACEP

Perceptions are largely non-partisan

Top statement by key subgroup

	Alaska should explore developing microreactors…	Nuclear power plants are an unproven technology	Net "Should explore"
Total	57	30	+27
Heard of microreactors	73	18	+55
Haven't heard	53	33	+20
Always supportive	87	10	+77
Move to support	47	37	+10
Always opposed	14	73	-59
Democrat	58	22	+36
Independent	61	31	+30
Republican	56	36	+20



ACEP

Alaska Strategy: *factors to consider*

- SB 194 – local control of siting authority for small reactors (<50 MW)
- Alaska is a near-ideal early adopter market (high cost of energy, heat + power)
- Interest from vendors
- Risk associated with being an early adopter (economic, technological, public perception, etc)
- Opportunity for state/federal partnership
- Passive or active decision making



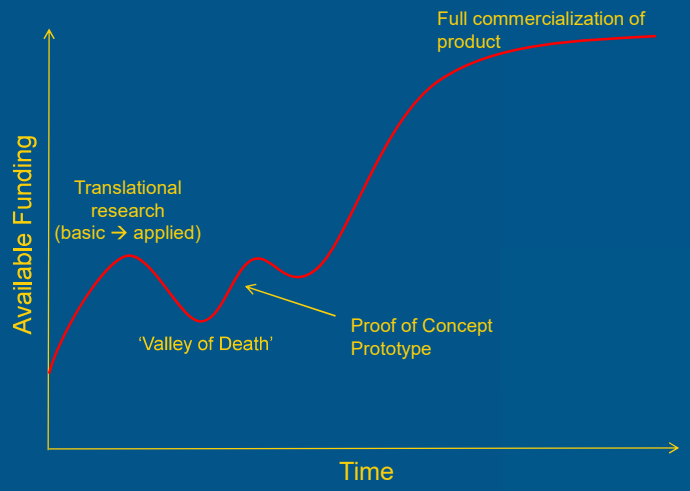
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Weighing Risk versus Reward for Pilot Projects

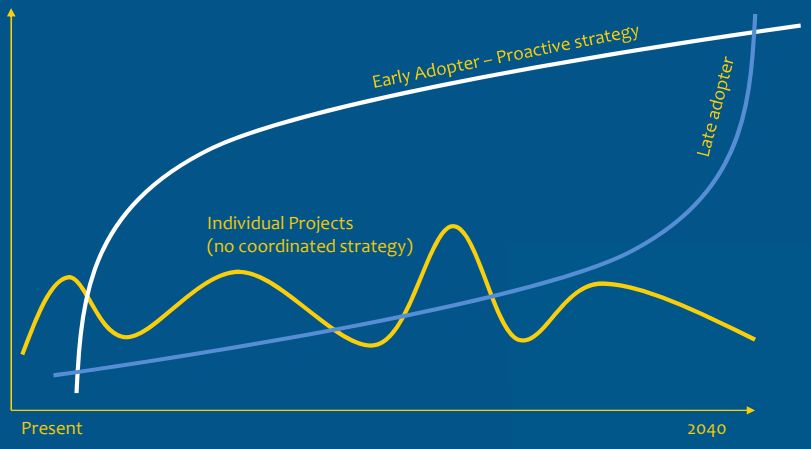


GVEA BESS (above);
Healy Clean Coal Project (right)

Valley of Death
Bridge to Financeability



Alaska Pathways



Issues/considerations

- Public is not well informed
- Utilities (most) are taking a passive approach
- Traditional approaches to procurement and project development may not be optimal for early projects (RFS versus RFP)
- Announcement TODAY! Re: Eielson AFB reactor
- Lack of coordination – opportunity for Task Force

Why I am interested in small reactors:

- *Baseload heat and power*
- *Compliment to variable renewables*
- *Carbon free*
- *Safer, Reduced risk of environmental contamination*
- *Competitive Pricing?*
- *Better long-term certainty of energy costs*
- *Possible complement to existing AK resource mix*



Thank you!

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RPS AND CLEAN ENERGY STANDARDS: NATIONAL POLICY COMPARISONS

Thursday, September 7, 2023, 11:00 AM – 1:00 PM

- *Renewable Energy Standards and Clean Energy Standard Overview*





Renewable Portfolio Standard (RPS) Overview

- An RPS is a public policy tool requiring a certain amount of renewable electricity relative to the entire electricity supply.
- RPSs are an enforceable form of renewable energy targets (vs. a renewable "goal")
- RPS policies are all unique: different motivations, target types, and technology approaches exist
- An RPS can set a share of energy demand (e.g. 20% of electricity supply) or a fixed amount of energy production or consumption (e.g. GW or GWh)

Source: Jenny Heeter, Bethany Speer, and Mark B. Glick. International Best Practices for Renewable Portfolio Standard (RPS) Policies. 2019. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-72798. https://www.nrel.gov/docs/fy19osti72798.pdf.

Key RPS Design Elements

- Typically set as a production target (in MWh)
- Typically established on an annual basis with an end-year target
- Provide a list of eligible technologies
- Determine whether renewable imports are eligible
- Establish a compliance and enforcement structure

Table 2. Examples of Key Components of an RPS

Key Component	Example
Target	20% renewable electricity by 2050
Interim schedule	5% renewable electricity by 2020, 10% by 2030, 15% by 2040
Eligible resources	All solar photovoltaics, wind, biomass, and hydropower facilities less than 10 MW that began commercial operation on or after July 1, 2019
Compliance entities	All load-serving electricity companies with more than 50.000 customers
Regulatory entity	Public Utilities Commission
Penalties for noncompliance	$50/MWh

Source: Jenny Heeter, Bethany Speer, and Mark B. Glick. International Best Practices for Renewable Portfolio Standard (RPS) Policies. 2019. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-72798. https://www.nrel.gov/docs/fy19osti72798.pdf.

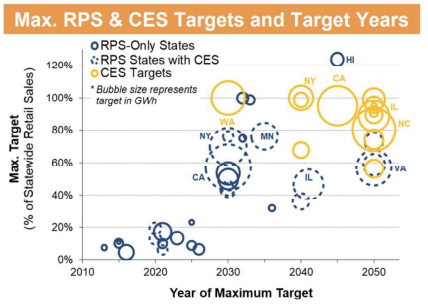
Clean Electricity Standards (CES) Overview

- A CES is similar to an RPS, but the includes a broader set of eligible resources
- Many states have not yet defined the implementation or enforcement mechanism for their CES policy
- CES adoption has accelerated in recent years, and states typically adopt a “100%” CES

Key CES Design Elements

- CES adoption is typically in combination with an RPS
- CESs typically focus on longer-term (2040-2050) targets
- CESs include higher percentage targets (80-100%) than RPSs

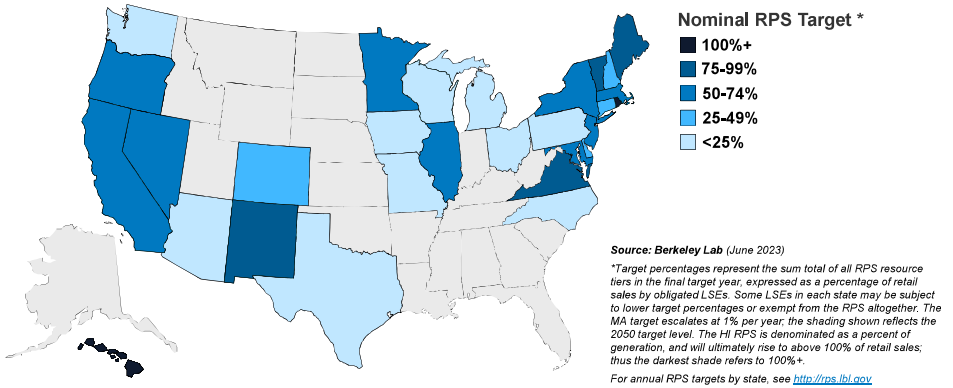
Source: https://eta-publications.lbl.gov/sites/default/files/lbnl_rps_ces_status_report_2023_edition.pdf



Notes: The figure shows each state's maximum RPS and CES percentage target and the associated year when that target must be reached. Targets are shown here as the percentage of total statewide retail sales, which may differ from nominal targets if those apply to only a subset of LSEs in a state. The RPS target for HI is denominated as a percent of total statewide generation, and thus is greater than 100% of retail sales. Bubble sizes represents the target in GWh terms; in the case of the CES targets, bubble sizes reflects only the incremental GWh above and beyond the RPS.



RPS Policies Exist in 29 States and DC
Apply to 58% of total U.S. retail electricity sales

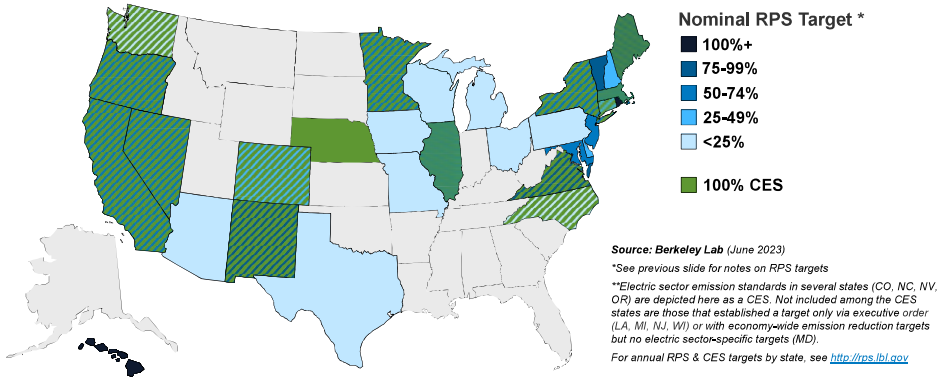


***Source: Berkeley Lab** (June 2023)*

**Target percentages represent the sum total of all RPS resource tiers in the final target year, expressed as a percentage of retail sales by obligated LSEs. Some LSEs in each state may be subject to lower target percentages or exempt from the RPS altogether. The MA target escalates at 1% per year; the shading shown reflects the 2050 target level. The HI RPS is denominated as a percent of generation, and will ultimately rise to above 100% of retail sales; thus the darkest shade refers to 100%+.*

For annual RPS targets by state, see http://rps.lbl.gov

15 States Have Established a Broader 100% CES **
Typically in combination with an RPS



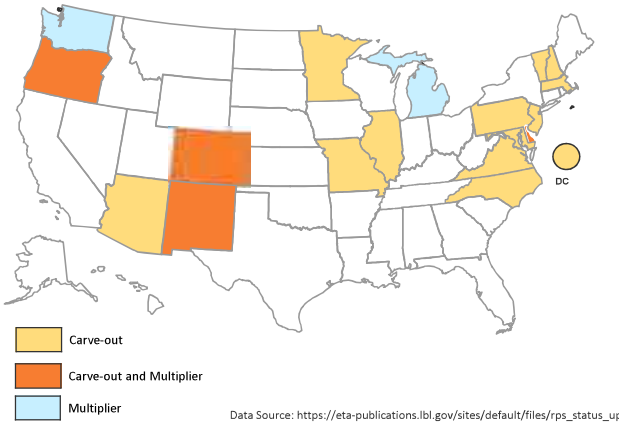
***Source: Berkeley Lab** (June 2023)*

**See previous slide for notes on RPS targets*

***Electric sector emission standards in several states (CO, NC, NV, OR) are depicted here as a CES. Not included among the CES states are those that established a target only via executive order (LA, MI, NJ, WI) or with economy-wide emission reduction targets but no electric sector-specific targets (MD).*

For annual RPS & CES targets by state, see http://rps.lbl.gov

Solar or Distributed Generation (DG) Carve-outs and Credit Multipliers



- 16 states + D.C. have solar or DG carve-outs, sometimes combined with credit multipliers
- 3 other states only have credit multipliers

Data Source: https://eta-publications.lbl.gov/sites/default/files/rps_status_update-2021_early_release.pdf

RPS and CES Resources

- NREL RPS basics: https://www.nrel.gov/analysis/rps.html
- LBNL Status and Trends in RPSs and CESs: https://emp.lbl.gov/projects/renewables-portfolio/
- Clean Energy States Alliance 100% Clean Energy Collaborative: https://www.cesa.org/projects/100-clean-energy-collaborative/

Thank you

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APPENDIX V.

ENERGY DATA REPORT

ALASKA ENERGY AUTHORITY

APPENDIX V: STATE ENERGY DATA RECOMMENDATIONS FINAL REPORT

State Energy Data Recommendations Final Report

(September 21, 2023)

Alaska Energy Security Task Force

State Energy Data Subcommittee

Technical Advisory Committee

State Energy Data Recommendations Final Report

Background

Governor Dunleavy established the Alaska Energy Security Task Force (AESTF) to develop a Statewide Energy Plan. The State Energy Data (SED) Subcommittee, Chaired by University of Alaska Fairbanks (UAF) Chancellor Dan White, is tasked with proposing strategies for sharing energy data and information through an energy data portal. Chancellor White directed the formation of a Technical Advisory Committee (TAC) to leverage input from Alaskan experts representing various aspects of Alaska's energy data ecosystem. The UAF Alaska Center for Energy and Power (ACEP) was tasked with forming the TAC and developing draft recommendations for consideration by the SED Subcommittee.

Process

ACEP secured the assistance of Vision Foresight Strategies to facilitate a two-day Energy Data Retreat hosted in Anchorage, Alaska. To maximize the participation of TAC members, a pre-survey on energy data was conducted to gather initial input. During the retreat, the TAC developed a working definition of energy data, a SWOT analysis regarding Alaska's energy data, and draft recommendations for SED consideration.

Definition

For clarity, the TAC established and defined the term "energy data" in this report as, "Information about how electricity, heat, and transportation fuels are sourced, generated, stored, distributed, used, and governed; and the impacts on the built, natural, and socioeconomic environments."

Summary SWOT (Strengths, Weaknesses, Opportunities, and Threats)

Strengths	Weaknesses
Valuable energy data needed for decision-making already exists, especially for electrical energy	• Existing data can be inconsistent, inaccessible, provided in formats which do not meet end-user needs • Thermal and transportation datasets are lacking
Opportunities	**Threats**
Increase collaboration and data sharing	• Security and access concerns • Lack of sufficient funding/staffing to meet needs

Prioritized Recommendations and Actions

1. Establish a Data Department within the Alaska Energy Authority (AEA)
    a. Fund, develop, and implement a technical and needs assessment
    b. Fund, develop, and implement a capital asset plan
    c. Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms
    d. Appropriately staff the department based on the technical and needs assessment

2. Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access
    a. Form a technical advisory committee to draft recommendations on where the data governance committee should be supported and staffed, committee membership, scope of responsibilities, and other issues that may need to be addressed.
    b. Fund a long-term data governance strategy

3. Fund data capacity
    a. Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department
    b. Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis

4. Improve existing energy data and collect new, needed data
    a. Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is needed for decision making
    b. Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data
    c. Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations
    d. Expand the Power Cost Equalization (PCE) report and extent of such data reported
    e. Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data
    f. Understand how heating and transportation fuel is delivered and used
    g. Re-establish annual updates to the Alaska Energy Statistics report

Appendix A: SWOT (Strengths, Weaknesses, Opportunities, and Threats)

Strengths

- Strong network of agencies monitoring, developing, and regulating energy resources and data, including DNR, AEA, ANTHC, RCA, Denali Commission, and the University of Alaska system
- Passionate stakeholders and energy champions
- Alaska Energy Data Gateway provides community, regional, and statewide dashboards for baseline energy data
- The Alaska Affordable Energy Strategy serves as a useful template for information which would be useful for future potential data platforms and services to offer
- Alaska Geospatial Office and Alaska Geospatial Council administers the State Open Data Geoportal and fosters collaboration
- RCA requires reporting by regulated and PCE-eligible utilities
- RCA reports have been converted to text and put in a database by ACEP
- AEA currently has two different infrastructure inventories underway
- Existing data is heavily used and useful for energy and related activities
- Federal and state demographic data is available and consistent
- DCCED community profile maps have baseline information for rural communities
- ACEP shares information through community and virtual meetings, presentations, and publications
- AHFC recently improved ARIS data access methods to improve availability for energy data analysis
- ACEP is leading the effort to publish an update to the Alaska Energy Statistics Workbooks and Report
- Willingness of organizations to share their available data with external organizations
- Individual initiatives across various agencies have been very successful over time
- Energy data is a priority for many stakeholders, public and private, who are seeking such information to support projects and programs

Weaknesses

- Alaska Energy Data Gateway data has not been updated since 2017
- Lack of metadata standards or controlled vocabularies across the energy data landscape
- Alaska Geospatial Office is not sufficiently staffed
- Energy data is difficult to access and/or is not shared in a format that is easily usable or that meets the needs of end-users
- Lack of authoritative energy data and sources
- Lack of centralized database leads to disparate data sets and duplication of efforts
- Lack of a defined plan for data management and distribution, including energy, labor, and other socio-economic datasets
- Lack of project and data coordination

- Lack of adequate foundational data, such as Railbelt transmission lines and utility data that need to include more key attributes in the existing datasets
- Existing energy data lacking in quality, provenance, and thus reliability
- Non-residential rates and community facility rates in PCE communities, including other fees or demand charges, are not included in monthly PCE reports to AEA or annual reports to the RCA
- Lack of clarity in reporting on wind, solar, and hydro energy data
- Federal data has long time lags and sampling issues
- Issues related to access of proprietary data, such as location of assets and infrastructure
- Lack of data in rural communities, especially regarding thermal/heat
- Existing Alaska Energy Statistics Workbooks and Report has not been updated in 10 years
- Significant data gaps in thermal/heat production and use with no existing formalized data collection processes established
- Lack of seasonal understanding of energy generation and sales
- Energy data from some communities is missing due to lack of reporting
- Railbelt energy data is segmented by utility, limited to certain regulated utilities, and not available Railbelt-wide
- DCCED community profile maps are outdated snapshots of information
- Lack of baseline datasets, especially in rural communities
- Communities lack the workforce, skill sets, and capacity needed to create and manage the data required
- Lack of capacity and knowledge on how to secure funding opportunities
- Funding agencies requiring deliverables inhibits coordination on energy projects
- Lack of technical capacity, data leadership, and sufficient funding
- Lack of reporting requirements for unregulated utilities
- Lack of understanding, technical skills, and capacity by utilities and independent power producers to know what data is useful and how to make it available
- Requesting and receiving data can be very onerous and time intensive

Opportunities

- Leverage existing data infrastructure and sources, such as the Alaska Energy Data Gateway, to inform decision making for project and policy development
- Funding agencies could require energy data reports as a requirement of funding opportunities
- Leverage the Alaska Geospatial Council as a collaborative space regarding energy data sharing and distribution
- Use the Alaska Affordable Energy Strategy as a resource for the development of a statewide energy data inventory
- Shared interest of communities and researchers to coordinate and improve on unified data
- Strengthen existing pathways to better understand thermal/heat production and use

- Standardize energy data collections, aggregation, and association between various data sources, and regularly share the datasets to have better maintained and consistent statewide electrical production data
- Identify gaps where energy data exists
- Understanding what kinds of data are the most valuable to potential stakeholders
- Unprecedented levels of federal funding opportunities
- New technologies are available for data collection
- Influx of federally funded projects could lead to new, updated data collection on energy and infrastructure across the State
- Increased interest in the Arctic as a matter of national security and energy transitions could lead to increased community-military partnerships
- Funding opportunities allow for new infrastructure and connectivity in rural communities
- The establishment of the AESTF provides a platform to have collaborative discussions to identify needs and best practices while offering recommendations

Threats

- Lack of cybersecurity protocols and restrictions on existing websites, data portals, and increasingly tech-reliant energy systems limit the ability to host and serve sensitive or restricted datasets
- Existing data is out of date and not being updated or maintained on a regular basis
- Inconsistent, sporadic, or lack of sufficient funding for data collection, distribution, analysis, and modeling
- Military solutions to meet their energy needs will heavily influence the options available for the surrounding communities, with decisions being influenced by national energy security frameworks
- Lack of workforce, technical skills, and capacity across the state, but especially pronounced in rural communities, to collect, manage, update, collate, analyze, and distribute energy data
- Poor technical choices and/or lack of coordination at critical junctures that hamstring data reliability, access, and reusability

Appendix B: Recommendations

- Identify and assign the responsible agency or organization for energy data collection, aggregation, and sharing in Alaska State Statute
- Fund the revitalization of the Alaska Energy Data Gateway in a version which is reflective of current and future needs and leverages newer sharing platforms including ongoing update and maintenance efforts
- Increase capacity of the Alaska Geospatial Office to support energy data management and distribution needs
- Incentivize or mandate private entities to share heating fuel information, such as tank farms, heating oil purchase costs and volumes, and delivery methods and costs
- Fund an update and implement the Alaska Affordable Energy Strategy
- Establish an Energy Working Group as part of the Alaska Geospatial Council
- Develop a long-term data management strategy to ensure data quality, reliability, and public and private access
- Keep energy systems up-to-date with proper security restrictions and access controls, allowing for granular and proper data sharing and access
- Establish a public database of statewide electric utility data to include railbelt, coastal, and rural data
- Leverage existing Alaska Geospatial Data Portal to provide public and restricted access of energy data managed by AEA and other appropriate agencies
- Adequately fund the Alaska Geospatial Office to support additional staff to meet statewide data needs
- Re-license existing data sources to partner agencies to support collaboration and access
- Secure the Alaska Geospatial Office in Alaska State Statute with accompanying operating budget
- Identify authoritative data sources
- Use authoritative energy data to inform energy policy and project development
- Establish a task force to develop energy data cyber security requirements
- Require AEA to create and track offset diesel data, kWh sales by all rate classes, kWhs sold for heat and at what price, and identify the specific renewable resource used by the utility
- Require PCE calculations to value excess renewably-generated energy that is used for heat by providing a waiver
- Use bulk fuel loan data by DCRA to begin capturing the rural heating load
- Fund a comprehensive survey to identify the size and generation type of the thermal load in Alaskan communities, ensuring military demands are included
- Fund an inventory and assessment of transportation fuel datasets needed and available to develop a regional- or community-level transportation energy burden study, ensuring such an effort is repeatable
- Coordinate with rural utilities to establish baseline infrastructure needs
- Research and explore establishing an Alaska Data Trust, similar to a Land Trust

APPENDIX VI.

MEETING MATERIAL DOCUMENTATION

Appendix VI: MEETING MATERIAL DOCUMENTATION

Alaska Energy Security Task Force Meeting Material

- Task Force Meeting #1, April 25, 2023
- Task Force Meeting #2, May 9, 2023
- Task Force Meeting #3, June 27, 2023
- Task Force Meeting #4, July 18, 2023
- Task Force Meeting #5, August 8, 2023
- Task Force Meeting #6, August 29, 2023
- Task Force Meeting #7, September 13, 2023
- Task Force Meeting #8, September 19, 2023
- Task Force Meeting #9, October 3, 2023
- Task Force Meeting #10, October 10, 2023
- Task Force Meeting #11, October 24, 2023
- Task Force Meeting #12, October 31, 2023
- Task Force Meeting #13, November 7, 2023
- Task Force Meeting #14, November 20, 2023

Alaska Energy Security Task Force Subcommittee Meeting Material

(Organized by Subcommittee and Date)

- Railbelt Transmission, Generation and Storage
- Coastal Generation, Distribution and Storage
- Rural Generation, Distribution and Storage
- State Energy Data
- Incentives and Subsidies
- Statutes and Regulations

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #1
TUESDAY, APRIL 25, 2023, 2:00 PM – 4:00 PM

Alaska Energy Security Task Force Tuesday, April 25, 2023, 2:00 PM

Please note that the Alaska Energy Security Task Force will hold a meeting on Tuesday, April 25, 2023.

The Alaska Energy Security Task Force will convene at 2:00 pm to conduct task force business and continue in session until recess or adjournment.

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting: Kollette Schroeder at 907-465-3500 or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

The Task Force Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

The Robert Atwood Room
550 W. 7th Avenue, Suite 104
Anchorage, AK 99501

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Attachments, History, Details

Attachments

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Details

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, April 25, 2023
2:00 pm to 4:00 pm

Teams Meeting:

Click here to join the meeting

Meeting ID: 228 703 777 695
Passcode: B7DhgY

Agenda

1. Welcome and Introductions (Lt Gov)
2. Governor's Remarks and Vision for the Task Force
3. Lieutenant Governor's Remarks
4. Discussion/Feedback from Task Force Members (roundtable)
5. Organization of Task Force
    a. Task Force outcomes/products
    b. Meeting timeline
    c. Website/SharePoint
    d. Coordinating with existing working groups
    e. Resources
    f. Subcommittee Structure and Composition, Process for Nominating Members
        i. Discussion – Subcommittees we want to form immediately
        ii. Regionally focused (Roadbelt, coastal, remote rural)
        iii. Alaska energy data gateway
6. Discussion: Proposed Symposium Series
7. Roundtable – What does the committee need to be successful?

Alaska Energy Security Task Force: Kickoff Meeting

April 25, 2023



April 25, 2023 Agenda

Kickoff Meeting

Welcome to the Alaska Energy Security Task Force Kickoff Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. Welcome and Introductions by Governor Mike Dunleavy and Lt. Governor Nancy Dahlstrom
2. Task Force Self-Introductions
3. Purpose
4. Organization
5. Timeline
6. Email and Website
7. Proposed Subcommittees: — Structure and Composition
8. Symposium Series
9. Roundtable — What does the committee need to be successful?
10. Meeting Adjourned

Alaska Energy Security Task Force

Purpose



The **purpose** of the Alaska Energy Security Task Force is to develop a comprehensive statewide energy plan that will evaluate energy generation, distribution, transmission, and storage for the State of Alaska and its communities.

Alaska Energy Security Task Force

Organization

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	
Curtis W. Thayer, Executive Director of the Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
Gwen Holdmann, University of Alaska, Vice Chair	gholdmann@alaska.gov
Commissioner John Boyle, Department of Natural Resources	john.boyle@alaska.gov
Commissioner Jason Brune, Department of Environmental Conservation	jason.brune@alaska.gov
Nils Andreassen, Alaska Municipal League	nils@akml.org
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Tony Izzo, Matanuska Electric Association	tony.izzo@mea.coop
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Isaac Vanderburg, Launch Alaska	isaac@launchalaska.com
Robert Venables, Southeast Conference	robert@seconference.org
Senator Click Bishop (Ex Officio)	senator.click.bishop@akleg.gov
Garrett Boyle, Denali Commission (Ex Officio)	gboyle@denali.gov
Commissioner Keith Kurber, Regulatory Commission of Alaska (Ex Officio)	keith.kurber@alaska.gov
Representative George Rauscher (Ex Officio)	representative.george.rauscher@akleg.gov
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*John Espindola, Policy Advisor, Office of Governor Mike Dunleavy	john.espindola@alaska.gov

Timeline

- **Task Force –** Meets monthly; next meeting is scheduled for Tuesday, May 9, 2023, from 3 to 5 p.m. at AEA's office.
- **Subcommittees –** Schedule to be determined
- **Recommendations Due –** Tuesday, October 31, 2023

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Proposed Subcommittees

- State Energy Data
- Statutes and Regulations Reform
- Railbelt Generation
- Railbelt Transmission and Storage
- Rural Generation, Distribution, and Storage
- Coastal Generation, Distribution, and Storage
- Incentives and Subsidies (Federal & State)
- Renewables

Symposium Series

The purpose of this symposium series is to "level up" members of the Energy Task Force and the interested general public to provide a common understanding of our existing energy landscape, why/how we got there, what technologies or opportunities could be applied in Alaska, and what are some of the global trends that could impact Alaska.

The symposium will be organized around the following six thematic areas:

1. History (the past informing our future direction)
2. The Economics of Energy in Alaska
3. Alaska Energy Policy
4. Brief overview of Alaska organizations that work on energy (who we are and what we do)
5. The Changing Global Energy Landscape
6. Technologies (existing Alaska development and future potential)

Symposium Series: Six Thematic Areas

1. History (the past informing our future direction)
- History of hydropower in Alaska (Four Dam Pool, Bradley Lake)
- History of the Railbelt, how the Railbelt grid is managed now and in the future
  - Current generation assets
  - Future demand projections
  - Railbelt Reliability Council – purpose and role
- Rural electrification – past and present
- Cook Inlet natural gas – now and in the future

2. The Economics of Energy in Alaska
- Alaska Energy Statistics – presentation
- Economics of Railbelt power
- How it works: Alaska's Economy
- Looking beyond the state – where is the cheapest power in the world and why?

3. Alaska Energy Policy
- Existing Alaska energy policy (aspirational)
- Power Cost Equalization and alternatives (postage stamp rate)
- Federal landscape and funding opportunities (IIJA, IRA, etc.)

4. Brief overview of Alaska organizations that work on energy (who we are and what we do)
- Alaska Energy Authority
- Alaska Gasline Development Corporation
- Alaska Housing Finance Corporation
- Department of Energy Arctic Energy Office
- Department of Natural Resources/Department of Environmental Conservation (permitting)
- Railbelt Reliability Council
- Regulatory Commission of Alaska
- University of Alaska: Alaska Center for Energy and Power/ Institute of Social and Economic Research

5. The Changing Global Energy Landscape
- Carbon Capture, Utilization, and Sequestration
- Decarbonizing energy supply
- Shipping and aviation industry

6. Technologies (existing Alaska development and future potential)
- Energy storage – a brief synopsis (Long-duration thermal storage)
- Hydropower (Susitna, Dixon Diversion, Small/distributed
- Natural Gas (all about pipelines)
- Transmission (GRIP, MVDC and Rural AK Build-out)
- MNR/MNR nuclear
- Solar
- Wind

Roundtable Discussion

- Measures of Success
- Communications
- Task Force Expectations
- Subcommittee Expectations
- Milestones

Alaska Energy Security Task Force
DRAFT MEETING MINUTES
Tuesday, April 25, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Dahlstrom called the meeting of the Alaska Energy Security Task Force to order on April 25, 2023, at 2:02 pm.

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Vice-Chair Gwen Holdmann; Jason Brune (Commissioner DEC); John Boyle (Commissioner DNR); Clay Koplin; Nils Andreassen; Isaac Vanderburg; John Simms; Andrew Guy; Karl Hanneman; Jenn Miller; Tony Izzo; Robert Venables; Duff Mitchell; Erin Whitney; Garrett Boyle; Keith Kurber (Commissioner); Representative George Rauscher; and Senator Click Bishop.

Members introduced themselves and provided brief comments.

2. Governor's Remarks and Vision for the Task Force

Governor Dunleavy expressed appreciation to the members who have volunteered for this important Task Force for Alaska. He highlighted that this work could be the most significant effort contributed to Alaska. Governor Dunleavy discussed that Alaska and Hawaii are similarly unique in that they cannot wield power from other states to meet the power needs. Additionally, even if power could be wielded within Alaska, it would be difficult to meet the power needs of all communities due to the large geographical distances. Governor Dunleavy outlined the goal of the Task Force is to create three models, one for Coastal Alaska, one for Railbelt Alaska, and one for Interior and remaining areas of Alaska that will lower the cost of energy to 10 cents per kilowatt-hour (kWh) by 2030.

Governor Dunleavy noted that some people doubt this goal is achievable. He compared this goal to other goals that were doubted and yet were achieved. He discussed the example that people laughed at John F. Kennedy's goal in 1961 of going to the moon by the end of the 1960's. Governor Dunleavy emphasized the importance of believing the goal can be achieved. He believes that the Task Force can be creative in developing models that contain technologies of generation, storage, transmission, and distribution components that lead to 10 cents per kWh by 2030.

Governor Dunleavy conveyed that the members of the Task Force are not seeking to stop a certain type of generation, nor to stop a certain type of distribution or transmission, nor to stop a certain type of storage. Governor Dunleavy expressed that the Task Force is a leader in the country with intelligent members. The Task Force has a responsibility to

accomplish its mission. The Task Force members must be dedicated and focused in moving the goal forward because Alaska is behind the curve in addressing its energy issues. He discussed the existing concerns within the regions of Alaska. Governor Dunleavy explained that the Task Force is to review all options for generation, including nuclear, wind, solar, tidal, geothermal, biomass, and others. Similarly, the Task Force is to review all options for transmission and distribution, including the value of burying the transmission lines or adding small energy generators to sustain long-term inexpensive energy.

Governor Dunleavy indicated that the Task Force was not created for political reasons, and he is not up for reelection. The next couple of years will be dynamic for Alaska. The Task Force must believe that the goal can be achieved using technology and utilizing the knowledge and understanding of the members. This is the time to help Alaska solve many of its issues. Governor Dunleavy expressed his belief in Alaska and in the promise of Alaska. He considers Alaska's motto "North to the future" as inspirational and motivational.

Governor Dunleavy reiterated his faith in the Task Force to achieve the critical responsibility of producing the models, suggesting changes in regulations and legislation, and other efforts that will result in 10-cent power by 2030. He looks forward to working with the Task Force and to seeing the outcomes.

3. Lieutenant Governor's Remarks

Chair Lieutenant Governor Dahlstrom thanked Governor Dunleavy for his comments. She discussed that the Governor is consistent in his message. Chair Lieutenant Governor Dahlstrom believes Governor Dunleavy has full faith, trust, and confidence in the Task Force reaching its goal. She looks forward to the efforts.

Chair Lieutenant Governor Dahlstrom requested Vice-Chair Thayer proceed with the next items on the agenda.

4. Discussion/ Feedback from Task Force Members (roundtable)

Vice-Chair Thayer agreed with the Governor's description of the purpose of the Task Force. He believes the Task Force needs to create a statewide energy plan, and to evaluate energy generation, distribution, transmission, and storage opportunities across Alaska. He discussed that there are many renewable opportunities, and the missing component is transmission. Vice-Chair Thayer gave the example that the transmission line from Bradley Lake to Anchorage is at capacity. In order to accept more power, the capacity of the transmission line must be increased. He noted that 17% of the Bradley Lake Power goes to Fairbanks.

Vice-Chair Thayer discussed the unique needs and cost structure of rural Alaska. He noted they are not connected by a grid, but rather maintain over 200 microgrids that primarily depend on diesel and bulk fuel. Vice-Chair Thayer informed that according to Alaska

Energy Authority (AEA), there is $800 million in deferred maintenance of the microgrids and over $300 million in deferred maintenance on the powerhouses, which prompts the question: What is a better way to deliver power to rural Alaska?

Vice-Chair Thayer highlighted that while it is important to uphold the overall goal for the state, it is necessary to understand that the different regions of Alaska will have unique goals. He explained that Power Cost Equalization (PCE) was established 30 years ago to help level the cost power in rural Alaska. The first 750 kWh of power would be the same rate as the weighted average of the rate in Anchorage, Fairbanks, and Juneau. He noted that every penny the rate is decreased on the Railbelt, translates to almost $200 million to rural Alaska in additional PCE. This shows the correlation between the benefits to the Railbelt and to rural Alaska.

Vice-Chair Thayer informed that the proposed subcommittees are suggestions and review can occur to determine if changes need to be made. He asked for members to chair the subcommittees and invite experts and the public to be part of the process. Vice-Chair Thayer advised that info@akenergysecuritytaskforce.com is the email account. Public comments can be submitted. The website is akenergysecuritytaskforce.com. All Task Force information will be shared with the public.

Vice-Chair Thayer acknowledged John Espindola, Special Assistant to the Governor, for his instrumental efforts in the development of the Task Force.

Chair Lieutenant Governor Dahlstrom asked Vice-Chair Holdmann to provide opening comments. Vice-Chair Holdmann agreed that the Governor has given a bold challenge to the Task Force. She believes this is an opportunity for the State to aggregate the information regarding energy in the state and to find innovative ways to reach the goal of 10-cent power. She does not believe this can be achieved through incremental improvements to the current systems. A broad view perspective and creative approaches are required to achieve the goal. Vice-Chair Holdmann is excited to work with the diverse members of the Task Force who were selected because of their unique perspective and ability to contribute.

Vice-Chair Holdmann expressed hope that the Task Force can develop an organized process today to develop new approaches to existing concerns.

5. Organization of Task Force

- **a. Task Force outcomes/products**
- **b. Meeting timeline**
- **c. Website / SharePoint**
- **d. Coordinating with existing working groups**
- **e. Resources**
- **f. Subcommittee Structure and Composition, Process for Nominating Members**

i. **Discussion – Subcommittees we want to form immediately**
ii. **Regionally focused (Roadbelt, coastal, remote rural)**
iii. **Alaska energy data gateway**

Chair Lieutenant Governor Dahlstrom advised that the next Task Force meeting is scheduled for May 9, 2023. She requested Vice-Chair Thayer to discuss the subcommittee structures and process. Vice-Chair Thayer discussed the eight proposed subcommittees and gave brief examples of their focus: State Energy Data, Statutes and Regulations, Railbelt Generation, Railbelt Transmission and Storage, Rural Generation, Distribution and Storage, Coastal Generation, Distribution and Storage, Incentives and Subsidies (Federal and State), and Renewables.

A comment was made to include transportation costs within the Task Force's purview.

Chair Lieutenant Governor Dahlstrom discussed that the Task Force has a duty and responsibility to question all the processes that are ongoing, why they are ongoing, if they are successful, and what could make the processes better.

Commissioner Brune asked a member for a recommendation for a goal for all of Alaska and noted the many of the communities could have electric heat that is tied to the 10-cent power goal. The member agreed that an electric heat equivalent could be determined to be compared to 10-cent kWh power.

Mr. Venables suggested that review of the non-fuel costs for the energy that is borne by Alaskans is considered, and asked if this is included in the 10-cent kWh price.

Mr. Izzo expressed his understanding from conversations with the Governor, Mr. Espindola, and Mr. Thayer that the 10-cent kWh cost is the residential delivered price per kWh. In the Railbelt, more than half of residential rate payers have an energy component of under 10 cents. The price increase consists of all the other costs that are included. He gave the example based on Matanuska Electric Association (MEA) that seven cents of the average 20 cents per kWh is fuel. The utility has a base rate of approximately 12 to 13 cents. The base rate includes all other costs to operate the utility, including employee salary, healthcare, administrative, debt component, and outage repair. If the debt component was removed, Mr. Izzo believes that MEA could approach the 10-cent goal. This is one component.

Mr. Izzo reiterated that the Governor discussed the likely possibility of multiple scenarios to achieve the goal. Mr. Izzo noted that consideration needs to be given to the different constructs available. He discussed the concept of merging the operational aspects of all the utilities in the Railbelt while maintaining their individual identities. Mr. Izzo feels this option deserves review to determine what cost savings could be achieved, if any.

Mr. Hanneman commented that it is interesting that the Governor expressed a definitive

and specific numerical goal for the cost of power. Mr. Hanneman noted that with respect to energy security, his focus would be on availability, accessibility, affordability, and reliability. He believes that a broader context for energy could nurture the ability to reach a specific numeric goal. Mr. Hanneman discussed that integrating the utilities would be beneficial. Regarding the subcommittees, he does not agree that generation and transmission should be separate committees due to their inherent relation. Mr. Hanneman expressed support for the focus on the geographic regions. However, he believes that the generation, distribution, and storage should be integrated.

Mr. Mitchell agreed with Mr. Hanneman's comments that generation and transmission should be viewed holistically. He gave the example of British Columbia's successful low-cost generation. Mr. Mitchell believes that Alaska can determine a way to provide low-cost generation and wheeling to an end-user that will also create jobs. He noted that Alaska has less than ¼ of 1% of the nation's transmission. Additional infrastructure is necessary to improve the transmission constraints and bottlenecks, including the Bradley Lake issues. He commented that low cost generation and high cost transmission will not achieve the 10-cent per kWh goal.

Commissioner Brune commented that Alaska has five utilities in an area that serves less than 600,000 people. Whereas, in the Lower 48, there are individual utilities that serve millions of people. Commissioner Brune discussed that getting the power from Anchorage to Fairbanks is cost prohibitive and needs to be resolved. He expressed the difficulty in discussing the possibility of combining the five utilities into one utility. Commissioner Brune gave the example that projects like Pogo have significant benefits to lowering the cost of power to the people in Fairbanks, as well providing environmental benefits by not using diesel for power.

Mr. Izzo agreed that it is important to think outside of the box to reach a resolution. He suggested the possibility of establishing a generation and transmission (G&T) entity. He gave the example that the Railbelt might be viewed as urban Alaska. However, the power delivery system is less than first-world. Mr. Izzo discussed that the utilities are extremely limited and the system they have is the system they can afford because they are member-owned, rather than shareholder-owned. Communities today are shrinking, and fewer people are paying for the fixed costs.

Mr. Izzo discussed that on the transmission side, the utilities are applying for $2.9 billion in grants for the necessary upgrades to the infrastructure highway. Those costs are fixed and are the same whether there is one combined utility or five utilities. Mr. Izzo commented that because of this, he can understand the proposed subcommittee separation of generation and transmission. The generation aspects must change in order to achieve energy security. It is imprudent for a utility to have one fuel supplier for 85% of its fuel coming across one line. Mr. Izzo noted that his excitement for the possibilities have expanded during today's meeting.

Commissioner Brune requested clarification of his understanding that the utilities do not have one fixed rate, but rather can charge different rates, based upon their specific operation costs. He discussed that the economics of power projects vary significantly, and that one utility may have more success with projects because the economics are better.

Mr. Izzo responded that it might be useful to delineate the rate structure during a subcommittee meeting. He explained that utilities can charge margins when power is moved between utilities. However, because the utilities are not for profit cooperatives, there is no return on equity. He noted that there is a cost to operate the segments of transmission. Studies would have to occur to determine the amount of efficiency that could be gained by combining the administration of the utilities.

Mr. Vanderburg recommended reducing the number of subcommittees, given the busy schedules of the members and the amount of members on the Task Force. He advocated that connectivity among the subcommittees is maintained and that members are active on as many subcommittees as possible to achieve that connectivity. Mr. Vanderburg commented on the timing of the subcommittees. He suggested the possibility of beginning the focus with a few subcommittees on generation, transmission, and storage, and then as those subcommittees develop, form the subcommittee on regulations and policies. Mr. Vanderburg expressed support for combining transmission and generation as one subcommittee, as well as including renewables as generation, rather than its own subcommittee. Mr. Vanderburg asked the process question regarding how to facilitate the sharing of information among the subcommittees to maintain connectivity.

Vice-Chair Thayer responded that a Sharepoint site will be created, and the Task Force members will have access to the documents. The documents will also be uploaded to the website.

Mr. Guy echoed Mr. Vanderburg's comments, considering the goal of 10 cents per kWh for the entire state. He believes that the proposed subcommittees will keep the status quo and will not be effective in reaching the goal. Rural Alaska, for instance, cannot continue with the status quo. Rural connectivity would be an effective focus in reaching the goal.

Chair Lieutenant Governor Dahlstrom responded that she will take the message to the Governor and offer it as a suggestion.

Ms. Miller agreed with Mr. Vanderburg's comments. She expressed the importance of setting the context and providing information and data to everyone concurrently. In terms of timing, it could be helpful to receive the current energy baseline data on generation types by community, and the current technologies of storage and transmission. Then review could occur regarding incentives and subsidies. She suggested that a funding model is included in that focus, as well as organizational structures and policies. After the context information is reviewed, the specific problem can be identified and the output would be the different solution models for rural, coastal, and Railbelt.

Vice-Chair Thayer requested Vice-Chair Holdmann to respond and discuss the scheduled Symposium Series that will provide the Task Force with common understanding of six thematic areas. Vice-Chair Holdmann agreed, and commented first on the subcommittee discussion.

Vice-Chair Holdmann believes the subcommittees need a purpose and she supports the idea of combining the subcommittees based on a regional focus. Vice-Chair Holdman likes the idea of including a financing focus within the subcommittees. She noted that the incentives and subsidies could be a staff task to review and report back to the subcommittee regarding federal and State incentives and subsidies. Vice-Chair Holdmann asked members to think of any questions that staff of AEA, Alaska Center for Energy and Power (ACEP), or other departments could research and report the information back to a subcommittee.

Vice-Chair Holdmann discussed that the Statutes and Regulations Reform Subcommittee could be formed later when a better understanding is gleamed for what the subcommittee needs to accomplish.

6. Discussion: Proposed Symposium Series

Vice-Chair Holdmann explained that the proposed symposium series is intended to "level up" members to provide a common understanding of the existing energy landscape and the available opportunities that could be applied in Alaska. She requested feedback from members regarding the thematic areas that could be discussed within the forum. The six thematic areas outlined would be presented by subject matter experts; existing and future technologies, the changing global energy landscape, overview of Alaska organizations that work on energy, Alaska energy policy, economics of energy in Alaska, and the history of power in Alaska. Vice-Chair Holdmann expressed that the symposium could also be a way to educate the public. She requested feedback regarding the format and timing of the symposium through a virtual series.

Vice-Chair Holdmann agreed with a previous comment that the members have very busy schedules. She discussed the possibility of an optional one or two-day visioning session that is facilitated to develop a strategic foundation and shared insight to help shape some of the scenarios. If there is interest, Vice-Chair Holdmann informed that the University could organize a visioning session in addition to the proposed symposium series.

Vice-Chair Thayer commented that conducting the symposium series in a webinar format would be useful and would allow the information to be reviewed at any time. The symposium series would not only provide foundational information for Task Force members, but it would also be available online for the public to access and understand the foundational information. Chair Lieutenant Governor Dahlstrom agreed.

Ms. Miller expressed support for the symposium series and its thematic areas. She requested that information is provided as to the cost per kWh of energy across the state and the cost per kWh for funding the different possible solutions for lowering the cost of power.

Mr. Hanneman commented that the proposed symposium series and topics are appropriate. He is supportive of an online webinar format for the initial overview. He believes that the Task Force will need additional specific documentation which could be provided as attachments to the symposium series.

Vice-Chair Holdmann responded that part of the purpose of the Sharepoint managed by AEA is to provide additional information that is either specifically requested or deemed useful. She indicated that her notes from today show a request for information on technologies in Alaska, in terms of the delivered costs. Vice-Chair Holdmann indicated the possibility that staff at the University and staff at the State level could research the request and provide that input and information.

7. Roundtable – What does the committee need to be successful?

Vice-Chair Holdmann asked members if there is additional information that staff could assemble that would be useful for the subcommittees.

Mr. Hanneman followed up and commented on the ongoing efforts by the utilities and their tangible ideas and successes. He expressed the importance that this information is utilized and included in the data files.

Mr. Izzo commented that utilities are accustomed to capital intensive and long lead time scenarios. He noted that the goal of 2030 is both exciting and scary, in that it is just over six years away. Mr. Izzo believes the assignment is to develop a plan to reach the goal. He feels that initially, it would be best to keep the Task Force members together for meetings. Mr. Izzo would like to review a SWOT analysis of the strengths, weaknesses, opportunities, and threats of the possible solutions to reach the goal. He discussed that, for instance, options could be listed such as nuclear for the Railbelt, Susitna Watana, and a North Slope gas line. However, permitting any of those options would be a heavy lift within the six-year timeframe. Mr. Izzo suggested that a high level SWOT analysis could be completed with the full Task Force to narrow the scope and then disperse into subcommittees to resolve aspects of that focus.

Mr. Simms agreed with Mr. Izzo's comments. He expressed the benefits of understanding the issues as a group and learning from each other's experience and knowledge before breaking out into subcommittees. Mr. Simms expressed full support for the Governor's initiative of 10-cent power by 2030. He elaborated hope that the Task Force will go beyond the 2030 goal to develop a longer-term plan for Alaska, which includes the benefits of all the renewable resources available and that will plan for sustainable cheap energy for future

generations.

Chair Lieutenant Governor Dahlstrom agreed with Mr. Simms. She commented that each member of the Task Force was selected with the expectation they would consider the best interest for future generations beyond the 2030 stated goal.

Mr. Vanderburg responded to Vice-Chair Holdmann's request for members to advise what information would be helpful. He requested information regarding potential future export opportunities for Alaska's energy. He requested benchmark information on Alaska's performance compared to other states in terms of utility administration, and integration tariffs. This information could be used to set goals to reach the 10-cent power by 2030. Mr. Vanderburg requested the status of the Railbelt Reliability Council (RRC) and how they are performing with their charge of generation transition.

Vice-Chair Thayer discussed that information regarding the RRC will be included in the symposium series. He gave a brief background of the RRC. Vice-Chair Thayer commented that the Governor's Administrative Order asked for a report on October 31, 2023. This is a target for the Task Force. Vice-Chair Thayer expressed that the Governor realizes that the work of the Task Force will continue beyond that date, even though the specific format is unknown. He reiterated that the Task Force work will continue after the report is provided and will move into the implementation phase with the Task Force and with other stakeholders in the state.

Mr. Mitchell discussed that the Task Force is aiming for the goal of 10-cent power by 2030. He believes that creating an executable plan will put the state on a trajectory for success beyond 2030. Mr. Mitchell commented that the energy and effort expended within the next few months will pay continuous dividends. He echoed support that after the report is given in October, implementation and execution of the plans will continue for the benefit of all Alaskans.

Mr. Guy requested additional information on the current systems throughout the state. He noted that there are 50 communities within his region and most of the villages operate their own utility. He believes this contributes to the high cost of energy for individual communities. Mr. Guy commented that there are close to 200 utility companies in the state. The system is untenable and needs to change.

Chair Lieutenant Governor Dahlstrom requested Mr. Espindola to provide members with a list of all the utilities in the state, including the PCE communities. Mr. Espindola agreed. Chair Lieutenant Governor Dahlstrom responded to comments regarding the length of time these issues have been identified and discussed. She recalled conversations during her Legislature tenure in 2003 with representatives from Chugach Electric Association (CEA), Mr. Izzo, and Vice-Chair Thayer. She agreed it is time to formulate answers.

A brief at-ease was taken.

Chair Lieutenant Governor Dahlstrom reiterated that the next meeting is scheduled for May 9th. She asked that members email their specific information requests before the next meeting to info@akenergysecuritytaskforce.com in order to begin posting the information on the website. Chair Lieutenant Governor Dahlstrom advised that during the process in the next few months, there will be an opportunity for the public to comment to the Task Force during a recorded listening session. She noted that she will be available, as well as Vice-Chair Thayer and Vice-Chair Holdmann, and any other Task Force members who can attend.

Representative Rauscher expressed appreciation for the meeting discussion today. He noted that he Chairs the House Energy Committee and the goal is to support the Governor's vision for the future of Alaska. Representative Rauscher believes it is important to adhere to the Governor's topics regarding the Railbelt modeling the rural modeling, and the coastal modeling, as well as generation, transmission, storage, and export. Representative Rauscher commented that it will be incumbent on the Legislature to fund many of the initiatives that will be created to advance the goals. For approval in the House, 21 Representatives are needed to support the legislation, and for approval in the Senate, 11 Senators are needed to support the legislation.

Representative Rauscher discussed that microreactors will be part of the process and he is looking to the Task Force to provide input and feedback that he can take back to the committee that is reviewing the impending legislation.

Chair Lieutenant Governor Dahlstrom invited Representative Rauscher's legislative committee and all State legislators to watch the recordings of the Task Force learning sessions. She is aware that funding requests will need to be made, and noted that the Task Force will investigate all available funding sources.

Mr. Vanderburg appreciates the clarity of the Governor's goal of 10 cents per kWh by 2030. He emphasized that the goal is profound, challenging, and transformative. Mr. Vanderburg discussed that the visioning session suggested by Vice-Chair Holdmann could offer the opportunity to understand the gravity of achieving the goal, which he believes is a wholesale transformation, rather than an incremental change. Mr. Vanderburg asked Vice-Chair Holdmann if her suggestion for a visioning session included understanding the significance of 10 cents per kWh.

Vice-Chair Holdmann elaborated that each member comes to the Task Force with bias. She discussed that there is a natural tendency to want to make incremental improvements. However, the moonshot goal of 10-cent power cannot be achieved by conducting business as usual or incremental improvements in rural Alaska. Vice-Chair Holdmann noted that the goal requires substantive State investment and gave the example that the Apollo program for the moonshot was $250 billion. She highlighted that studying the cost of this endeavor is essential.

Vice-Chair Holdmann believes it is important for the Task Force to have shared insight within a thoughtful process that is open to all ideas. It is necessary that the potential scenarios are considered from a big-picture perspective that is inclusive, rather than based upon preconceived notions or biases. Vice-Chair Holdmann explained that the visioning session could be utilized to establish a strategic foundation to clarify the thinking and the process for decision-making, which could then be refined by the Task Force as a whole and the subcommittees.

Vice-Chair Holdmann discussed that the visioning session could also provide a good opportunity for the members to become acquainted with each other. She noted that if the Task Force members would like to conduct a voluntary visioning session, she and Vice-Chair Thayer could generate a schedule and propose it to the Task Force.

A member commented and requested that the fiscal context is provided regarding 10-cent energy, delineating how many cents is energy generation, transmission, and debt structure.

A comment was made that the national average as of December 2022 was 16.7 cents per kWh, which is an increase of three cents per kWh since 2021. A comment was made that there are utilities in the northwest that provide power at close to 10 cents.

A question was asked if the 10-cent goal includes the use of PCE or is without PCE subsidies. Chair Lieutenant Governor Dahlstrom indicated that she does not have an answer to that question.

Mr. Guy commented that even with PCE, rural households pay approximately five times more than households in Anchorage. Currently, if Anchorage is paying 12 cents, rural households are paying more than 50 cents with PCE. Non-households pay an additional dollar in cost. Mr. Guy expressed support for a plan that can achieve rural parity with urban costs. PCE alone is not achieving parity.

Mr. Thayer explained that PCE is a great program that is 30 years old. The floor for PCE is established by the average market cost in Anchorage, Fairbanks, and Juneau, which is about 20 cents per kWh, and it caps at 75 cents per kWh. PCE subsidizes the difference for residential, but not for commercial. Mr. Thayer informed that there are communities in rural Alaska that pay $1.75 per kWh. The State of Alaska subsidizes PCE at about $40 million per year. Whereas, the State, through AEA, built the Intertie infrastructure from Willow to Healy to supply Golden Valley Electric Association (GVEA) and saves the Fairbanks rate payers about $37 million per year. Mr. Thayer noted that discussions with the Legislature regarding PCE are necessary, but are difficult to begin because of the fear of jeopardizing the PCE program. Mr. Thayer conveyed that there are unintended consequences of PCE for high-cost energy communities with a debt structure, which is a disqualifier for PCE.

A comment was made that it may be best to incentivize the communities with high cost of power to lower their costs on their microgrids without losing PCE, and perhaps this savings could help them subsidize or initiate renewable energy, such as solar or wind. The member commented that discussions regarding PCE are complicated. He suggested that the Task Force could examine ways to optimize PCE to invigorate communities to reduce costs. PCE is important and he believes that communication and discussions can occur.

Chair Lieutenant Governor Dahlstrom invited Mr. Espindola to provide his comments on working groups. Mr. Espindola recommended that the Task Force consider the ongoing energy planning efforts of existing working groups, such as the Nuclear Energy Working Group and the Hydrogen Working Group. Mr. Espindola requested that members email the names of any other working groups that could be useful to the Task Force. The email is: info@akenergysecuritytaskforce.com. Staff will compile the information and present it to the Task Force for consideration. It is possible that the identified working groups could give a short presentation during the symposium series.

Chair Lieutenant Governor Dahlstrom thanked the members for accepting the invitation to serve on the Task Force and for serving Alaska. She reiterated that the Task Force will discuss all options that could benefit Alaska. Chair Lieutenant Governor Dahlstrom expressed that she and the Vice-Chairs welcome suggestions from members. Other information that is needed can be requested from info@akenergysecuritytaskforce.com. The next meeting is May 9, 2023.

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 4:00 pm.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #2
TUESDAY, MAY 9, 2023, 3:00 PM – 5:00 PM

Alaska Energy Security Task Force Tuesday, May 9, 2023, 3:00 PM

Please note that the Alaska Energy Security Task Force will hold a meeting on Tuesday, May 9, 2023.

The Alaska Energy Security Task Force will convene at 3:00 pm to conduct task force business and continue in session until recess or adjournment.

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting: Kollette Schroeder at 907-465-3500 or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

The Task Force Meeting will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 258 089 849 275
Passcode: ToTwZw

Download Teams | Join on the web

Or call in (audio only)

+1 907-313-5807,,884661784# United States, Anchorage

Phone Conference ID: 884 661 784#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Person requiring special modifications to participate should contact 907-465-3500 to make arrangements.

Attachments

2023.05.09 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 5/2/2023 2:40:22 PM by jlbertolini
Modified 5/5/2023 2:08:20 PM by jlbertolini
Modified 5/5/2023 2:10:36 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	5/3/2023
Archive Date:	5/10/2023

Events/Deadlines:

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, May 9, 2023
3:00 pm to 5:00 pm

Teams Meeting:

Click here to join the meeting

Meeting ID: 258 089 849 275
Passcode: ToTwZw

Agenda

1. Welcome and Introductions (Lt Gov)
2. Roll Call
3. Presentations:
    a. Alaska Energy Authority (AEA)
    b. Alaska Center for Energy and Power (ACEP)
    c. Regulatory Commission of Alaska (RCA)
    d. Railbelt Utilities current rates
    e. Power Cost Equalization (PCE)
    f. Members
        i. Discussion – Subcommittees, Chair, Vice Chair
        ii. Regionally focused (Roadbelt, coastal, remote rural)
        iii. Alaska energy data gateway
4. Discussion: Proposed Symposium Series
5. Roundtable – Discussion/Feedback from Task Force Members (roundtable)
6. Next Meeting Date:

Alaska Energy Security Task Force Meeting

May 9, 2023



May 9, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. Welcome and Introductions by Lt. Governor Nancy Dahlstrom
2. Roll Call
3. Purpose
4. Presentations:
   - Alaska Energy Authority (AEA)
   - Alaska Center for Energy and Power (ACEP)
   - Railbelt Utilities' Rates Overview
   - Power Cost Equalization (PCE)
5. Timeline — October 31, 2023
6. Email and Website
7. Members:
   - Subcommittees, Chair, Vice Chair
   - Regionally Focused
   - Alaska Energy Data Gateway
8. Proposed Symposium Series
9. Roundtable — What does the committee need to be successful?
10. Next Meeting

Alaska Energy Security Task Force

Purpose



The **purpose** of the Alaska Energy Security Task Force is to develop a comprehensive statewide energy plan that will evaluate energy generation, distribution, transmission, and storage for the State of Alaska and its communities.

Organization

Alaska Energy Security Task Force

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	
Curtis W. Thayer, Executive Director of the Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
Gwen Holdmann, University of Alaska, Vice Chair	gholdmann@alaska.gov
Commissioner John Boyle, Department of Natural Resources	john.boyle@alaska.gov
Commissioner Jason Brune, Department of Environmental Conservation	jason.brune@alaska.gov
Nils Andreassen, Alaska Municipal League	nils@akml.org
Andrew Guy, Calista Corporation	aguy@calistacorp.com
Karl Hanneman, International Tower Hill Mines	khanneman@ithmines.com
Tony Izzo, Matanuska Electric Association	tony.izzo@mea.coop
Clay Koplin, Cordova Electric Cooperative	ckoplin@cordovaelectric.com
Jenn Miller, Renewable Independent Power Producers	jenn.miller@renewableipp.com
Duff Mitchell, Juneau Hydropower	duff.mitchell@juneauhydro.com
John Simms, ENSTAR Natural Gas Company	john.sims@enstarnaturalgas.com
Isaac Vanderburg, Launch Alaska	isaac@launchalaska.com
Robert Venables, Southeast Conference	robert@seconference.org
Senator Click Bishop (Ex Officio)	senator.click.bishop@akleg.gov
Garrett Boyle, Denali Commission (Ex Officio)	gboyle@denali.gov
Commissioner Keith Kurber, Regulatory Commission of Alaska (Ex Officio)	keith.kurber@alaska.gov
Representative George Rauscher (Ex Officio)	representative.george.rauscher@akleg.gov
Erin Whitney, United States Department of Energy, Arctic Energy Office (Ex Officio)	erin.whitney@hq.doe.gov
*John Espindola, Policy Advisor, Office of Governor Mike Dunleavy	john.espindola@alaska.gov

Timeline

- **Task Force –** Meets monthly; next meeting is scheduled for Tuesday, June 27, 2023, from 3 to 5 p.m. at AEA's office.
- **Subcommittees –** Schedule to be determined
- **Recommendations Due –** Tuesday, October 31, 2023

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Proposed Subcommittees

- State Energy Data
- Statutes and Regulations Reform
- Railbelt Transmission Generation and Storage
- Rural Generation, Distribution, and Storage
- Coastal Generation, Distribution, and Storage
- Incentives and Subsidies (Federal & State)

Proposed Symposium Series

The purpose of this symposium series is to "level up" members of the Energy Task Force and the interested general public to provide a common understanding of our existing energy landscape, why/how we got there, what technologies or opportunities could be applied in Alaska, and what are some of the global trends that could impact Alaska.

The symposium will be organized around the following six thematic areas:

1. History (the past informing our future direction)
2. The Economics of Energy in Alaska
3. Alaska Energy Policy
4. Brief overview of Alaska organizations that work on energy (who we are and what we do)
5. The Changing Global Energy Landscape
6. Technologies (existing Alaska development and future potential)

Roundtable Discussion

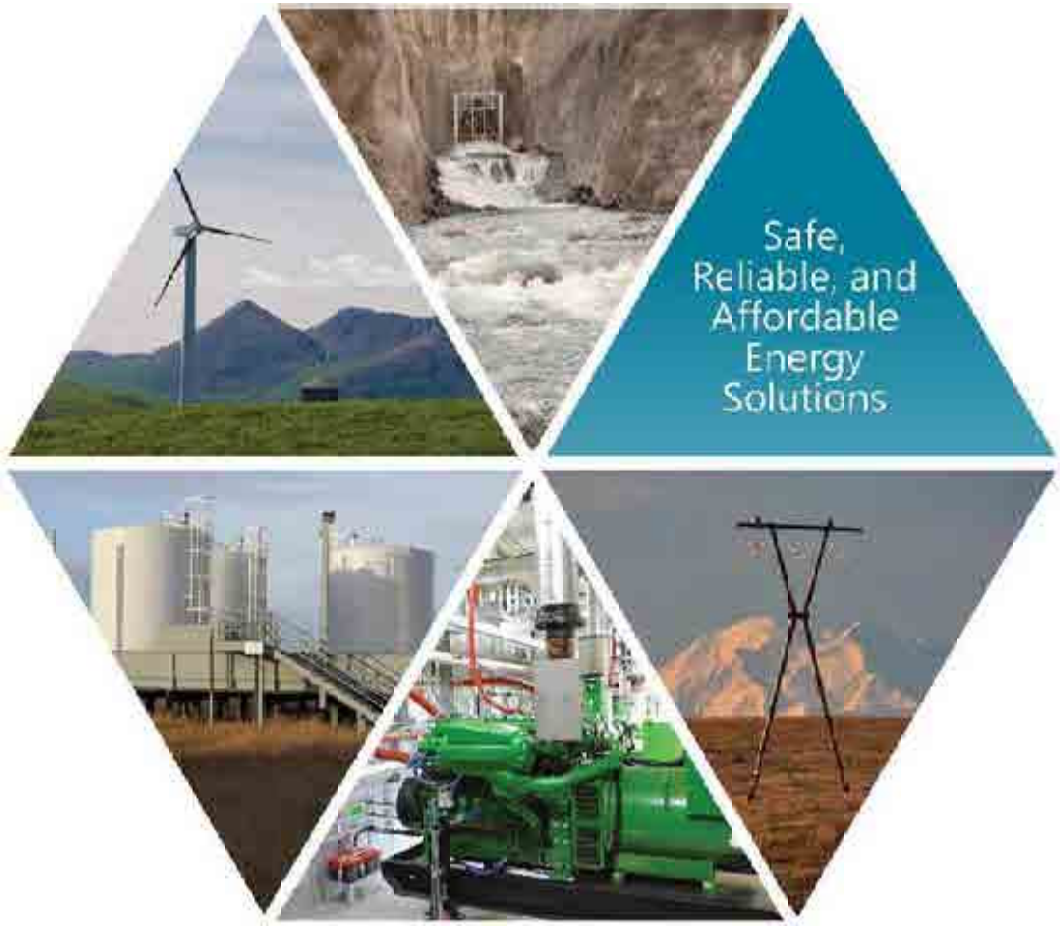
- Measures of Success
- Communications
- Task Force Expectations
- Subcommittee Expectations
- Milestones

ALASKA ENERGY AUTHORITY

AEA OVERVIEW PRESENTATION

Curtis W. Thayer
Executive Director

Alaska Energy Security Task Force
May 9, 2023



ALASKA ENERGY AUTHORITY

Who We Are



Our Mission

Reduce the cost of energy in Alaska.



Created in 1976 by the Alaska State Legislature, the Alaska Energy Authority (AEA) is a public corporation of the State of Alaska governed by a board of directors with the mission to “reduce the cost of energy in Alaska.” AEA is the state's energy office and lead agency for statewide energy policy and program development.

About AEA

AEA's mission is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio — increasing resiliency, reliability, and redundancy.



Railbelt Energy – AEA owns the Bradley Lake Hydroelectric Project, the Alaska Intertie, and the Sterling to Quartz Creek Transmission Line — all of which benefit Railbelt consumers by reducing the cost of power.



Renewable Energy and Energy Efficiency – AEA provides funding, technical assistance, and analysis on alternative energy technologies to benefit Alaskans. These include biomass, hydro, solar, wind, and others.



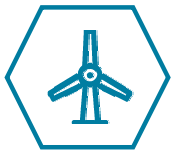
Power Cost Equalization (PCE) – PCE reduces the cost of electricity in rural Alaska for residential customers and community facilities, which helps ensure the sustainability of centralized power.



Grants and Loans – AEA provides loans to local utilities, local governments, and independent power producers for the construction or upgrade of power generation and other energy facilities.

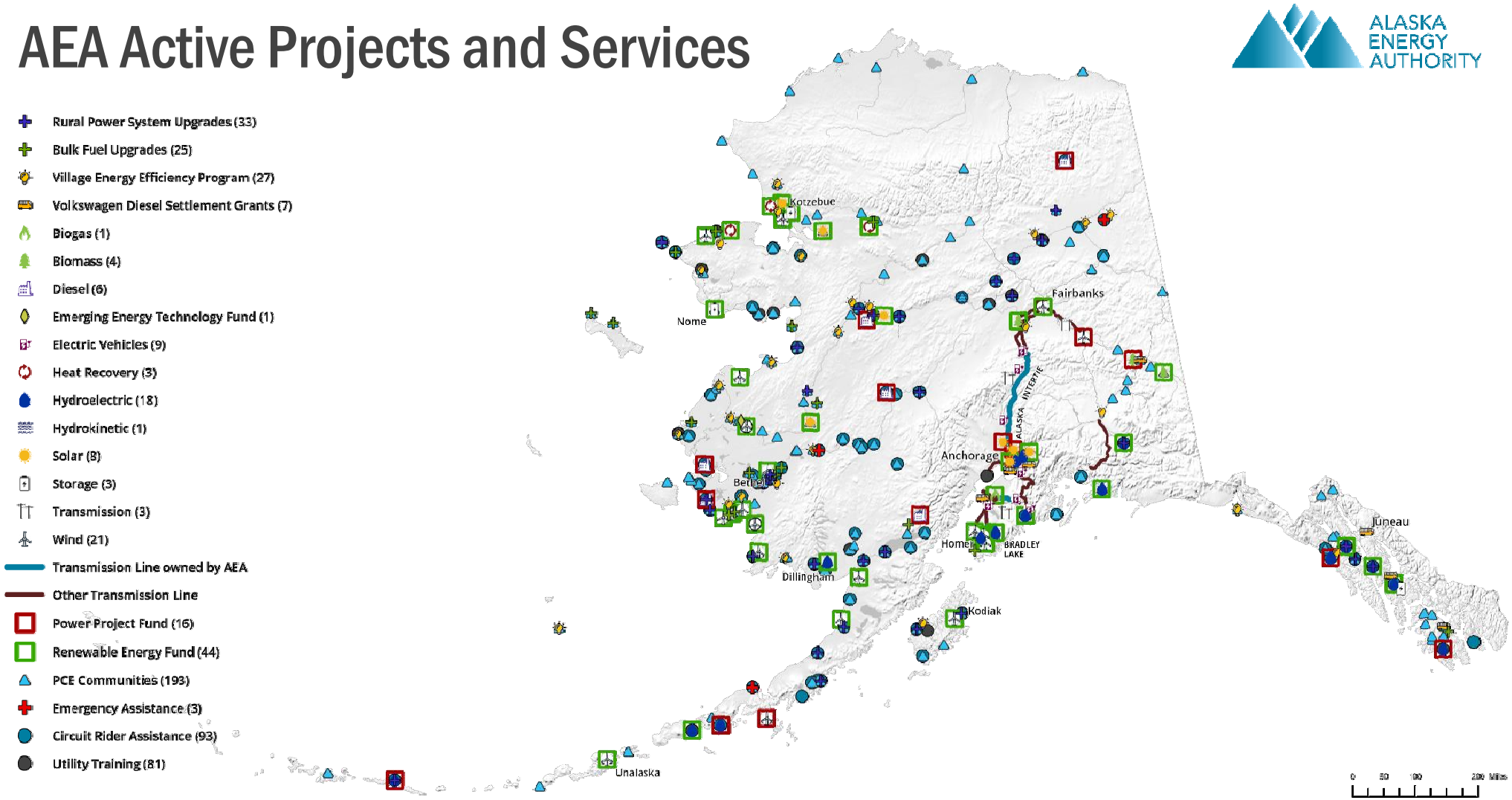


Rural Energy – AEA constructs bulk fuel tank farms, diesel powerhouses, and electrical distribution grids in rural villages. AEA supports the operation of these facilities through circuit rider and emergency response programs.



Energy Planning – In collaboration with local and regional partners, AEA provides economic and engineering analysis to plan the development of cost- effective energy infrastructure.

AEA Active Projects and Services





URBAN ENERGY



CAPACITY

120MW

Bradley Lake generators are rated to produce up to 120 MW of power.

ENERGY

10%

Bradley Lake generates about 10 percent of the total annual electrical energy used by Railbelt electric utilities.

GENERATION COST PER KWH

$0.04

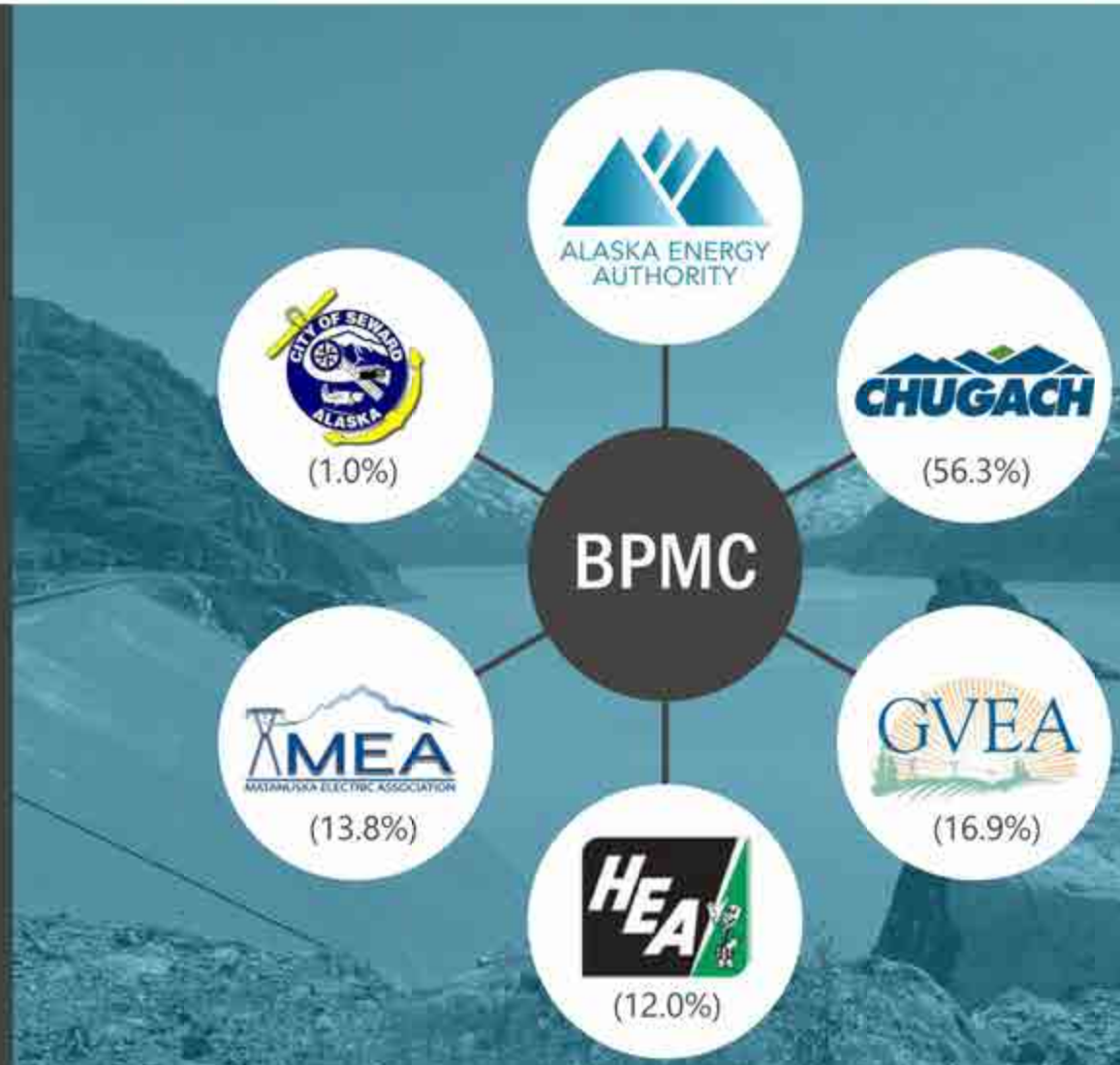
From 1995 through 2020, the project averaged 392,000 MWh of energy production annually at $0.04 per kWh.

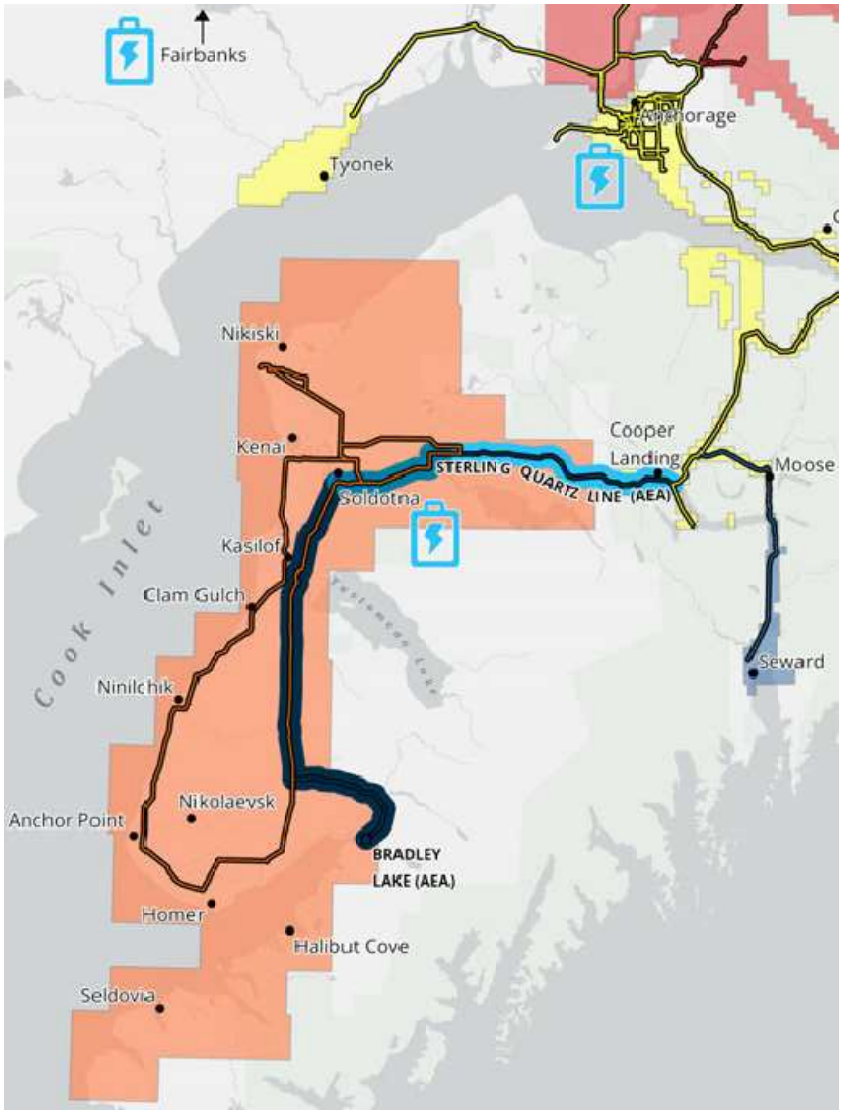
Bradley Lake Hydroelectric Project

- Bradley Lake is **Alaska's largest source of renewable energy**. Energized in 1991, the project is situated 27-air miles northeast of Homer on the Kenai Peninsula.
- The 120 MW facility provides **low-cost energy to 550,000+** members on the Railbelt.
- Bradley Lake's **annual energy production** is ~10% of Railbelt electricity at 4.5 cents/kWh (or ~54,400 homes/year) and over $20 million in savings per year to Railbelt utilities from Bradley Lake versus natural gas.
- AEA, in partnership with the Railbelt utilities, **is studying the Dixon Diversion Project** which would increase the annual energy production of Bradley Lake by 50% — or the equivalent of 14,000-28,000 homes.

BPMC

The Bradley Lake Hydroelectric Project is owned by AEA and managed by the Bradley Lake Project Management Committee (BPMC), which is comprised of a member from each of the five participating Railbelt utilities:
Chugach Electric Association,
Golden Valley Electric Association,
Homer Electric Association,
Matanuska Electric Association, and
Seward Electric System.





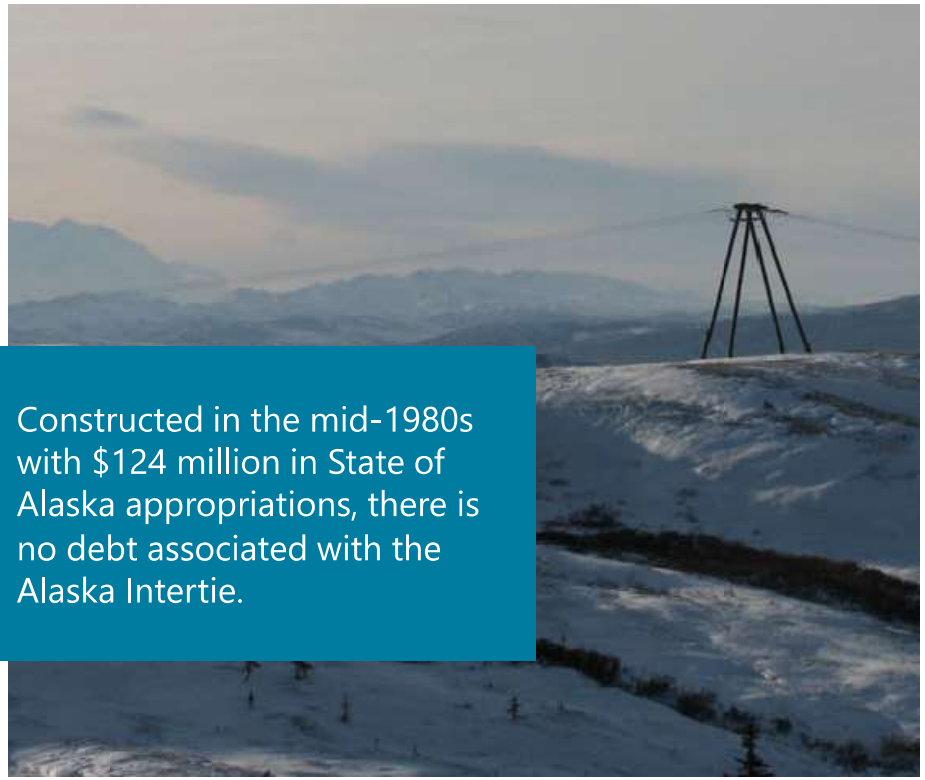
Transmission Upgrades and Battery Storage

AEA and the Railbelt utilities closed on **$166 million in bond financing** to improve the efficiency and deliverable capacity of power from the Bradley Lake Hydroelectric Project. **The bonding comes at no additional cost to ratepayers or burden on the State treasury**.

- Upgrade transmission line between **Bradley Lake and Soldotna** Substation
- Upgrade transmission line between **Soldotna Substation and Sterling** Substation
- Upgrade transmission line between **Sterling Substation and Quartz Creek** Substation
- **Battery Energy Storage Systems** for Grid Stabilization

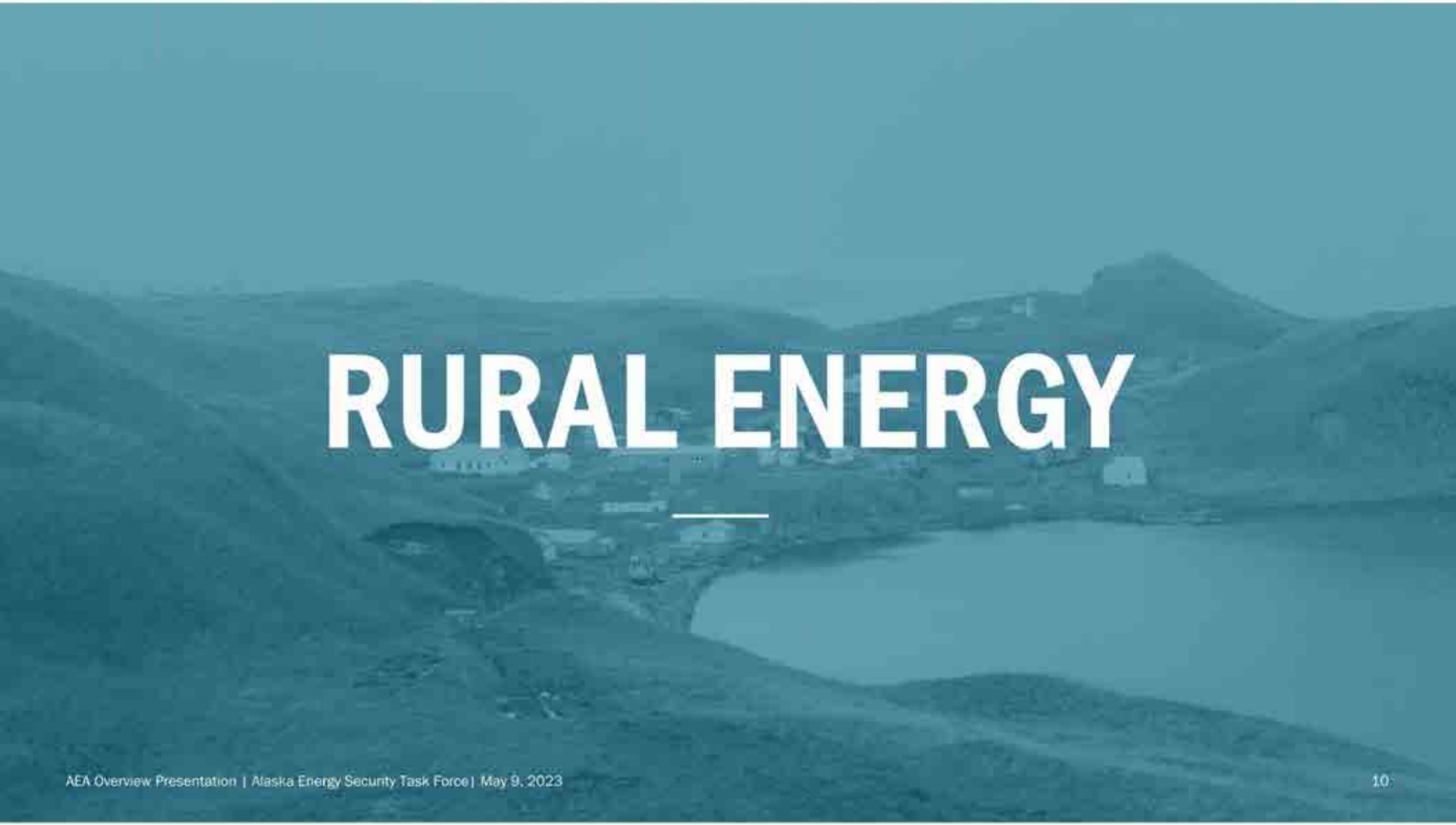
These projects will reduce constraints on the Railbelt by improving the Kenai Peninsula's transmission capacity to export power from Bradley Lake — and allow for the integration of additional renewable energy generation.

Alaska Intertie



Constructed in the mid-1980s with $124 million in State of Alaska appropriations, there is no debt associated with the Alaska Intertie.

- AEA owns the **170-mile Alaska Intertie transmission line that runs between Willow and Healy**. The line operates at 138 kV (it was designed to operate at 345 kV) and includes 850 structures.
- A **vital section of the Railbelt transmission system**, the Intertie is the only link for transferring power between northern and southern utilities.
- The Intertie transmits power north into the Golden Valley Electric Association (GVEA) system and provides Interior customers with low-cost, reliable power — between 2008 and 2021, the Intertie **saved GVEA customers an average of $37 million annually**.
- The Intertie provides benefits to Southcentral customers as well through **cost savings and resilience to unexpected events**.



RURAL ENERGY

Power Cost Equalization (PCE)

AEA, along with the Regulatory Commission of Alaska, administers the PCE program, which serves remote communities that are largely reliant on diesel fuel for power generation.

193
RURAL COMMUNITIES

91
ELECTRIC UTILITIES

82,000
ALASKANS

The cost of electricity for Alaska's rural residents is notably higher than for urban residents. PCE lowers the cost of electric service paid by rural residents. Ultimately ensuring the viability of rural utilities and the availability of reliable, centralized power.



750 kWh
RESIDENTIAL
Residential customers are eligible for PCE credit up to 750 kWhs per month.

70 kWh
PUBLIC FACILITIES
Community facilities can receive PCE credit for up to 70 kWhs per month multiplied by the number of residents in a community.

$27.4M
FUNDS DISTRIBUTED
In Fiscal Year 2022, AEA disbursed $27.4 million for payment of PCE to rural electric utilities for the benefit of our rural communities.

Who is Eligible to Participate in PCE?

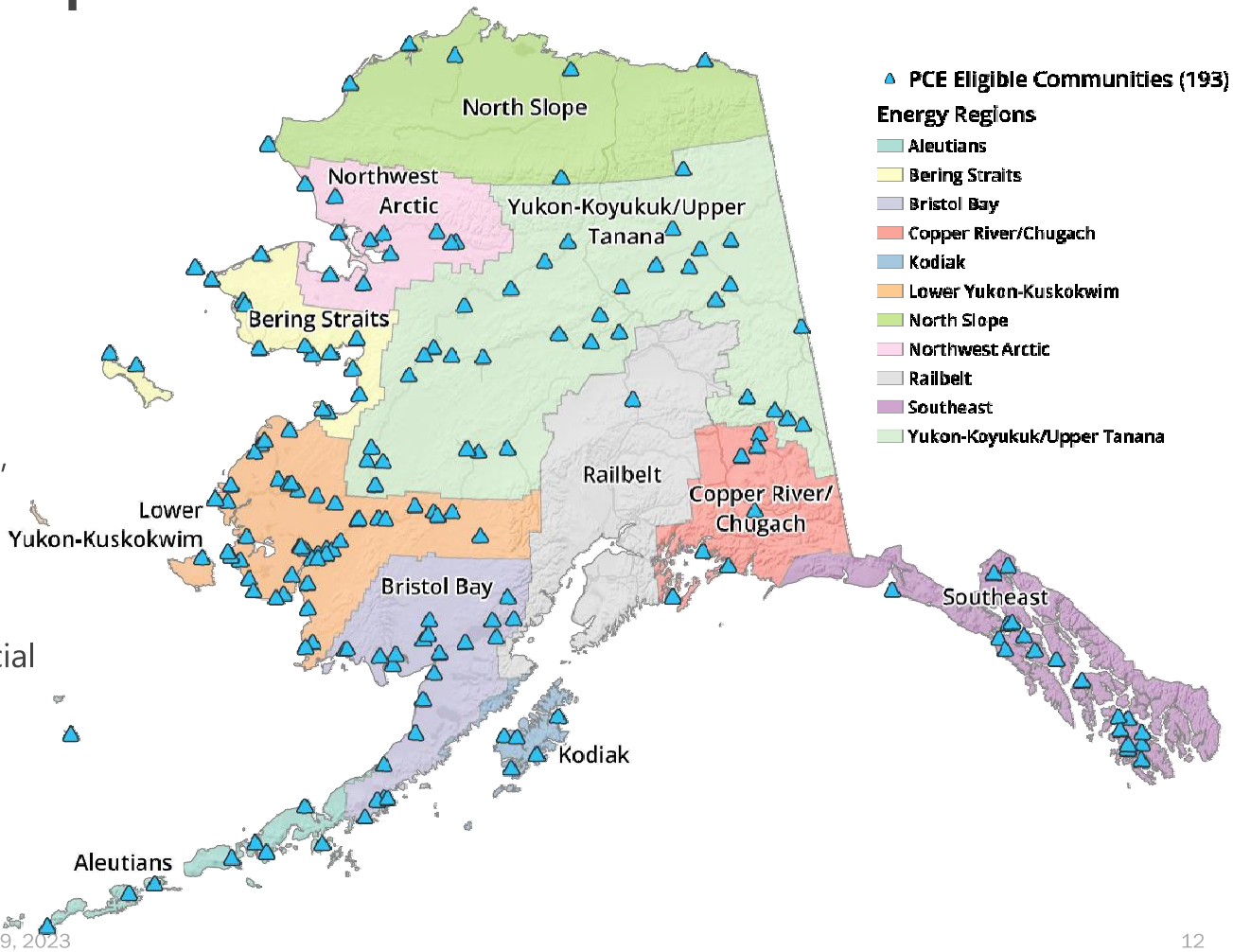
PCE eligibility is determined by the Regulatory Commission of Alaska in accordance with Alaska Statute 42.45.100-170.

Eligible customers include:

- Residential and community facilities (water, sewer, public lighting, and clinics, etc.)

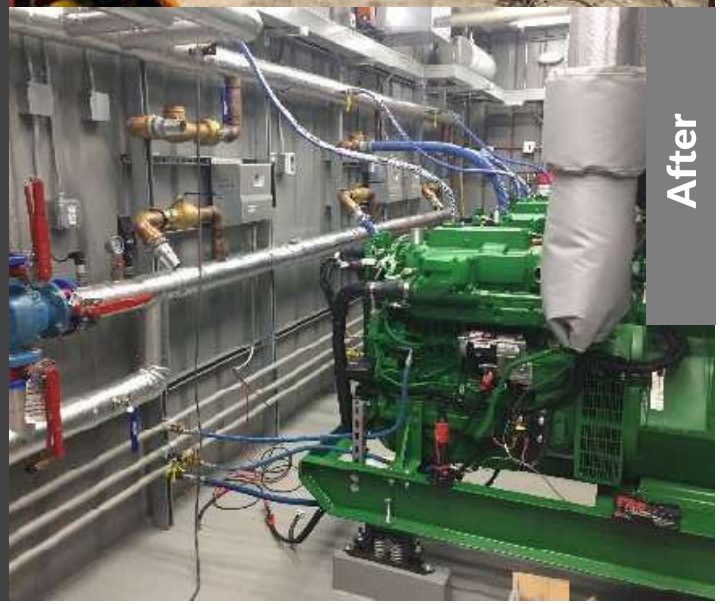
Non-eligible customers include:

- State and federal facilities and commercial customers
- Any community with rates lower than the urban average (the PCE floor)



Rural Power System Upgrades





- ~197 communities eligible for Rural Power System Upgrade
- Goal — improve power system efficiency, safety, and reliability
- Aging infrastructure and Operation and Maintenance
- Active projects — 7 full and 16 Maintenance and Improvement/Diesel Emissions Reduction Act
- Deferred maintenance is $300 million

Bulk Fuel Upgrades

- ~400 rural bulk fuel facilities
- Goal — code compliant fuel storage facilities and prevention of spills and contamination
- Aging infrastructure, erosion, and catastrophic failure
- Active projects — 8 full and 18 Maintenance and Improvement; no funding for two years
- Leveraging Coast Guard regulatory efforts to capture BFU assessments to prioritize projects
- Deferred maintenance is $800 million





FINANCING TOOLS

Power Project Fund (PPF) Loan Program

The PPF loan program qualifies applicants seeking low-interest loans for eligible power projects. PPF provides local utilities, local governments, or independent power producers an avenue to seek funding for the development, expansion, or upgrade of electric power facilities.



COMMUNITY BORROWING
$27.2 Million in
Outstanding Loans



AVAILABLE CAPITAL
$6.4 Million
Available for Lending



COMPETITIVE RATES
Current PPF Interest Rate
5.03% as of May 1, 2023



FLEXIBLE FINANCING
Low-Cost Financing Tailored
to Project and Borrower

Capital Request: General Fund - $7.5 Million

Renewable Energy Fund (REF)

Established in 2008, the REF is a unique and robust competitive grant program, which provides critical financial assistance for statewide renewable energy projects, across a variety of project phases.

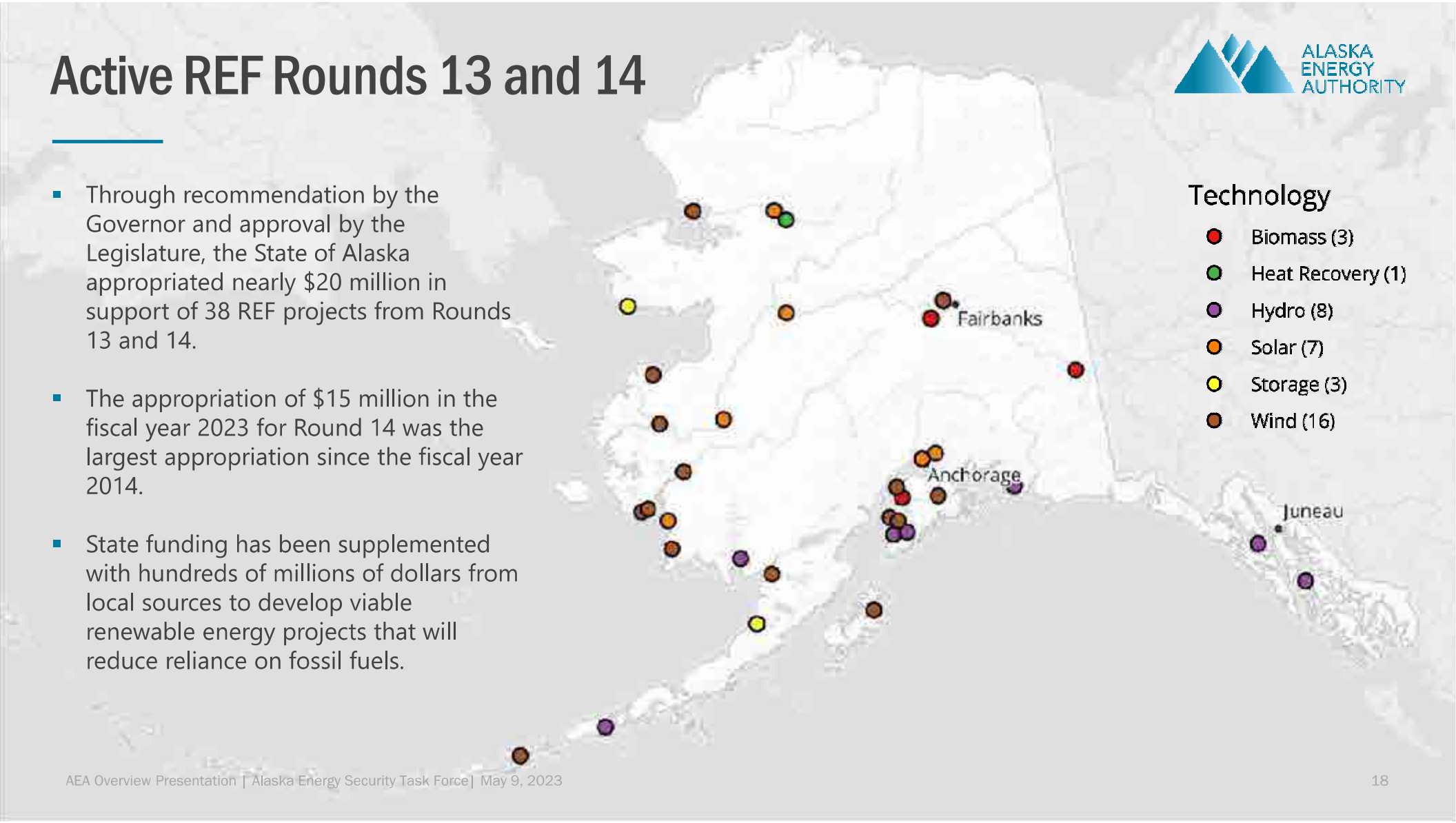
The REF funds projects across all development phases, serving as a catalyst for the continued pursuit of integrating proven and nascent technologies within Alaska's energy portfolio.



- Nearly $300 million invested in the REF by the State.
- Over 100 operational projects and 44 in development.
- The REF Advisory Committee unanimously approved 27 Round 15 projects for a total of $25.25 million.

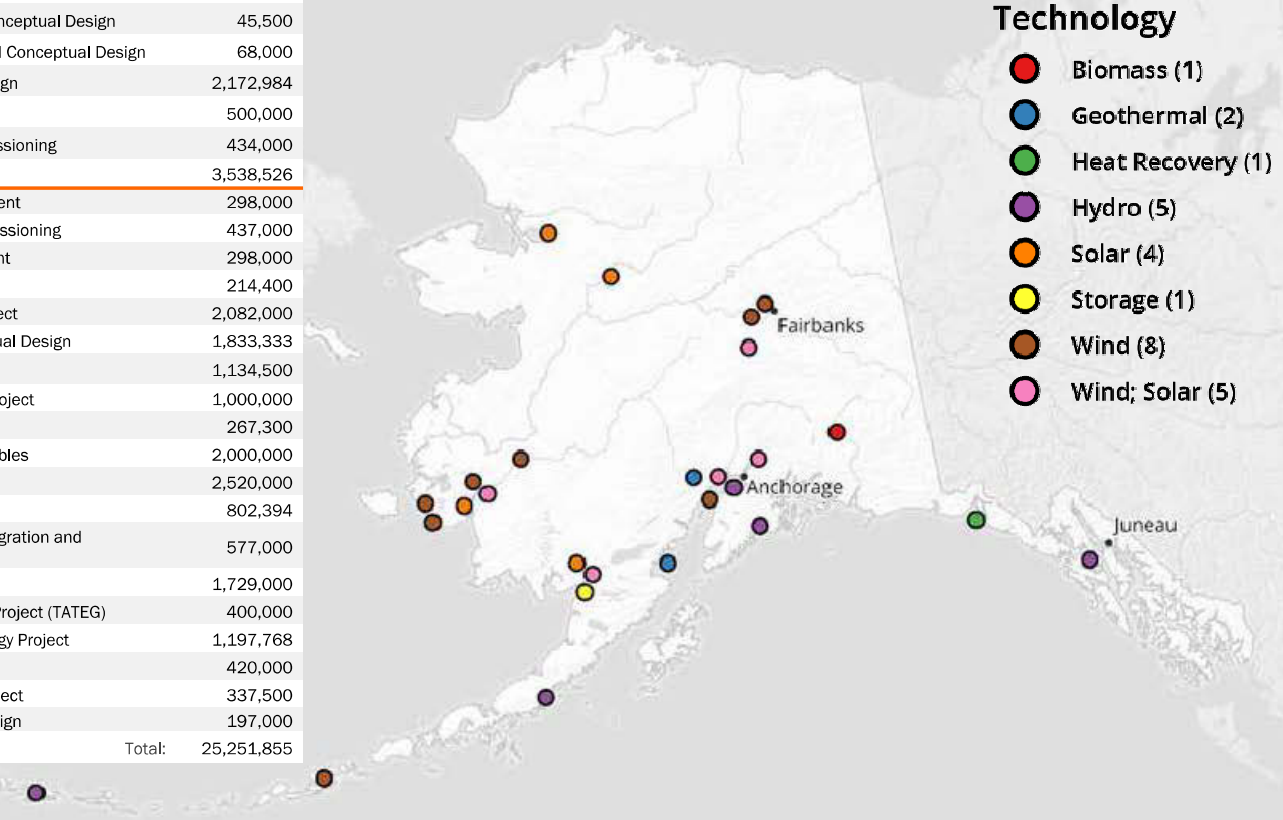
Active REF Rounds 13 and 14

- Through recommendation by the Governor and approval by the Legislature, the State of Alaska appropriated nearly $20 million in support of 38 REF projects from Rounds 13 and 14.
- The appropriation of $15 million in the fiscal year 2023 for Round 14 was the largest appropriation since the fiscal year 2014.
- State funding has been supplemented with hundreds of millions of dollars from local sources to develop viable renewable energy projects that will reduce reliance on fossil fuels.



REF Round 15 Recommendations

Community	Project	Amount
Adak	Hydropower - Feasibility and Conceptual Design	497,650
Railbelt / GVEA Serving Area	LIDAR Improvement to Interior Wind Energy Assessments	250,000
Railbelt / HEA Serving Area	Mount Spurr Geothermal Feasibility and Conceptual Design	45,500
Railbelt / HEA Serving Area	Augustine Island Geothermal Feasibility and Conceptual Design	68,000
Naknek, South Naknek, King Salmon	Electric Battery Energy Storage System Design	2,172,984
Native Village of Kluti-Kaah (Copper Center)	Woodchip Heating Project	500,000
Kipnuk	Battery Installation, Integration and Commissioning	434,000
Hoonah	Water Supply Creek Hydro Construction	3,538,526
Beluga	Beluga Area Renewable Resource Assessment	298,000
Chefornak	Battery Installation, Integration, and Commissioning	437,000
Healy	Healy Area Renewable Resource Assessment	298,000
Railbelt / HEA Serving Area	Cook Inlet Oil Platform Wind Project	214,400
Huslia	Community-Scale Solar PV and Battery Project	2,082,000
Railbelt / MEA Serving Area	Railbelt Wind Feasbility Study and Conceptual Design	1,833,333
Selawik	Solar PV Array	1,134,500
Yakutat	Community Health Center Heat Recovery Project	1,000,000
Kalskag	Wind Feasibility and Conceptual Design	267,300
Railbelt	Utility-Scale Railbelt Wind – Alaska Renewables	2,000,000
New Stuyahok, Ekwok	Solar Energy and Battery Storage Project	2,520,000
Chignik	Hydroelectric Power System Design	802,394
Atmautluak	Battery and Thermal Stove Installation, Integration and Commissioning	577,000
Railbelt / CEA Serving Area	Godwin Creek Hydroelectric Project	1,729,000
Railbelt	Turnagain Arm Tidal Electricity Generation Project (TATEG)	400,000
Tuntutuliak	Community Services Association Solar Energy Project	1,197,768
Unalaska	Wind Farm Design	420,000
Napaskiak	Reconnaissance and Wind Assessment Project	337,500
Levelock	Renewables Feasibility and Conceptual Design	197,000
	Total:	25,251,855





INFRASTRUCTURE INVESTMENT AND JOBS ACT

Statewide Grid Resilience and Reliability IIJA Formula Grant Program, 40101(d)



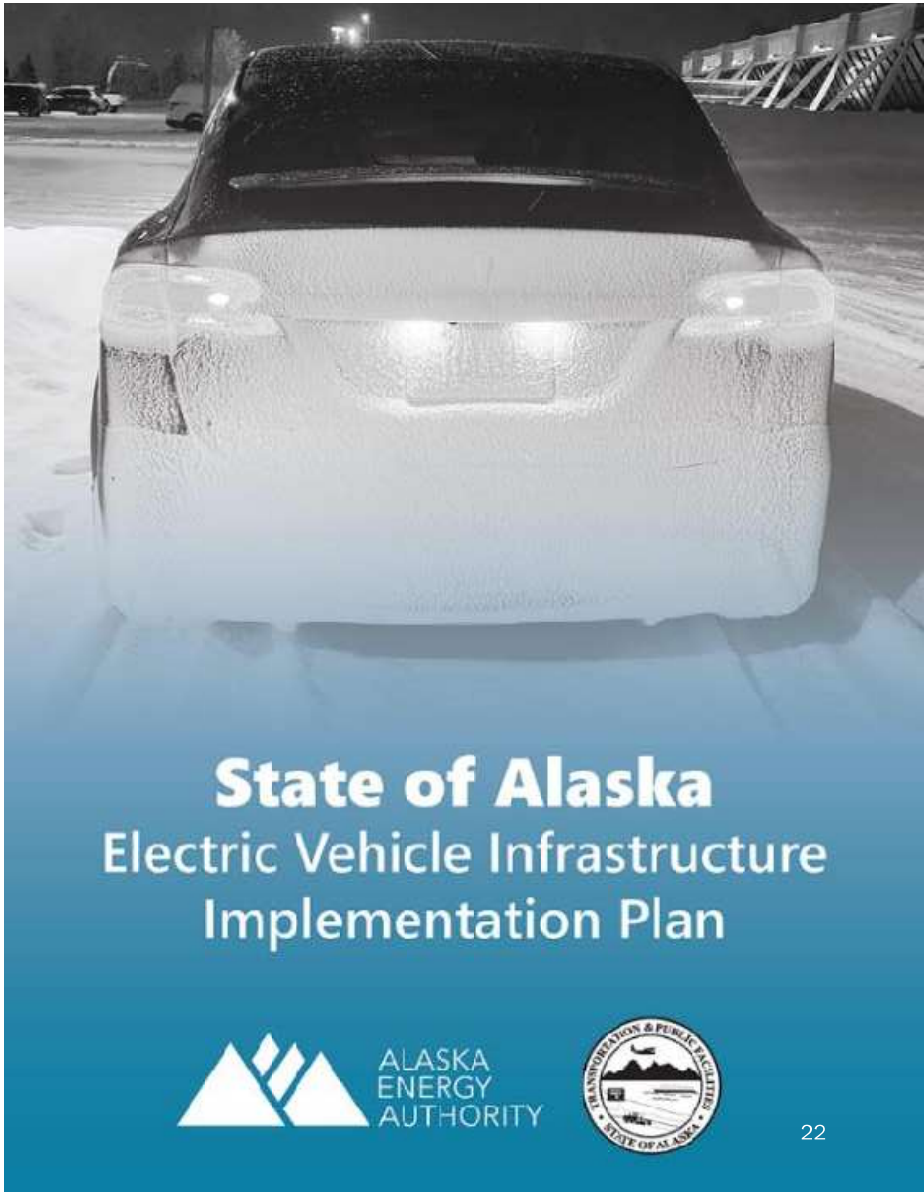
Per IIJA section 40101(a)(1),8 a disruptive event is defined as "an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster."

- These federal formula grant funds will provide **$60 million** to Alaska over five years, including **$22.2 Million** for the first two years allocation, to catalyze projects that **increase grid resilience against disruptive events**.
- Resilience measures include but are not limited to:
  - Relocating or reconductoring powerlines
  - Improvements to make the grid resistant to extreme weather
  - Increasing fire resistant components
  - Integrating distributed energy resources like microgrids and energy storage
- Formula-based funding requires a **15% state match** and a **33% small utility match**.

State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan

AEA and the Alaska Department of Transportation & Public Facilities (DOT&PF), submitted their **State of Alaska EV Infrastructure Implementation Plan (The Plan)** to the United States Joint Office of Energy and Transportation, as required by the Infrastructure Investment and Jobs Act's (IIJA) NEVI Formula Program.

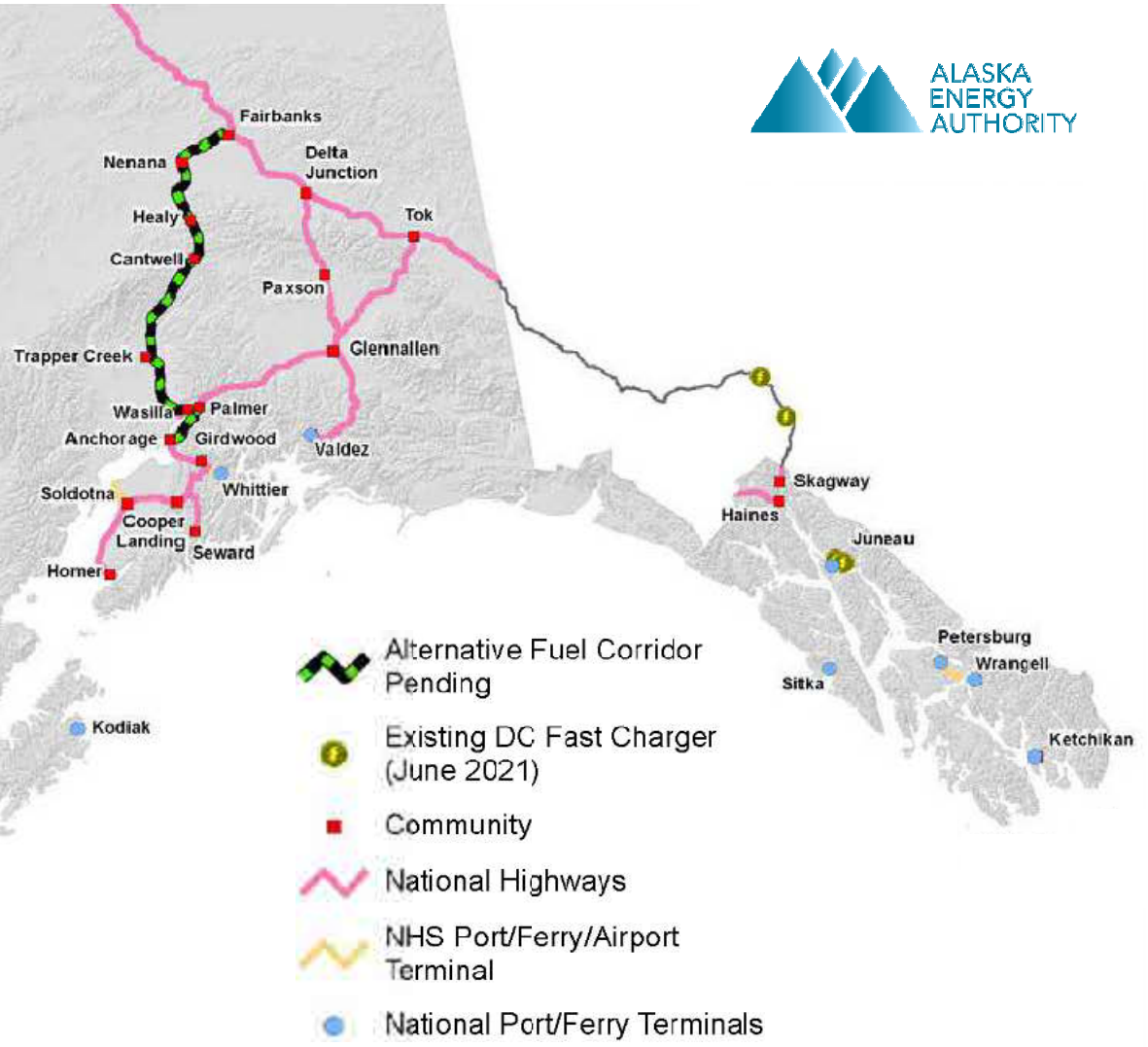
- On September 27, 2022, **The Plan was approved**. The announcement unlocks **$19 million** to expand EV charging infrastructure in Alaska.
- Over the **next five years, AEA anticipates receiving $52 million**. Funds will be received by DOT&PF and administered by AEA.
- On March 1, 2023, AEA issued a **Request for Applications** for to site hosts compete for a share of Alaska's NEVI program funding. Applications are due by 4 p.m. on May 15, 2023.



NEVI Requirements

Funding must be used to build out Alternative Fuel Corridors (AFCs) first

- Alaska currently has one AFC (pending)
- After AFC buildout, funding can be used elsewhere
- Charging infrastructure must be **DC fast-charging**
  - 4 Combined Charging System Connectors
  - >150 kW each
- Chargers must be located no more than **1 driving mile from AFC**
- Charging stations must be located no more than **50 miles** apart along designated AFC
- Match Requirements
  - Federal share: 80%
  - Private entity or other: 20%
- Justice40 Requirements



IIJA Energy Opportunities — Need Federal Receipt Authority



- **IIJA: Statewide Grid Resilience and Reliability Formula Grant Program, 40101(d) –** $12 Million (requires $1.8 Million Federal Match)
- **IIJA Competitive: Energy Efficiency Revolving Loan Fund –** $3.7 Million
- **IIJA: State Energy Program –** $2.9 Million
- **IIJA Competitive: Alaska Rural EVSE Deployment –** $2 Million
- **IIJA: Energy Auditor Training –** $315,000 (Over Five Years)
- **Alaska High Efficiency Home Rebate Program –** $37 Million
- **Inflation Reduction Act Alaska Hope for Homes –** $37 Million
- **Defense Community Infrastructure Pilot Program: Black Rapids Training Site –** $12.8 Million

IIJA Competitive: Grid Resilience and Innovation Partnerships (GRIP)

To enhance the power system's resilience to extreme weather and climate change, the Grid Deployment Office is administering a $10.5 billion GRIP program under the Bipartisan Infrastructure Law.



1) Railbelt Backbone Reconstruction Project
$100 Million*
(Requested of DOE; submitted April 5, 2023)

2) Battery Energy Storage/HVDC Coordinated Control
$16 Million*
(Requested of DOE; submitted March 16, 2023)

3) Railbelt Innovation Resiliency Project)
$299 Million*
(Due May 19, 2023)

3) Rural Alaska Microgrid Transformation
$250 Million*
(Due May 19, 2023)

*All four GRIP programs are in application phase.



ALASKA ENERGY AUTHORITY

Alaska Energy Authority

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APPENDIX

FY2024 Capital Budget Overview

Project/Program	Budget Year	Federal	State UGF	Total
IIJA - Statewide Grid Resilience and Reliability Formula	FY24	12,110,523	1,816,579	13,927,102
IIJA - New Energy Efficiency Revolving Loan Fund Capitalization	FY24	3,773,780	-	3,773,780
IIJA - State Energy Program	FY23 Suppl.*	2,865,930	-	2,865,930
IIJA - EV Charging Equipment Competitive	FY24*	1,670,000	-	1,670,000
IIJA - Energy Auditor Training	FY24	63,600	-	63,600
IRA - Home Energy and High Efficiency Rebate Allocations	FY24	74,519,420	-	74,519,420
Black Rapids Training Site - Defense Community Infrastructure Pilot Program	FY23 Suppl.*	12,752,540	-	12,752,540
Rural Power Systems Upgrades	FY24	25,000,000	7,500,000	32,500,000
Renewable Energy Fund Round 15	FY24	-	7,500,000	7,500,000
Bulk Fuel Upgrades	FY24	7,500,000	5,500,000	13,000,000
Hydroelectric Development - Dixon & Godwin Creek Studies	FY24	-	5,000,000	5,000,000
Renewable Energy & Efficiency Programs	FY24	-	5,000,000	5,000,000
Delta Phase 3 Power	FY24		3,000,000	3,000,000
Electrical Emergencies	FY24	-	200,000	200,000
TOTAL		**140,255,793**	**35,516,579**	**175,772,372**

- Statewide Grid Resilience and Reliability Formula - $60 million over five years
- National Electric Vehicle Infrastructure Formula Program (funds from Department of Transportation RSA) - $52 million over five years

Alaska Center for Energy & Power
University of Alaska Fairbanks

Jeremy Kasper, ACEP Director



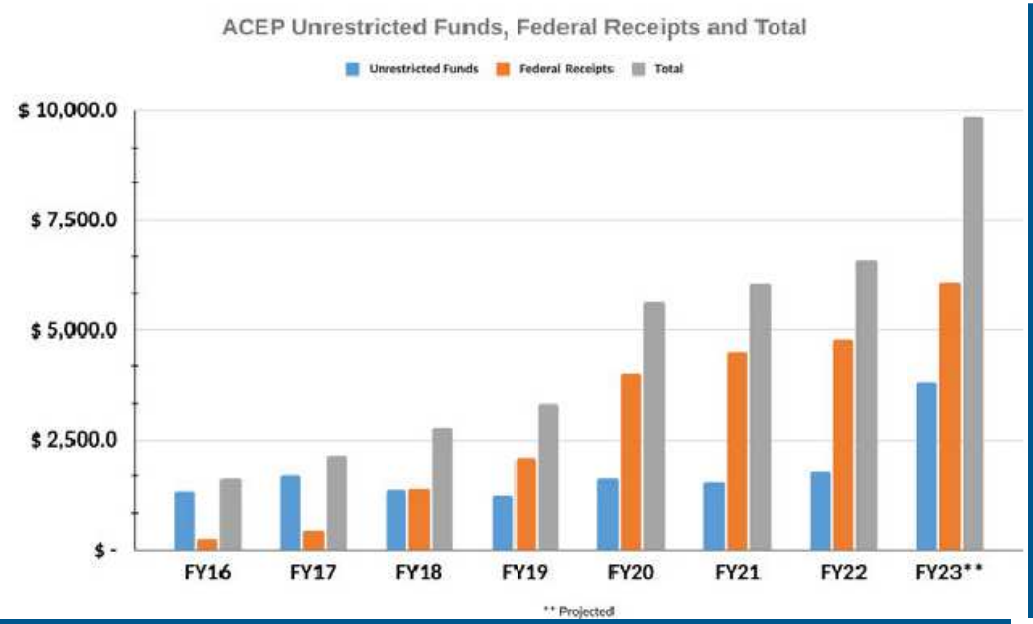
Alaska Center for Energy & Power

Mission: Fostering development of practical, innovative and cost-effective energy solutions for Alaska and beyond

- Applied energy research program
- Technology testing & optimization
- Energy systems modeling & analysis
- Knowledge network creation
- Commercializing energy innovation

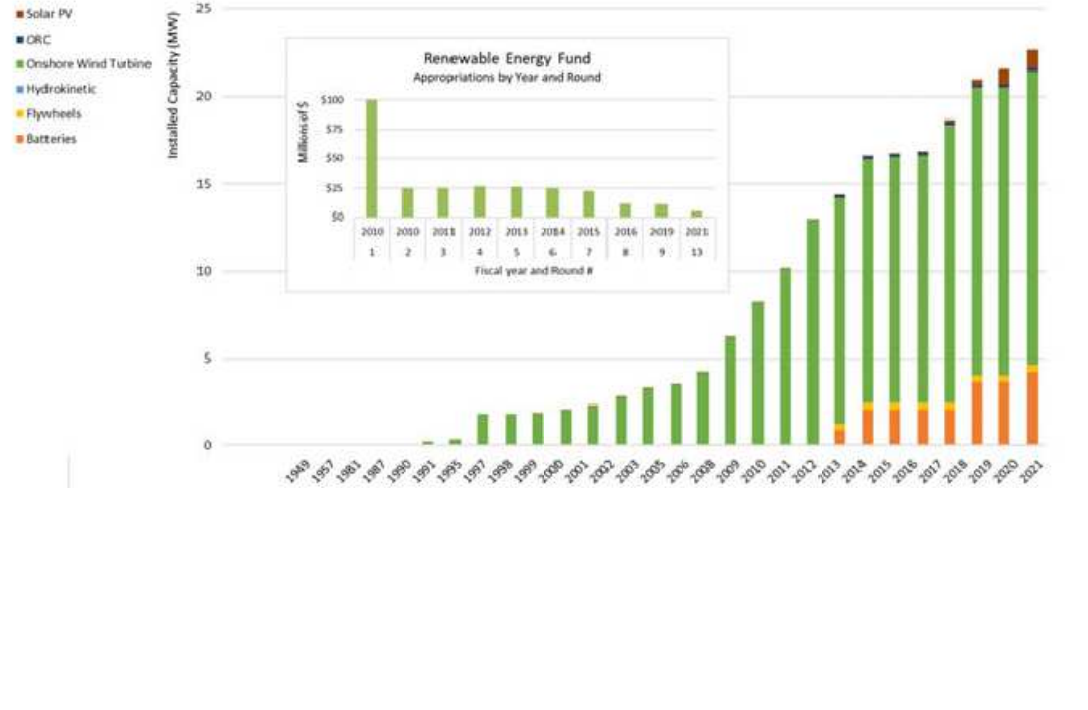












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Our research focuses on innovative, practical, and cost-saving solutions for community and industry-scale power generation, transmission, heating and transportation fuels. We strive to enable greater local energy security, sustainability, and reliability by moving energy solutions from the laboratory to the real world.

Marine Energy

The Pacific Marine Energy Center at UAF (PMEC-UAF) provides practical and innovative solutions for hydrokinetic power generation to help meet Alaska' energy challenges through applied research.

Power Systems Integration

The Power Systems Integration (PSI) program collaborates with local, regional and national stakeholders to increase the resilience of power systems and reduce energy costs and emissions across Alaska and beyond.

Solar Technologies

The solar technologies program supports responsible and equitable development of solar photovoltaic technology in Alaska and beyond.

- Energy Transitions
- Beneficial Electrification
- Energy Policy and Economics
- Geothermal
- Advanced Nuclear
- Energy Storage
- Railbelt Decarbonization
- Energy Innovation
- Microgrids/ DERs
- DoD Energy Needs
- Hydrogen
- CCUS

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ACEP Alaska Center for Energy and Power

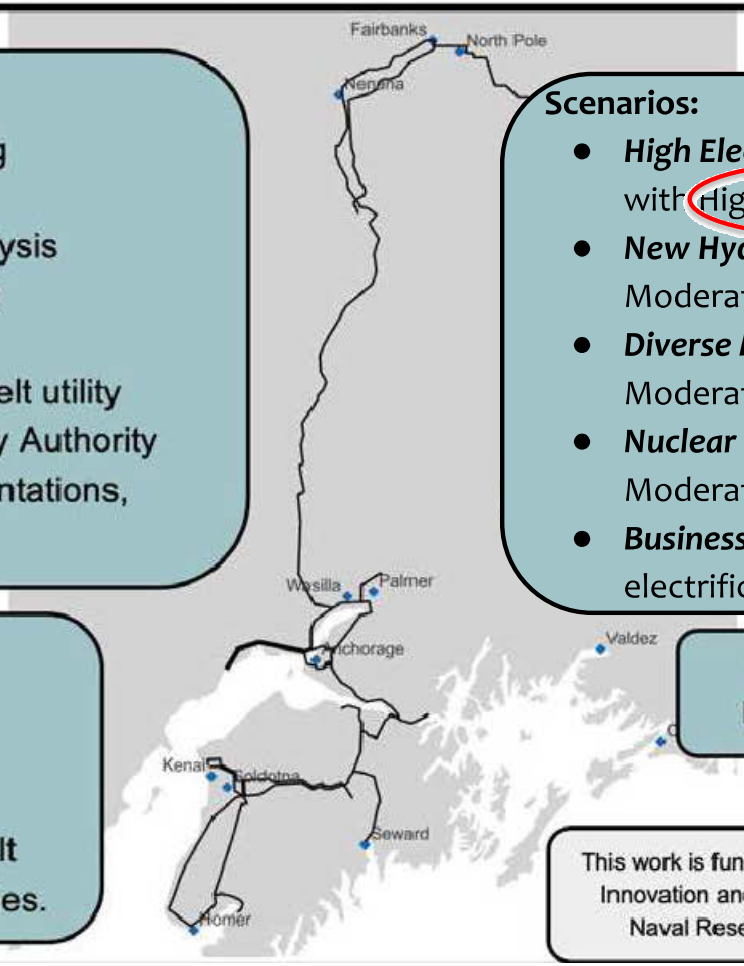
DOI 10.5281/zenodo.7909704

Alaska Railbelt Decarbonization Pathways Study

Exploring and quantifying system-wide pathways toward *100% Railbelt Decarbonization in 2050.*

Study Components:

- Resource assessment and sizing
- Load forecasting
- Transmission modeling and analysis
- Economic dispatch of generation
- Rate analysis
- Technical Advisory Group: Railbelt utility engineers and the Alaska Energy Authority
- Stakeholder Engagement: presentations, workshops, and surveys



Scenarios:

- ***High Electrification Focus*:** New Wind, Solar, & Tidal with High Electrification
- ***New Hydro Focus*:** New Hydro, Wind, & Solar with Moderate Electrification
- ***Diverse Mix Focus*:** New Wind, Solar, & Tidal with Moderate Electrification
- ***Nuclear Focus*:** New Nuclear, Wind, & Solar with Moderate Electrification
- ***Business as Usual*:** No new generation, no electrification, planned transmission upgrades

Outcomes:

- Quantify the ***economic and reliability implications of decarbonization scenarios***
- ***Create information*** for Railbelt planning discussions and studies.

Questions and more information:
Phylicia Cicilio pcicilio@alaska.edu

This work is funded through the Alaska Regional Collaboration for Technology Innovation and Commercialization (ARCTIC) program which is an Office of Naval Research (ONR) funded collaboration and the State of Alaska.

High Electrification: what does this mean?

ELECTRIFICATION of HEAT

- Heating: PuMA (Pump Monitoring Apparatus)





  - New System for Quantifying Home Heating Oil Usage
- ***Big Data***: merging AHFC's ARIS/AK WARM database to estimate statewide heating requirements
- Household level surveys
- Research on heat pumps + thermal electric storage stoves

ELECTRIFICATION of TRANSPORTATION

- Electric Vehicles

Alaska Electric Vehicle Calculator

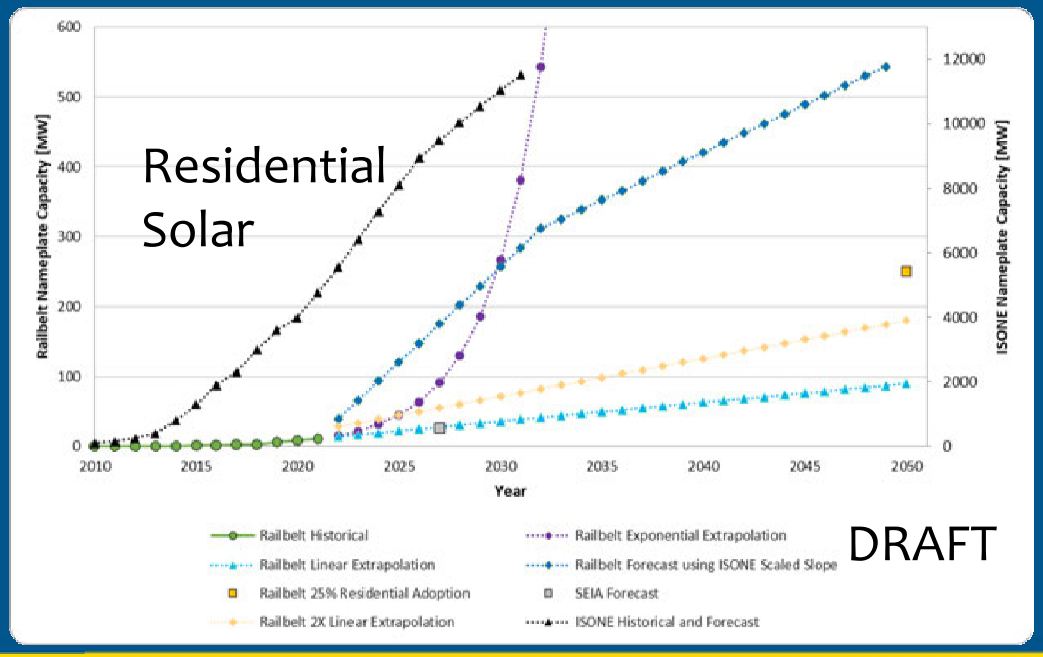
Alaska Electric Vehicle Workshop Report

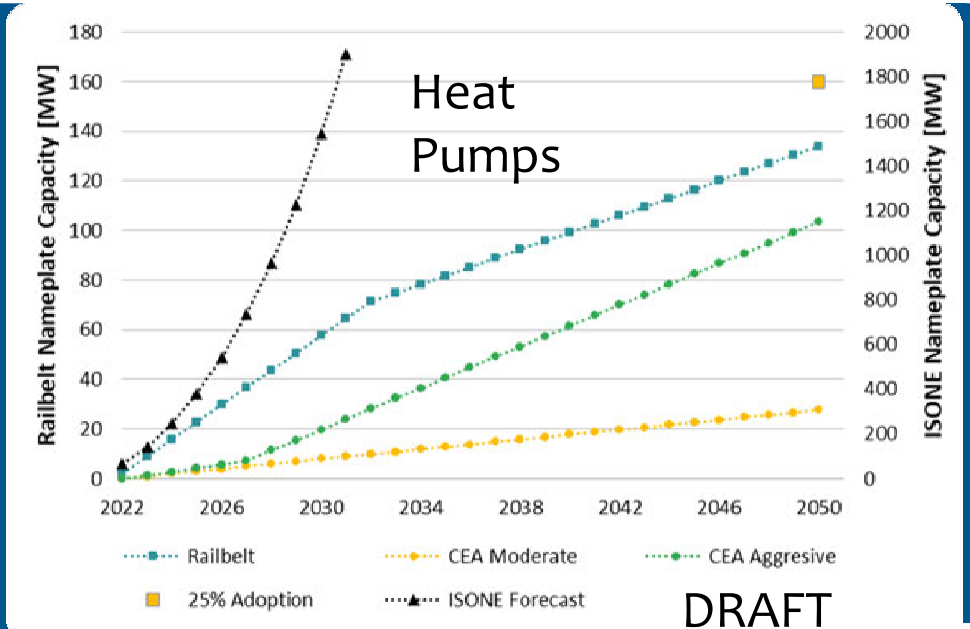
Cold Weather Issues for Electric Vehicles in Alaska

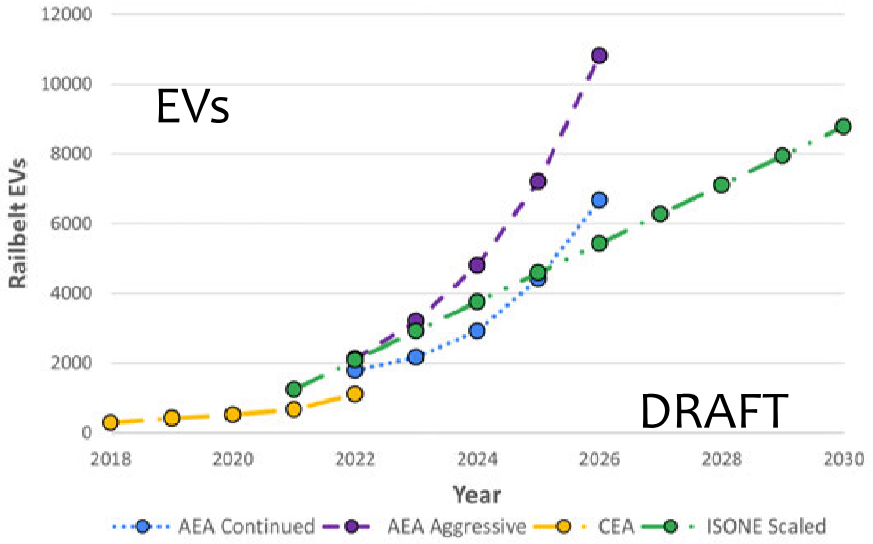
https://uaf.edu/acep/projects/beneficial-and-equitable-electrification.php

Load Forecasting

- Base load
- Electric vehicles
- Residential solar
- Heat pumps





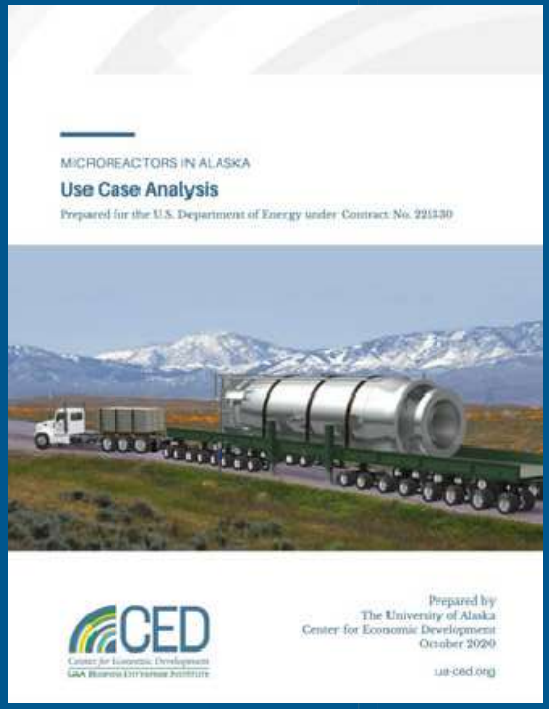


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Advanced Nuclear







Nuclear Working Group: https://www.uaf.edu/acep/working-groups/nuclear-energy-working-group.php

Online and In-Person Workshops



Examples:

Micronuclear
Tidal Energy
Ben. Electrification
Hydrogen economy

Carbon Capture Utilization and Storage
Low-carbon energy transitions
Long duration energy storage

WORKSHOP 2: Carbon Capture and Sequestration: The Myth and the Reality

Name: Carbon Capture and Sequestration: The Myth and the Reality
Dates: Tuesday, April 11th and Wednesday, April 12th, 2023
Location: Virtual via Zoom
Cost: Free to attend, must register in advance
Description: Carbon capture utilization and storage (CCUS) covers the suite of technologies used to capture carbon dioxide from stationary point sources, industrial processes, or the atmosphere, and then transport it to either 1) utilize for other beneficial use, or 2) inject deep underground into subsurface formations for permanent storage. Although based on decades-old technology in the oil and gas sector, emissions reduction goals and changes to the federal tax code have ignited a growing wave of implementation on the international scale. Join us for this conversation to learn from project developers, subject matter experts, and regulators to address the myths and realities of this industry and discuss the potential role it may play in Alaska in the coming years.

REGISTER NOW

For event notifications sign up for the ACEP weekly newsletter at:

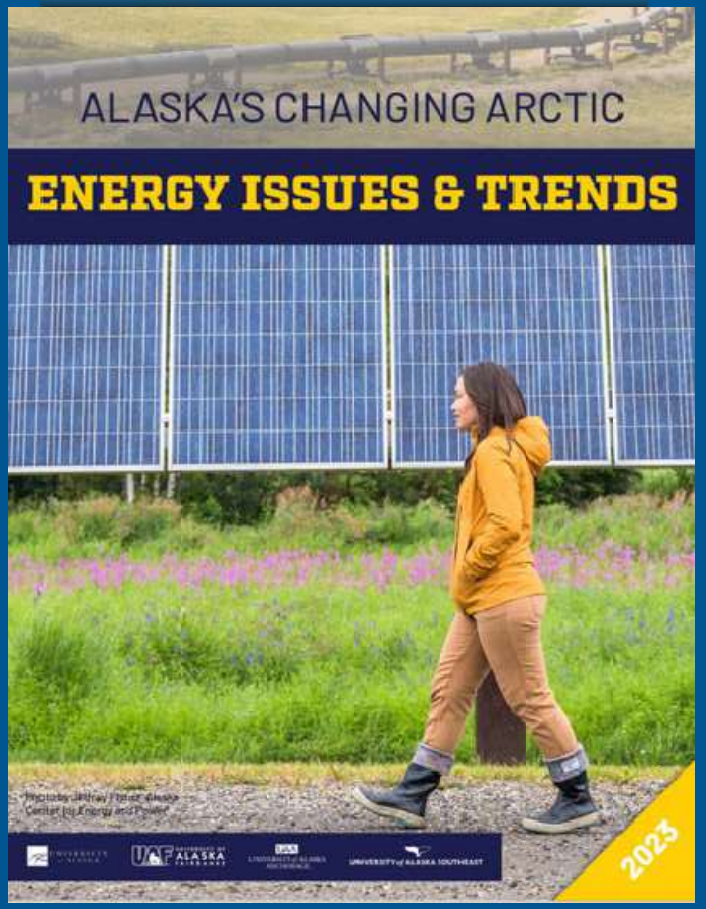
https://acep.uaf.edu/

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ACEP

The University of Alaska is a key resource for the state

- **Alaska's Skunk Works** – Industry partnerships, innovation, research, designing the future
- **Alaska's Think Tank** – Strategic planning, convening, public education
- **Investing in Alaska's Human Capital** – building the workforce of tomorrow, today



The University of Alaska is a good investment in Alaska's future

UNIVERSITY OF ALASKA FAIRBANKS

International Arctic Research Center · ACEP · Institute of Social and Economic Research · ACEP



Thank you

Jeremy Kasper
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ACEP Alaska Center for Energy and Power

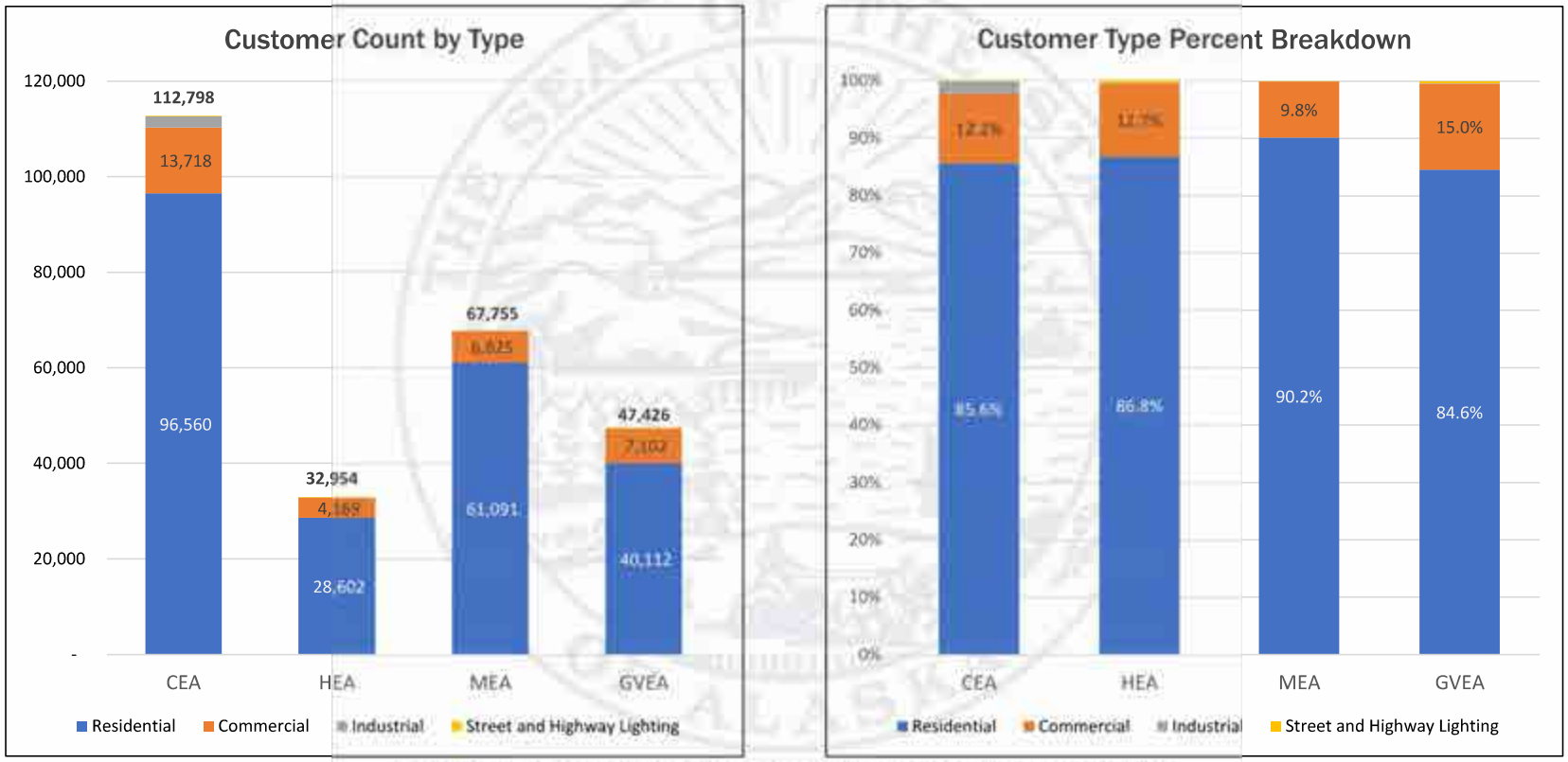
Railbelt Utilities' Rates Overview

May 9, 2023



Alaska Energy Security Task Force

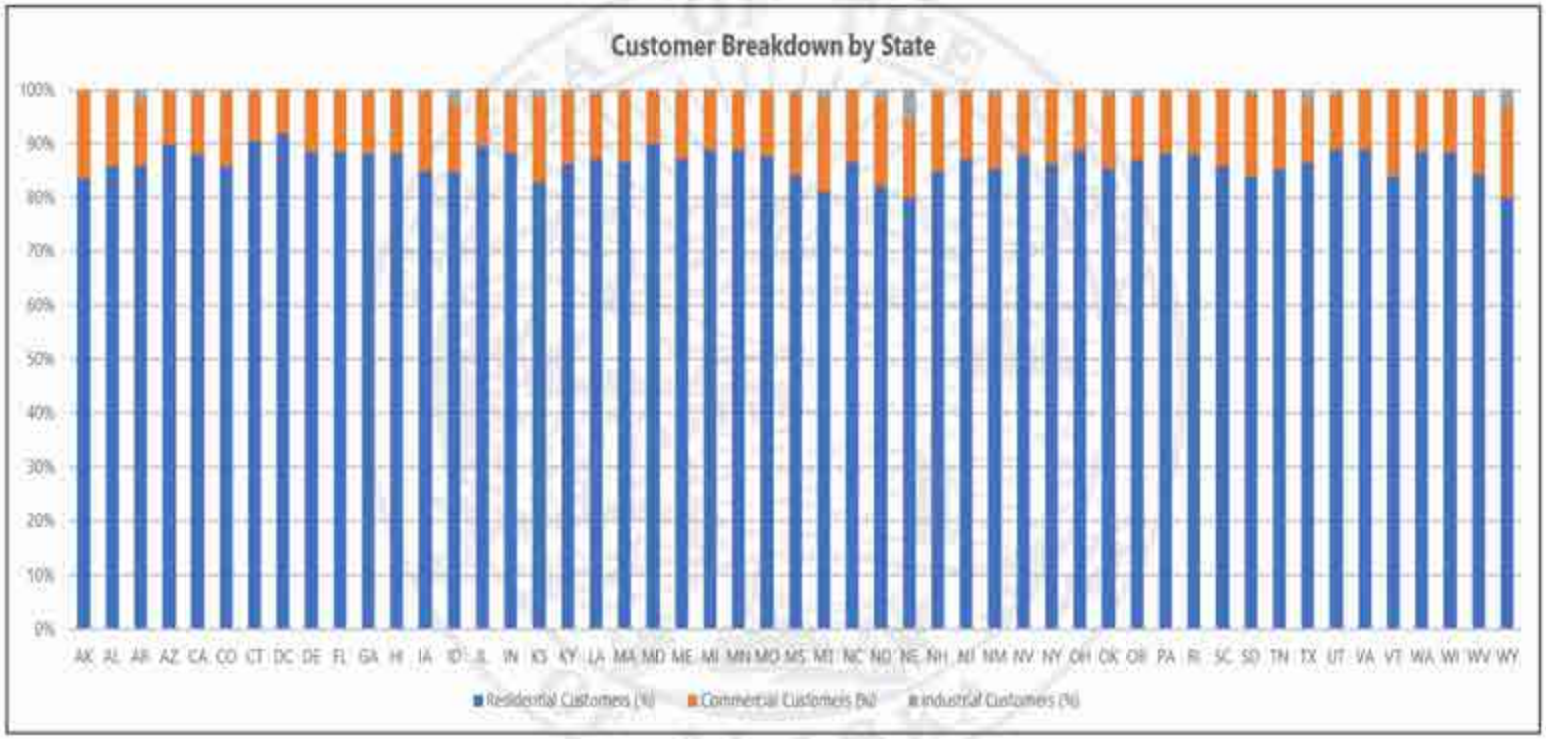
Railbelt Utility Customer Breakdown



Source: Regulatory Commission of Alaska – Annual Report Filings from Railbelt Utilities (2021)

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Customer Breakdown – State Comparison

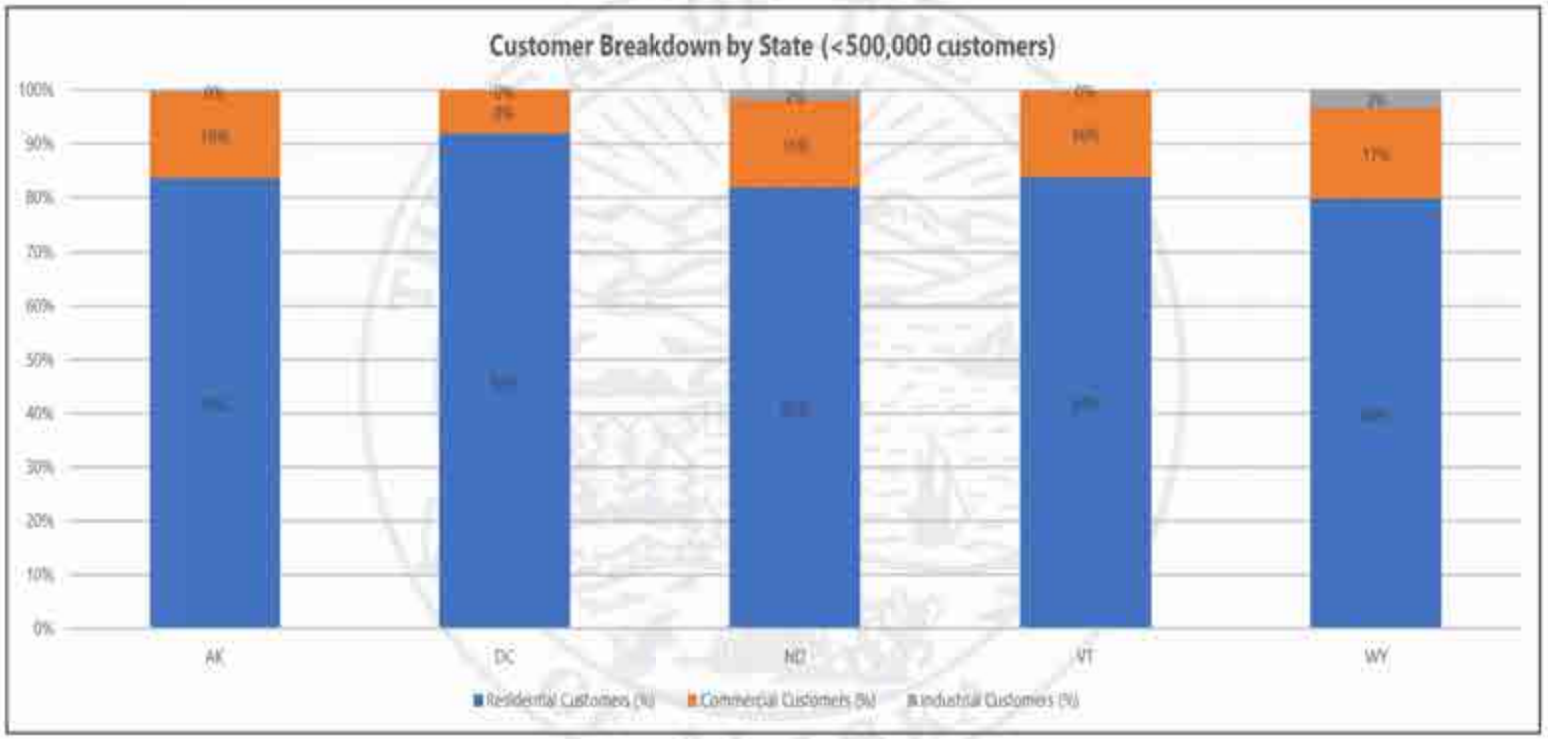


*AK includes all Alaskan electric companies

Source: Energy Information Administration – 861M Monthly Electric Power Industry Report

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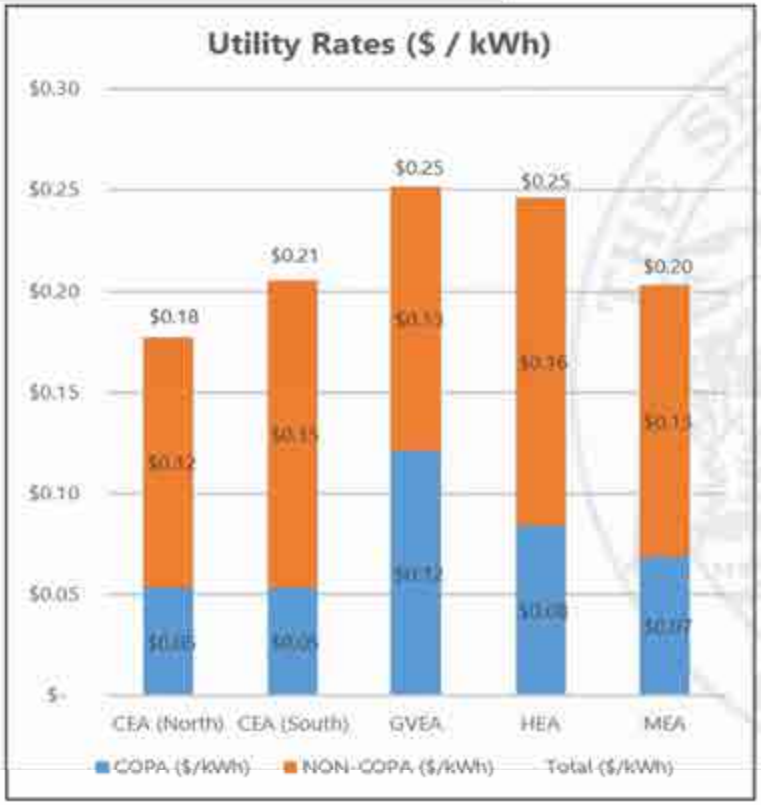
Customer Breakdown – State Comparison (<500k customers)



*AK includes all Alaskan electric companies

Source: Energy Information Administration – 861M Monthly Electric Power Industry Report

Cost per kWh details (COPA vs. NON-COPA)



Source: Railbelt Utilities' Online Published Rates (Effective April 1, 2023)

Railbelt Utilities Prevailing Residential Rates

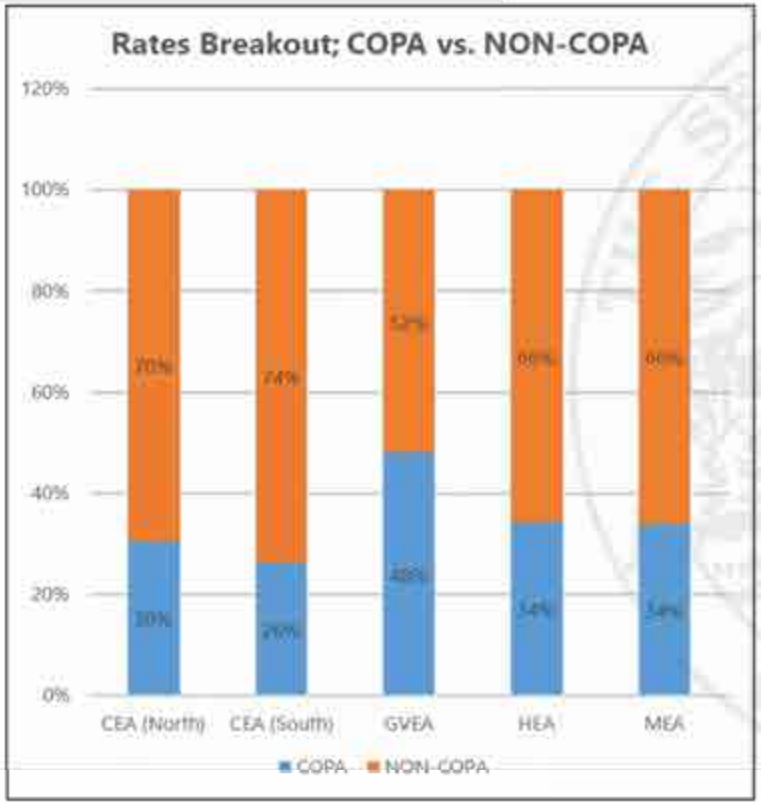
Expense Type	*CEA (North)*	*CEA (South)*	*GVEA*	*HEA*	*MEA*
Fuel	$ 0.04293	$ 0.04293	$ 0.06037	$ 0.08877	$ 0.06316
Purchased Power	$ 0.00982	$ 0.00982	$ 0.03901	$ 0.01219	$ 0.00964
Special Contracts Credits				$ (0.01644)	
Power Balacing	$ -	$ -	$ 0.02168	$ -	$ (0.00384)
Fire Island Wind	$ 0.00108	$ 0.00108	$ -	$ -	
COPA ($/kWh)	*$ 0.05383*	*$ 0.05383*	*$ 0.12106*	*$ 0.08452*	*$ 0.06896*
Customer Charge (fixed,$ per month)	$ 13.62	$ 8.00	$ 22.50	$ 20.00	$ 13.00
Energy Charge (per kWh)	$ 0.15724	$ 0.13508	$ 0.12973	$ 0.16077	$ 0.13215
Rebates/Surcharges (per kWh)	$ (0.03495)	$ 0.01534	$ -	$ -	$ 0.00071
Regulatory Cost Charge (per kWh)	$ 0.00089	$ 0.00089	$ 0.00089	$ 0.00089	$ 0.00089
NON-COPA ($/kWh)	*$ 0.12318*	*$ 0.15131*	*$ 0.13062*	*$ 0.16166*	*$ 0.13375*
Effective Rate ($/kWh)	***0.177013***	***0.205143***	***$ 0.25169***	***$ 0.24618***	***$ 0.20271***

Notes: Rates effective April 1, 2023

Source: Railbelt utility COPA filings with RCA; Railbelt utility online posted rates

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COPA - Cost per kWh details

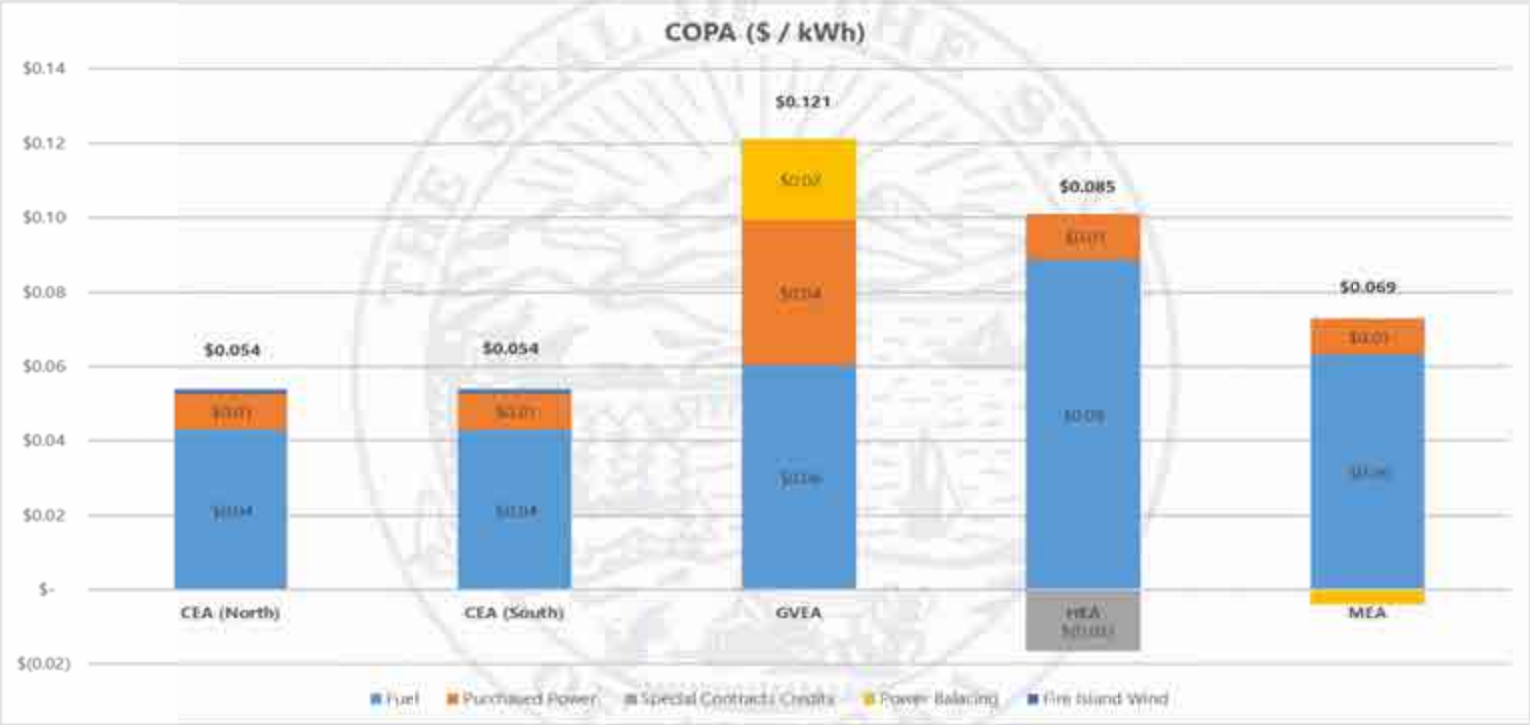


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Source: Regulatory Commission of Alaska – COPA Filings from Railbelt Utilities (2023)

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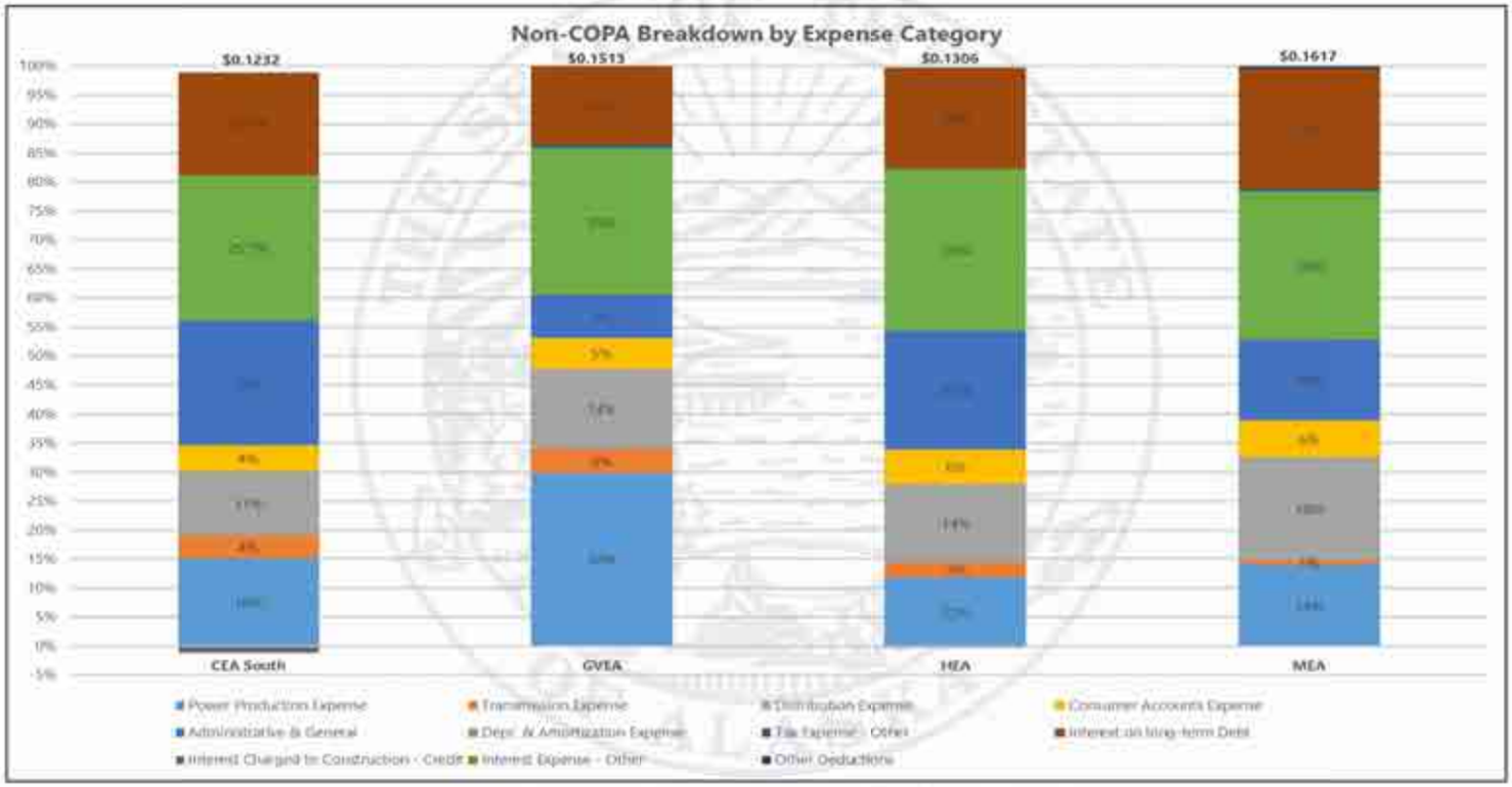
COPA – Cost per kWh overview



Source: Regulatory Commission of Alaska – COPA Filings from Railbelt Utilities (2023)

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Non-COPA Utility Costs Breakdown



Source: Regulatory Commission of Alaska – Annual Report Filings from Railbelt Utilities (2021)

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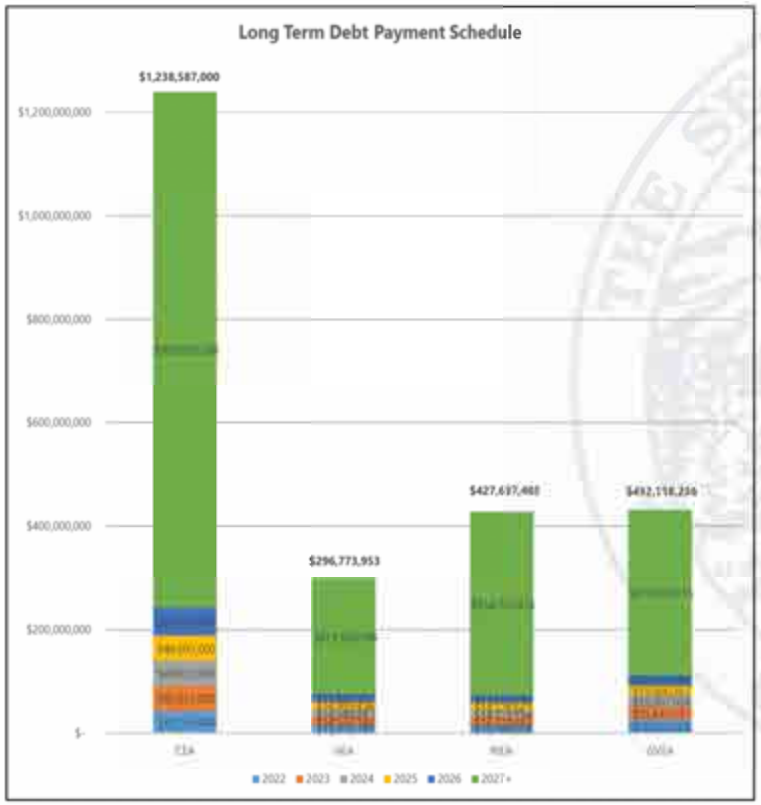
Cost of Power — CEA, HEA, MEA, & GVEA

Railbelt Utilities Cost of Power Overview, 2021										
Operating Expenses	*CEA (consolidated)*	*% of Total*	*MEA*	*% of Total*	*HEA*	*% of Total*	*GVEA*	*% of Total*		
Fuel Expense	$ 86,561,826	25%	$ 52,258,391	36%	$ 33,106,782	32%	$ 93,224,430	38%		
Power Production Expense	$ 36,640,560	11%	$ 12,894,582	9%	$ 7,851,229	8%	$ 34,889,547	14%		
Purchased Power	$ 23,129,060	7%	$ 2,557,074	2%	$ 4,692,580	5%	$ 33,683,244	14%		
Transmission Expense	$ 9,313,578	3%	$ 677,725	0%	$ 1,726,619	2%	$ 4,764,497	2%		
Distribution Expense	$ 26,798,579	8%	$ 16,339,777	11%	$ 8,919,050	9%	$ 16,187,110	7%		
Consumer Accounts Expense	$ 10,554,469	3%	$ 5,783,842	4%	$ 3,940,496	4%	$ 6,210,089	3%		
Administrative & General	$ 51,871,897	15%	$ 12,793,772	9%	$ 13,596,026	13%	$ 8,619,380	4%		
Total O&M	$ 244,869,969	71%	$ 103,305,163	70%	$ 73,832,782	71%	$ 197,578,297	81%		
Other Expenses	*CEA (consolidated)*	*% of Total*	*MEA*	*% of Total*	*HEA*	*% of Total*	*GVEA*	*% of Total*		
Depr. & Amortization Expense	$ 60,465,653	17.5%	$ 23,489,826	16%	$ 18,456,173	18%	$ 29,500,205	12%		
Tax Expense - Other	$ -	0.0%	$ 383,448	0%	$ -	0%	$ 598,197	0%		
Interest on long-term Debt	$ 42,625,653	12.3%	$ 19,103,856	13%	$ 11,528,559	11%	$ 15,978,776	7%		
Interest Charged to Construction - Credit	$ (2,641,159)	-0.8%	$ -	0%	$ (198,581)	0%	$ -	0%		
Interest Expense - Other	$ -	0.0%	$ 9,011	0%	$ 26,551	0%	$ -	0%		
Other Deductions	$ -	0.0%	$ 342,567	0%	$ -	0%	$ -	0%		
Total Other Expenses	$ 100,450,147	29%	$ 43,328,708	30%	$ 29,812,702	29%	$ 46,077,178	19%		
Total Cost of Power	***$ 345,320,116***		***$ 146,633,871***		***$ 103,645,484***		***$ 243,655,475***			

Source: Regulatory Commission of Alaska – Annual Report Filings from Railbelt Utilities (2021)

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Long-Term Debt Schedule



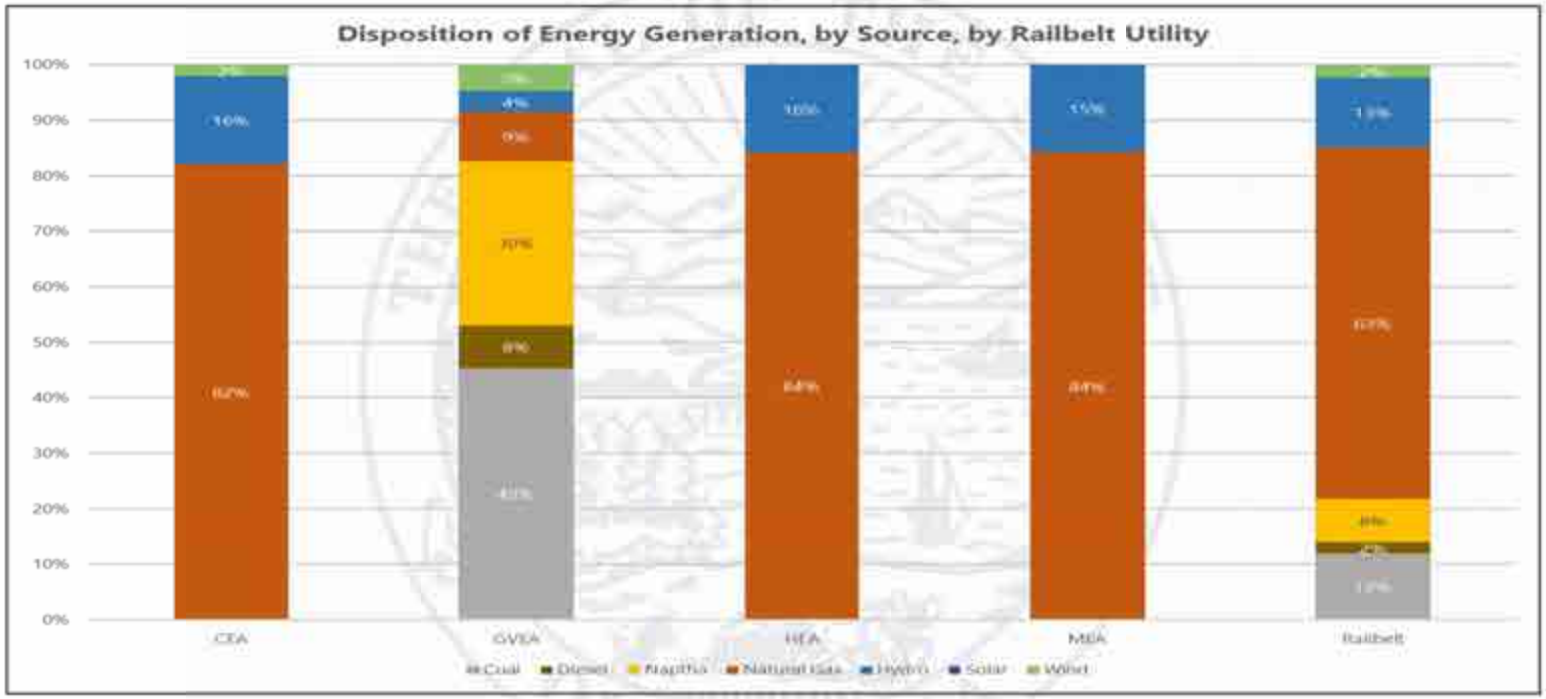
Source: Publically Available Financial Statements from Railbelt Utilities (2021)

Railbelt Utilities Long-Term Debt Service Schedule

Year	*CEA*	*HEA*	*MEA*	*GVEA*	*Total*
2022	$ 42,193,000	$ 15,972,197	$ 15,100,362	$ 26,425,603	$ 99,691,162
2023	$ 48,921,000	$ 14,572,142	$ 14,370,687	$ 23,641,127	$ 101,504,956
2024	$ 48,921,000	$ 14,588,947	$ 14,215,594	$ 22,407,034	$ 100,132,575
2025	$ 48,693,000	$ 14,909,436	$ 14,576,621	$ 19,666,367	$ 97,845,424
2026	$ 54,009,000	$ 15,631,037	$ 14,603,545	$ 20,107,990	$ 104,351,572
2027+	$ 995,850,000	$ 221,100,194	$ 354,770,676	$ 319,870,115	$ 1,891,590,985
Total Long-Term Debt	**$ 1,238,587,000**	**$ 296,773,953**	**$ 427,637,485**	**$ 432,118,236**	**$ 2,395,116,674**
Interest Rate Ranges	*2.38% to 4.78%*	*2.03% to 5.80%*	*2.61% to 7.25%*	*2.45% to 6.50%*	

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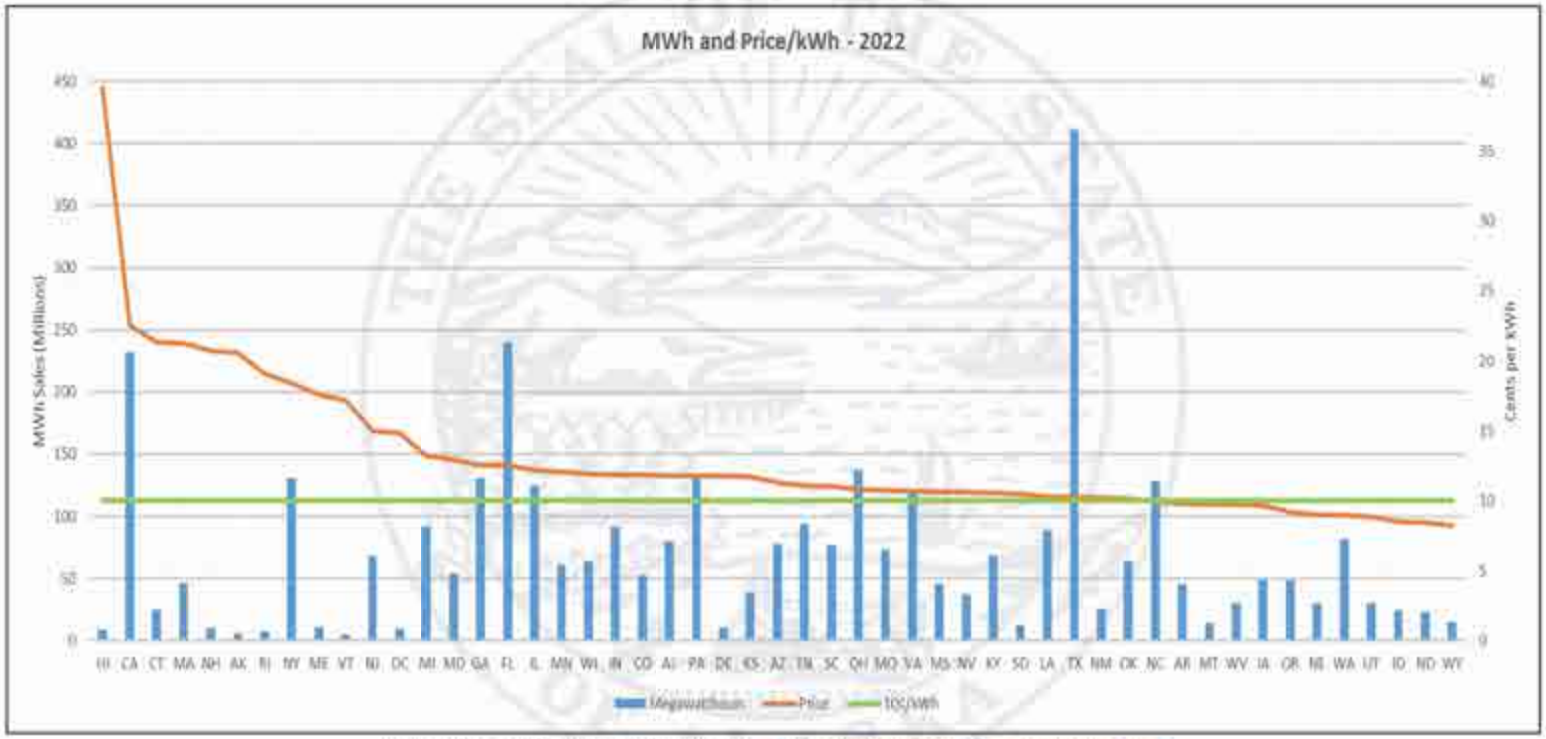
Railbelt Energy Generation by Source



Source: Regulatory Commission of Alaska – Annual Report Filings from Railbelt Utilities (2021)

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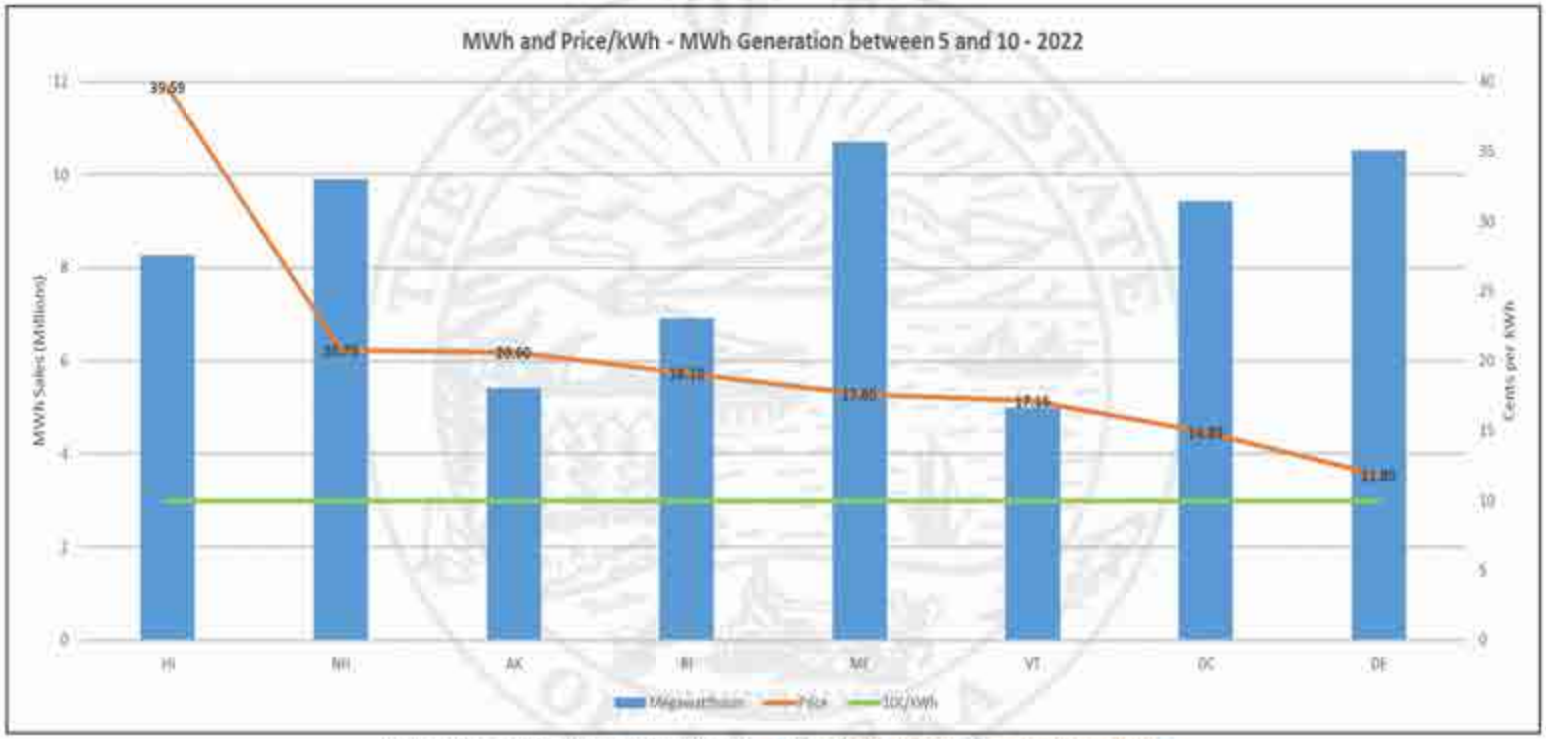
United States Comparison



Source: Energy Information Administration – 861M Monthly Electric Power Industry Report

Alaska Energy Security Task Force

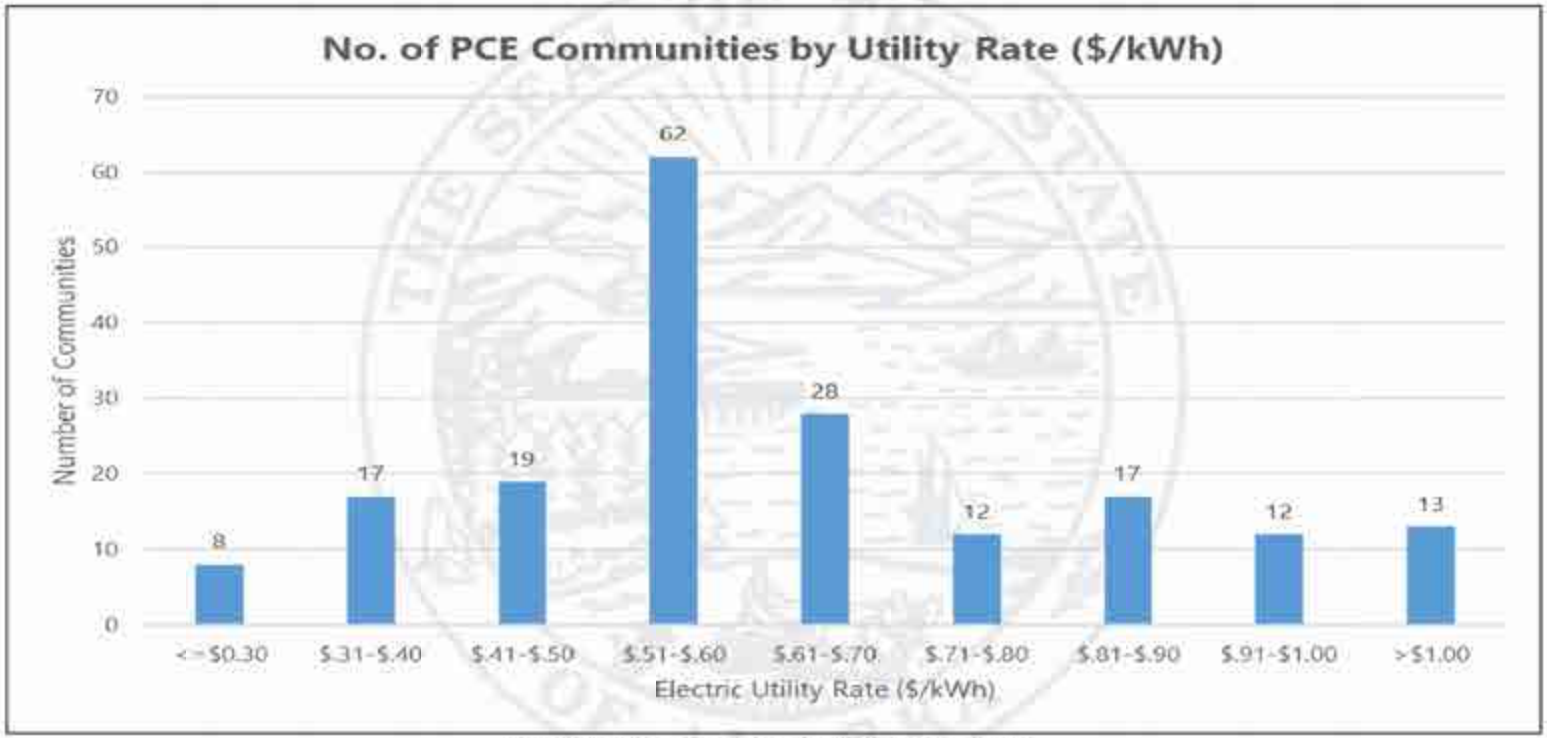
United States Comparison



Source: Energy Information Administration – 861M Monthly Electric Power Industry Report

Alaska Energy Security Task Force

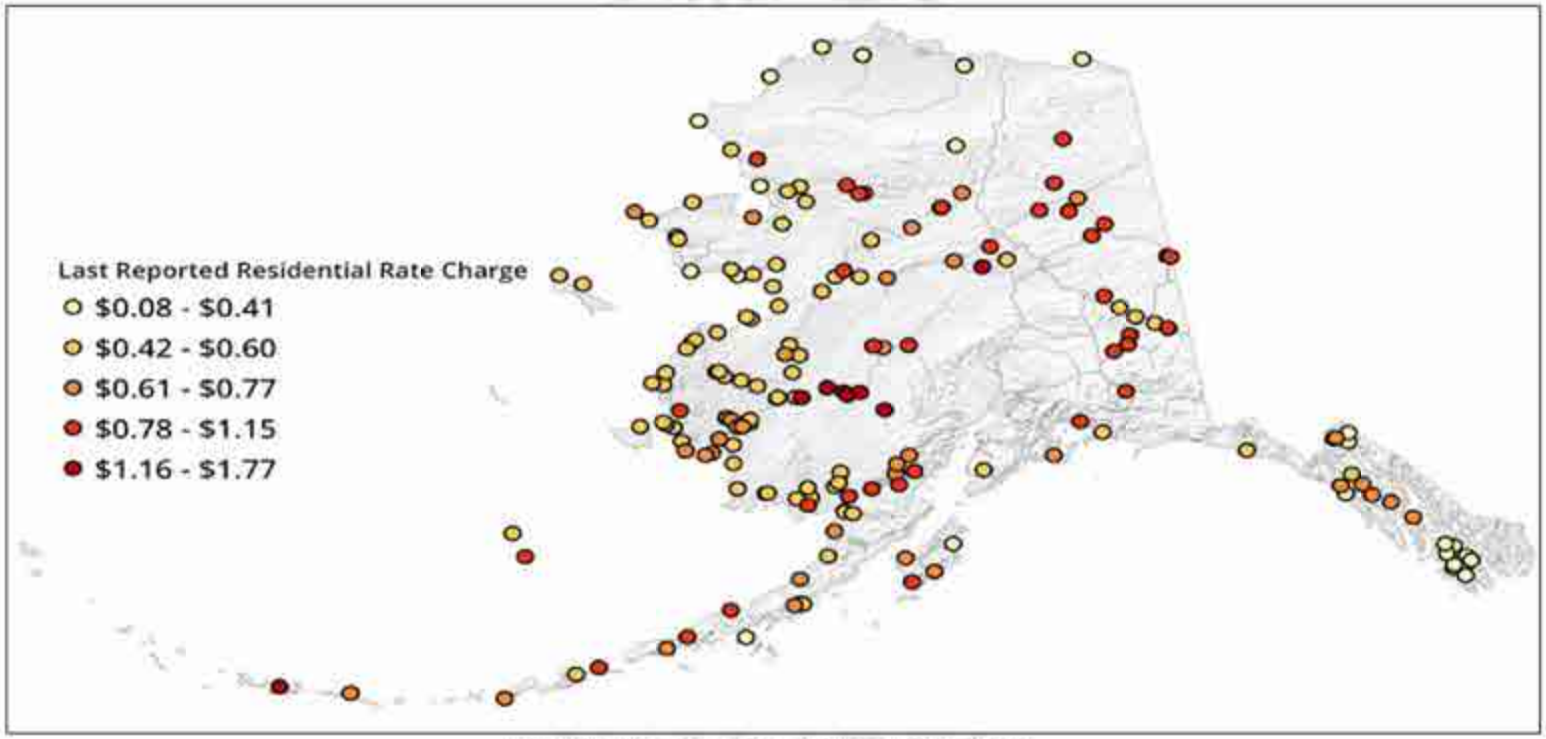
Power Cost Equalization (PCE) Communities Comparison



Source: AEA PCE Annual Statistical Report (Fiscal Year 2022)

Alaska Energy Security Task Force

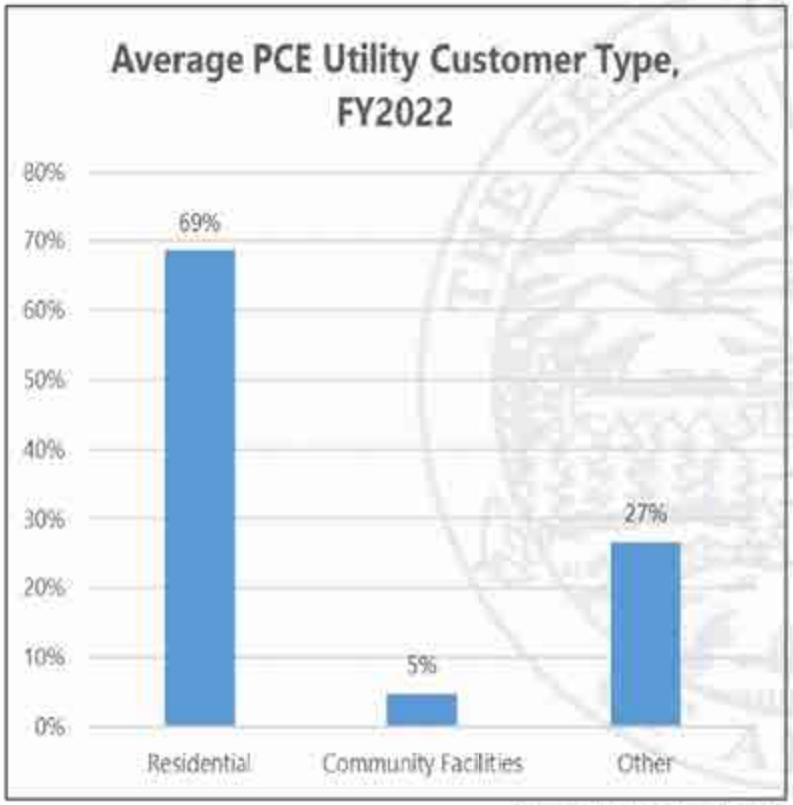
PCE Retail Electric Cost Comparison

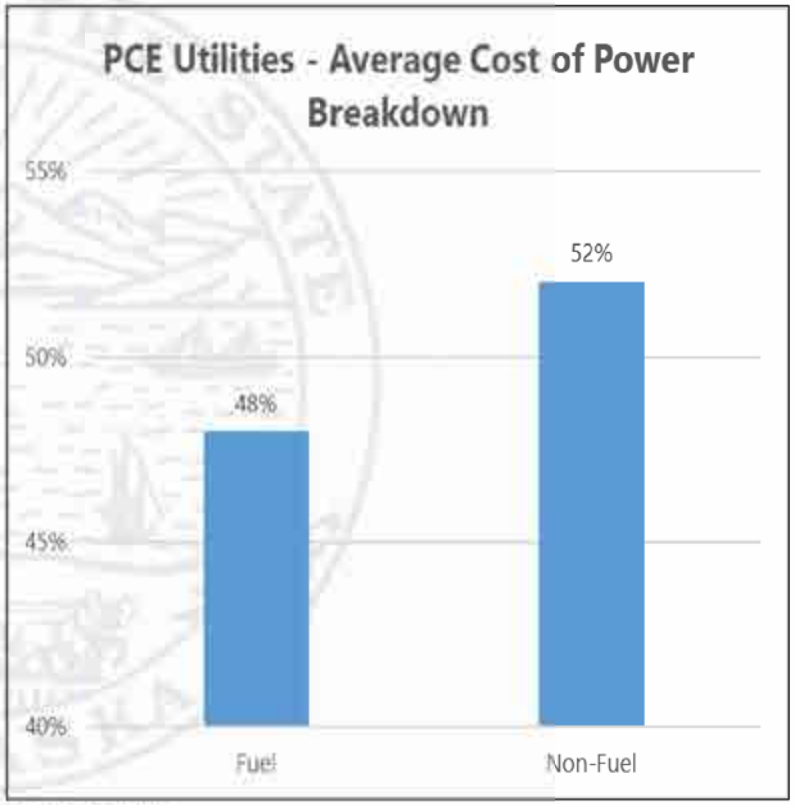


Source: AEA PCE Annual Statistical Report (Fiscal Year 2022)

Alaska Energy Security Task Force

PCE Utility Customer Breakdown





Source: AEA PCE Annual Statistical Report (Fiscal Year 2022)


Questions?

Alaska Energy Security Task Force
DRAFT MEETING MINUTES
Tuesday, May 09, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force to order on May 09, 2023, at 3:01 pm.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Vice-Chair Gwen Holdmann; Clay Koplin; Nils Andreassen; John Simms; Karl Hanneman; Robert Venables; Andrew Guy; Jen Miller; Duff Mitchell; Isaac Vanderburg; Keith Kurber (Commissioner); Garrett Boyle (Commissioner); Erin Whitney; and Representative George Rauscher.

3. Prior Meeting Minutes – April 25, 2023

Chair Lieutenant Governor Dahlstrom informed that the next meeting date is scheduled for June 27, 2023. She requested Vice-Chair Thayer proceed with the next items on the agenda. Vice-Chair Thayer requested members to review the prior meeting minutes.

MOTION: A motion was made to approve the Minutes of April 25, 2023, as presented. Motion seconded.

A roll call vote was taken, and the motion to approve the Minutes of April 25, 2023 passed without objection.

Vice-Chair Thayer noted for the record that Tony Izzo, Matanuska Electric Association (MEA), is out of the country, and Julie Estey, MEA, is attending in the audience in his stead.

4. Presentations

a. Alaska Energy Authority (AEA)

Vice-Chair Thayer reviewed the AEA Overview Presentation. AEA was created in 1976 by the Alaska State Legislature as a public corporation with a mission to "reduce the cost of energy in Alaska." The mission has grown into increasing resiliency, reliability, and redundancy of power across the state. Through its Railbelt Energy, AEA owns the largest hydroelectric facility in the state, Bradley Lake Project, as well as transmission lines on the

Kenai Peninsula and from Willow to Healy. AEA operates the Power Cost Equalization (PCE) Program that helps reduce the cost of electricity in rural Alaska.

Vice-Chair Thayer discussed that the State has a moral obligation through AEA's Rural Energy to work and develop new powerhouses, bulk fuel, and ways to integrate to renewable energy. AEA's Renewable Energy and Energy Efficiency program provides funding, technical assistance, and analysis on alternative energy technologies that benefit Alaskans, including biomass, hydro, solar, wind, and the National Electric Vehicle Infrastructure (NEVI) program. Additionally, AEA provides grants and loans. The grants are primarily funded through the Renewable Energy Fund (REF). The loans are facilitated through the Power Project Fund (PPF). AEA's Energy Planning is in collaboration with local and regional partners and provides economic and engineering analysis for energy infrastructure.

Vice-Chair Thayer reviewed the slide showing the location of AEA's active projects and services. He discussed that the Bradley Lake Project is the cheapest power on the Railbelt at 4 cents per kWh. It provides 10% of the Railbelt electricity and electrifies over 54,000 homes. Bradley Lake project saves over $20 million per year in cost compared to natural gas. The Railbelt utilities and AEA have partnered to study the Dixon Diversion Project, which could increase the energy production of Bradley Lake by 50%. Bradley Lake is managed by the Bradley Lake Project Management Committee (BPMC), which is comprised of the five participating Railbelt utilities.

Vice-Chair Thayer discussed that the bonds for Bradley Lake were paid off two years ago. The obligation remained for the utilities to continue paying for funding that the State had provided. Additionally, a provision within the Power Sales Agreement (PSA) allows funding for required project work. AEA and the Railbelt utilities bonded $166 million that comes as no additional cost to ratepayers or to the State. The funds will begin the necessary transmission line upgrade from 115 kV to 230 kV and will a provide battery energy storage system for grid stabilization. The utilities have committed to working together for the necessary line upgrades.

Vice-Chair Thayer reviewed that AEA owns the Alaska Intertie, which is 170 miles between Willow and Healy. This is the only link for transferring power between the southern utilities and Golden Valley Electric Association (GVEA), and provides GVEA's customers approximately $37 million annually in cost savings. Vice-Chair Thayer noted that he will discuss the PCE in more detail during its separate presentation.

Vice-Chair Thayer discussed that 197 communities are eligible for Rural Power System Upgrades (RPSU). The deferred maintenance for the 197 communities is $300 million. Only four to six community projects are completed per year. Vice-Chair Thayer highlighted the importance that the Task Force consider RPSU in their efforts. The goal is to improve the power system efficiency, safety, and reliability. There are currently seven full projects and 16 maintenance and improvement projects. The lifespan of the

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generators is about 20 years. Vice-Chair Thayer noted that an RPSU list is maintained by statute, which the Legislature funds. Additionally, matching funds have been received from the Denali Commission.

Vice-Chair Thayer discussed the Bulk Fuel Upgrades occurring in rural Alaska. The rural bulk fuel facilities are owned by the communities. The goal is to have code compliant fuel storage facilities and to prevent spills and contamination. There are currently eight full projects and 18 maintenance and improvement projects. The deferred maintenance is $800 million. In rural Alaska, between power systems and bulk fuel systems, the deferred maintenance is $1.1 billion. Vice-Chair Thayer reported that the Coast Guard is reviewing the regulatory efforts to assess and prioritize projects that need immediate attention. AEA has conducted 3-D modeling of all the powerhouses, and it could work remotely and in real-time with some of the facilities. A similar effort is ongoing to gather inventory and data for bulk fuel systems in rural Alaska.

Vice-Chair Thayer reviewed AEA's financing tools. The PPF Loan Program has $27 million in outstanding loans with approximately $6.4 million available to lend. AEA provides low-cost financing and patient capital. The current PPF interest rate is 5.03%. Vice-Chair Thayer gave examples of power projects, including hydro, wind, and solar. He noted a small dam in Eagle River Valley that is supplying 800 homes with power. Vice-Chair Thayer commented on the possibility of a Committee field trip to that small power plant.

Vice-Chair Thayer discussed that the REF has provided nearly $300 million of investments since inception with over 100 operational projects and 44 projects in development. It has displaced over 30 million gallons of diesel fuel. The last three years have received funding from the Legislature. Vice-Chair Thayer reviewed the renewable energy project technologies. Over 80% of the projects are in rural Alaska. The cost of power is a qualifying identifier within the evaluation.

Vice-Chair Thayer explained that the Infrastructure Investment and Jobs Act (IIJA) will provide $60 million in federal funding over the next five years through the Statewide Grid Resilience and Reliability IIJA Formula Grant Program. There is a required State match. The funding will relocate power lines, improve the grid resistance to extreme weather, increase fire resistant components, and integrate distributed energy resources. Funds are expected this month and will be dispersed to begin the upgrades. Vice-Chair Thayer noted that rural Alaska received $17 million in a similar program.

Vice-Chair Thayer reported that the State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan is expected to receive $52 million over the next five years. He explained that AEA began with the Volkswagen settlement funds of $8.7 and replaced 44 school buses with lower emissions. Approximately $1 million was set aside for Phase 1 of EV infrastructure. Nine charging stations were installed between Anchorage and Healy. AEA is partnering with the Department of Transportation (DOT) to administer the funding for Phases 2 through 4.

Vice-Chair Thayer noted the NEVI requirements for the funding. He showed the map illustrating the first build-out of the alternative fuel corridor between Anchorage and Fairbanks established by DOT. AEA issued a Request for Applications for site hosts for the charging stations. Vice-Chair Thayer reviewed some of the requirements for site hosts, including a 20% match. He advised that rural Alaska does not qualify for federal funding because they are not a recognized highway corridor. Vice-Chair Thayer indicated that the issue of not including 80% of Alaska has been raised at the federal level, and competitive applications for funding have been submitted. The hub communities in rural Alaska are considering electric usage for ATVs, outboard motors, and other uses in addition to cars.

Vice-Chair Thayer reviewed the IIJA energy programs that are awaiting federal receipt authority. He highlighted that AEA will partner with Alaska Housing Finance for the Alaska High Efficiency Home Rebate Program and Inflation Reduction Act Alaska Hope for Homes program to disperse funding of $74 million. Vice-Chair Thayer explained the benefits of AEA partnering with other entities to receive funding. He gave the example of the Defense Community Infrastructure Pilot Program: Black Rapids Training Site grant for $12.8 million identified by GVEA to extend their powerlines and replace diesel fuel. Vice-Chair Thayer encouraged interested parties to collaborate with AEA, when possible.

Vice-Chair Thayer discussed each of the IIJA competitive grant applications within the Grid Resilience and Innovation Partnerships (GRIP); Railbelt Backbone Reconstruction Project, Battery Energy Storage/HVDC Coordinated Control, Railbelt Innovation Resiliency Project, and Rural Alaska Microgrid Transformation. All four GRIP programs are in the application phase. Vice-Chair Thayer closed the presentation and reiterated that AEA provides energy solutions to meet the unique needs of Alaska's rural and urban communities.

Mr. Venables commented that the Seward Electric System (SEW) receives 1% of Bradley Lake power. He asked for a brief explanation of the delineation process. Vice-Chair Thayer explained that the participation of the Railbelt utilities is based on the size of the utility. SEW serves approximately 3,000 people. The percentage of the water rights tracks equally with the percentage of the operations and maintenance (O&M) expenses. He noted that shares were also combined when Chugach Electric Association (CEA) bought Anchorage Municipal Light and Power (ML&P).

Mr. Guy inquired as to the process used to calculate the accuracy of the deferred maintenance costs shown in the presentation. Vice-Chair Thayer explained that the age of the equipment is considered, including the previous replacement date. Per statute, AEA maintains a needs assessment list showing the top 25 priority communities. Vice-Chair Thayer discussed that approximately $3 million to $4 million is necessary for a powerhouse build. The engineer's cost estimations for bulk fuel projects were provided approximately two years ago and have been adjusted for inflation. However, the cost

projections are still likely low estimates.

Mr. Guy asked if information is compared between the cost of electricity in urban and rural communities within the PCE program and if the communities have maintained equality. Vice-Chair Thayer informed that comparison is conducted annually by the Regulatory Commission of Alaska (RCA) and a base rate is established each year. AEA's program pays the difference of the costs up to $1.00. Vice-Chair Thayer discussed the formula contained within the PCE statute and the effects of the costs of electricity increasing and decreasing in rural and urban Alaska. He reiterated that AEA and RCA administers the PCE program, but the Legislature has full authority.

Mr. Hanneman expressed appreciation for the summary presentation on AEA and the listing of the active and proposed projects. He indicated that there was discussion at the previous meeting that the utilities were involved in approximately $2.9 billion worth of applications. He understands that some of the information presented by AEA integrates this amount. Mr. Hanneman suggested that it would be useful for the Task Force to have a goal to compile a spreadsheet that shows the different organizations, their project types, identified project needs, locations, and dollar amounts. Vice-Chair Thayer indicated that AEA can begin to compile that range of information and work with other groups to get the information. There were no other questions.

b. Alaska Center for Energy and Power (ACEP)

Vice-Chair Thayer introduced Jeremy Kasper, ACEP, and requested he review the presentation. Mr. Kasper discussed ACEP is located at the University of Alaska Fairbanks and has offices and collaborators in Juneau, Anchorage, Bristol Bay, and works closely with many other communities and partners within the state. Mr. Kasper specifically highlighted ACEP's collaboration with AEA and Denali Commission when the Emerging Energy Technology Fund (EETF) program was created. ACEP is an applied energy research program with the goal of fostering the development of practical, innovative and cost-effective energy solutions for Alaska and beyond.

Mr. Kasper discussed that ACEP engages in technology testing and optimization, provides energy systems modeling and analysis, applies knowledge and network creation through education with the universities, and commercializes energy innovation technologies. Mr. Kasper noted that ACEP was established about 15 years ago and the revenues have expanded greatly within the last four years. Much of the support has been from the State, as well as the Office of Naval Research. ACEP's growth has tracked the installed renewable energy capacity by technology within the state as shown in the presentation.

Mr. Kasper reviewed the three primary research programs with concentrated expertise and significant amounts of funding: Marine Energy, Power Systems Integration, and Solar Technologies. Other areas of focus include, but are not limited to, energy transition,

beneficial electrification, energy policy and economics, geothermal, advance nuclear, energy storage, and Railbelt decarbonization. Mr. Kasper provided additional information regarding the Railbelt decarbonization pathways study, which is a follow-on to the National Renewable Energy Lab (NREL) study to reach 80% renewables by 2050. Mr. Kasper discussed the study components, different scenarios, and outcome goals to be completed prior to the beginning of the next legislative session.

Mr. Kasper gave an overview of the challenges of the high electrification scenario. The information regarding the residential heating loads and statewide heating requirements is incomplete and a more thorough estimate compilation is ongoing. A new system for quantifying home heating oil usage was developed to help in this process. Additional information is gathered through household surveys, and research on heat pumps and thermal electric storage stoves. ACEP has partnered with AEA on work with electrification of transportation and electric vehicles. Mr. Kasper noted the QR Codes that are linked to reports in the presentation.

Mr. Kasper reviewed the drafts of load forecasting for base loads, electric vehicles, residential solar, and heat pumps. He discussed ACEP's report regarding advanced nuclear options for Alaska, including the emerging technology and how it might be applicable in Alaska. Mr. Kasper informed that Ms. Holdmann can answer specific questions and is the coordinator for the Alaska Nuclear Energy Working Group. Mr. Kasper gave an overview of the online and in-person workshops provided by ACEP. He noted that ACEP is working closely with AEA and the Governor's Office on the Alaska Sustainable Energy Conference.

Mr. Kasper described ACEP and the University of Fairbanks as Alaska's Skunk Works in partnering with industry on innovation, research, and envisioning a future for Alaska. Additionally, ACEP and the University of Fairbanks can be described as Alaska's Think Tank to engage in strategic planning, convening, and providing public education. Lastly, ACEP and the University of Fairbanks invests in Alaska's human capital through working with students and training the next generation of the workforce.

Mr. Simms expressed appreciation for the presentation. He commented that Enstar is available to provide ACEP with residential heating load information, if needed.

Commissioner Boyle requested Mr. Kasper to briefly highlight a few successes regarding the commercialization of energy and innovation. Mr. Kasper discussed the current work on a fuel inventory monitoring system in partnership with AVEC and Alaska Microgrid Group. The system would be utilized to monitor levels in bulk fuel tanks. Mr. Kasper indicated that ACEP has engaged in testing new products before they are released into the field. He gave the recent example of a flywheel system that is now operational in Raglan Mine in northern Canada. There were no other questions.

c. Railbelt Utilities current rates

Vice-Chair Thayer introduced Conner Erickson, AEA Director of Planning, to provide the information regarding the current rates of the Railbelt utilities. Mr. Erickson informed that the retail rates and data within the presentation was sourced from publicly available information, which is cited on the slides. The Railbelt utilities include CEA, Homer Electric Association (HEA), MEA, and GVEA. Mr. Erickson reviewed the customer count by type and percentage for each utility. Approximately 85% to 90% of the customer base is residential. The remaining are classified as commercial, apart from CEA, which classifies approximately 2% of their customers as industrial users.

Mr. Erickson discussed Alaska's customer base has a larger component of commercial users as compared to the nation's customer base, as shown on the graph within the presentation. He noted the states with higher industrial user concentrations. Mr. Erickson showed a comparison of Alaska's customer base to four other states with less than 500,000 customers. Alaska is trending on par and is not an outlier.

Mr. Erickson reviewed the retail utility rate details including cost of power adjustment (COPA) and non-COPA amounts. He stated that CEA (North) listed in the graph is the legacy ML&P service area. Mr. Erickson showed that approximately five cents to seven cents of the rates are related to fuel. Fuel is the biggest expense to the cost of power. The remaining amounts consist of other expense types including O&M, transmission and distribution charges, and regulatory charges. He discussed an overview of the COPA cost per kWh for each of the utilities. Mr. Erickson reviewed the non-COPA utility costs breakdown, including interest on long-term debt, depreciation and amortization, administrative and general costs, and power production expenses. He commented that this graph is a good tool to open the discussion on strategic ways to reduce the cost of power for each utility based upon the expense categories.

Mr. Erickson noted that, in general, the cost of fuel is the largest expense, followed by the other large expenses of power production O&M, administrative and general, depreciation, and interest. These are the areas that have the biggest impact on rates. He reviewed the annual long-term debt schedule, maturing between 2045 and 2050, of the Railbelt utilities as shown in the presentation. The range of the interest rates is shown in the table and should be considered when evaluating the debt. Mr. Erickson discussed the Railbelt energy generation by source including natural gas, coal, hydro, diesel, naptha, solar, and wind. He reviewed a national comparison of the total MWh produced and retail price rate per state sourced from the Energy Information Administration. He noted that less than 10% of the states are charging below 10 cents per kWh. Mr. Erickson reviewed the same information compared to seven states that generate similar amounts to Alaska. Hawaii is the highest at 39.59 cents per kWh. Alaska is 20.60 cents per kWh, and New Hampshire is in line at 20.75 cents per kWh.

Mr. Erickson discussed the graph showing the number of Alaska PCE communities by utility rates, with most of the utilities in the range of 40 to 70 cents per kWh. There are 13

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outlier communities that are above $1.00 per kWh. He discussed that the rates generally relate to the access to the fuel source and the amount of fuel needed. Mr. Erickson reviewed the customer base and average cost of power breakdowns for PCE utilities.

Mr. Guys asked if the schools in PCE communities are considered within the category of community facilities or within the category of other. Mr. Erickson noted that schools are not considered community facilities and many times the school's costs are paid for within education budgets.

Mr. Venables commented that many communities in rural Alaska that use their schools and gyms for after-hours non-state-educated funded activities. He asked what would need to occur to modify the definition of community facility to consider schools under the current structure. Vice-Chair Thayer indicated the policy and definitions are mandated by the Legislature. He noted that the Legislature pays for the generation of the schools' power that is not included in the PCE program. Mr. Venables requested to share a White Paper with AEA on the topic of community facilities funds and to receive their input.

Ms. Miller expressed appreciation for the excellent presentation and the level of data provided. She asked if staff observed any common themes of generation technology in the national comparison of the states that had lower costs of generation in the range below 13 cents per kWh. Mr. Erickson responded that the data available was aggregated and did not have that level of detail. He believes it is a good question and it is possible that information could be determined.

Mr. Guy asked if the five utilities shown in the presentation have different rates for residential users and commercial users. Mr. Erickson agreed the rates for residential users and commercial users are different. The rates shown in the presentation are residential rates. Mr. Guy asked if commercial customers could negotiate their rates. Mr. Erickson noted that negotiation of a special structure and a special contract rate is dependent on the size and class of the commercial customer and the amount of power consumed.

Mr. Hanneman requested additional information regarding GVEA's cost of purchased power from CEA as shown in the presentation at four cents. Mr. Erickson explained that the COPA filings for the cost of purchased power are on an aggregated basis. The cost is then distributed over the amount of kWh used in that period. Mr. Hanneman thanked Mr. Erickson for his explanation. He noted that GVEA reports their purchased power at about 12 cents in their COPA filings. Mr. Hanneman is particularly interested in how the costs relate to the Fire Island price of less than one cent shown on the graph. Vice-Chair Thayer explained that the cost is 9.6 cents per kWh. An additional amount is included in the CEA consumers' bill that identifies the extra amount paid for the wind power. Mr. Hanneman commented that it would be helpful to identify the rates that are being charged by the utility, by Fire Island, and by other plants. He noted that it would be useful to understand the additional costs of power and the generation opportunities and

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options available beyond what is reflected in the presentation.

Vice-Chair Thayer commented that cost per source of power for Bradley Lake is four cents per kWh, natural gas is between seven cents and nine cents per kWh, and the most expensive power on the Railbelt is 9.6 cents per kWh at Fire Island. Vice-Chair Thayer believes the cost per fuel source information can be compiled for the Task Force.

Mr. Boyle asked if AEA can provide the non-COPA utility cost breakdown for the PCE utilities. Mr. Erickson noted that AEA does not report on that level of granularity. The slide showing the PCE utilities' average cost of power breakdown of fuel versus non-fuel is the best indicator available. He discussed that the question could be raised for additional review, if requested.

Mr. Venables commented that even though all the information is not available at a granular level, he asked for ways to be developed to understand the costs in the focus areas outlined by the Governor of Coastal Alaska, Railbelt, and the Interior. Mr. Venables suggested using a utility that has a similar cost aspiration as a benchmark from which to model and analyze their component data of debt, non-fuel costs, labor, et cetera in order to build consistent analysis across each region.

Mr. Hanneman asked for the total dollar value for PCE annually. Vice-Chair Thayer responded that last year, the Legislature raised the formula from payments of the first 500 kWh to payments of the first 750 kWh. PCE is approximately $40 million for this fiscal year, including the additional allowance.

Ms. Miller inquired if the depreciation and amortization expense ends once the debt has been repaid. Mr. Erickson commented that he does not have the answer. He believes a component of depreciation would remain. Vice-Chair Thayer noted that the utilities have specific information regarding their debt structure and the conditions of the debt, including prepayment penalties. He believes that information can be provided.

Mr. Mitchell noted that the comparison data is for the Railbelt utilities. He suggested that it could be useful to compare Alaska's averages to a national dataset or a Washington dataset to better understand what areas could provide improvements, such as consolidating transmission. Mr. Erickson agreed that level of analysis could be helpful, especially comparisons as to how utilities are structured in similar areas in the Lower 48.

Mr. Simms commented on the slide showing the different rates across the United States and the differing reasons for those rates. He noted that the Northwest has long-term hydro facilities, Texas has a significantly different regulatory perspective, and Wyoming has access to cheap and plentiful natural gas. Mr. Simms believes it would be difficult to conduct a comparison without understanding the different reasons for the rates.

Mr. Kurber discussed that across the nation, most co-ops are not rate regulated. Alaska

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co-ops are rate regulated. He noted that the majority of the Lower 48 utilizes investor-owned utilities, and the co-ops tend to be in the more rural areas. The comparison then becomes a formulaic comparison with an emphasis on rate regulated and non-rate regulated. Mr. Kurber commented on the regional differences in the Lower 48, resulting in the organization of their grid transmissions, not including Texas that has its own electric reliability organization. Mr. Kurber suggested that the RCA and AEA give a joint presentation to the Task Force, like the one recently presented to the Legislature. The presentation would give a general overview of RCA and how RCA factors into the energy pricing in Alaska to reach the goal of 10 cents per kWh.

d. Power Cost Equalization (PCE)

Vice-Chair Thayer noted that an overview of PCE has been discussed. He requested to postpone the PCE presentation until the questions received have been reviewed and answered. There were no objections.

e. Members

i. Discussion – Subcommittees, Chair, Vice-Chair
ii. Regionally focused (Roadbelt, coastal, remote rural)
iii. Alaska energy data gateway

Vice-Chair Thayer noted the next section will ensure the six subcommittees identified at the previous meeting are reflected, as well as engaging in discussion regarding the structure of the subcommittees. He opened the floor to discussion on how to invite subject matter experts who are not members of the Task Force to participate and to Chair or Vice-Chair the subcommittees.

Mr. Guy asked for Mr. Thayer's vision as to how the subcommittees will produce their product by the October deadline. Vice-Chair Thayer discussed that the subcommittees of Railbelt, rural, and coastal are three distinct areas of the state and will have different goals based on their region. Vice-Chair Thayer requested input from Task Force members on how to best roll out the subcommittees. He noted that Vice-Chair Holdmann will be working on the State Energy Data Subcommittee. Vice-Chair Thayer explained that the Statutes and Regulations Reform Subcommittee will focus on content after the recommendations have been made, and the Incentives and Subsidies Subcommittee will also focus on content as time progresses and as the information becomes available.

Mr. Guy expressed concern that separate subcommittees within different areas of the state will not be integrated to reach the 10-cent goal for the state. He noted a previous experience under a different governor where the committees met and developed a work product and no follow-through occurred. Mr. Guy commented that he does not want to repeat that experience with this Task Force.

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Mr. Venables expressed support for the six topic areas and for the committee meeting as a whole structure. He believes that his understanding of the distinct regions and issues would be greatly enhanced by different presentations and perhaps the Railbelt representatives would better understand the other regions by listening to those presentations. Mr. Venables noted that if this suggestion slows the process down so that the deadline cannot be met, then he would withdraw the suggestion. He appreciates the leadership of the meetings so far and the subject matter experts and presentations.

Vice-Chair Thayer discussed that each region of the state is going to have a different way to get to 10-cent power. Mr. Venables commented on his understanding of the last topic is to integrate the regional findings.

Chair Lieutenant Governor Dahlstrom asked Vice-Chair Thayer if citizens have identified that they would like to be involved in the Task Force. Vice-Chair Thayer agreed, and noted that there are great candidates who applied to be on the Task Force that could provide beneficial involvement. Chair Lieutenant Governor Dahlstrom believes that it is possible to request a small extension of the October deadline, if necessary.

Mr. Simms shared Mr. Guy's concern. He believes there are critical resources that need to be involved in the discussions. Mr. Simms suggested that the Task Force members chair the subcommittees in order to ensure alignment and to reach the 10-cent goal. He recommended that the Task Force subcommittee chairs field the recommendation on the additional subcommittee participants.

Vice-Chair Holdmann agreed with Vice-Chair Thayer and Mr. Simms that there are additional individuals who could contribute to these dialogs. She believes it is important to find a mechanism to reach those individuals, as well as a mechanism to nominate members to each of the subcommittees. Vice-Chair Holdmann expressed an interest in the State Energy Data subcommittee. She suggested the mechanism that members nominate individuals to participate in each of the subcommittees and the Task Force could consider those nominations at the next meeting. Vice-Chair Holdmann discussed the importance of providing each of the subcommittees with a specific charge or a specific ask that integrates with the larger conversation. Vice-Chair Holdmann does not believe that the goal of 10-cent power can be achieved purely by constructing new projects. She believes that the plan must be considered from a policy standpoint, from a subsidy standpoint, and from a financing standpoint. She would like to include these standpoints into the subcommittees and to have subject matter experts contribute.

Vice-Chair Thayer asked Vice-Chair Holdmann to review the proposed structure of the State Energy Data Subcommittee and how that might be duplicated for the other subcommittees. Vice-Chair Holdmann welcomed any interested Task Force members to contribute to the State Energy Data Subcommittee. She informed that there is an active group involved in the State Energy Data Subcommittee, including Mr. Erickson, Denali Commission, and other State agencies. Vice-Chair Holdmann informed that the Governor

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is supportive of ensuring that energy data is publicly available. The energy data will be used to find additional and better ways to finance energy projects in the future. She mentioned the Alaska Energy Data Gateway and informed that AEA has conducted much work in this area. Vice-Chair Holdmann discussed that she has presented a potential list of individuals to work with the Subcommittee who are at the State agency level and within the private sector who have been contributing to the area of energy data. She requested the Task Force review the proposed list of members for consideration to the State Energy Data Subcommittee.

Ms. Miller commented on the overall structure of the subcommittees and her understanding from the previous meeting's discussions. The information from State Energy Data is focused on the theme of defining the problem by identifying cost structures and benchmarking comparatives. The theme and topic of renewable energy and technologies needs to be included and researched in order to define the menu of potential solutions to new generation, funding structures, or how to organize utilities. Ms. Miller noted that at the previous meeting, a member suggested the Task Force remain as the whole to define the problem and to determine possible solutions and options. After that context is established, then the three different regions could define their individual solutions. She suggested this structure for members to consider.

Mr. Guy inquired if the subcommittees are expected to write a final product of planning in each subject area. Vice-Chair Thayer discussed that the subcommittees are a working group within the Task Force and will bring recommendations to the Task Force to make decisions regarding what is included in the final report. Mr. Guy asked who will be writing the finished product. He asked if staff and subject matter experts will be involved. Vice-Chair Thayer explained the finished product will be a combined effort and a contractor will be utilized to consolidate the information for drafting the final for review.

Mr. Guy offered an alternative to subcommittees. He suggested that staff and subject matter experts from different industries write an integrated product for the Task Force members to consider. Vice-Chair Thayer commented that the term staff is undefined. He noted that AEA has 38 individuals. Mr. Guy expressed his concern that he does not believe the Task Force with the subcommittee structure can develop a viable plan. Mr. Guy discussed that there needs to be a process that leads to the end product. He does not see that the current process will lead the Task Force to the end product.

Vice-Chair Thayer conveyed that the discussion of the process today was to involve subcommittees. The subcommittees would be comprised of invited individuals who are interested in the topic areas and may be subject matter experts, and also may have applied to be on the Task Force. Mr. Guy reiterated the question of who will write the product with the information from the interested parties. He asked if the product will be divided among the subcommittees and the Task Force.

Vice-Chair Holdmann commented that both AEA and ACEP have contributed $100,000 in

staff time to support this effort. She noted the internal concerns that both AEA and ACEP staff are stretched thin. Vice-Chair Holdmann informed that AEA and ACEP discussed which staff are available and the option of utilizing contractors to provide support. She reported that AEA has 36 employees and ACEP has 80 employees. Vice-Chair Holdmann stated that ACEP is planning to designate a staff member, on as close to a full-time basis as possible, to support John Espindola, the Office of Energy Innovation, and this effort. Vice-Chair Holdmann expressed respect for Mr. Guy's concerns. She commented that the Task Force is instrumental in determining how to be successful. She stated that the Task Force is comprised of fantastic people, and she encouraged input from members. The goal to develop a product that will result in actionable outcomes is important to everyone.

Mr. Guy expressed his continued concern with the process and commented that his apprehension is related to Alaska Native Claims Settlement Act (ANCSA). Affordable energy is needed for ANCSA to fully meet its goal of having successful corporations. Over the last 50 years, affordable energy has not materialized. He does not see that this process will reach that goal, especially considering statements that 10-cent power may not be possible in certain areas of the state. Mr. Guy repeated the need for the Task Force to define the process that will develop the product to achieve the goal of 10 cents per kWh. He emphasized his investment in reaching the goal.

Vice-Chair Thayer agreed with Mr. Guy's comments. Vice-Chair Thayer discussed that the subcommittees could focus on their specific areas. The answers in rural Alaska are very different than the answers in urban Alaska and other parts of Alaska. Mr. Guy responded that the subcommittee approach has been the approach for the last 50 years and that equity for rural Alaska will not be reached if the same mindset continues. He commented that the economy in rural Alaska cannot develop with the current power structure. It is less expensive to come to town to shop. Mr. Guy expressed that the status quo is unacceptable 50 years after ANCSA. He discussed that a segment of the State's obligation is to ensure that ANCSA works, and energy is part of that obligation.

Mr. Mitchell commented that this discussion is useful. He understands Mr. Guy's concerns and understands the State's issues. Mr. Mitchell used the analogy of the Russian nesting dolls and acknowledged that "we're all in this together." He noted that each area has unique challenges, benefits, and opportunities. Mr. Mitchell does not believe each area needs to be decentralized while focusing on its individual characteristics. Ultimately, all the information will be combined as a total and no area will be left on their own. Regarding committee structure, Mr. Mitchell suggested that the leadership in the Task Force could Chair the committees and people serve on one or more committees where they feel they can do the greatest good. He recommended that the work products from the committees are either uploaded to Sharepoint or emailed to members for the purpose of situational awareness and consistency until the Task Force reconvenes.

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Mr. Mitchell believes this structure could meet the needs of the unique challenges of the committees, while addressing Mr. Guy's concerns. Mr. Mitchell commented that there should not be anybody involved if they do not believe in the Governor's direction of 10-cent power. Mr. Mitchell believes that the Governor understands that the goal is a moonshot and that it will not be an easy goal to reach. Mr. Mitchell stated that everyone around the table has committed to working diligently to reach the end goal. He emphasized that the process would take many breakout work sessions of the individual groups and that the final work product would be reviewed by the Task Force. Mr. Mitchell discussed that public members could be integrated in this time-sensitive process and that the understanding is to produce executable items.

Mr. Mitchell continued his comments that staff is limited, funding is limited, and that Zoom meetings would have to occur. He inquired regarding the process and procedure of the meetings, and asked if the work sessions must follow the Open Meetings Act criteria. Mr. Mitchell expressed his hope that he is adding value and wants to work together to move forward. Vice-Chair Thayer advised that all actions of the Task Force are conducted under the Open Meetings Act and are publicly disclosed. He noted the meeting will end soon and requested additional comments from members.

5. Discussion: Proposed Symposium Series Members

Vice-Chair Holdmann discussed that the proposed symposium series could be beneficial in providing relevant information to the group as a whole and to the public. She created a short survey that will be emailed to Task Force members to suggest topics of interest, dates, and the format for the symposium series. Vice-Chair Holdmann believes the symposium series is a good way to learn together and to move the process forward.

6. Roundtable – Discussion / Feedback from Task Force Members

Mr. Hanneman expressed support for moving rapidly to get information to the Task Force as a whole, possibly through the symposium series. He recommended following the same process as today by inviting known subject area experts to present to the Task Force. Mr. Hanneman noted this might mean creating working groups of the Task Force as a whole, thus meeting more frequently than once a month. He expressed concern that a subcommittee structure could get bogged down in process, as much as it makes progress on the issues. Mr. Hanneman suggested this format could be followed for a couple of months to "level up" the Task Force with information and knowledge. An evaluation of the format could occur after a few months to determine if subcommittees need to be formed at that point.

Vice-Chair Thayer suggested that staff identify the resources that will help with the process and communicate with the individuals who wanted to be on the Task Force. He encouraged members to identify additional good people to contribute to the process.

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Vice-Chair Thayer noted that the subcommittee conversation will be delayed, while clearly identifying individuals who have expertise in the needed areas.

Mr. Hanneman discussed the possibility of identifying subject matter experts to participate in presenting information during the symposium series. Vice-Chair Holdmann and Vice-Chair Thayer agreed.

Vice-Chair Thayer informed that the Alaska Energy Sustainability Conference will be held the week before Memorial Day and will include over 1,000 attendees, with 150 guest speakers. He invited members to contact him if they would like to attend. Even though it is not part of the Task Force, there will be world renown experts reviewing Alaska's issues and working to solve them.

Mr. Espindola requested members communicate different ideas, topics, and suggestions through the email address: info@akenergysecuritytaskforce.com.

Mr. Venables inquired about a previous AEA document that was created showing different members of the energy community. Vice-Chair Thayer noted that report was reviewing the possibility of combining AEA and AIDEA into one facility. He can provide it, if necessary.

Vice-Chair Thayer informed that staff would communicate the deliverables with members using the info@akenergysecuritytaskforce.com email so that the correspondence is easy to track and available for public records.

7. Next Meeting Date: June 27, 2023

Chair Lieutenant Governor Dahlstrom expressed appreciation to Vice-Chair Thayer, Vice-Chair Holdmann, and the members. The next meeting is scheduled for June 27, 2023. She noted the possibility of convening a meeting before then.

Mr. Guy requested that the next meeting is scheduled for a full day. Chair Lieutenant Governor Dahlstrom noted that request will be considered.

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 5:04 pm.

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ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #3
TUESDAY, JUNE 27, 2023, 2:00 PM – 4:30 PM

STATUS: Active

Alaska Energy Security Task Force, Tuesday, June 27, 2023, 2:00 pm

Please note that the Alaska Energy Security Task Force will hold a meeting on Tuesday, June 27, 2023.

The Alaska Energy Security Task Force will convene at 2:00 pm to conduct task force business and continue in session until recess or adjournment.

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting: Kollette Schroeder at 907-465-3500 or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

The Task Force Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd
Anchorage, AK 99503

To attend virtually, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 248 518 502 852
Passcode: jFvJtR

Download Teams | Join on the web

Or call in (audio only)

+1 907-313-5807,,200928581# United States, Anchorage

Phone Conference ID: 200 928 581#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Person requiring special modifications to participate should contact 907-465-3500 to make arrangements

Attachments, History, Details

Attachments

Details

Department:	Commerce, Community and Economic Development

2023.06.27 Alaska Energy Security Task Force Agenda FINAL LINKED.pdf

Revision History

Created 6/20/2023 3:19:13 PM by jlbertolini
Modified 6/26/2023 5:26:22 PM by jlbertolini [Details]

Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	6/20/2023
Archive Date:	6/28/2023

Events/Deadlines:

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, June 27, 2023
2:00 pm to 4:30 pm

Teams Meeting:

Click here to join the meeting
Meeting ID: 248 518 502 852
Passcode: jFvJtR

Agenda

1. Welcome and Introductions (Vice Chair Thayer)
2. Roll Call
3. Prior Meeting Minutes – May 9, 2023
4. Presentations:
    a. Alaska Energy Authority IIJA and IRA Opportunities
    b. Railbelt IIJA GRIP Opportunities
    c. Rural Alaska Microgrid Transformation IIJA GRIP Opportunity
    d. Regulatory Commission of Alaska / Alaska Energy Authority Power Post Equalization (PCE)
    e. Renewable Energy Fund – Round 16 Kickoff
    f. Cook Inlet Gas – Enstar - Verbal
5. July – September Meeting Schedule
6. Support
    a. Black & Veatch
    b. Michael Baker International
7. Subcommittee Formation
    a. Assignments of Chairs and Co-Chairs
    b. Tasking /scope of work
    c. Support
8. Discussion –Webinar Topics
9. Subcommittee formation
10. Adjourn

Alaska Energy Security Task Force Meeting

June 27, 2023



June 27, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. Welcome and Introductions
2. Roll Call
3. Prior Meeting Minutes
4. Presentations:
   - Alaska Energy Authority (AEA) IIJA and IRA Opportunities
   - Railbelt IIJA GRIP Opportunities
   - Rural Microgrid Transformation IIJA GRIP Opportunity
   - Regulatory Commission of Alaska
   - AEA Power Cost Equalization
   - Renewable Energy Fund Round 16
   - Cook Inlet Gas, Enstar (Verbal)
5. Contractor Support
   - Black & Veatch
   - Michael Baker International
6. July-September Meeting Schedule
7. Subcommittee Formation:
   - Chairs/Co-Chairs Assignments
   - Tasking/Scope of Work
8. Discussion — Webinar Topics
9. Housekeeping; Travel
10. Adjourn

Alaska Energy Security Task Force

Purpose



The **purpose** of the AESTF is to develop a comprehensive statewide energy plan that will evaluate energy generation, distribution, transmission, and storage for the State of Alaska and its communities.

Organization

Alaska Energy Security Task Force

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	lt.governor@alaska.gov
Curtis W. Thayer, Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
Clay Koplin, Cordova Electric Cooperative, Vice Chair	ckoplin@cordovaelectric.com
Commissioner John Boyle, Department of Natural Resources	john.boyle@alaska.gov
Commissioner Jason Brune, Department of Environmental Conservation	jason.brune@alaska.gov
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Senator Click Bishop (Ex Officio)	senator.click.bishop@akleg.gov
Garrett Boyle, Denali Commission (Ex Officio)	gboyle@denali.gov
Commissioner Keith Kurber, Regulatory Commission of Alaska (Ex Officio)	keith.kurber@alaska.gov
Representative George Rauscher (Ex Officio)	representative.george.rauscher@akleg.gov
Erin Whitney, United States Department of Energy, Arctic Energy Office (Ex Officio)	erin.whitney@hq.doe.gov
*Andrew Jensen, Policy Advisor, Office of Governor Mike Dunleavy	andrew.jensen@alaska.gov

Alaska Energy Security Task Force

Proposed Work Schedule



Key Milestones	Completed By
Regional Sub Status Reports	Tuesday, July 18, 2023
Regional Sub Initial Reports	Tuesday, August 8, 2023
Regional Sub Final Reports and I/S/S/R* Data Sub Initial Reports	Tuesday, August 29, 2023
I/S S/R* Data Sub Final Reports; Release S/R** report for 28-Day Public Comment	Tuesday, September 10, 2023
Receive Initial Report, Release for 28-day Public Comment; Take Public Comment on S/R** Report	Tuesday, October 3, 2023
Discuss S/R** Final Report; Vote on Recommendations; Take Public Comment on Initial Report	Tuesday, October 17, 2023
Discuss Final Report; Vote on Recommendations; Receive Final S/R** Report; send to GOA	Tuesday, October 31, 2023
Task Force Receives Final Report	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023

*Incentives and Subsidies and Statutes and Regulations Reform
**Statutes and Regulations Reform

Alaska Energy Security Task Force

Subcommittee Formation

State Energy Data
Chair: Dan White
John Boyle
Conner Erickson, AEA Observer
Support: Alaska Center for Energy and Power (ACEP)

Statutes and Regulations Reform
Co-Chair: Robert Venables
Co-Chair: Karl Hanneman
Keith Kurber
Tony Izzo
Isaac Vanderburg
Click Bishop
George Rauscher
Karen Bell, AEA Observer
Support: Michael Baker International

Railbelt Transmission, Generation, and Storage
Co-Chair: Tony Izzo
Co-Chair: Jenn Miller
John Sims
Curtis Thayer
Bryan Carey, AEA Observer

Rural Generation, Distribution, and Storage
Co-Chair: Clay Koplin
Co-Chair: Andrew Guy
Nils Andreassen
Garrett Boyle
Jason Brune
Tim Sandstrom, AEA Observer
Support: Michael Baker International

Coastal Generation, Distribution, and Storage
Co-Chair: Duff Mitchell
Co-Chair: Robert Venables
Clay Koplin
Audrey Alstrom, AEA Observer
Support: Michael Baker International

Incentives and Subsidies
Co-Chair: Nils Andreassen
Co-Chair: Isaac Vanderburg
John Sims
Andrew Guy
Karen Bell, AEA Observer

State Energy Data

Purpose

Recommendation to establish a Data Subcommittee to directly support the Alaska Energy Security Task Force's duty to establish a plan for Alaska that includes:

- Establish a baseline energy portfolio for the State of Alaska
- Develop and maintain a public database of task force information and recommend strategies for sharing energy data and information through an energy data portal

Responsibilities

- Identify valuable energy data resources, data ownership, and determine data availability
- Identify data systems, products, services, and platforms used for data collection, storage, documentation, preservation, and sharing

Deliverables

- Inventory of available energy data, data ownership, and data availability
- Inventory data systems, products, services, and platforms used for data collection, analysis, and reporting
- SWOT analysis of data end users and their needs
- Recommendations for data schemas, frameworks, partners, and standardizations to improve interoperability and collaboration between data and service providers to establish, serve, and maintain data tools

Statutes and Regulations Reform

Purpose

Propose recommendations that support the goals of the Alaska Energy Security Task Force to establish a plan that includes:

- Streamlining permitting and reducing regulatory burden
- Updating outdated provisions including reflecting changes in energy production and consumption - such as net metering regulations, micro-nuclear development, supporting green hydrogen development, renewable energy credits
- Promoting renewable energy development
- Encouraging energy efficiency
- Supporting workforce development
- Evaluating Renewable Portfolio Standards
- Ensuring Alaska's energy independence

Deliverables

- Recommended Legislative amendments
- Recommended changes to federal funding programs and regulations
- Policy recommendations with impact assessments, where possible
- Recommended implementation framework

Responsibilities

- Identify relevant statutes and regulations – State and Federal
- Assess impacts of proposed changes
- Develop reasonable timeline with milestones
- Identify stakeholders for public outreach

Railbelt Transmission, Generation, and Storage

Purpose

Propose recommendations that support the goals of the Alaska Energy Security Task Force to establish a plan that includes:

- Promoting renewable energy development
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development

Deliverables

- Prioritized list of recommended infrastructure upgrades and maintenance, with cost estimates
- Policy recommendations for Railbelt modernization initiatives and cost pooling or bulk purchase opportunities
- Evaluation of emergency response plans and recommend update

Responsibilities

- System assessment and identification of vulnerabilities
- Assess impacts of proposed changes
- Develop reasonable timeline with milestones
- Identify stakeholders for public outreach

Rural Generation, Distribution, and Storage

Purpose

Propose recommendations that support the goals of the Alaska Energy Security Task Force to establish a plan that includes:

- Promoting renewable energy development with a focus on Wind, Solar, and Hydro
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development

Deliverables

- Prioritized list of projects, with cost estimates
- Policy recommendations for rural initiatives
- Identification of potential project bundling opportunities

Responsibilities

- Assessment and identification of vulnerabilities
- Assess impacts of proposed changes
- Develop reasonable timeline with milestones
- Identify stakeholders for public outreach

Coastal Generation, Distribution, and Storage

Purpose

Propose recommendations that support the goals of the Alaska Energy Security Task Force to establish a plan that includes:

- Promoting renewable energy development with a focus on Tidal, offshore wind, and hydrogen fuel cells
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development

Deliverables

- Prioritized list of demonstration projects, with cost estimates
- Policy recommendations for coastal initiatives
- Identification of potential permitting issues

Responsibilities

- Evaluation of current technologies, including costs, and identification of opportunities and risks
- Assess impacts of proposed changes
- Develop reasonable timeline with milestones
- Identify stakeholders for public outreach

Incentives and Subsidies

Purpose

Propose recommendations that support the goals of the Alaska Energy Security Task Force to establish a plan that includes:

- Lowering the cost of energy in Alaska
- Maximizing the use of federal incentives to increase the financial and economic impact of capital projects
- Promoting renewable energy development
- Encouraging energy efficiency
- Supporting workforce development
- Ensuring Alaska's energy independence

Deliverables

- Identify opportunities for credits and incentives for current and future projects
- Policy recommendations for changes to state subsidies with impact assessments, where possible
- Public information and stakeholder engagement plan
- Develop recommendations to leverage incentives and subsidies to maximize public benefit

Responsibilities

- Identify current incentive and subsidies available – Federal, State, Nationwide
- Develop reasonable timeline with milestones
- Identify stakeholders for public outreach

Alaska Energy Security Task Force

Discussion – Webinar Topics

Q1 Symposium Topic: Energy in Alaska

	NOT INTERESTED	LOW INTEREST	MEDIUM INTEREST	HIGH INTEREST	CRITICALLY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Railbelt Grid - history, future trajectory, ownership and management, transmission	0.00% 0	9.09% 1	27.27% 3	18.18% 2	45.45% 5	11	4.00
Cook Inlet Natural Gas Supply/Development - history, current status, future projections	0.00% 0	18.18% 2	0.00% 0	18.18% 2	63.64% 7	11	4.27
Rural Electrification - history, current status, future projections	0.00% 0	0.00% 0	18.18% 2	36.36% 4	45.45% 5	11	4.27
Hydropower Development in Alaska - past development and state investment, future opportunities	0.00% 0	0.00% 0	27.27% 3	27.27% 3	45.45% 5	11	4.18
Southeast Alaska - Regional challenges and opportunities	9.09% 1	18.18% 2	18.18% 2	18.18% 2	36.36% 4	11	3.55

Discussion – Webinar Topics

Q2 The Economics of Energy in Alaska

	NOT INTERESTED	LOW INTEREST	MEDIUM INTEREST	HIGH INTEREST	CRITICALLY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Alaska's Economy - how it works	9.09% 1	18.18% 2	18.18% 2	27.27% 3	27.27% 3	11	3.45
Alaska Energy Statistics - preview of updated energy statistics report, to be published June 2023	0.00% 0	18.18% 2	18.18% 2	36.36% 4	27.27% 3	11	3.73
Power Cost Equalization (PCE) - program overview	0.00% 0	36.36% 4	18.18% 2	27.27% 3	18.18% 2	11	3.27
The Economics of "Cheap" Power - who has the cheapest power in the world and why?	0.00% 0	9.09% 1	18.18% 2	27.27% 3	45.45% 5	11	4.09
Funding and financing energy infrastructure and projects - status quo in Alaska	0.00% 0	0.00% 0	0.00% 0	54.55% 6	45.45% 5	11	4.45

Discussion – Webinar Topics

Q3 Energy Policy and Programs

	NOT INTERESTED	LOW INTEREST	MEDIUM INTEREST	HIGH INTEREST	CRITICALLY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Alaska Energy Policy - previous energy planning and policy efforts	0.00% 0	36.36% 4	45.45% 5	9.09% 1	9.09% 1	11	2.91
Policy and Planning Best Practices - experience of other state and justifications in energy planning	0.00% 0	0.00% 0	54.55% 6	45.45% 5	0.00% 0	11	3.45
Rural Energy Subsidization - PCE comparison to alternative programs in other markets	0.00% 0	9.09% 1	36.36% 4	45.45% 5	9.09% 1	11	3.55
Federal Landscape and Funding Opportunities	0.00% 0	10.00% 1	20.00% 2	50.00% 5	20.00% 2	10	3.80
Iceland Energy Policies & Relevance to Alaska 10 cent goal (grid ownership, district heating, project funding and financing)	0.00% 0	0.00% 0	45.45% 5	36.36% 4	18.18% 2	11	3.73

Discussion – Webinar Topics

Q4 The Changing Global Energy Landscape

	NOT INTERESTED	LOW INTEREST	MEDIUM INTEREST	HIGH INTEREST	CRITICALLY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Oil and Gas Industry - future trends	0.00% 0	27.27% 3	63.64% 7	0.00% 0	9.09% 1	11	2.91
The Electric Grid of the Future - national and global trends, beneficial electrification, projections for renewables	0.00% 0	0.00% 0	30.00% 3	40.00% 4	30.00% 3	10	4.00
Carbon Capture, Utilization and Sequestration (CCUS) - role in a lower carbon future	0.00% 0	18.18% 2	63.64% 7	9.09% 1	9.09% 1	11	3.09
Decarbonizing Transportation Fuels - EVs, shipping, aviation	0.00% 0	18.18% 2	54.55% 6	27.27% 3	0.00% 0	11	3.09
Emerging Carbon Markets - regulatory compliance and voluntary markets	0.00% 0	50.00% 5	50.00% 5	0.00% 0	0.00% 0	10	2.50
Hydrogen as part of a clean energy economy	0.00% 0	0.00% 0	100.00% 1	0.00% 0	0.00% 0	1	3.00

Discussion – Webinar Topics

Q5 Technology Solutions Relevant to Alaska

	NOT INTERESTED	LOW INTEREST	MEDIUM INTEREST	HIGH INTEREST	CRITICALLY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Solar PV	0.00% 0	20.00% 2	50.00% 5	20.00% 2	10.00% 1	10	3.20
Wind (onshore and offshore potential)	0.00% 0	18.18% 2	36.36% 4	18.18% 2	27.27% 3	11	3.55
Energy storage (short- and long-duration)	0.00% 0	0.00% 0	18.18% 2	27.27% 3	54.55% 6	11	4.36
Small nuclear	0.00% 0	18.18% 2	27.27% 3	18.18% 2	36.36% 4	11	3.73
Hydrogen (including H2 carriers like ammonia and methanol)	0.00% 0	30.00% 3	20.00% 2	30.00% 3	20.00% 2	10	3.40
Tidal energy (Cook Inlet)	11.11% 1	22.22% 2	33.33% 3	22.22% 2	11.11% 1	9	3.00
Natural Gas - instate use options	0.00% 0	9.09% 1	9.09% 1	63.64% 7	18.18% 2	11	3.91
Geothermal (Cook Inlet)	0.00% 0	30.00% 3	30.00% 3	40.00% 4	0.00% 0	10	3.10
Transmission (Roadbelt, MVDC for rural interties, etc)	0.00% 0	0.00% 0	27.27% 3	27.27% 3	45.45% 5	11	4.18
Beneficial electrification (heat pumps, EVs, etc)	0.00% 0	0.00% 0	40.00% 4	40.00% 4	20.00% 2	10	3.80

Alaska Energy Security Task Force

Discussion – Webinar Topics

Q6 What is your preferred format for the symposium? (check all that apply)

ANSWER CHOICES	RESPONSES	
Weekly, 2 hours in the evening from 6-8pm	9.09%	1
Weekly, 2 hours from 11am-1pm	63.64%	7
Bi-monthly, two half-days 8am-12pm	45.45%	5
Monthly, two full days	9.09%	1
Other (please specify)	0.00%	0
Total Respondents: 11		

Alaska Energy Security Task Force

Discussion – Webinar Topics

Q9 If we were to conduct a scenarios or visioning workshop, which dates would work for you?

ANSWER CHOICES	RESPONSES	
Friday-Saturday June 16-17th	10.00%	1
Friday-Saturday July 14-15th	40.00%	4
Friday-Saturday July 21-22nd	0.00%	0
Friday-Saturday July 28-29th	0.00%	0
I would like to participate but none of these dates work for me	0.00%	0
I can't spend 2 days on this activity over the summer	10.00%	1
I would prefer 2 full days during the week rather than include a Saturday	40.00%	4
TOTAL		10

Proposed Energy Symposiums

Purpose

ACEP proposing holding a series of topic-specific symposiums each week for AESTF members and the public. These topics identified and prioritized from a survey of AESTF members, will inform members on issues relevant to developing a comprehensive statewide energy plan. ACEP will develop and coordinate the symposium series, including presenter coordination and costs associated with hosting the events.

Logistics

When: Weekly on Thursdays from 11a.m.-1 p.m.
Format: Zoom webinars (recordings available for later)

Symposium presentations will be presented virtually, with AESTF members participating as panelists and members of the public attending as participants. All symposiums will be recorded and posted on the AESTF project website hosted by AEA, along with presentation materials. AEA will ensure all open meeting requirements are met.

Committee of the Whole Presentations

ACEP recommends the following presentations occur as part of the regular AESTF committee of the whole meetings:

- Alaska Energy Statistics: Current Snapshot and 10-Year Trends - ACEP
- Alaska Energy Pathways

Proposed Schedule

- July 13 – Cook Inlet Natural Gas Supply & Development
- July 20 – Energy & Economics
- July 27 – Electrification
- August 3 – Hydropower Development in Alaska
- August 10 – Financing Projects & Funding Opportunities
- August 17 – Transmission & Storage
- August 24 – Current Research Efforts & Updates

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

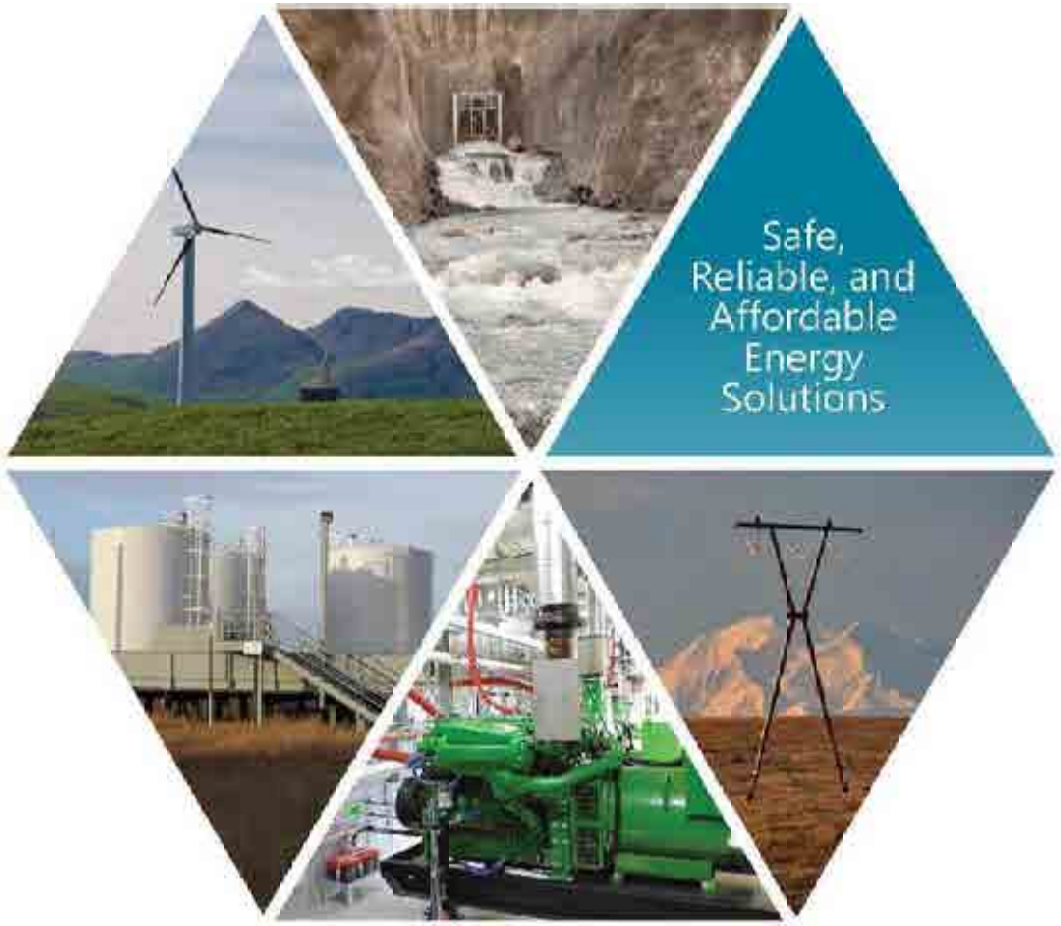
http://akenergysecuritytaskforce.com

ALASKA ENERGY AUTHORITY

FEDERAL FUNDING OPPORTUNITIES

Karen Bell
Manager of Planning

Alaska Energy Security Task Force
June 27, 2023



ALASKA ENERGY AUTHORITY

Acronyms: IRA and IIJA

ACRONYM	MEANING	ACRONYM	MEANING
BIL	Bipartisan Infrastructure Law	GDO	Grid Deployment Office
CCS	Carbon Capture and Sequestration	GHGRF	Greenhouse Gas Reduction Fund
CFI	Charging and Fueling Infrastructure	GRIP	Grid Resilience and Innovation Partnerships
DOE	Department of Energy	IIJA	Infrastructure Investment and Jobs Act
DOT	Department of Transportation	IRA	Inflation Reduction Act
EA	Energy Audits	ITC	Investment Tax Credit
EEE	Energy Efficient Equipment	NEVI	National Electric Vehicle Infrastructure
EECBG	Energy Efficiency Conservation Block Grant	New ERA	Empowering Rural America (USDA Program)
EEI	Energy Efficiency Improvements	PACE	Powering Affordable Clean Energy (USDA Program)
EERLF	Energy Efficiency Revolving Loan Fund	PTC	Production Tax Credit
EIRA	Energy Improvements in Remote Areas	RES	Renewable Energy Systems
EPA	Environmental Protection Agency	RUS	Rural Utilities Service
EV	Electric Vehicle	USDA	United States Department of Agriculture
FHWA	Federal Highway Administration	VTO	Vehicle Technology Office



INFRASTRUCTURE INVESTMENT AND JOBS ACT

Home Energy and High Efficiency Rebate Allocations

AEA collaborating with the Alaska Housing Financing Corporation to distribute Alaska's allocation of $74 Million

Home Efficiency Rebates

- Rebates for energy efficiency retrofits range from $2,000-$4,000 for individual households and up to $400,000 for multifamily buildings.
- Grants to states to provide rebates for home retrofits.
- Up to $2,000 for retrofits reducing energy use by 20% or more, and up to $4,000 for retrofits saving 35% or more.
- Maximum rebates double retrofits of low-and moderate-income homes.
- **Alaska's Allocation is $37.4 million**
- **No State match is required**

Home Electrification and Appliance Rebates

- Develop a high efficiency electric home rebate program.
- Include means testing and will provide 50% of the cost for incomes 80 to 150% of area median income, and 100% of the cost for incomes 80% of area medium income and below and similar tiers for multifamily buildings.
- Includes a $14,000 cap per household, with an $8,000 cap for heat pump costs, $1,750 for a heat pump water heater, and $4,000 for panel/service upgrade.
- Other eligible rebates include electric stoves, clothes dryers, and insulation/air sealing measures.
- **Alaska's Allocation is $37.1 million**
- **No State match is required**

Statewide Grid Resilience and Reliability IIJA Formula Grant Program, 40101(d)



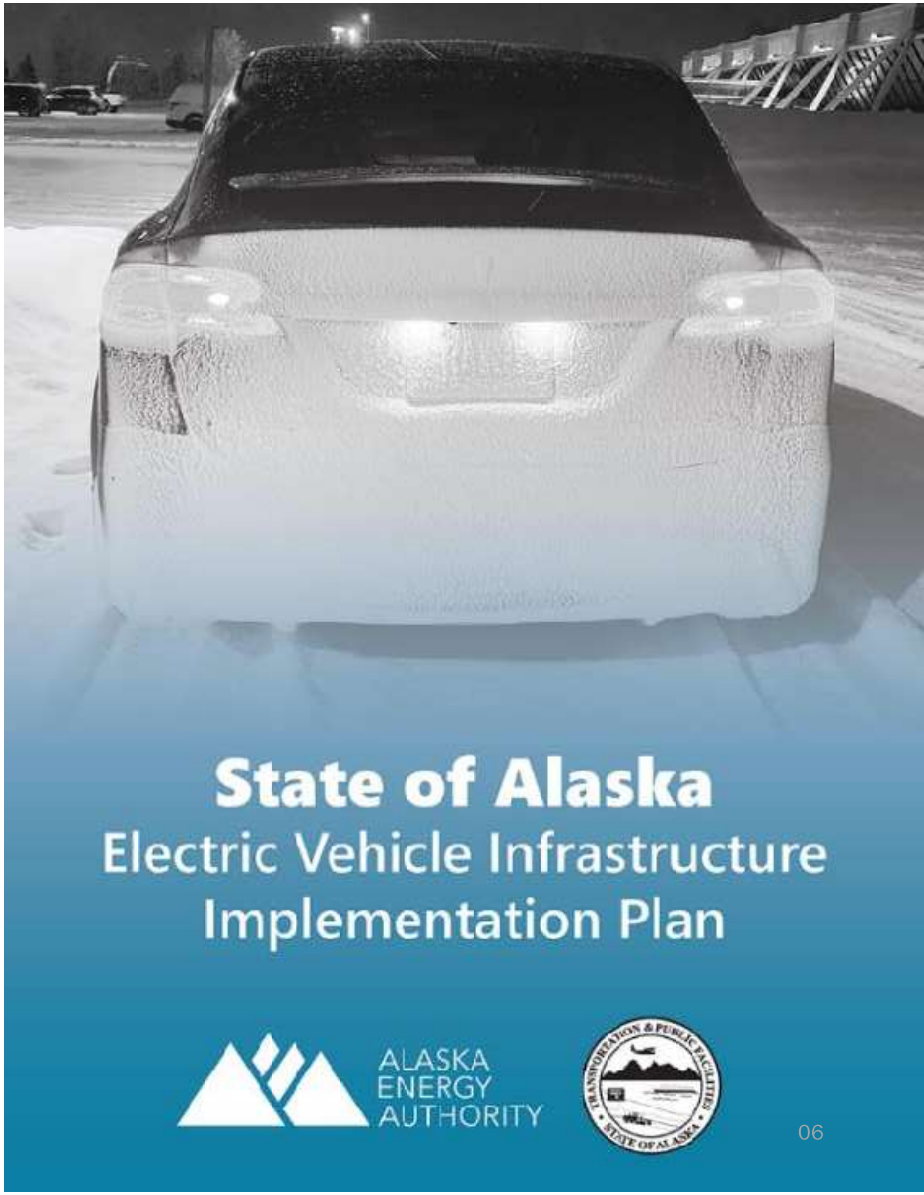
Per IIJA section 40101(a)(1),8 a disruptive event is defined as "an event in which operations of the electric grid are disrupted, preventively shut off, or cannot operate safely due to extreme weather, wildfire, or a natural disaster."

- These federal formula grant funds will provide **$60 million** to Alaska over five years, including **$22.2 Million** for the first two years allocation, to catalyze projects that **increase grid resilience against disruptive events**.
- Resilience measures include but are not limited to:
  - Relocating or reconductoring powerlines
  - Improvements to make the grid resistant to extreme weather
  - Increasing fire resistant components
  - Integrating distributed energy resources like microgrids and energy storage
- Formula-based funding requires a **15% state match** and a **33% small utility match**.

State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan

AEA and the Alaska Department of Transportation & Public Facilities (DOT&PF), submitted their **State of Alaska EV Infrastructure Implementation Plan (The Plan)** to the United States Joint Office of Energy and Transportation, as required by the Infrastructure Investment and Jobs Act's (IIJA) NEVI Formula Program.

- On September 27, 2022, **The Plan was approved**. The announcement unlocks **$19 million** to expand EV charging infrastructure in Alaska.
- Over the **next five years, AEA anticipates receiving $52 million**. Funds will be received by DOT&PF and administered by AEA.
- AEA is seeking public comment on its update to the NEVI plan, deadline to submit public comments in July 17, 2023



Black Rapids Training Site (BRTS) Defense Community Infrastructure Pilot Program

AEA partnered with Golden Valley Electric Cooperative (GVEA) to apply for this grant from the Office of Local Defense Community Cooperation under the Defense Community Infrastructure Pilot Program.

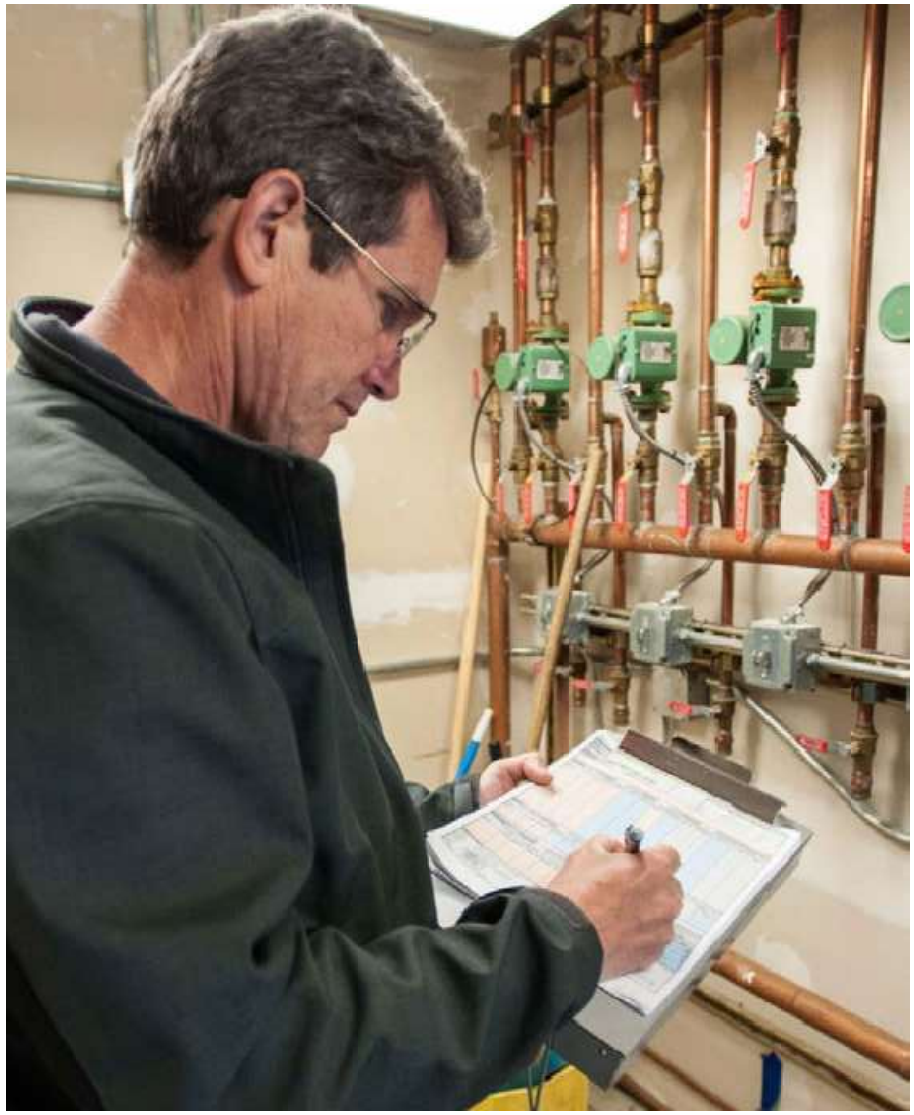
Federal Receipt Authority of $12.7 Million. No State match is required.

GVEA will use the funds to extend an transmission line 34 miles along the Richardson Highway to BTRS. Currently, BTRS is powered by three diesel generators that are nearing the end of their useful lives. This extension will improve long-term sustainability and reliability for BRTS by tying them into GVEA's power grid.



Energy Efficiency Revolving Loan Fund (EERLF)

- The Infrastructure Investment and Jobs Act provides funding for a new **Energy Efficiency Revolving Loan Fund Program (EERLF)**.
- This funding will be used to **establish and capitalize a revolving loan fund**, under which the State shall provide loans and grants for residential energy audits, upgrades, and retrofits to increase energy efficiency, physical conform and air quality of existing building infrastructure.
- In collaboration with the Alaska Housing Finance Corporation, **AEA will administer the EERLF** commercial loans/grants program.
- **Alaska's Allocation is $4,569,780**





State Energy Program (SEP)

- **AEA is developing activities for deployment that include:**
  - Statewide Energy Plan
  - State Energy Security Plan
  - Renewable Energy Fund and Village Energy Efficiency Program construction projects
  - IIJA Required Grid Planning
  - Training and Workforce Development
- **In collaboration with Alaska Housing Finance Corporation:**
  - Update AkWarm Energy Modeling Software to the requirements imposed by the Inflation Reduction Act.
  - Modernize Alaska Retrofit Information Systems database to accept the AkWarm modifications.
- **Alaska's Allocation is $2,865,930**

EV Charging Equipment Competitive

- AEA was awarded funding in the amount of **$1,670,00** through the Office of Energy Efficiency and Renewable Energy Vehicle Technologies Office, **Area of Interest 9: Community-Driven Electric Vehicle Charging (EV) Deployment in Underserved Communities**.

- **The goals of this project are to:**
  1. increase access to vehicle electrification in multiple rural and underserved communities across Alaska;
  2. demonstrate the benefits of EVs to key decision-makers and the broader public to accelerate clean transportation transition; and
  3. support the development of community charging equipment.

- **A 20% match is required, shared by AEA and project partners.**

AEA is working with partners across Alaska to support vehicle electrification in rural, low-income, and Tribal communities to ensure an equitable and just transition to clean transportation.



Energy Efficiency Conservation Block Grant (EECBG)

- Program designed to assist states, local governments, and tribes in implementing strategies to reduce energy use, to reduce fossil fuel emissions, and to improve energy efficiency.
- **Formula Funding:**
  - States
  - Local Governments
  - Tribes
- **State Application Deadline is July 31, 2023**
- **Local and Tribal Government Deadline is January 31, 2024**
- **Alaska's Allocation is $1,627,450**
- **No Match Required**



IIJA Competitive: Grid Resilience and Innovation Partnerships (GRIP)

To enhance the power system's resilience to extreme weather and climate change, the Grid Deployment Office is administering a $10.5 billion GRIP program under the Bipartisan Infrastructure Law.



1) Railbelt Backbone Reconstruction Project
$100 Million*
(Requested of DOE; submitted April 5, 2023)

2) Battery Energy Storage/HVDC Coordinated Control
$16 Million*
(Requested of DOE; submitted March 16, 2023)

3) Railbelt Innovation Resiliency Project)
$411 Million*
(Requested of DOE; submitted May 18, 2023)

3) Rural Alaska Microgrid Transformation
$250 Million*
(Requested of DOE; submitted May 18, 2023)

*All four GRIP programs are in application phase.



Energy Improvements in Rural and Remote Areas (ERA) – Fixed Grant Award Program

- **ERA will improve the resilience, reliability, and** affordability of energy systems in communities across the country with 10,000 or fewer people.

- **Competitive Grant Program DE-FOA-0003045**
  - 10 – 100 awards between $500,000 and $5 million
  - No match required

- **Eligible Applicants:**
  - Institutions of Higher Education
  - Non-Profit Organizations
  - For Profit Entities
  - Local Governmental Entities
  - Tribal Nations

- **Pre-application deadline is July 13, 2023**

- **Full applications are due on October 12, 2023**



INFLATION REDUCTION ACT

IRA: Clean Energy National Funding Opportunities

- **Rural Energy Assistance** – $12 Billion managed by the Department of Agriculture
- **Clean Energy Business Loans** – $14 Billion managed by the Department of Energy
- **Home Energy Rebates** – $8.8 Billion managed by the Department of Energy
- **Energy Grid** – $9 Billion managed by the Department of Energy
- **Energy Code Assistance** – $1 Billion managed by the Department of Energy
- **Greenhouse Gas Reduction Fund** – $27 Billion managed by the Environmental Protection Agency
- **Climate Pollution Reduction Grants** – $5 Billion managed by the Environmental Protection Agency
- **Clean Heavy Duty Vehicles & Clean Ports** – $4 Billion managed by the Environmental Protection Agency
- **Environmental & Climate Justice Block Grants** – $3 Billion managed by the Environmental Protection Agency
- **Methane Emissions Reduction Program** – $1.5 Billion managed by the Environmental Protection Agency
- **Energy Tax Credits** – estimated $270 Billion managed the Internal Revenue Service
- **Other Programs** – $20 Billion managed by various agencies including HUD and NOAA

IRA: New USDA Programs in Rural Utilities Service

	PACE	NEW ERA
Eligible Activities	▪ Renewable power generation from: wind, solar, geothermal, hydropower, or biomass ▪ Storage for or with renewable energy ▪ The project must produce renewable energy for resale and serve at least 50 percent rural customers	▪ Purchase of clean energy systems, the construction of clean energy systems, or the purchase of clean energy power ▪ Renewable enabling technologies including storage and distributed clean energy generation as part of a clean energy generation project ▪ Zero-emission technologies, including carbon capture and storage (CCS), nuclear, as well as utility-controlled demand side management systems ▪ Transmission and renewable generation energy efficiency measures
Eligible Entities	▪ Corporations; States and territories along with their subdivisions and agencies; Municipalities; Utility districts; Cooperatives; Nonprofits; Indian Tribes; Alaska Native, regional, or village corporations; Limited Liability Companies or other for-profit entities. ▪ One application from each eligible entity.	▪ Electric cooperatives that are current or former RUS or REA borrowers, electric cooperatives serving predominantly rural areas, or wholly or jointly owned subsidiaries
Funding	▪ Loans at the municipal rate with partial forgiveness: - Up to 20 percent for eligible applicants - Up to 40 percent for energy dependent or disadvantaged communities - Up to 60 percent for Tribal communities, Alaskan villages, Alaska Native Corporations, Hawaiian homelands, US territories, or compact states ▪ PACE program size: $1 billion	▪ Grants up to 25 percent of total project cost ▪ Loans to finance clean energy projects at the Treasury rate or interest rates as low as two percent ▪ Zero percent interest refinancing available for stranded assets to invest in eligible projects or for projects serving distressed, disadvantaged, or energy dependent communities ▪ New ERA program size: $9.7 billion
Deadlines	▪ Accepting Letters of Interest July 10-September 29, 2023 ▪ Not competitive and processed on a rolling basis	▪ Accepting Letters of Interest between July 31-August 31, 2023 ▪ Competitive scoring based on the greatest reduction in greenhouse gas emissions

IRA: Other Potential State Clean Energy Opportunities

Assistance for Latest & Zero Building Energy Code Adoption (Competitive grant)

- $1 billion to assist states and local governments that have the authority to adopt building codes to adopt codes for residential buildings that meet or exceed the 2021 International Energy Conservation Code; and/or for commercial buildings to meet or exceed the ANSI/ASHRAE/IES Standard 90.1-2019.

Greenhouse Gas Reduction Fund (Competitive grant)

- $27 billion to assist states, tribes, and municipalities to mobilize financing for clean energy and climate projects that reduce greenhouse gas emissions, emphasis on projects that benefit low-income and disadvantaged communities.

Clean Heavy Duty Vehicles (Competitive grant)

- $1 billion to provide grants, rebates, and contract support to replace heavy duty vehicles with zero emission alternatives for states, local governments, tribes, and non-profit school associations.

Climate Pollution Reduction Fund (Competitive grant)

- $5 billion to assist states, air pollution control agencies, tribes, and local governments in developing and implementing strong, local climate pollution reduction strategies.

IRA: Clean Energy Tax Incentives

- **Investment Tax Credit (48/48E) –** 6% base credit for qualifying renewable energy projects.
- **Production Tax Credit (45/45Y) –** 0.3 cents/kW credit inflation adjusted for energy generated by renewable energy sources.
- **Energy Efficient Commercial Buildings Deduction (179D) –** $0.50 to $1.00 per square foot.
- **Energy Efficient Home Improvement Credit (25C)** – up to 30% for improvements in residential homes.
- **Residential Clean Energy Credit (25D) –** credit of up to 30% of cost of clean energy equipment.
- **Clean Vehicle Credit (30D/25E/45W) –** up to $7,500 for purchasing new qualifying vehicles and up to $4,000 for used vehicle. Up to 30% credit of the cost of replacing diesel and gas powered commercial vehicles.
- **Alternative Fuel Refueling Property Credit (30C) –** credit for refueling and charging property in low income and rural areas. Eligible for direct pay option for tax exempt agencies.
- **Carbon Oxide Sequestration (45Q) –** $17/metric ton of carbon dioxide captured and sequestered; $12/metric ton for carbon dioxide that is injected for enhanced oil recovery or utilized.
- **Clean Hydrogen Production Credit (45V) –** $0.60/kg multiplied by the applicable percentage.

For more tax incentives, visit AEA's website at https://www.akenergyauthority.org/ira

IRA: Bonus Tax Credits

- **Prevailing Wage and Registered Apprenticeship**
  - 5 times base credit
  - 1MW threshold

- **Domestic Content**
  - Up to 10 percentage points for ITC and 10 percent for PTC
  - Elective pay requirement for projects larger than 1 MW that begin construction in 2024 or later

- **Energy Communities**
  - Up to 10 percentage points for ITC and 10 percent for PTC
  - Updated map released for 2023 energy communities

- **Low Income Communities (ITC for Solar and Wind Only)**
  - 10 percentage points for low income communities or on tribal land
  - 20 percentage points for projects that are part of certain federally subsidized housing programs or that offer at least 50 percent of the financial benefits of the electricity produced to low-income households.
  - This bonus amount will require an application by the taxpayer, with a cumulative total of 1.8 GW of direct current capacity per year available for allocation.

Elective Pay

What is Elective Pay?

Elective pay allows applicable entities that would otherwise be unable to claim these credits because they do not owe federal income tax, to benefit from some clean energy tax credits by treating the amount of the credit as a payment of tax and refunding any resulting overpayment.



Elective Pay Eligibility

- Exempt Organizations 501(a) and 115
- State or political subdivision
- Territories and agencies
- Tribal governments and subdivisions
- Alaska Native Corporations
- Rural Electric Cooperatives
- **Partnerships are excluded**

Eligible Tax Credits

- Energy Credit (48)
- Clean Electricity Investment Credit (48E)
- Renewable Electricity Production Credit (45)
- Clean Electricity Production Credit (45Y)
- Commercial Clean Vehicle Credit (45W)
- Zero-emission Nuclear Power Production (45U)
- Advanced Manufacturing Production (45X)
- Clean Hydrogen Production Credit (45V)
- Clean Fuel Production Credit (45Z)
- Carbon Oxide Sequestration Credit (45Q)
- Vehicle Refueling / Recharging Property (30C)
- Qualifying Advanced Energy Project (48C)



ALASKA ENERGY AUTHORITY

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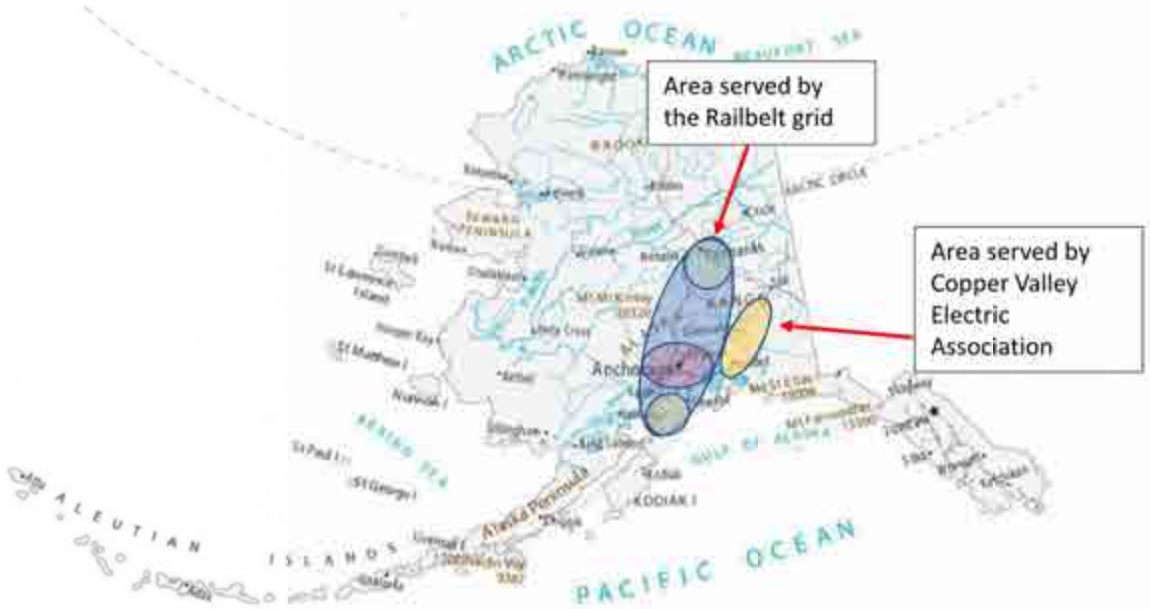
Modernizing the Railbelt Grid

Brian Hickey
Executive Director, Railbelt Regional Coordination
Governor's Energy Task Force
June 27th, 2023

Overview of Presentation

- The Railbelt Vision and Alignment
- Why it Matters
- The Grid Modernization and Resiliency Plan (GMRP)
- US DOE -Grid Resiliency and Innovation Partnership (GRIP)
- USDA -Next ERA and Pace programs and US Treasury Direct Pay

Alaska Railbelt and the Copper Valley



- The area originally served by the Alaska Railroad
- 75% of Alaska's population
- 80% of the electricity generated in Alaska
- Three regions, 700 miles end-to-end, roughly the distance from Washington DC to Atlanta, Georgia
- Virtually no federal investment in transmission to date
- Single transmission lines between the three Railbelt regions (Southern Central and Northern)
- Interregional power transfer capability is less than 10% of combined peak load
- Currently not electrically interconnected with the Copper Valley region



Historic Railbelt Alignment

The State and Federal governments have long encouraged teaming arrangements, and the Railbelt alignment on this transformational infrastructure project is historic.

There is unprecedented alignment among this diverse team consisting of all Railbelt electric utilities, transmission owners, and operators and their regulator:

- *The Alaska Energy Authority*
- *The Regulatory Commission Of Alaska*
- *Chugach Electric Association Inc.*
- *Golden Valley Electric Association Inc.*
- *Homer Electric Association Inc.*
- *Matanuska Electric Association Inc.*
- *Seward Electric Systems (City of Seward)*
- *We are seeking State legislative leadership and support for this transmission infrastructure upgrade*

The Railbelt Vision –
A "once in a generation" opportunity

- A 12-to-15-year plan consisting of a transformational series of transmission infrastructure improvements estimated to cost approximately $2.9B
- Depending on federal grant funding Phase one will require up to $250M per year for five years
- Is essential to the Railbelt grid for a clean and fuel-diverse future
- Can serve as a model for the rest of the United States and the world
- The five Railbelt Electric Utilities, and the Alaska Energy Authority, are pursuing funding from the State of Alaska, supplemented by Infrastructure Investment and Jobs Act (IIJA), other Federal programs, and traditional utility funding sources

Why it matters

- Significant gains in reliability and resiliency for the Railbelt
- Prepares the Railbelt for a fuel diverse, low-carbon future
- Increases effective integration of renewables and low-carbon generation across the Railbelt
- Gains in efficiency will lower the cost of energy, helping to attract industry and drive the economy
- Lower Railbelt energy costs contribute to lower energy costs for all Alaskan rural communities through the Power Cost Equalization (PCE) program

Why it matters

- Small scale operating grid to serve as a model that can provide cost-effective grid modernization and decarbonization lessons to the US and world
- Serves many tribes as well as diverse and disadvantaged communities (Under both DOE and USDA definitions)
- Strategic location in the new geopolitical climate
  - Decarbonizing the 3rd largest air cargo airport in the world
  - 5 critical Military bases
  - Supports mining critical minerals
  - Federally designated Strategic Seaport

Background

In September of 2022, the Governor challenged us to articulate a vision and plan that would transform the Railbelt transmission system and prepare it for a fuel diverse clean energy future

Building on the Bipartisan Infrastructure law (BIL), the US DOE issued the Grid Resiliency and Innovation Partnership Funding Opportunity Announcement 10.8 B over five Years

The Inflation Recovery Act included among other things, approximately $ 9 7B to the USDA for clean energy projects including energy storage and transmission interconnections

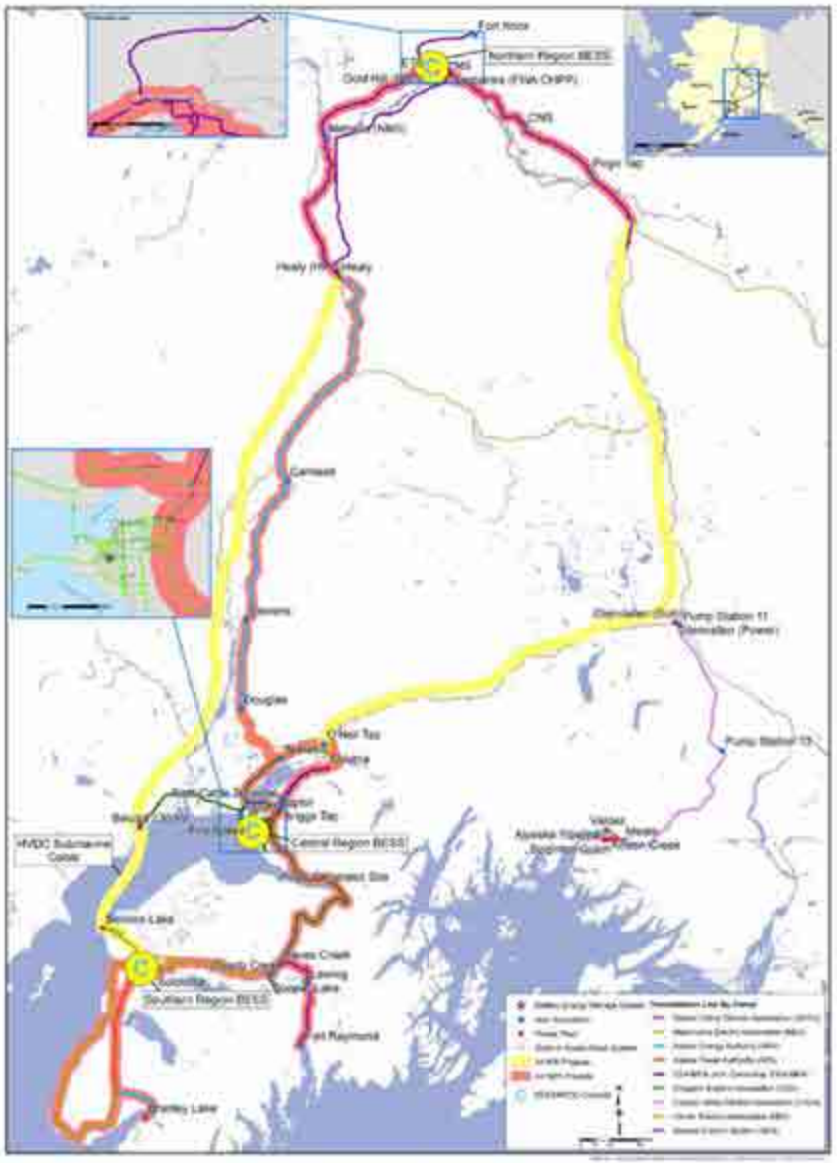
We developed the GMRP a plan to provide a transmission system with adequate transfer capability and resiliency to facilitate and fuel diverse clean energy future

The GMRP allows electric utilities from Fairbanks to Homer and Valdez to participate in fuel diverse inter regional clean energy projects irrespective of geographic location

Drive down costs with economies of scale– the Grid Modernization and Resiliency Plan (GMRP)

Includes energy storage to stabilize grid increase resiliency and integrate renewables

Grid Modernization and Resiliency Plan



Legend

- RIR Transmission
- RBR Transmission
- Battery Energy Storage System
- C — Battery Energy Storage system /HVDC Interregional Control Scheme

GRIP Federal Opportunities for Modernizing the Railbelt Grid

The GMRP was broken down into three projects to meet the requirements of the Funding Opportunity Announcement

Topic 1 concept paper –Grid resilience

The Railbelt Backbone Reconstruction project (RBR) will reconstruct the backbone transmission lines and stations from Bradley Lake to Delta Junction to harden these lines to resist natural disasters, and to increase transfer capability and resiliency. 30% reserved for Small Utililtes, 30% match, $100 M requested in funding cycle 1

Topic 2 concept paper –Smart Grid

The BESS/HVDC Coordinated Control System. This system will develop a Railbelt-wide control system that controls the three BESS systems and the HVDC submarine cable in an integrated fashion to maximize transfer capability and minimize spinning reserve requirements increasing resilience and lowering carbon emissions. 50% match, $16M requested in funding cycle 1

Topic 3 concept paper –Grid Innovation

The Railbelt Innovative Resiliency project (RIR) will construct the regional BESS systems in the central and northern regions and interregional interties; one from Soldotna to Healy, and the second from Wasilla to Glenallen and Fort Greely, integrating Copper Valley into the Railbelt Grid. This project provides increased transfer capability, resilience and access to renewables. 50% match, $411M requested in funding cycle 1

The Railbelt Plan *must be* the State's Plan

Building out the Railbelt grid will benefit all Alaskan's and *must be a State priority*

PCE *shares the benefit of lower Railbelt electric rates* throughout the State

Economies of scale *are necessary* to hold down projects costs and minimize the impact of diversification and decarbonization on the State's economy

Access to federal funding *is contingent* on the catalyzation and deployment of additional capital

Transmission upgrades are required to maintain and advance reliability, resiliency, fuel diversification, and carbon reduction… irrespective of the generation solutions

GRIP and USDA Federal Opportunities for Modernizing the Railbelt Grid

DOE Grants are competitive and USDA grant and loan program is based on tons of carbon reduced per $ funded

In GRIP over 700 concept papers were submitted over the three topic areas

On Topic 1 Grid Resiliency

- 289 concept papers were submitted
- 144 proposers were encouraged to submit full applications
- DOE anticipates awarding 10 grants in this category

On Topic 2 Smart Grid

- 326 concept papers were submitted
- 157 proposers were encouraged to submit full applications
- DOE anticipated 25 to 40 awards in this category

On Topic 3 Grid Innovation

- 135 concept papers were submitted
- We do not have Stats. but we were asked to complete a full application
- DOE anticipated 4 to 40 awards in this category

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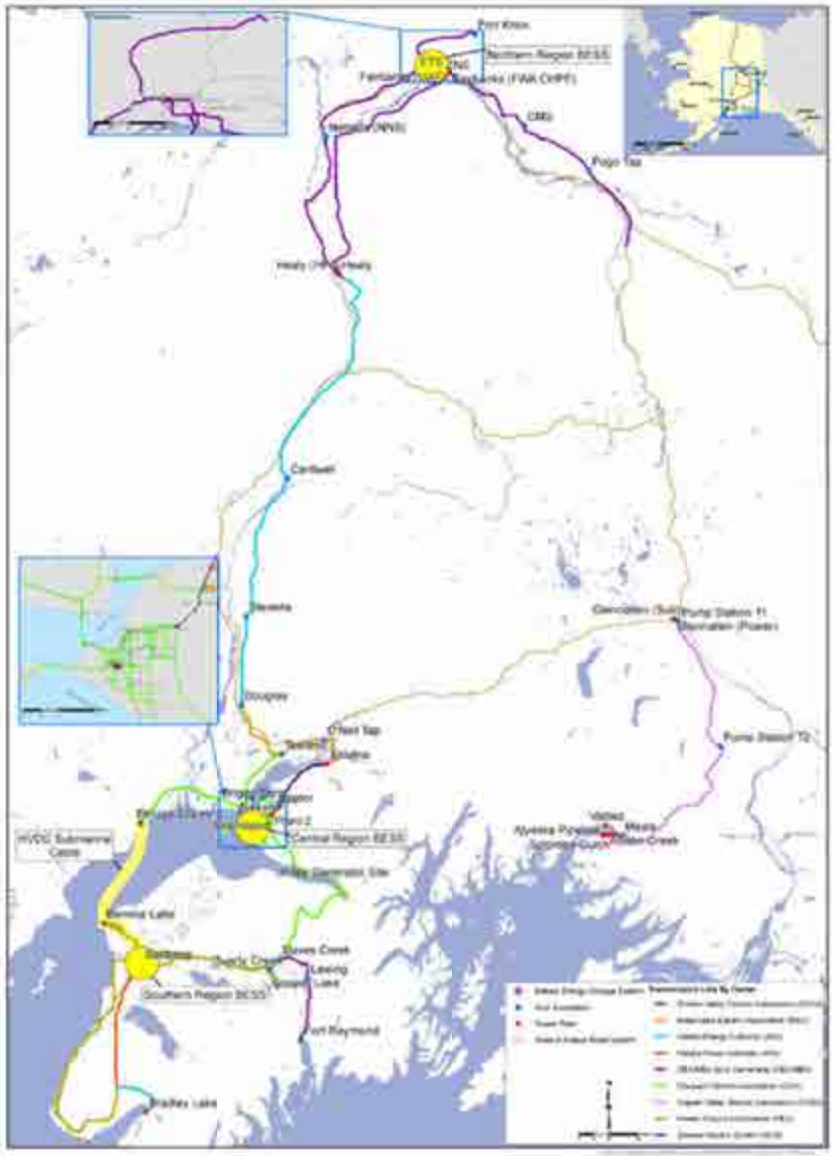
Under the Inflation Recovery Act (IRA) we are investigating

- USDA- PACE funding
- USDA NEXT ERA funding
- US Treasury ITC direct pay

GRIP Topic Concept Papers 1,2,& 3

Current Funding Cycle

RBR, BESS/HVDC Control, and RIR



Legend

RIR Transmission

RBR Transmission

Battery Energy Storage System

C

Battery Energy Storage system /HVDC Interregional Control Scheme

Community Benefit and Justice 40

The Railbelt is essential to the broader state economy.

- The Port of Alaska, a federally designated Strategic Seaport in Anchorage, serves as the primary point of entry for virtually all cargo, building material, fuel, and food for most of the state's population
- The Ted Stevens Anchorage International Airport is the third largest international airport in the world for cargo (approximately 50% of the air cargo between North America and Asia), making its decarbonization of global importance
- Alaska is home to significant mining operations including for rare earth metals critical to national security and other strategic imperatives

With this socially and economically diverse makeup, the Railbelt is the ideal area for the federal government to demonstrate how the benefits of the IIJA can be maximized, These assets are vital to the economy and security of both Alaska and the nation.

Importantly, by statute and formula, Alaska's unique PCE energy subsidy program ensures that the benefits of lower Railbelt energy costs are shared with all rural village within the state.

Community Benefit and Justice 40



The Railbelt serves five military base each with a vital strategic importance to U.S. national security. These critical bases contribute to the national defense through

- Airborne infantry, military intelligence, northern warfare training
- Mid-course missile defense
- Long Range Discrimination Radar (LRDR)
- F-16, F-22, and F-35 high-speed intercept capability
- Coast Guard

The Railbelt region is home to numerous federally recognized tribes and disadvantaged and underserved communities.

- There are over 200 federally recognized tribes in Alaska, many in the Railbelt region
- Based on the 2010 census Anchorage was home to the three most culturally diverse census tracts in the U.S. (followed closely by Queens, New York)
- Over 110 languages are spoken in the Anchorage School District
- 39.8 percent of Railbelt residents live in disadvantaged communities or Alaska Native village statistical areas.

GRIP Longer Term Grant Selection Process and Timing

Submit Concept Paper for each Topic Area-

- Topic 1 & 2 due 12/16/22 - complete
- Topic 3 due 01/13/23 - complete

DOE selects concept papers and Team submits full application(s)

- Topic 1 due 04/06/23- We have been selected to apply; application has been submitted
- Topic 2 due 03/17/23- We have been selected to apply; application has been submitted
- Topic 3 due 5/19/23- We have been selected to apply;, application has been submitted

Selection notification

- Topic 1 - Summer 2023
- Topic 2 – Summer- Fall 2023
- Topic 3 - Fall 2023 Winter 2024

If DOE selects our application

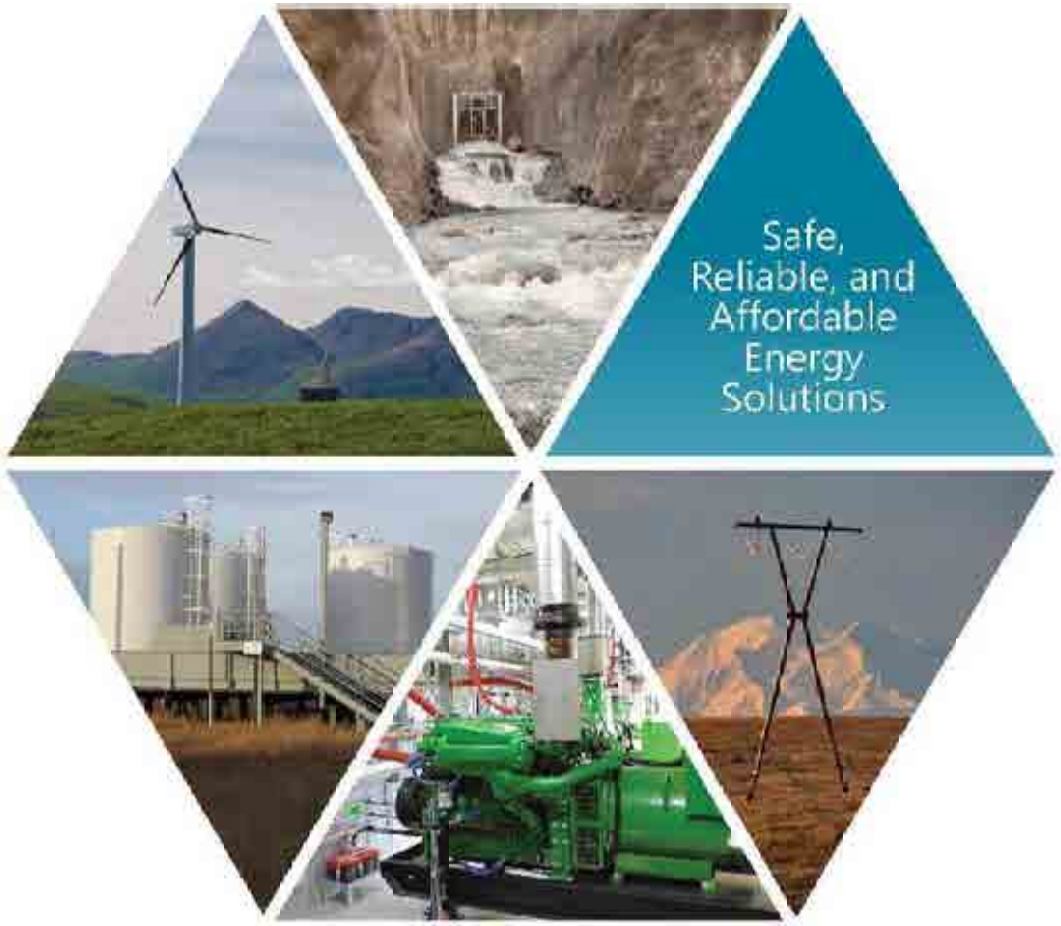
- Topic 1 Award negotiations - Fall –Winter 2023
- Topic 2 Award negotiations - Fall-Winter 2023
- Topic 3 Award negotiations – Winter- Spring 2024

For the Railbelt, Topic 3 is the most important award

Questions

ALASKA ENERGY AUTHORITY

GRIP 3: RURAL ALASKA MICROGRID TRANSFORMATION



Rebecca Garrett
Rural Programs Manager

Alaska Energy Security Task Force
June 27, 2023

ALASKA ENERGY AUTHORITY

Who We Are



Our Mission

Reduce the cost of energy in Alaska.



Created in 1976 by the Alaska Legislature, the Alaska Energy Authority (AEA) is a public corporation of the State of Alaska governed by a board of directors with the mission to “reduce the cost of energy in Alaska.” AEA is the state's energy office and lead agency for statewide energy policy and program development.

Why Pursue GRIP 3: Rural Alaska Microgrid Transformation?



Due to Alaska's remoteness, project costs are high. Department of Energy (DOE) funding would make possible many community projects awaiting procurement and construction. DOE funding could be used to complete several projects that will improve the quality of life in rural Alaska.

- Alaska Native Villages are considered for this concept, which would provide a resilient power system for underserved communities.
- Microgrid transformation projects will help local communities become resilient, while also supporting state resilience.
- Transformation to clean and reliable energy would benefit communities by:
  - Less diesel fuel being brought into the community
  - Local job creation
  - Reduce cost of power

Transforming Alaska's Rural Microgrids

Project Impact/Takeaway: The majority of Alaska's rural microgrids are powered by diesel generators, and this project will transform participating communities by facilitating the transition to locally sourced renewables.

Project goals: Lowering the cost of energy in disadvantaged communities while reducing carbon emissions.

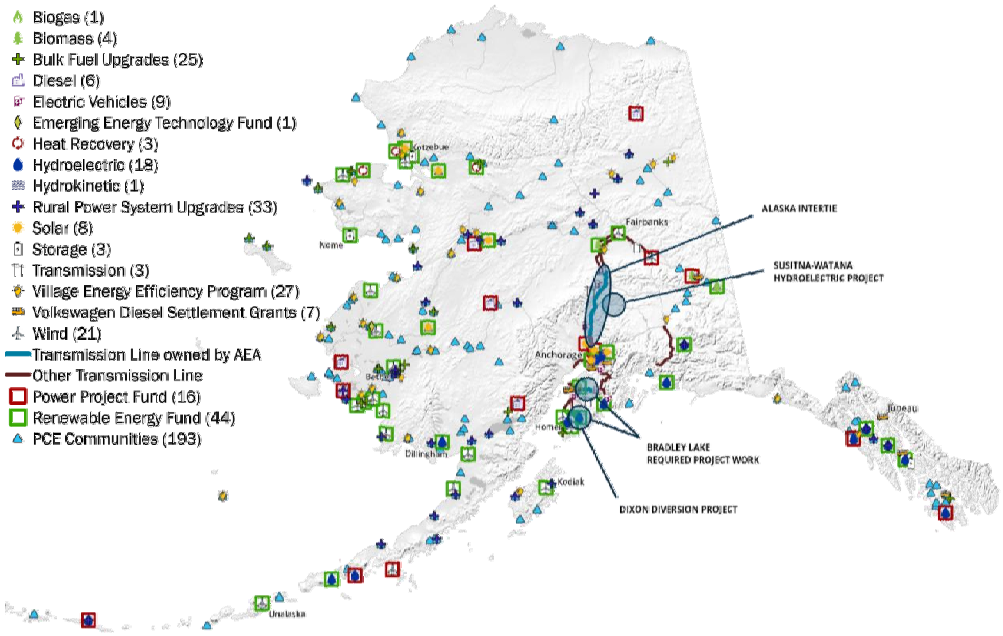
Technology: This project will utilize local wind, solar, and hydro matched with battery storage systems.

Impact: The combined use of these technologies will reduce rural community reliance on fossil fuels.

Total Project Costs	$500,000,000
Federal Share	$250,000,000
Match	$500,000,000



Alaska Renewable Opportunities



Renewable Energy Investment in Alaska by Energy Source 2010-2020

Primary Energy Source	Investment ($millions)	% of Total
Hydroelectric	$330	48%
Wind	$240	35%
Biomass	$30	5%
Geothermal (Testing and Assessment)	$30	4%
Solar	$10	2%
Other Renewables	$50	7%
Total	$690	100%

Investments in Alaska Renewable Energy Projects, 2010-2020

- $690 Million Invested
- 260 Projects
- 160 Communities
- 448 Million Pounds of CO2 Offset Annually
- 15-20 Construction Jobs Per Million Invested



Project Teams and Outcomes

Principal Investigator	Rebecca Garrett	Benefits	Quantifiable	Measure	Tracking
Key Personnel	• Audrey Alstrom, PE • Conner Erickson • Karen Bell • Karin St. Clair	Decrease in Energy Burden	Tbtu/Million $	Site Energy Savings	
		Energy Cost Savings	2009 Baseline – annual and cumulative		
		Decreasing in environmental exposure	MMT	CO2 Reduction	2009 Baseline – annual and cumulative
Key Partners	• Alaska Center for Energy and Power (ACEP), • Alaska Municipal League, (AML) • Alaska Native Tribal Health Consortium (ANTHC)	Increase in access to low-cost capital	Million $	Capital availability	AAHA report on access to capital
		Increase in job creation and training	Job #s	Jobs and training opportunities	ASHBA report/DOL&WD
		Increase in clean energy jobs and enterprise creation	Business #s	Business development	ASHBA report/DOL&WD
Proposed Project Duration	• 96 months	Increase in community ownership	Municipal code	Adoption or revision	Community reporting/AML
		Increased parity in clean energy technology access and adoption	Municipal code	Energy technology reference	Community reporting/AML

Existing and Potentially Viable Projects

Listed below are examples of existing and potentially viable projects with construction costs that are well within this funding opportunity's parameters. The combined impact of these projects is estimated to offset 6,799,300 gallons of diesel fuel **annually**.

Project	Technology	Cost of Energy $/kWh	Anticipated Annual Gallons of Diesel Fuel Offset by Proposed Project	Project Status
Village	Hydro	$ 0.61	115,000	Ready for Construction
Village	Hydro	$ 0.61	20,000	Feasibility Study Complete
Connects Multiple Villages	Hydro	$ 0.45	1,558,033	Concept Design, and FERC Permitting
Village	Hydro	$ 0.80	40,000	Partially Constructed
Village	Hydro	$ 0.68	130,000	Ready for Construction
Village	Hydro	$ 0.70	37,000	Ready for Construction
Village	Wind/Solar/Battery	$ 0.38	2,448,293	Concept
Multiple Individual Villages	Solar/Battery	$ 0.75	80,000	Concept on per village basis (10 total)
Multiple Individual Villages	Wind/Battery	$ 0.75	80,000	Concept on per village basis (10 total)
Village	Hydro	$ 0.65	20,138	Ready for Construction
Connects 2 Villages	Hydro	$ 0.66	16,014	Concept
Village Wind Expansion	Wind/Battery	$ 0.37	400,000	Ready for Construction
Connects 2 Villages	Wind & Electric Boiler	$ 0.52	165,000	Design and Permitting
Connects 2 Villages	Wind/Battery	$ 0.60	270,000	Ready for Construction

Timeline for Award



Implementation Timeline





Alaska Energy Authority

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Regulatory Commission of Alaska

KEITH KURBER II, CHAIRMAN

Where we started:

Alaska Public Service Commission (APSC) 1960-1970. The Alaska Public Utilities Commission (APUC) was created in 1970 to replace APSC. The Alaska Pipeline Commission (APC) was established in 1972 to regulate intrastate pipelines. The APC regulated intrastate pipelines until 1981, at which time the APC was merged into the APUC.

In 1999, the Alaska Legislature replaced the APUC with the Regulatory Commission of Alaska (RCA) giving it a broad authority to regulate utilities and pipeline carriers.



Organizational Structure

Commission Section
- Five Commissioners

(Appointed by the Governor and confirmed by the Legislature)
- Commission Section Manager
- Consumer Protection & Information Staff
- Support Staff
  - (Administrative, LOAs, Records & Filing, Information Systems)

Administrative Law Section
- Administrative Law Judges
- Paralegals

Advisory Section
- Utility Tariff Analysts
- Utility Engineering Analysts
- Utility Financial Analysts
- Communications Common Carrier Specialists (Telecom)

Utility Master Analysts


Keith Kurber II
RCA Chairman


Robert A. Doyle


John Espindola


Robert M. Pickett


Janis W. Wilson

RCA Mission Statement

Ensure that safe, efficient, and reliability utility and pipeline services are provided to the public at just and reasonable rates, thereby protecting consumer interests and promoting economic development.

RCA Authority

Alaska Statute (AS) 42.04 (APUC)

AS 42.05 (Public Utilities)

AS 42.05.760 – 42.05.800 (Electric Reliability Organization)

AS 42.06 (Common Carrier Pipelines)

AS 42.08 (Contract Carrier Pipelines)

AS 42.45 (Power Cost Equalization)

AS 42.05.141(a) - The Regulatory Commission of Alaska may do all things necessary or proper to…regulate every public utility engaged or proposing to in a utility business inside the state, ….

Ex-Parte Rules

Pursuant to 3 AAC 48.020(g), a commissioner, presiding officer, or commission staff member may not, except upon reasonable notice and opportunity for all parties to participate, communicate with a party, and other affected persons, about any issue of fact, law, or policy in a pending adjudicatory proceeding (3 AAC 48.020(g)).

The Chair of the commission shall assign the work of the commission to members and staff of the commission so that matters before the commission are resolved as expeditiously and competently as possible…

AS 42.04.070(3)

Definition of a Public Utility:

AS 42.05.990(4) “public utility” or “utility” includes every corporation whether public cooperative, or otherwise, company, individual, or association of individuals, their lessees, trustees, or receivers appointed by a court, that owns, manages, or controls any plant, pipeline or system for:

- (A) furnishing by generation, transmission, or distribution, electrical service to the public for compensation;
- (B) furnishing telecommunications service to the public for compensation;
- (C) furnishing water, steam, or sewer service to the public for compensation;
- (D) furnishing by transmission or distribution of natural or manufactured gas to the public for compensation;
- (E) furnishing for distribution or by distribution petroleum or petroleum products to the public for compensation;
- (F) furnishing collection and disposal service of garbage, refuse, trash, or other waste material to the public for compensation;
- (G) furnishing the service of natural gas storage to the public for compensation;
- (H)furnishing the service of liquified natural gas storage to the public for compensation;

Definition of Public or General Public:

AS 42.05.990(3) “public” or “general public” means

- (A) a group of 10 or more customers that purchase the service or commodity furnished by a public utility;
- (B) one or more customers that purchase electrical service for use within an area that is certificated to and presently or formerly served by an electric utility if the total annual compensation that the electrical utility receives for sales of electricity exceeds $50,000; and
- (C) a utility purchasing the product or service or paying for the transmission of electrical energy, natural or manufactured gas, or petroleum products that are re-sold to a person or group included in (A) or (B) of this paragraph or that are used to produce the service or commodity sold to the public by the utility;

Certificate of Public Convenience and Necessity

(CPCN)

Alaska Statutes 42.05 (Public Utilities) and 42.06 (Pipeline Act) authorizes RCA to certificate qualified providers of public utility and pipeline services.

A certificate may not be issued unless the RCA finds that the applicant is fit, willing, and able, and that the services are required for the convenience and necessity of the public (AS 42.05.241).

What We Do: Regulate Public Utilities & Pipeline Carriers

RCA Core Services

Certification
- Reviews applications for Certificates of Public Convenience & Necessity (CPCN) and determines if applicants are **fit**, **willing**, and **able** to provide service.

Tariff Review
- Reviews tariff filings made by utilities or pipeline carriers that seek to change their rates or terms of service.

Regulation of Rates and Services
- Determines the rates a utility charges its customers are **just** and **reasonable**, and that rates, services and practices of public utilities abide by their filed tariff.

Dispute Resolution
- Investigates complaints regarding utility service quality, billing or management practices.

Calculation of Power Cost Equalization
- Calculates the power cost equalization amounts for each participating electric utility and the base rate.

What We Do:

Certificated Entities

Electric Utilities: 128
- Rate Regulated: 34 Not Rate Regulated: 94

Water Utilities: 65+
- Rate Regulated: 16 Not Rate Regulated: 49
- Provisionally Certificated: 75

Wastewater Utilities: 66+
- Rate Regulated: 16 Not Rate Regulated: 50
- Provisionally Certificated: 39

Natural Gas/Gas Storage Utilities: 10
- Rate Regulated: 5 Not Rate Regulated: 5

Refuse Utilities: 57
- Rate Regulated: 20 Not Rate Regulated: 37

Steam Heat Utilities: 3
- Rate Regulated: 3

Telecommunications: 149
- Regulated: 3 providing inmate service Not Regulated:146

Pipeline Carriers: 24
- Common Carrier Pipelines: 24 Contract Carrier Pipelines: 0

Electric Reliability Organizations: 1

Utilities Exempt from Rate Regulation

- Utilities owned by political subdivisions of the State (city or state owned).
- Small water and sewer utilities (e.g. community wells).
- Electric or telephone utilities that do not gross more than $50,000 revenues annually.
- Refuse utilities that does not gross more than $300,000 revenues annually.
- The commercial portion of refuse utilities that provide service in the Municipality of Anchorage, Portage, Whittier, and the Fairbanks North Star, Matanuska-Susitna, and Kenai Peninsula Boroughs.
- Electric and telephone cooperatives that elect to be exempt through Deregulation Election (member votes).
- Cable, Internet, and Wireless Services.
- Telephone utilities that provide service other than inmate calling service.
- Utilities granted exemption where the Commission has found exemption in the public interest.

Tariff Review

Analyze terms and conditions of public utility service

- What are the consequences:
  - To customers?
  - To other utilities?
  - To the community?
  - To the State?
- Are the rates just and reasonable?

Tariff Review Process

Tariff Revision:

- Entity files a tariff filing.
- Public notice is issued for public comment:
  - 30-day comment period for utilities
  - 21-day comment period pipelines
  - 20-day comment period for electric reliability organizations
- Review Period:
  - 45 days for utilities
  - 30 days for pipeline carriers
  - 45 days for electric reliability organizations
- Prior to the end of the review period the Commission will approve, reject, or suspend the filing.

Tariff Suspension into a Docket:

- Suspended for further investigation.
- A commission panel and administrative law judge are assigned.
- May invite participation to intervene, include the Attorney General (Regulatory Affairs and Public Advocacy).
- Hold evidentiary hearings.
- Issue a final order (AS 42.05.175):
  - Within 450 days for changes to a revenue requirement or rate design
  - Within 270 days for changes other than a revenue requirement or rate design

Dispute Resolution

Informal Complaint

Under 3 AAC 48.120, an informal complaint may be filed with the Commission's Consumer Protection & Information Section provided that:

- The complaint is first made to the utility.
- The complainant provides ever pertinent fact relative to the origin, nature, and basis of the complaint.

Staff will work with the complainant and utility to find resolution to the complaint.

Formal Complaint and Alternate Dispute Resolution

A party who is not satisfied with the resolution of the informal complaint may file a request for action under an alternative dispute resolution or under a formal complaint process.

Power Cost Equalization (PCE) Program

Under the Power Cost Equalization Program, the State of Alaska pays a portion of the electric bills for consumers served by utilities participating in the program.

The RCA establishes the PCE amount (cents/KWh) applicable to each utility, regardless if the utility is otherwise subject to RCA's economic regulation.

More than 150 communities participate in the PCE program.

AS 42.45.110(c)(2) provides that the Commission will, during each fiscal year, adjust the power costs for which PCE may be paid to an electric utility based on the weighted average retail residential rate in Anchorage, Fairbanks, and Juneau, and subject to the statutory ceiling.

The PCE program is administered by the Alaska Energy Authority (AEA).

RCA Website (rca.alaska.gov)



News items

Calendar of Meetings

Public Notices

Complaint Portal

Find Dockets Tariffs Certificates

Current Issues Facing the RCA

- Telecommunications Issues
- Electric Reliability Organization
- Struggling Utilities
- RPS
- Cook Inlet Gas
- RCA staffing issues/statutory cap
- RCA Relation to TF Target Objective

RCA Mission Statement

Ensure that safe, efficient, and reliability utility and pipeline services are provided to the public at just and reasonable rates, thereby protecting consumer interests and promoting economic development.



Thank You and Questions

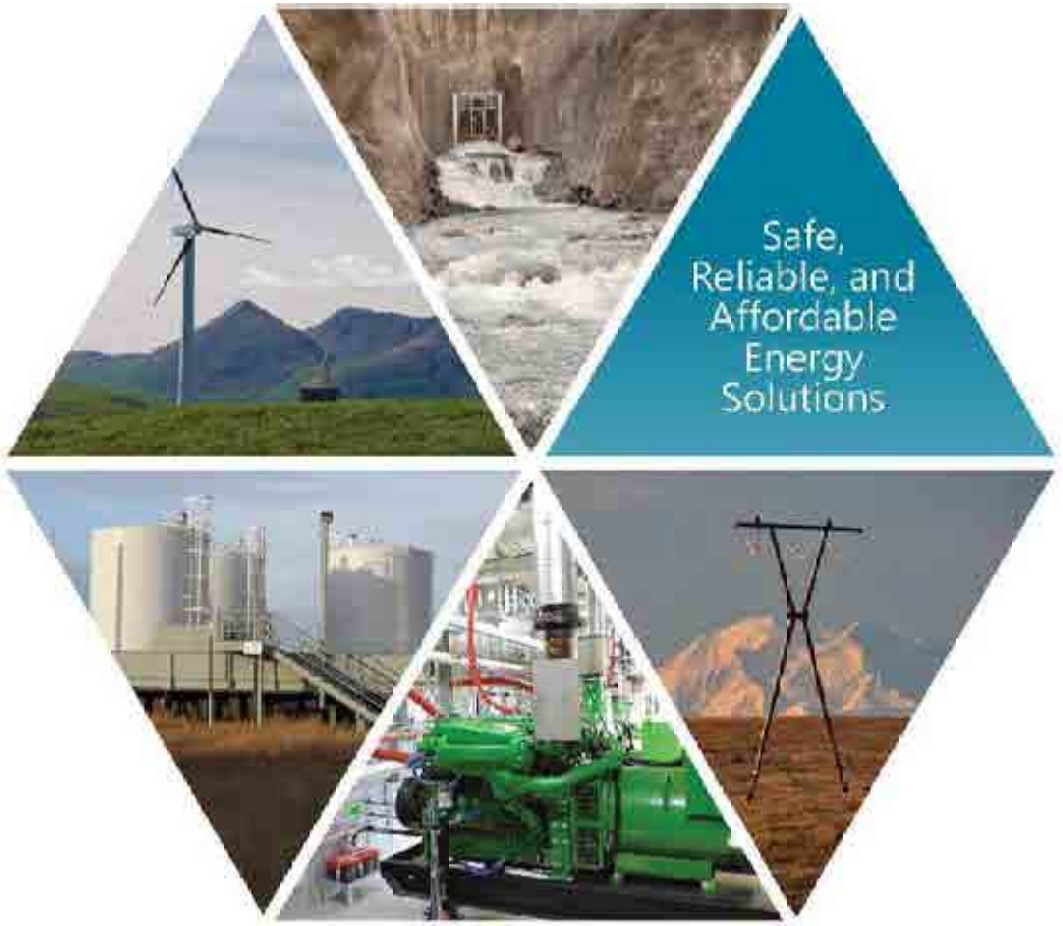
Regulatory Commission of Alaska
701 West 8th Avenue, Suite 300
Anchorage, AK 99501
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ALASKA ENERGY AUTHORITY

POWER COST EQUALIZATION

Tim Sandstrom
Chief Operating Officer

Alaska Energy Security Task Force
June 27, 2023



ALASKA ENERGY AUTHORITY

About AEA

AEA's mission is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio — increasing resiliency, reliability, and redundancy.



Railbelt Energy – AEA owns the Bradley Lake Hydroelectric Project, the Alaska Intertie, and the Sterling to Quartz Creek Transmission Line — all of which benefit Railbelt consumers by reducing the cost of power.



Renewable Energy and Energy Efficiency – AEA provides funding, technical assistance, and analysis on alternative energy technologies to benefit Alaskans. These include biomass, hydro, solar, wind, and others.



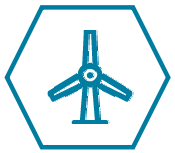
Power Cost Equalization (PCE) – PCE reduces the cost of electricity in rural Alaska for residential customers and community facilities, which helps ensure the sustainability of centralized power.



Grants and Loans – AEA provides loans to local utilities, local governments, and independent power producers for the construction or upgrade of power generation and other energy facilities.



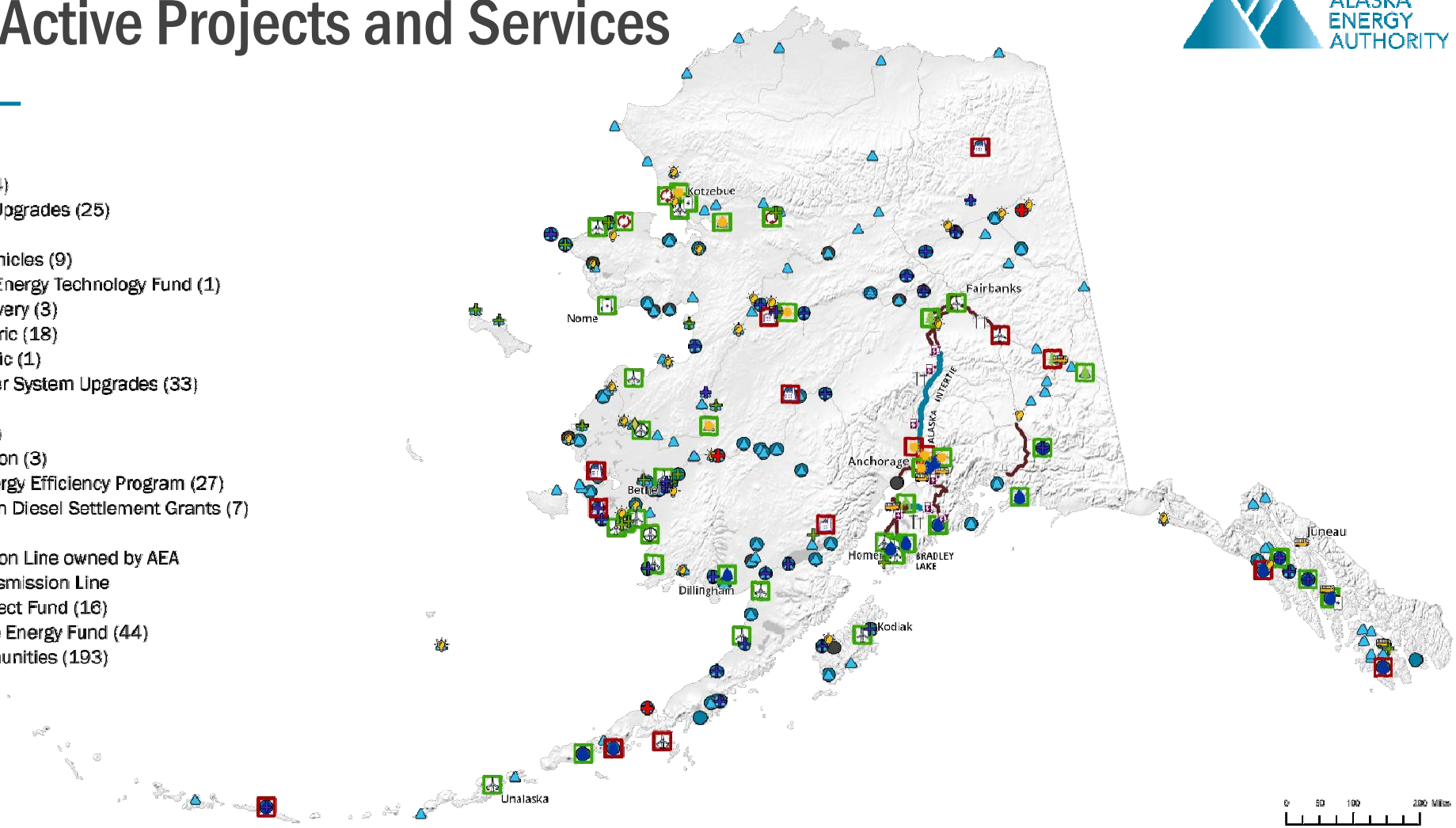
Rural Energy – AEA constructs bulk fuel tank farms, diesel powerhouses, and electrical distribution grids in rural villages. AEA supports the operation of these facilities through circuit rider and emergency response programs.



Energy Planning – In collaboration with local and regional partners, AEA provides economic and engineering analysis to plan the development of cost- effective energy infrastructure.

AEA Active Projects and Services

- Biogas (1)
- Biomass (4)
- Bulk Fuel Upgrades (25)
- Diesel (6)
- Electric Vehicles (9)
- Emerging Energy Technology Fund (1)
- Heat Recovery (3)
- Hydroelectric (18)
- Hydrokinetic (1)
- Rural Power System Upgrades (33)
- Solar (8)
- Storage (3)
- Transmission (3)
- Village Energy Efficiency Program (27)
- Volkswagen Diesel Settlement Grants (7)
- Wind (21)
- Transmission Line owned by AEA
- Other Transmission Line
- Power Project Fund (16)
- Renewable Energy Fund (44)
- PCE Communities (193)



Power Cost Equalization (PCE)

The PCE Program was established in 1985 as one of the components of a statewide energy plan to help "equalize" the high cost of electricity in rural communities with the lower costs in more urban areas.

Who is Eligible to Participate in PCE?

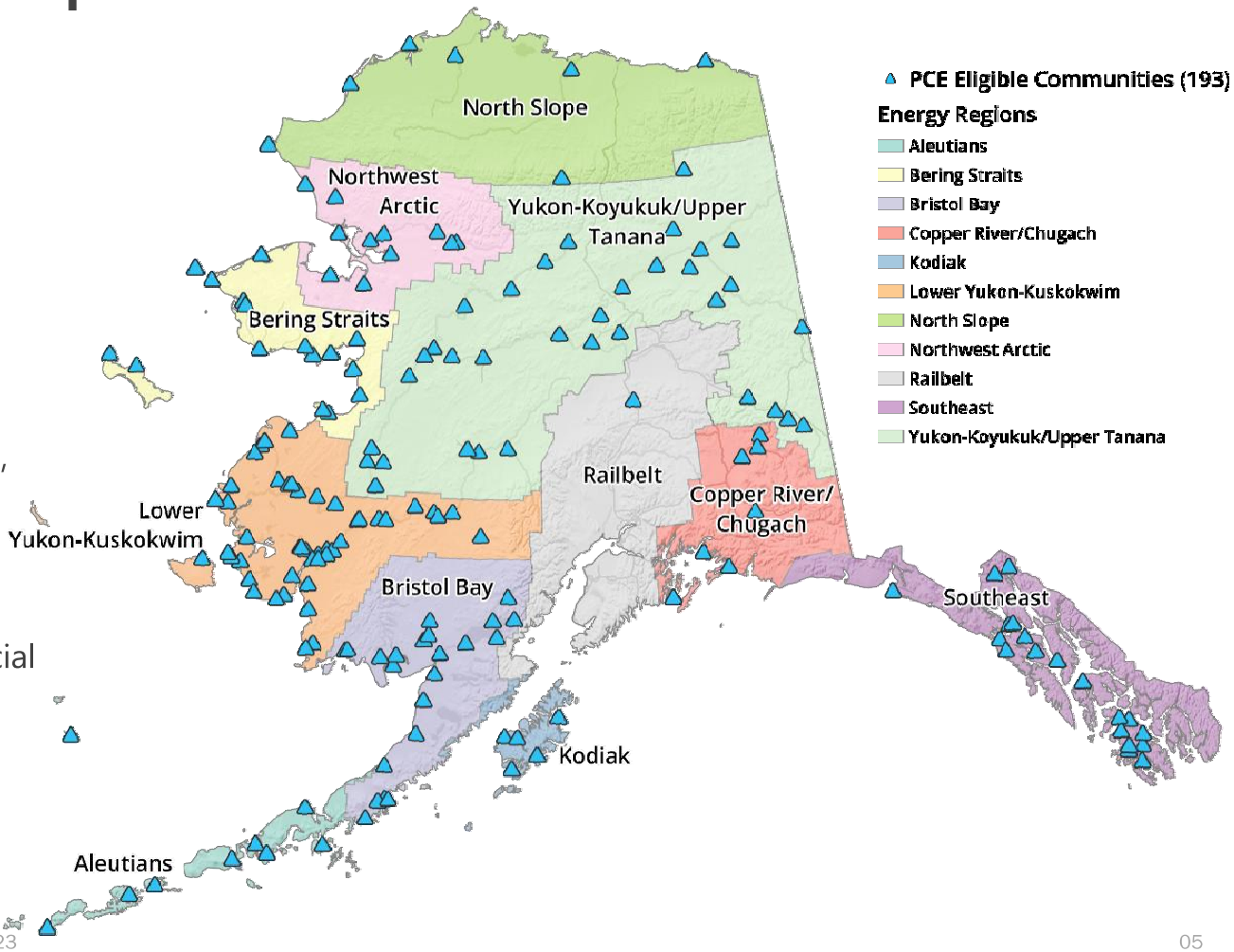
PCE eligibility is determined by the Regulatory Commission of Alaska in accordance with Alaska Statute 42.45.100-170.

Eligible customers include:

- Residential and community facilities (water, sewer, public lighting, and clinics, etc.)

Non-eligible customers include:

- State and federal facilities and commercial customers
- Any community with rates lower than the urban average (the PCE floor)



Power Cost Equalization (PCE)

AEA, along with the Regulatory Commission of Alaska, administers the PCE program, which serves remote communities that are largely reliant on diesel fuel for power generation.

193
RURAL COMMUNITIES

91
ELECTRIC UTILITIES

82,000
ALASKANS

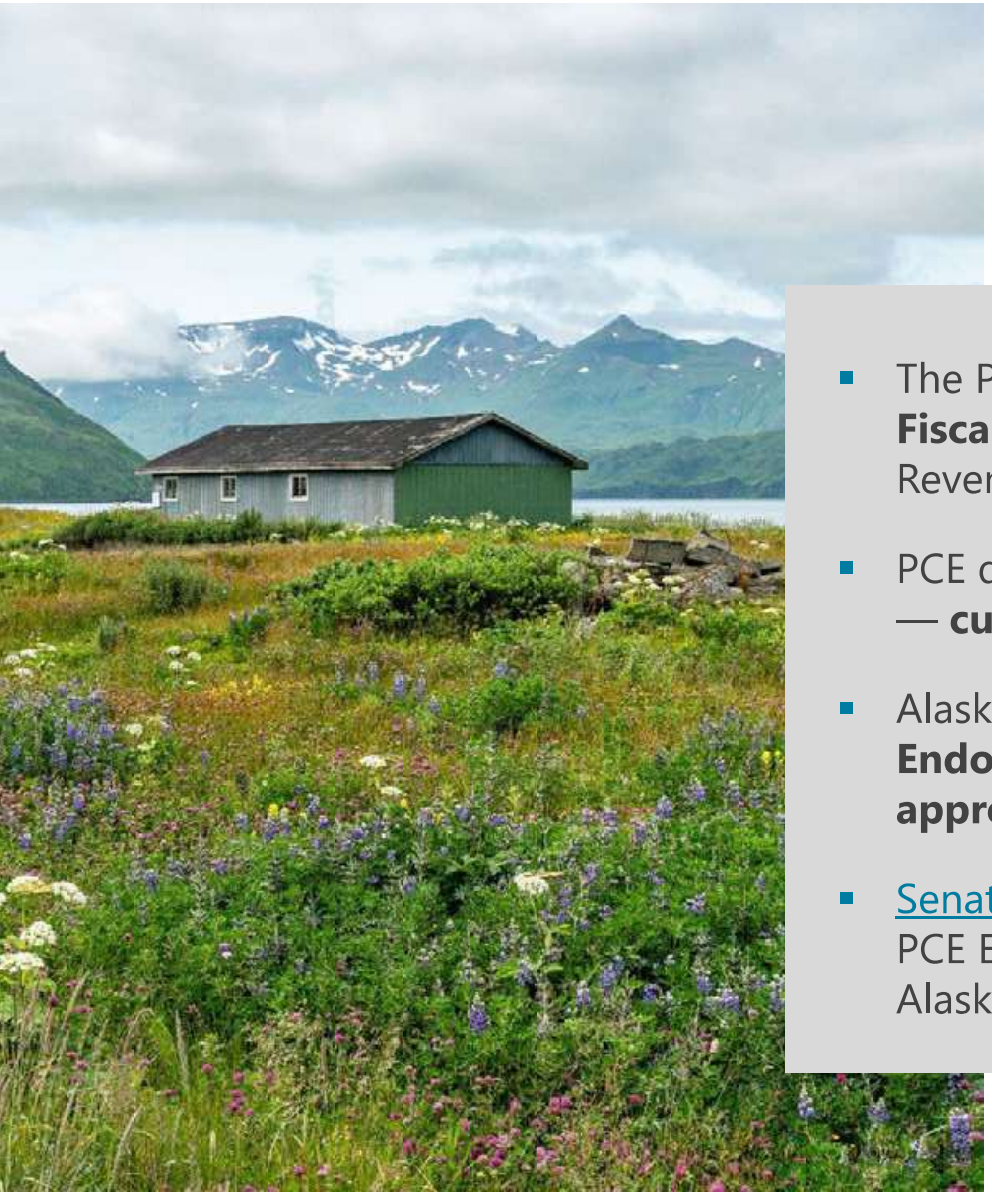
The cost of electricity for Alaska's rural residents is notably higher than for urban residents. PCE lowers the cost of electric service paid by rural residents. Ultimately ensuring the viability of rural utilities and the availability of reliable, centralized power.



750 kWh
RESIDENTIAL
Residential customers are eligible for PCE credit up to 750 kWhs per month.

70 kWh
PUBLIC FACILITIES
Community facilities can receive PCE credit for up to 70 kWhs per month multiplied by the number of residents in a community.

$27.4M
FUNDS DISTRIBUTED
In Fiscal Year 2022, AEA disbursed $27.4 million for payment of PCE to rural electric utilities for the benefit of our rural communities.



PCE Endowment Fund Overview

- The PCE Endowment Fund was **created and capitalized in Fiscal Year 2001**, and is managed by the Department of Revenue
- PCE disbursements are funded from the PCE Endowment Fund — **current market value $978.8 million on March 31, 2023**
- Alaska Statute 42.45.085 provides that **five percent of the PCE Endowment Fund three-year average market value may be appropriated** to the program
- Senate Bill 98 is pending before the Legislature to move the PCE Endowment Fund **from** the Department of Revenue **to** the Alaska Permanent Fund Corporation

PCE Endowment History (In Thousands)

		FY2018	FY2019	FY2020	FY2021	FY2022
Beginning Investment Fund Balance	$	1,023,566	1,073,378	1,072,825	1,078,157	1,149,165
Inflows:						
Annual investment earnings		76,602	74,142	48,303	150,299	(143,842)
Capital fund transfers in		—	—	—	—	
Total inflows		76,602	74,142	48,303	150,299	(143,842)
Outflows:						
Transfers to AEA for PCE payments		(25,595)	(29,719)	(27,000)	(28,237)	(23,613)
Transfers to Other Funds		—	(44,000)	(14,867)	(49,744)	(12,395)
Program administration – AEA		(624)	(444)	(575)	(737)	(737)
Administrative fee – Regulatory Commission		(113)	(102)	(108)	(123)	(133)
Management fee – Department of Revenue		(458)	(430)	(421)	(450)	(1,030)
Total outflows		(26,790)	(74,695)	(42,971)	(79,291)	(37,908)
Ending investment fund balance	$	1,073,378	1,072,825	1,078,157	1,149,165	967,416

Source: Unaudited schedule included in AEA's financial statements. Fiscal Year 2022 amounts are not final.

PCE Endowment Earnings Calculation

Fiscal Year 2024 Appropriations (SLA2023)		
Calculation of Excess PCE Earnings Available for Appropriation		
Average monthly market value for the previous three closed fiscal years (AS 42.45.080(c))		$1,098,002,766
Fiscal Year 2022 Earnings (AS 42.45.080(c)(2))		($143,841,594)
FY2022 5% of Average Monthly Market Value (AS 42.45.085(a))		$54,900,138
Fiscal Year 2023 PCE Appropriations		
AEA — Rural Energy Assistance (AS 42.45.085(a)(3))	$381,800	
AEA — PCE (AS 42.45.085(a)(1) and (a)(3))	$48,049,800	
Revenue — Treasury (AS 42.45.085(a)(2))	$1,153,600	
Less: Total Fiscal Year 2023 PCE Appropriations		$49,585,200
Unobligated Fiscal Year 2022 Earnings		$0
70% of Unobligated Fiscal Year 2022 Earnings per AS 42.45.085(d) (max $55 million per AS 42.45.085(d)(2))		$0
Fiscal Year 2024 Appropriations per AS 42.45.085 (d)(2)		
Community Assistance Program (AS 42.45.085(d)(2)(A))	$0	
Renewable Energy Grant Fund (AS 42.45.085(d)(2)(B))	$0	
Rural Power Systems Upgrades (AS 42.45.085(d)(2)(B))	$0	
Less: Fiscal Year 2024 Appropriations		$0
		$0

Ruling on PCE — Not Subject to Sweep Provision

On June 28, 2021, the Alaska House of Representatives voted to approve the July 1, 2021, effective date for the Fiscal Year 2022 Budget. This action did not address the reverse sweep, which failed in the House and Senate. In order to continue funding the PCE program beyond July 1, 2021, a reverse sweep was required. A friendly lawsuit was filed over the issue on July 19, 2021, challenging the idea that the PCE Endowment Fund should be swept as part of the budget, which resulted in the following ruling . . .



In her order released Wednesday (August 11, 2021), Judge Josie Garton ruled that the Power Cost Equalization Endowment Fund "is not subject to the sweep provision." The Legislature established the PCE endowment fund as a separate fund outside of the state's general fund, the order states.

— Anchorage judge rules energy subsidy program for rural Alaska was not unfunded
Alaska's News Source (August 11, 2021)



ALASKA ENERGY AUTHORITY

Alaska Energy Authority

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APPENDIX

PCE Endowment Fund (Alaska Statute 42.45.085)

Sec. 42.45.085. Use of the power cost equalization endowment fund.

(a) Five percent of the amount determined by the commissioner of revenue on July 1 of each year under AS 42.45.080(c)(1) may be appropriated for the following purposes:

(1) funding the power cost equalization and rural electric capitalization fund (AS 42.45.100);
(2) reimbursement to the Department of Revenue for the costs of establishing and managing the fund; and
(3) reimbursement of other costs of administration of the fund.

(b) Nothing in this section creates a dedicated fund.

(c) If the amount appropriated under (a) of this section is insufficient to achieve the purposes of (a)(1) - (3) of this section, the amount shall be prorated among the purposes listed in (a)(1) and (2) of this section.

(d) If the earnings of the fund for the previous closed fiscal year, as calculated under AS 42.45.080(c)(2), exceed the appropriation under (a) of this section for the current fiscal year, the legislature may appropriate 70 percent of the difference between the earnings of the fund for the previous closed fiscal year, as calculated under AS 42.45.080(c)(2), and the appropriation made under (a) of this section for the current fiscal year as follows:

(1) if the amount calculated under this subsection is less than $30,000,000, that amount to a community revenue sharing or community assistance fund; or

(2) if the amount calculated under this subsection is $30,000,000 or more,

(A) $30,000,000 to a community revenue sharing or community assistance fund; and

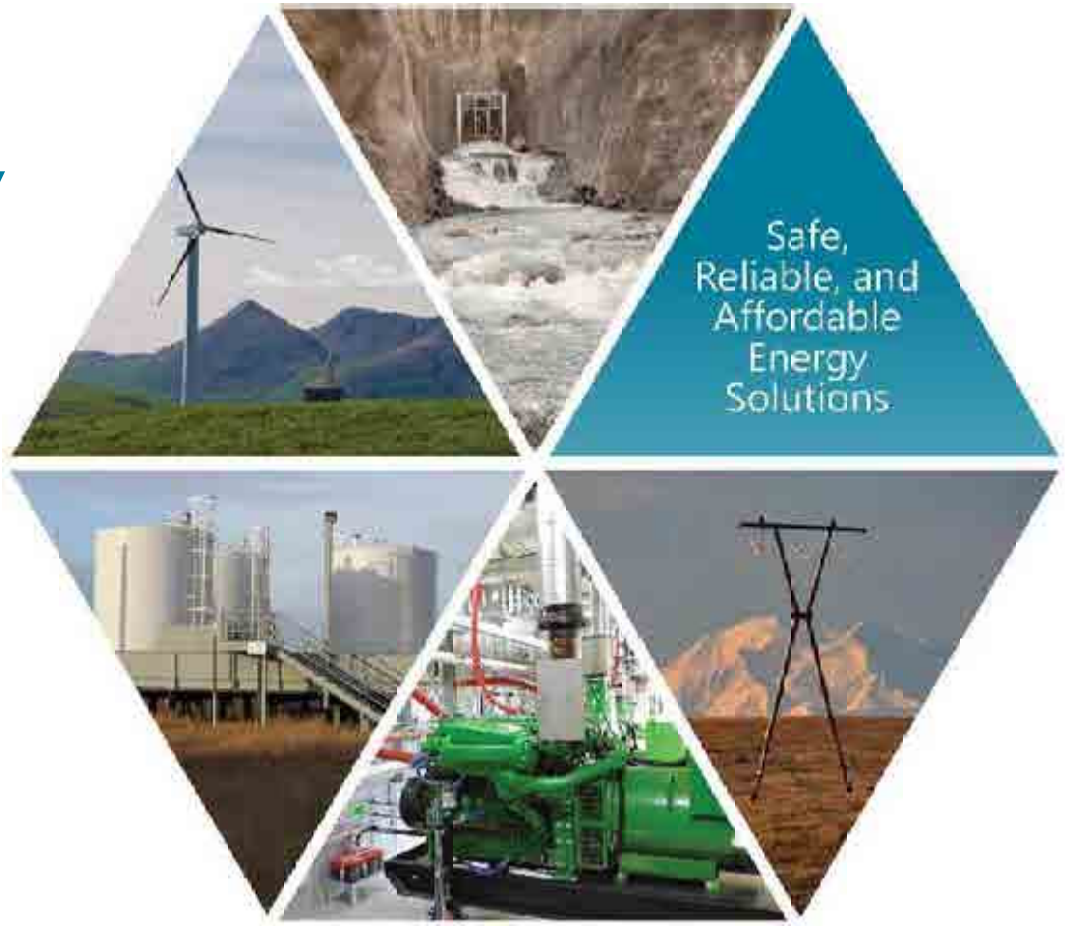
(B) the remaining amount, not to exceed $25,000,000, to the renewable energy grant fund established under AS 42.45.045, to the bulk fuel revolving loan fund established under AS 42.45.250, or for rural power system upgrades or to a combination of the funds or purposes listed in this subparagraph.

ALASKA ENERGY AUTHORITY

RENEWABLE ENERGY FUND ROUND 16

Conner Erickson
Director of Planning

Alaska Energy Security Task Force
June 27, 2023



ALASKA ENERGY AUTHORITY

Renewable Energy Fund (REF)

Established in 2008, the REF is a unique and robust competitive grant program, which provides critical financial assistance for statewide renewable energy projects. The REF's sunset date provision was repealed with House Bill 62, signed into law by Governor Dunleavy on May 25, 2023.

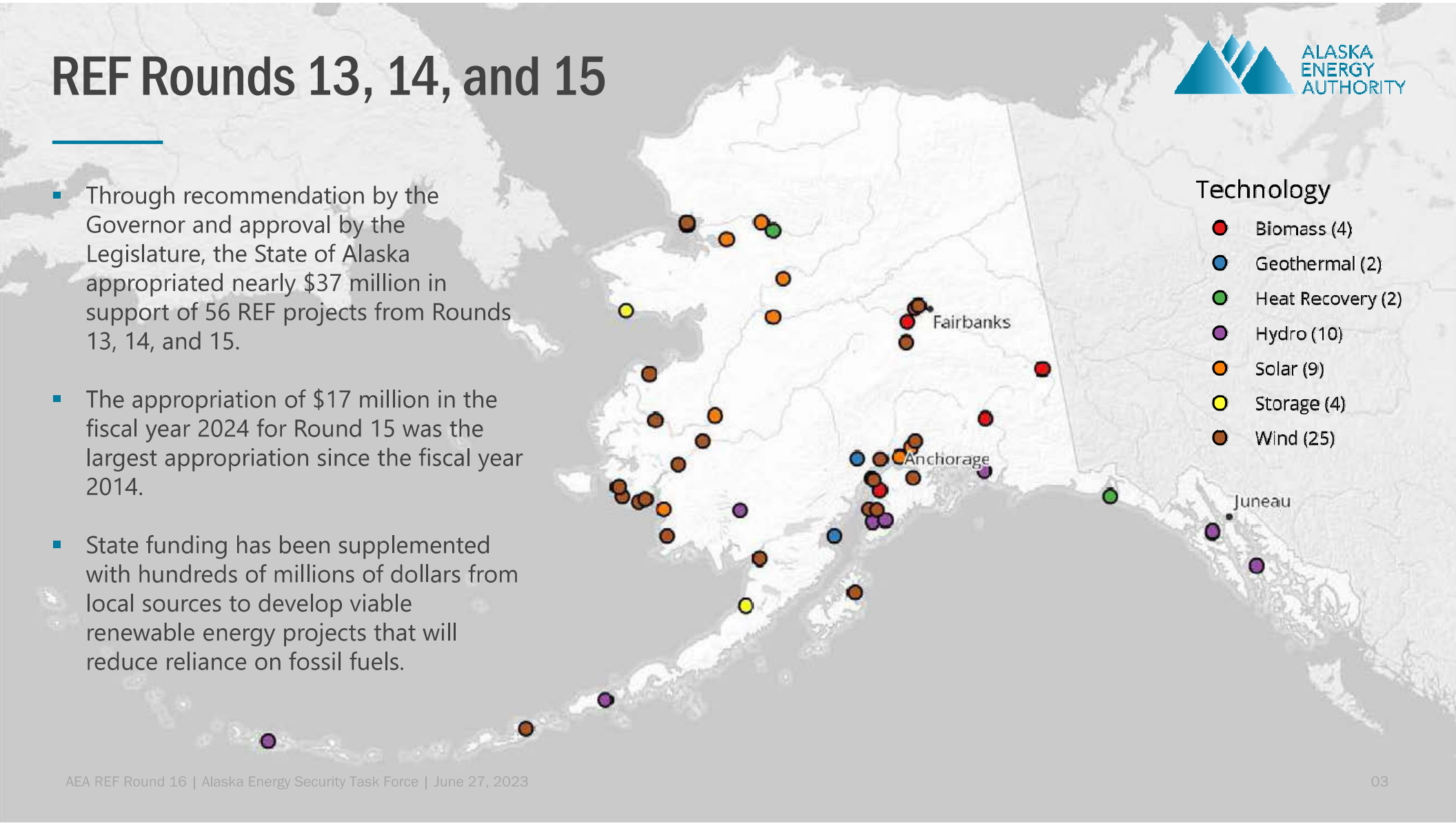
The REF funds projects across all development phases, serving as a catalyst for the continued pursuit of integrating proven and nascent technologies within Alaska's energy portfolio.



- $317 million invested in the REF by the State.
- 100+ operational projects, 44 in development, and 18 projects funded for FY24.
- The 33rd Alaska State Legislature appropriated $17 million for 18 projects recommended by AEA and approved by the REF Advisory Committee.

REF Rounds 13, 14, and 15

- Through recommendation by the Governor and approval by the Legislature, the State of Alaska appropriated nearly $37 million in support of 56 REF projects from Rounds 13, 14, and 15.
- The appropriation of $17 million in the fiscal year 2024 for Round 15 was the largest appropriation since the fiscal year 2014.
- State funding has been supplemented with hundreds of millions of dollars from local sources to develop viable renewable energy projects that will reduce reliance on fossil fuels.

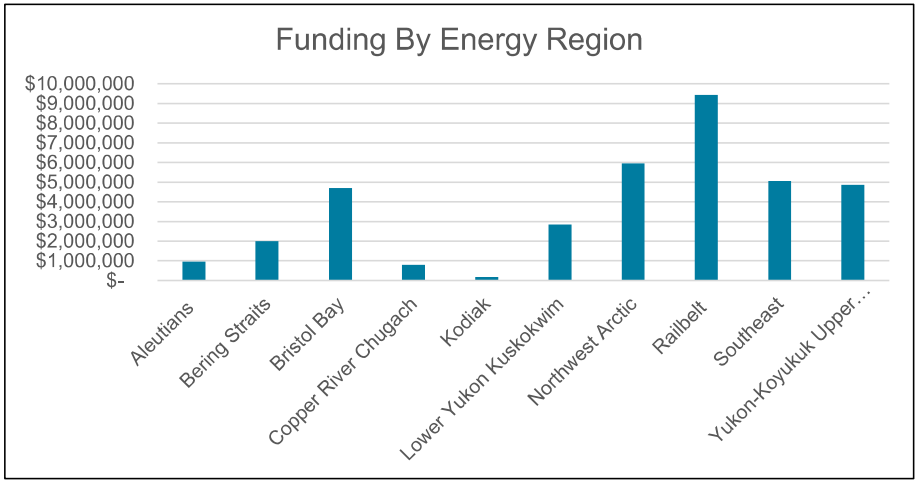


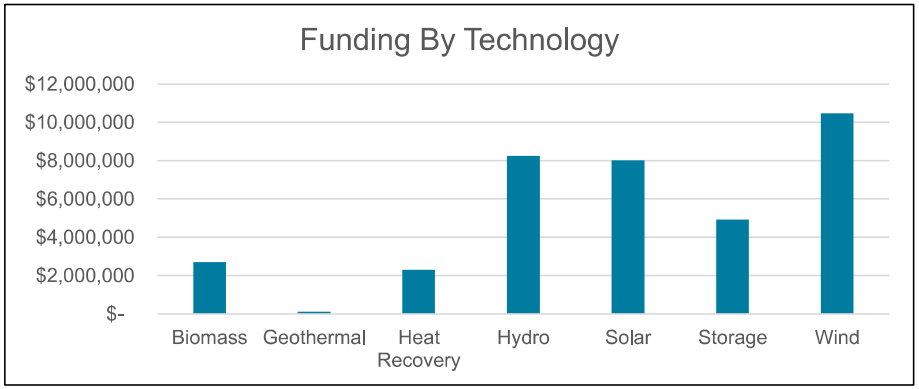
Rounds 13,14, and 15: Funded Projects Summary

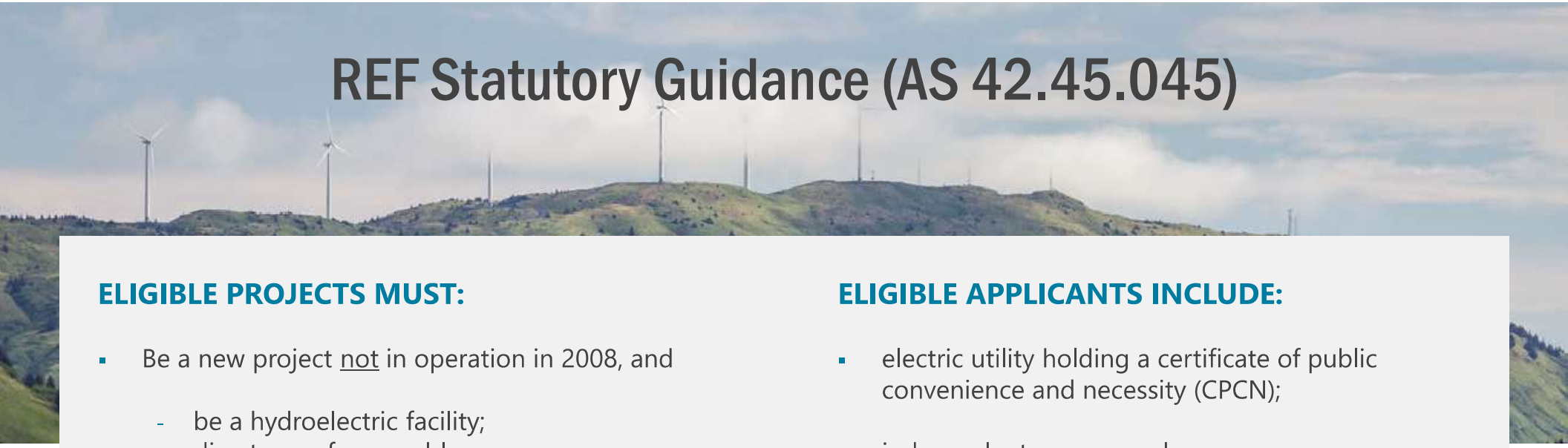
In REF Rounds 13, 14, and 15, the State of Alaska funded 56 projects totaling approximately $37 million.

Projects by Energy Region	No. of Projects	Funding
Aleutians	3	$ 957,650
Bering Straits	1	$ 2,000,000
Bristol Bay	5	$ 4,699,984
Copper River Chugach	2	$ 794,642
Kodiak	1	$ 172,600
Lower Yukon-Kuskokwim	11	$ 2,850,982
Northwest Arctic	6	$ 5,955,542
Railbelt	19	$ 9,433,940
Southeast	4	$ 5,062,368
Yukon-Koyukuk Tanana	4	$ 4,867,000
Total	56	$ 36,764,708

Projects By Energy Technology	No. of Projects	Funding
Biomass	4	$ 2,711,107
Geothermal	2	$ 113,500
Heat Recovery	2	$ 2,303,607
Hydro	10	$ 8,255,160
Solar	9	$ 8,020,000
Storage	4	$ 4,921,484
Wind	25	$ 10,469,850
Total	56	$ 36,764,708







REF Statutory Guidance (AS 42.45.045)

ELIGIBLE PROJECTS MUST:

- Be a new project not in operation in 2008, and
  - be a hydroelectric facility;
  - direct use of renewable energy resources;
  - a facility that generates electricity from fuel cells that use hydrogen from renewable energy sources or natural gas (subject to additional conditions);
  - or be a facility that generates electricity using renewable energy.
  - natural gas applications must also benefit a community that:
    - Has a population of 10,000 or less, and
    - does not have economically viable renewable energy resources it can develop.

ELIGIBLE APPLICANTS INCLUDE:

- electric utility holding a certificate of public convenience and necessity (CPCN);
- independent power producer;
- local government;
- or, or other governmental utility, including a tribal council and housing authority.

REF Funding Limits

REF Round XVI Grant Funding Limits

Phase	Low Energy Cost Areas*	High Energy Cost Areas**
Total Project Grant Limit	$2 Million	$4 Million
Phase I: Reconnaissance Phase II: Feasibility and Conceptual Design	The per project total of Phase I and II is limited to 20% of anticipated construction cost (Phase IV), not to exceed $2 Million.	
Phase III: Final Design and Permitting	20% of anticipated construction cost (Phase IV), and counting against the total construction grant limit below.	
Phase IV: Construction and Commissioning	$2 Million per project, including final design and permitting (Phase III) costs, above.	$4 Million per project, including final design and permitting (Phase III) costs, above.
Exceptions		
Biofuel projects	Biofuel projects where the applicant does not intend to generate electricity or heat for sale to the public are limited to reconnaissance and feasibility phases only at the limits expressed above. Biofuel is a solid, liquid or gaseous fuel produced from biomass, excluding fossil fuels.	
Geothermal projects	The per-project total of Phase I and II for geothermal projects is limited to 20% of anticipated construction costs (Phase IV), not to exceed $2 million /$4 million (low/high cost areas). Any amount above the usual $2 million cap spent on these two phases combined shall reduce the total Phase III and IV grant limit by the same amount, thereby keeping the same total grant dollar cap as all other projects. This exception recognizes the typically increased cost of the feasibility stage due to test well drilling.	

REF Round XVI funding limits are governed by the requested phase(s) in the application and the technology type applied.

Low vs High Cost Energy Areas:

- ***Low Energy Cost Areas** are defined as communities connected to the Railbelt electrical grid or with a residential retail electric rate of below $0.20 per kWh, before Power Cost Equalization (PCE) reimbursement is applied. For heat projects, low energy cost areas are communities with natural gas available as a heating fuel to at least 50% of residences, or availability expected by the time the proposed project is constructed.

- ****High Energy Cost Areas** are defined as communities with a residential retail electric rate of $0.20 per kWh or higher, before PCE funding is applied. For heat projects, high energy cost areas are communities that do not have natural gas available as a heating fuel.

REF Rounds 16 Timeline

ALASKA ENERGY AUTHORITY

June 28, 2023
Request for Application Posted

August 29, 2023
Application Submission Deadline

December 2023
AEA's Evaluation of Applications Complete

January 2024
Meeting with Renewable Energy Fund Advisory Committee (REFAC)

January 24, 2024
AEA Provides Recommendations Approved by REFAC to Legislature

July 1, 2024
If Capital Funds Are Appropriated by Legislature, Grant Can Begin



ALASKA ENERGY AUTHORITY

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Who We Are

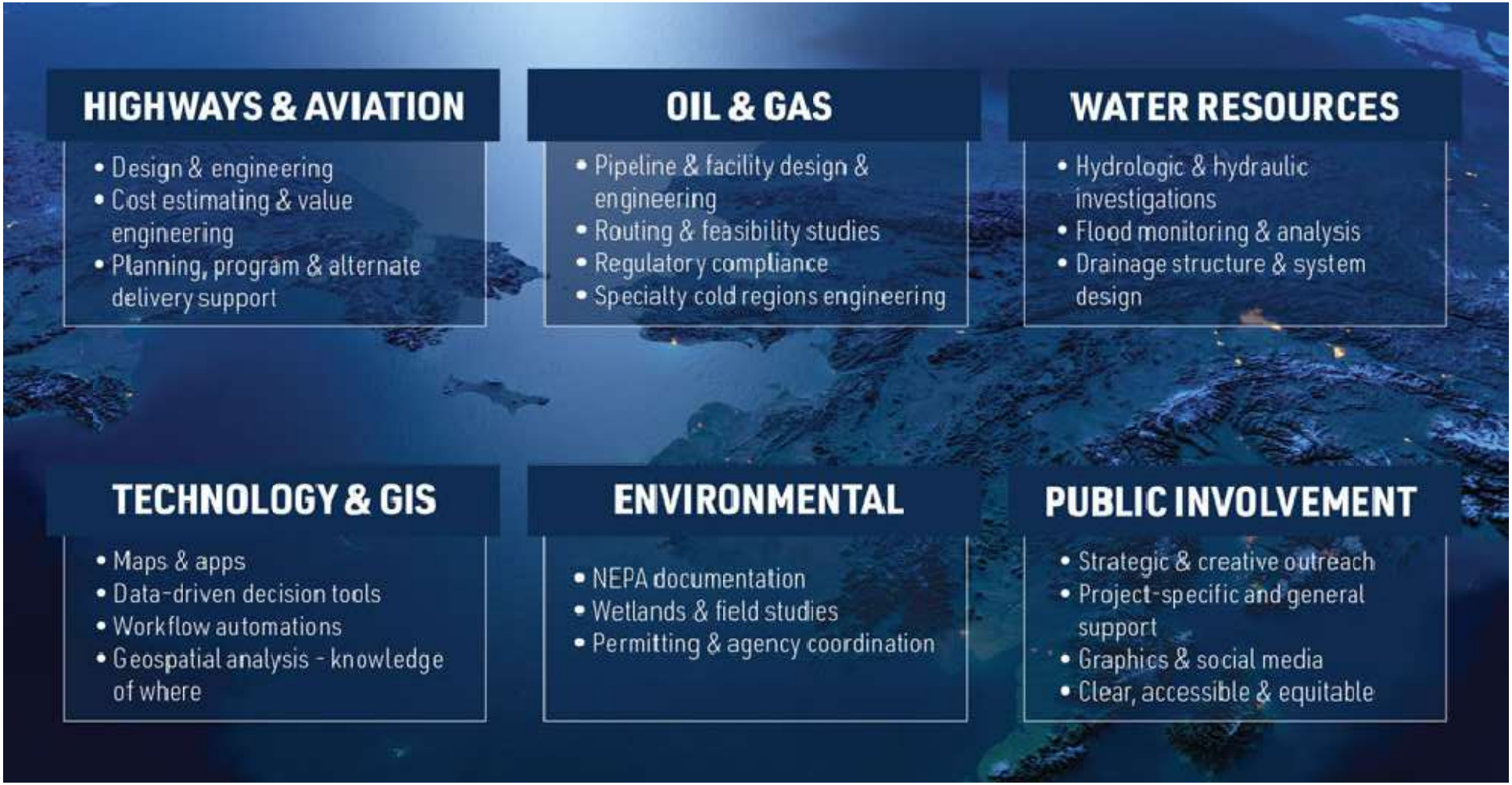
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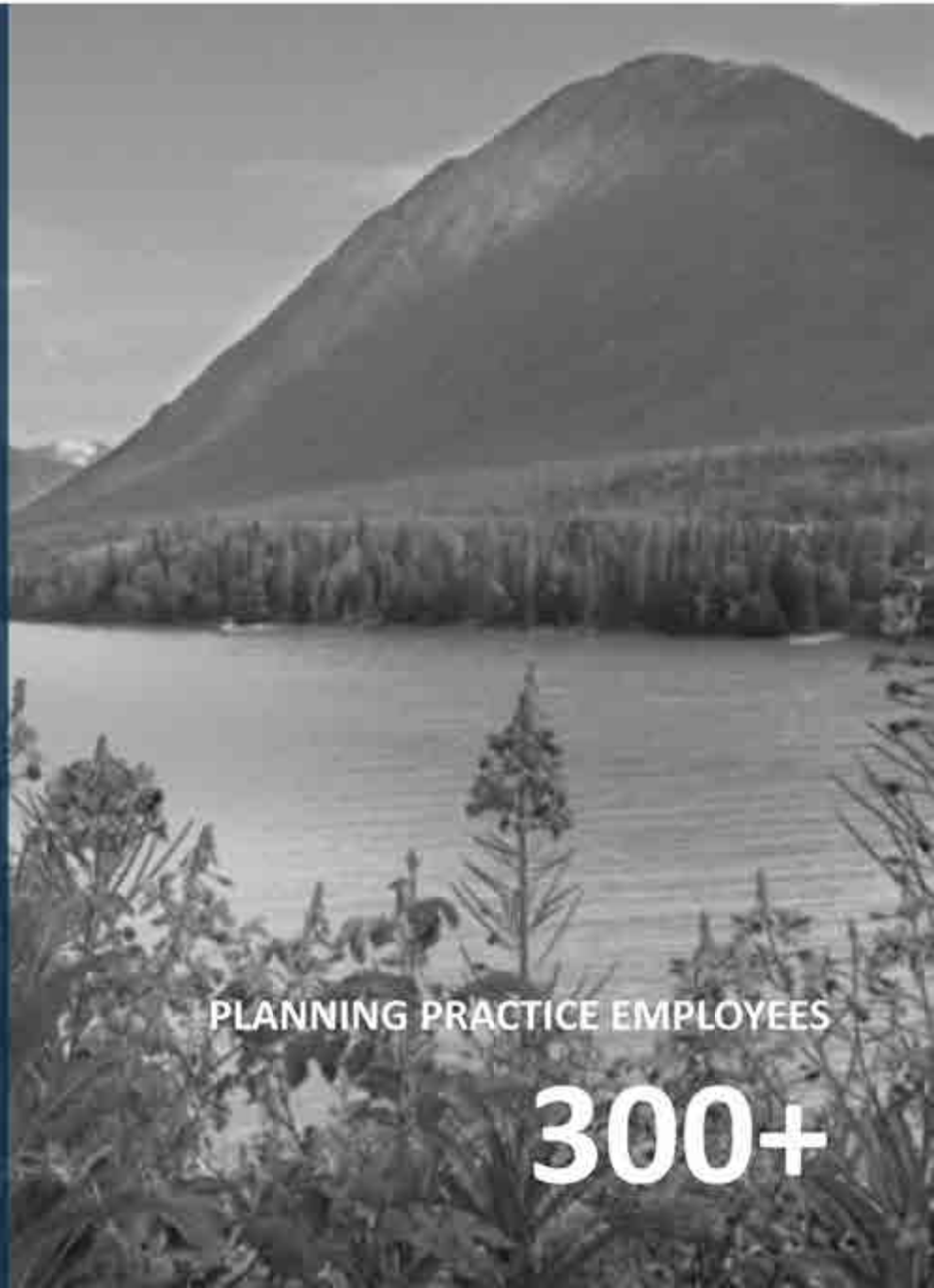
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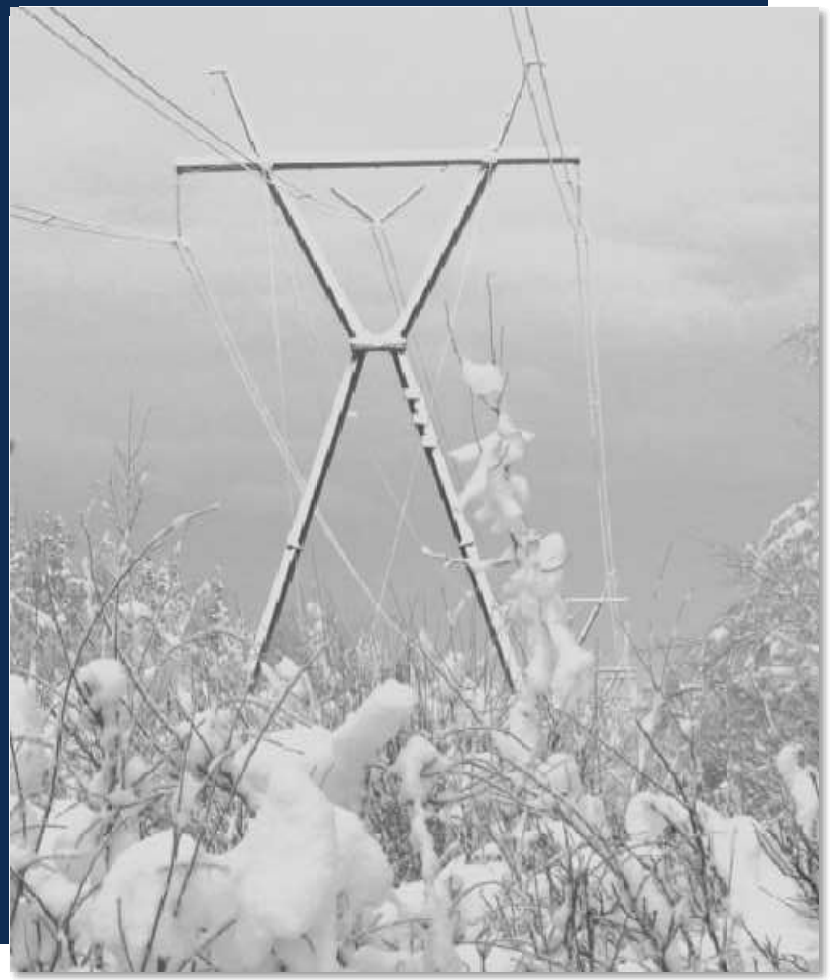
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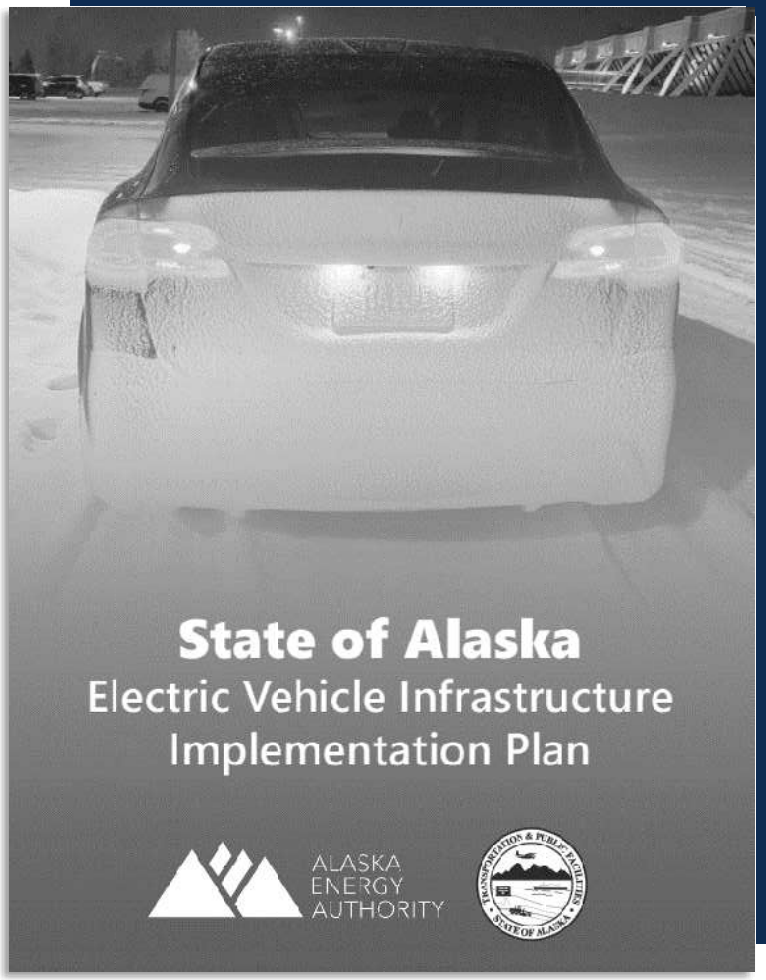


Alaska Energy Authority Support

Statewide Grid Resilience & Reliability IIJA Formula Grant Program, 40101(d)



State of Alaska Electric Vehicle (EV) Infrastructure Implementation Plan



State Planning & Policy Coordination

New Jersey Climate Change Resilience Strategy



Led by the Chief Resilience Officer for New Jersey with support from the Interagency Council with Executive mandate by Governor Murphey.



127 Actions are recommended across the State

18 Member Interagency Council

NCSL

NOTABLE DOCUMENT AWARD WINNER FOR ENVIRONMENTAL PROTECTION

NATIONAL CONFERENCE OF STATE LEGISLATURES



Michael Baker created a visual style guide and templates for NJ DEP based on NJ's Energy Master Plan.


Thank you
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Alaska Energy Security Task Force
MEETING MINUTES
Tuesday, June 27, 2023
Anchorage, Alaska

1. Welcome and Introductions

Vice-Chair Curtis Thayer called the meeting of the Alaska Energy Security Task Force to order on June 27, 2023, at 2:00 pm. Vice-Chair Thayer indicated that he is serving as Chair today, as Chair Lieutenant Governor Nancy Dahlstrom will not be in attendance. Vice-Chair Thayer identified recent Task Force member changes. He welcomed University of Alaska Fairbanks' Chancellor Daniel White. Vice-Chair Thayer discussed Gwen Holdmann will work with the Task Force through Alaska Center for Energy and Power (ACEP). He introduced Clay Koplin as the new Vice-Chair and discussed his extensive professional background. Vice-Chair Thayer noted that John Espindola, representative of the Governor's Office, was appointed to the Regulatory Commission of Alaska (RCA). His successor is Andrew Jensen, Special Assistant to the Governor.

2. Roll Call

Members present: Vice-Chair Curtis Thayer; Vice-Chair Clay Koplin; John Boyle (Commissioner); Jason Brune (Commissioner); Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Duff Mitchell; John Sims; Robert Venables; Daniel White; Senator Click Bishop (Ex Officio); Garrett Boyle (Ex Officio); Keither Kurber (Commissioner, Ex Officio); Representative George Rauscher (Ex Officio); and Erin Whitney (Ex Officio).

3. Prior Meeting Minutes – May 9, 2023

MOTION: Mr. Sims made a motion to approve the Minutes of May 9, 2023, as presented. Motion seconded by Mr. Garrett Boyle.

A roll call vote was taken, and the motion to approve the Minutes of May 9, 2023 passed without objection.

4. Presentations

a. Alaska Energy Authority IIJA and IRA Opportunities

Vice-Chair Thayer requested Karen Bell, Manager of Planning at Alaska Energy Authority (AEA), to give the presentation on the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) opportunities that are either within the application phase, have received federal receipt authority, or have been awarded. Ms. Bell showed a graphic of a list of common acronyms that will be used during the presentation. She discussed that through the IRA, Alaska's Home Energy and High Efficiency Rebate programs have been allocated approximately $74 million. AEA is the funding recipient and Alaska Housing Finance Corporation (AHFC) will manage and administer the program. The funding is expected by the end of the year.

Ms. Bell discussed that over five years, the State has been allocated approximately $60 million for the Grid Resilience and Reliability IIJA Formula Grant Program, also referred to as 40101(d). AEA has submitted the application to the Department of Energy for the first two years' of funding, totaling approximately $22.2 million. The funds are expected to be received within the next few months. The formula funding requires a 15% state match and a 33% small utility match. Ms. Bell reviewed that the State anticipates the receipt of $52 million over the next five years for the National Electric Vehicle Infrastructure (NEVI) program to expand electric vehicle (EV) charging infrastructure. The first two years' of funding, $19 million, is available. AEA and Department of Transportation & Public Facilities (DOT&PF) are administering the program together. AEA is seeking public comments through July 17, 2023, on the update to the NEVI plan.

Ms. Bell discussed that AEA partnered with Golden Valley Electric (GVEA) to receive an award of $12.7 million to extend the transmission line 34 miles along the Richardson Highway to Black Rapids Training Site (BRTS). AEA has federal receipt authority and there is no state match required. There is a match by GVEA of approximately $250,000. Ms. Bell reviewed that the State of Alaska has been allocated $4.5 million in formula funding to capitalize an Energy Efficiency Revolving Loan Fund program (EERLF). AEA will receive the funding and it will be administered by AFHC. Ms. Bell informed that the State of Alaska was awarded $2.9 million for the State Energy Program (SEP). The funding has been received. AEA and AHFC are working together to administer the funds. AEA is developing activities for deployment that include a statewide energy plan, a state energy security plan, Renewable Energy Fund (REF) and Village Energy Efficiency Program (VEEP) projects, required grid planning, and training and workforce development. AFHC is developing activities for deployment that include updating the AkWarm Energy Modeling software and modernizing the Alaska Retrofit Information Systems database.

Ms. Bell stated that AEA was recently awarded a $1.7 million competitive grant to deploy EV charging infrastructure in underserved communities. AEA is working with project partners to administer the funding. Ms. Bell gave an overview of the programs that AEA is applying for or will apply for. They include the Energy Efficiency Conservation Block Grant, four Grid Resilience and Innovation Partnership (GRIP) program grants that will be discussed in the following two agenda items, and the Energy Improvements in Rural and Remote Areas (ERA) Fixed Grant Award Program.

Senator Bishop asked if the ERA was a one-time only program. Ms. Bell indicated the program is currently one-time only. The Department of Energy (DOE) has additional funding for the program; however, it is unknown how it will be applied.

Ms. Bell continued the presentation and gave a general overview of some of the provisions of the Inflation Reduction Act (IRA). AEA is tracking opportunities and sharing information. AEA has not applied to many of the programs. Ms. Bell noted the two largest national funding program amounts included in the Clean Energy National Funding opportunities were the Energy Tax Credits and the Greenhouse Gas Reduction Fund. Ms. Bell discussed the PACE program and the

New ERA program that are new programs within United States Department of Agriculture (USDA) and will serve predominantly rural areas. Ms. Bell highlighted other potential clean energy opportunities for the state that have been set aside, but are not yet open. They include Assistance for Latest & Zero Building Energy Code Adoption, Greenhouse Gas Reduction Fund, Clean Heavy Duty Vehicles, Clean Ports, and the Climate Pollution Reduction Fund.

Ms. Bell highlighted the Clean Energy Tax Incentives listed in the presentation. She noted that she is not a tax expert, and the review does not include tax advice. Ms. Bell discussed that financial incentives could assist projects that were not financially feasible in becoming financially feasible. AEA's website provides detailed information on the tax incentives. Ms. Bell reviewed that bonus tax credits available through IRA could increase the incentives to approximately 60% of the project cost, thus benefiting and impacting the financial and economic feasibility of projects. Additionally, it will be the first time that some of the incentives are allowed to be received by tax exempt organizations through the elective pay provision. Ms. Bell gave a high level review of the elective pay framework.

Mr. Venables inquired if there are any programs pertaining to loan forgiveness for utility construction debt. Ms. Bell responded that the available programs are specific to new or recent construction since the IRA was signed in August of 2022. The loan forgiveness varies between 20% and 60%. In the New ERA program, there is a loan modification structure for stranded assets to refinance their loans to receive a 0% interest rate.

Dr. Whitney expressed appreciation for AEA's summary. She asked if there are clear procedures for the programs for Alaska stakeholders and if there are any programs that need particular attention regarding accessibility. Vice-Chair Thayer commented on a common struggle that AEA and other entities encounter, who are dependent upon DOE or Internal Revenue Service (IRS) or other federal agencies to provide guidance, which is not necessarily released in an orderly fashion. Often times, application deadlines are moved up and the time for the federal government to respond is moved out. Vice-Chair Thayer noted that staff has expressed these concerns with the congressional delegation. He noted that the DOE has been forthcoming, and the person assigned to Alaska has assisted in the dialog. The standard response from the IRS regarding tax credits is for the entity to talk with their tax accountant to see how it specifically applies to the entity. Vice-Chair Thayer believes that the procedures are a work-in-progress and the federal government is improving, but the format is not compiled in a way that is easy to follow. There were no other questions.

b. Railbelt IIJA GRIP Opportunities

Vice-Chair Thayer introduced Brian Hickey, Railbelt Regional Coordination, to review the presentation on the Railbelt IIJA GRIP Opportunities. Mr. Hickey discussed his current position and professional background. The focus of his efforts is in obtaining federal funding to build out the Grid Modernization and Resiliency Plan (GMRP), which is a way to move large amounts of power from one end of the Railbelt to the other. Mr. Hickey discussed that the Railbelt grid serves approximately 75% of the state's population and is about 700 miles long. He noted that

the last federal project in the Railbelt area was the Eklutna Hydroelectric Project in 1956, which was sold in 1992 to the local utilities.

Mr. Hickey emphasized that currently, there is unprecedented alignment between the Railbelt utilities, AEA, and Regulatory Commission of Alaska (RCA). The Railbelt alignment will seek both State and federal funding to accomplish the upgrades. The GMRP will include complete participation from all the Railbelt utilities and will eliminate bottlenecks and utility isolation. In 2022, the Governor tasked the Railbelt Regional Coordination to articulate a vision to decongest and build out the Railbelt for a clean and fuel-diverse future. Mr. Hickey discussed that the member engineers developed a plan and a cost estimate of approximately $2.87 billion. He believes that the project should be a State plan and that it is conducted in a phased manner.

A member inquired if microgrids could assist in eliminating utility isolation. Mr. Hickey discussed the importance of scaling the projects to a sufficient size in order to make them cost effective. This requires transmission. He believes the microgrid funding is directed toward smaller grids that are within a geographically contained area.

Senator Bishop noted that he and Commissioner John Boyle were recently in Washington, D.C. attending an energy conference. He asked if Alaska's transmission is AC or DC. Mr. Hickey explained that Alaska's transmission line is AC. The Railbelt grid is a model system and could be used to demonstrate to other larger grids how to decarbonize.

Mr. Hickey discussed that the upgrades would provide significant gains in reliability and resiliency for the Railbelt and would prepare the Railbelt for a low-carbon, fuel diverse future. It would also provide the ability to integrate variable generation systems, including wind and solar. Mr. Hickey highlighted the importance of lowering the cost of energy in the Railbelt and its resultant benefit to the Power Cost Equalization (PCE) rural utilities. Based on studies, lowering the cost of energy by one cent per kilowatt hour in the Railbelt translates to approximately $1.7 million in additional PCE subsidies to the 193 rural villages. Mr. Hickey noted that 39.8% of the people on the Railbelt live in a Native Tribal statistical area or in disadvantaged communities, which works well for the community benefit plan.

Mr. Izzo discussed that there is a material cost impact on the communities and consumers of after-tax dollars for outages, including the outage that is planned next summer for grid upgrades. The disconnection from Bradley Lake for three months due to the Swan Lake fire cost $12 million more in fuel. Mr. Izzo commented that the cost impact will increase as the cost of energy increases. Mr. Hickey added that hydro power should probably be utilized, rather than the precious Cook Inlet natural gas, but there is no way currently to get to the hydro power.

Mr. Guy responded to a previous comment regarding PCE. He noted for the record that PCE only applies to households and even with PCE, the cost is three to four times more than the cost on the Railbelt. The commercial entities, including the Alaska Native Corporations (ANC) do not receive any benefit from PCE.

Dr. Whitney expressed appreciation for the presentation. She discussed that the mission is to decrease the cost of power. She asked if Mr. Hickey has quantitative projections for how these improvements will decrease the cost of power on the Railbelt. Mr. Hickey discussed that the projection included in the applications to DOE reflect that real-time control of both battery energy storage and HVDC and the transmission lines to make those possible would reduce the cost of fuel and purchased power by roughly 10% to 15%. However, the cost of fuel and purchased power comprises 40% of the rates, and not necessarily the base rates. The caveat is that further in-depth cost modeling needs to be performed. Dr. Whitney asked for the timeline to complete all of the upgrades in order to realize the decrease discussed. Mr. Hickey explained that the total completion of the entire GMRP is 12 years to 15 years. The DOE requires that the funding from the GRIP Funding Opportunity Announcements (FOA) are completed in eight years. Permitting will be the driver of completion time, including the National Environmental Policy Act (NEPA) process. Dr. Whitney commented on the importance of understanding how much the base rates would decrease upon completion of the upgrades, as well as the consideration of the timeframe and the current natural gas situation.

Mr. Hickey reviewed the national importance for the federal government to assist the State in upgrading the Alaska grid. He explained the graphic showing the map and legend of the GMRP. The second transmission line is yellow and would run from Nikiski near Bernice Lake to Healy. This line is Topic 3 Railbelt Innovative Resiliency project (RIR) of the FOA. A high voltage DC submarine cable would go from Nikiski to Beluga under Cook Inlet. One of the three Battery Energy Storage Systems (BESS) is installed in the southern region. The other two BESS would be installed in the central region and in the northern region within Topic 3 of the FOA. The existing transmission line is rust-colored and would be rebuilt to 230 kV, under Topic 1 Railbelt Backbone Reconstruction (RBR) of the FOA. An additional transmission line, also Topic 3 and in yellow, is the roadbelt intertie and would run from O'Neil Tap to Glennallen to Fort Greely. A potential project off of that line is about 45 miles north of Valdez and is approximately the size of the Bradley Lake project. Topic 2 is the Smart Grid, which controls the BESS/HVDC system to minimize fuel burn and maximize economic dispatch.

Mr. Hickey informed that the concept papers on all three topics were submitted in December and January. Matanuska Electric Association (MEA) filed on behalf of the team for Topics 1 and 2. The State was the eligible entity for Topic 3. All three concept papers were requested to submit full applications for these competitive grants. Mr. Hickey reviewed the requested amounts and required match amounts. He reiterated that the GMRP must be the State's plan and priority. Mr. Hickey explained that access to federal funding is contingent on catalyzation and deployment of additional capital.

Mr. Hickey emphasized that the GRIP program is very competitive and there is no certainty that funding will be received. The State is investigating the USDA's Powering Affordable Clean Energy (PACE) funding and Next ERA funding, as well as the US Treasury's ITC and PTC direct pay. The regulations are due to for release on August 14, 2023.

Mr. Hanneman asked if Topic 3 could be completed partially if the funding was not available for

the entire completion. Mr. Hickey noted that slide 13 shows the current funding cycle for Topic 3, which only includes the transmission line from Soldotna to Healy. The transmission line from Sutton to Fort Greely would be requested and applied for in a later Topic 3 funding cycle.

Mr. Hickey noted that information is included in the presentation regarding the Community Benefit Plan and the Justice 40 Initiative. He reviewed the projected timeline for the GRIP selection process, as shown in the presentation.

Mr. Mitchell emphasized that the Railbelt is a cornerstone of Alaska. In order to move forward with energy strategies, including solar and wind, the Railbelt transmission issues must be remedied. Mr. Mitchell congratulated Vice-Chair Thayer for submitting comments to the National Transmission Needs Study. Alaska had been left out. Mr. Mitchell informed that Alaska has 1,697 miles of high and medium voltage line and needs to have the federal funding investment. He noted that Puerto Rico has 2,600 miles of lines and received an allocation to rebuild their lines after a hurricane.

Mr. Mitchell encouraged Mr. Hickey to work with tribal areas under the Substantially Underserved Tribal Areas (SUTA). He asked if Copper Valley is in the plan to be combined with the Railbelt. Mr. Hickey explained that Topic 3 would interconnect Copper Valley to the Railbelt grid, as well as allowing potential access to other river projects. Mr. Mitchell asked if Topic 3 will be completed within a roaded system or if any of the upgrades will be on RS2477 roads, both of which have State primacy regarding permitting. Mr. Hickey noted that the current plan for the line from Soldotna to Healy would follow the existing AK LNG right-of-way. He gave examples of the reasons to support that decision. The roadbelt intertie would follow the DOT right-of-way in some places from Sutton to Fort Greely.

Mr. Mitchell requested follow-up on quantifying the cost savings. He suggested creating a spreadsheet to show those savings. Mr. Mitchell believes that Department of Defense (DOD) is an important component in this process with the five military installations in Alaska. He recommended that DOD decision-makers are brought into the group to assist in requesting funds from Congress. Mr. Mitchell asked if there is a Plan B to go to Congress if none of the competitive funding is granted.

Representative Rauscher commented that he has been attending meetings with the representative for the Intertie and with Senator Sullivan for the last four years and there has been little interest from DOD to allocate funding for the Intertie.

Vice-Chair Thayer requested Mr. Hickey respond to Mr. Mitchell's comments. Mr. Hickey explained that the plan is to proceed in sequence with the four GRIP funding cycles, as well as working with the New ERA to fund transmission. Additionally, there is $14 million in grant funding. This plan to create a fuel divers Railbelt must be a State plan. Mr. Mitchell expressed appreciation for the efforts and noted he is an outsider looking in. He suggested that the full names of the projects are listed, rather than the acronyms of RBR and RIR. He looks forward to continued progress.

Mr. Simms commented on the comparison between Puerto Rico and Alaska is the important component is that Puerto Rico has a population of approximately 3.2 million. One of the challenges of Alaska is the low population and low demand.

Dr. Whitney commented that she is the DOE representative in Alaska. Her simplified calculation of savings, based on Mr. Hickey's comments of a 10% to 15% cost reduction to 40% of the Railbelt rate structure, would equate to a savings of 4% to 6% to the total rate. Based on a Railbelt rate of .20 cents per kWh, the savings are less than .02 cents per kWh. She understands the additional reasons to move forward and requests that a detailed cost reduction calculation is provided for the benefit of the group. Dr. Whitney expressed appreciation to Vice-Chair Thayer for his contributions to the National Transmission Needs Study. She applauded the University and ACEP for their contributions to the National Transmission Needs Study report, as well.

Commissioner Kurber asked if the project to expand Bradley Lake is integrated into this transmission build-out. Vice-Chair Thayer agreed. He explained that AEA received funding from the Legislature and the Governor to begin the studies on the Dixon Diversion project to see if the 50% expansion of Bradley Lake power is possible. The required project work for transmission line upgrades off the Kenai Peninsula to Southcentral Alaska are needed if the expansion of Bradley Lake occurred. AEA and the utilities have $166 million in bonded funds for that required project work. Vice-Chair Thayer commented that Bryan Carey, AEA, is instrumental with the Dixon Diversion project and can provide additional information to the Task Force.

Mr. Izzo expressed appreciation to Mr. Hickey and the team for focusing efforts on these issues. He commented on the urgency of resolving the issues. Mr. Izzo noted that professionally, he is held accountable for meeting the conditions of the Certificate of Public Convenience and Necessity (CPCN) to provide the essential service of uninterrupted power to approximately 20% of Alaska's population. While cost is critical, the transmission lines are linked to much more than the ability to reduce cost. Mr. Izzo discussed that GVEA has a strategic generation plan and is looking to shut down Healy 2. However, GVEA cannot replace that generation or any generation without a second line going north. He emphasized that MEA's gas contract ends April 1, 2028. The serious concern is that he is unable to say that MEA can provide reliable, affordable, safe power in five years.

Mr. Izzo discussed the uncertainty of the natural gas supply according to Hilcorp. MEA needs the highway to move power into the region and to consider cost effective and scalable power generation, like the two large wind projects that are under current evaluation. Mr. Izzo noted that he is beyond viewing the transmission upgrades as a cost-value proposition. It is an absolute necessity. He explained that Alaska is a N-1 state and does not have a first world power system like the Lower 48. N-1 means that the system can handle one contingency and still maintain power. A second problem would cause disruptions.

Mr. Koplin commented that his understanding is the strategic transmission upgrades will provide cost savings, efficiency, and will open access to other renewable energy sources, which will be needed in the future.

Mr. White requested clarification regarding the transmission line from Sutton to Glennallen that it is not included in Topic 3, but is subject to a future Topic 3 proposal. Mr. Hickey agreed. Mr. White asked for a specific timeline for the transmission line from Sutton to Glennallen. He commented that heat is also a factor in the conversation of heat and power and air quality. Mr. Hickey explained that the Railbelt Intertie is considered under Topic 3, but not in the current funding cycle. There are four funding cycles in Topic 3. The application for the line from Soldotna to Healy is within the current funding cycle. It is anticipated that the Railbelt interconnection would be applied for the third funding cycle of 2026.

Mr. Hanneman expressed appreciation for the efforts in the Railbelt and the comments regarding the long-term importance of the Intertie for Alaska. He discussed that the Governor's specific charge and primary focus for the Task Force was to provide recommendations to get to 10-cent power. Mr. Hanneman stated that the Task Force should either consciously set aside the cost objective of the Governor's charge or the Task Force needs to move forward to provide recommendations to get to 10-cent power. Both cannot be done.

Vice-Chair Thayer believes that the Governor is looking for all options to be on the table, including the identification of the roadblocks to get to 10-cent power and how to work around the roadblocks. He believes it is key for the Task Force to consider redundancy and the reliability of the power. He noted that if 10-cent power is achievable, but there are no transmission lines to deliver the power, it is not meaningful to communities.

Mr. Guy expressed support for Mr. Hanneman's comments and noted the goal of 10-cent power for all of Alaska. Mr. Guy reiterated his request for full-day meetings for the Task Force. He does not believe the two-hour meetings will be effective in achieving the goal. He does not believe the subcommittee structure will be effective in achieving the goal. Mr. Guy informed that he submitted a plan to the previous Governor's Assistant, Mr. Espindola, and requested that it be disseminated to members. If any member has not received it, he will provide it. Vice-Chair Thayer indicated that he has not seen it. He noted that if Mr. Guy provides it to him, it will be shared with the Task Force members.

Mr. Guy reiterated the focus of the Task Force in getting to 10-cent power for all Alaska. The previous comments have underscored the fact that Alaska has many potential power sources throughout the state that can be utilized. He gave the example of a hydro power project that the State Legislature stopped. He emphasized that rural power systems can help development throughout the state and within rural Alaska. Mr. Guy commented that because of the cost of living advantages in the urban areas, people are moving from rural Alaska to the urban areas.

Commissioner Brune acknowledged Mr. Hanneman's and Mr. Guy's comments regarding the Governor's charge to focus on 10-cent power. He believes it is imperative that the Task Force

focus on the Governor's original charge. He discussed the importance of decreasing costs and timelines from a regulatory perspective. Commissioner Brune expressed excitement regarding the efforts for primacy and the Supreme Court's decision whereby significant portions of Alaska are no longer under jurisdictional wetlands, allowing development to occur without the oversight of the Corps of Engineers or the EPA. Commissioner Brune noted Mr. Izzo's earlier comment regarding the air quality issues in the Interior. He believes that it is important for the Task Force members to understand that 85% to 95% of the cause of the air quality problems in Fairbanks is due to wood smoke. Commissioner Brune clarified for the record that the $200 million to $300 million in upgrades for the utilities in Fairbanks that may be required by the EPA will only provide a miniscule impact on the air quality in Fairbanks. He reiterated the importance that the Task Force focus on the Governor's charge.

Mr. Izzo agreed with Commissioner Brune regarding the primary cause of air quality problems in Fairbanks. Mr. Izzo explained that he was discussing the entire landscape of the ongoing issues and did not mean to connect the two issues. Mr. Izzo agreed with the comments of Mr. Guy and that the Task Force should stay focused on the Governor's charge to reduce power statewide. Mr. Izzo believes the 10-cent power goal is achievable, and the questions that need to be answered are when and how. He commented on the importance of triaging the immediate needs of the system, while focusing on achieving the 10-cent power goal. There were no other comments or questions.

c. Rural Alaska Microgrid Transformation IIJA GRIP Opportunity

Vice-Chair Thayer introduced Rebecca Garrett, AEA Rural Programs Manager, who spearheaded the IIJA GRIP effort that was submitted to DOE. Ms. Garrett described the application under GRIP 3 for the Rural Alaska Microgrid Transformation program. She discussed AEA's mission statement guides her daily work and guided the application process. The program will open to requests for applications (RFA) for transformative projects in rural communities for replacing diesel generator microgrids. The goal includes lowering the cost of energy in disadvantaged communities while reducing carbon emissions. Local wind, solar, and hydro microgrid projects with battery storage systems will hopefully apply and will decrease the communities' reliance on diesel fuels.

Ms. Garrett reviewed a map in the presentation that shows the different potential of alternative projects in Alaska. Large funding sources are needed to reach Alaska's potential and make it affordable to implement the projects. AEA utilized its different teams and sections to develop the program, as well as partnering with ACEP, Alaska Municipal League, and Alaska Native Tribal Health Consortium (ANTHC). The program is slated for 96 months. The first year would be dedicated to planning and initiating the RFA. The next six years would be for project development and implementation, and the final year would review project results.

Ms. Garrett showed an initial list of potentially viable projects. The list does not include project names because an RFA has not yet been issued. If all the projects shown were implemented, approximately 6.8 million gallons of diesel annually would be displaced. If the program is

successful, the award will be announced in the fall of 2023, and funds would subsequently be received in 2024. The full request is $250 million and requires a 100% match. The Governor has provided a letter of support. AEA would also seek other ways to provide the match, including the REF.

Mr. Guy asked if the plan would allow for major developments to occur in rural Alaska, including a data center. Ms. Garrett indicated that the applications for the plan require that renewable power is utilized for the power generation in rural Alaska. Mr. Guy commented on a potential major project in the region that has been in the works for over 25 years. The cost of power is the biggest reason the project has not moved forward because there is no available power to support the project. Ms. Garrett believes that project could be a potential contender to utilize the program, as long as renewable energy was utilized as a power source.

Mr. Koplin commented that the Power Project Loan Fund contains many hydro projects. He believes that it is important to spread the cost of longer periods of time, such as 30-year terms, for hydro projects. Additionally, with interest rates rising, it is important to have a lower interest rate to help the project's up front costs.

Senator Bishop commented that many members have been in his office and have seen the State Energy Plan. He suggested that going forward, the Task Force could break out and begin analytical discussions, especially relating to Mr. Guy's comments on rural energy. The Governor's renewable energy bill includes funding streams for the more than 180 microgrids in rural Alaska.

Mr. Hanneman reiterated his previous request for a list of the rural power generation sources, including the 180 microgrids, their total generation amounts, their approximate costs, and if they are subsidized by PCE. He noted this information would be helpful to understand ways that renewables energy source could be utilized. Vice-Chair Thayer indicated that PCE annual fiscal report is delineated by community. He noted that information is on the website, and he will email the link to all of the Task Force members. There were no additional comments or questions.

d. Regulatory Commission of Alaska / Alaska Energy Authority
Power Cost Equalization (PCE)

Vice-Chair Thayer asked the Task Force members for feedback on whether the next presentation is given or for the sake of time, forego the next presentation and move on.

Mr. Guy restated that he appreciates the reports, but he would much rather focus the efforts on the work to achieve the goal. He reiterated that PCE is not a solution for rural Alaska and will never be a solution for rural Alaska. Mr. Guy requested that Task Force members and State workers take note that PCE is not a solution. He requested that PCE is not extended. He discussed that rural businesses cannot use PCE and are faced with high costs to do business, which is preventing growth and job creation. The cost of power is prohibitive.

Vice-Chair Thayer mentioned that PCE is a legislative program that began in 1980. It provided $48 million this year. The first 750 kW of residential power is based on the weighted average cost of power on the Railbelt. Mr. Guy commented that PCE was intended to equalize the projects that were built for urban Alaska and the Railbelt, but PCE has never been equal. Vice-Chair Thayer gave a brief explanation of the PCE program that was established by the Legislature. He noted that the RCA follows statutes and regulations. He believes it is important to consult with the RCA to possibly identify statutes and regulations that could be changed to help lower the cost of energy.

Commissioner Kurber, Chairman of RCA, expressed appreciation to Mr. Guy for his educational comments and explanations. Commissioner Kurber reviewed his presentation beginning with an overview and brief history of the RCA from its beginnings as the Alaska Public Service Commission until it changed to RCA in 1999. He discussed the organizational structure of the RCA and described the responsibilities of the three different sections within the organization. Commissioner Kurber explained that the five Commissioners are appointed by the Governor, confirmed by the Legislature, and serve for six-year terms. He noted that Commissioner Janis Wilson is a three-time appointee and has served for 18 years. Additionally, Commissioner Robert Picket is a three-time appointee and has served for 16 years.

Commissioner Kurberg highlighted the importance of RCA's mission statement that safe, efficient and reliable utility and pipeline services are provided to the public at just and reasonable rates, thereby protecting consumer interests and promoting economic development. He noted that implicit to the public receiving just and reasonable rates, is the survival of the utility. Absent the utility, there is an existential threat of no service.

The question was asked regarding the rate increases in the Village of Aniak. Commissioner Kurberg explained that Aniak Light and Power were behind on their RCA filings and once the filings became up to date, it was revealed that Aniak was under-recovering their rates. This has created a short-term and very painful situation. The high cost of diesel fuel has also contributed to the high rates. The balancing account grew in size and needs to be reduced. The primary issues that have created the situation are accounting and untimely filings. The RCA has requested Aniak to file more frequently in order to expedite the downward turn of the rates. Commissioner Kurberg acknowledged that the pricing situation is a big issue. In accordance with their tariffs and their COPA filing, the math is revealing, and the hope is that it will be a very short-term surge.

A comment was made for the record that Aniak is not the only village where price surges are occurring and there may be additional villages that do not have the wherewithal anymore to run their power systems. He suggested that the issue is discussed in depth at a later time and that possibilities are considered for villages to be under a larger umbrella to address these sorts of issues.

Commissioner Kurberg reviewed that the ex parte rule is a considerable issue when people wondering why the RCA will not talk. If the RCA has a filing that requires adjudication, the RCA

walls off the matter so that it does not appear that undue influence is used for a decision. This is directed by statute. Commissioner Kurberg gave a simplified explanation of PCE. He agreed that PCE is not a long-term solution because it only applies to residential customers, and it does not support small businesses.

Commissioner Kurberg discussed the work ongoing with telecommunications issues regarding the Alaska Universal Service Fund (AUSF). He noted RCA is within the public notice period and so he cannot provide much information. There is a fact sheet on the website regarding the AUSF. The program was permissive and not directed. It was established years ago to help ensure long distance telephone service in the state. The controversial question for Commissioner Kurberg is, "What is a telephone?" Commissioner Kurberg discussed another issue regards Senate Bill 83, which passed before he became a Commissioner. He noted that RCA sent a regulation and rates review packet to the Department of Law (DOL) in November of 2021, and a finding has not yet been sent back to the RCA. He noted that RCA does not set DOL priorities.

Commissioner Kurberg stated that the Electric Reliability Organization (ERO) has been certificated as of the end of 2022. An initial budget was set to allow for key members to establish the organization. Hearings are upcoming and he is looking forward to the developments. Commissioner Kurberg commented on the issue of struggling utilities and the compounding issue of aging infrastructure. He highlighted the excellent performance of Alaska Village Electric Cooperative (AVEC) in assuming responsibility for rural power utilities and increasing their functionality. Commissioner Kurberg informed that AVEC has its limitations and cannot get into all of the villages. He emphasized that the Task Force must understand and consider that rural issues and struggles are very different from urban issues and struggles when discussing how to reach the goal of 10-cent power.

Commissioner Kurberg discussed the Renewable Portfolio Standard (RPS) brought by the Governor in the last legislative session did not pass. He wanted to make the Task Force aware that there are currently two RPS in the House and the Senate, which can have impacts on rate schemes or structures. Commissioner Kurberg repeated the known concerns regarding the issues with the Cook Inlet gas supply. He discussed RCA staffing issues and statutory cap. RCA is unique in that it does not receive any general fund appropriations. Commissioner Kurberg explained that the RCA is funded through Regulatory Cost Charges (RCC). He gave an anecdotal example of his recent payment of about .70 cents for RCC on his last month's GVEA bill of approximately $200. Commissioner Kurber informed that in order for RCA to be able to hire at full capacity, a legislative proposal is underway with Department of Commerce, Community and Economic Development (DCCED).

Commissioner Kurberg emphasized that the RCA regulates the utilities, but does not run the utilities. One of the underpinnings of regulatory law requires that the utility is provided an opportunity to earn a profit. It is a little different for co-ops because they have a different way of measuring. Commissioner Kurberg wants the Task Force to consider the RCA's mission during the process in achieving the goal of 10-cent power. He believes hydro projects can potentially help in achieving the goal. He noted that personally, not speaking for the Commission, that he is

intrigued by the possible capabilities of advanced nuclear and the impact it could have on reaching the 10-cent power goal. There were no additional comments or questions.

e. Renewable Energy Fund – Round 16 Kickoff

Vice-Chair Thayer indicated that the REF presentation is available online for review. He noted that Round 16 will open tomorrow. The Legislature funded $17 million of projects this year and over 80% of those are going to rural Alaska.

Senator Bishop commented that 12 years ago, he, Senator Hoffman, Senator Dunleavy, and Senator Olson amended the gas line bill to direct 20% of the revenue generated from the gas line to the Alaska Energy Fund goes to rural Alaska. He noted that the same verbiage was included for 20% of the revenue generated from the carbon offset program is set aside to go to the REF for rural projects.

f. Cook Inlet Gas - Enstar

Vice-Chair Thayer requested Mr. Simms provide the update on the Phase 1 Study. Mr. Simms discussed that the update is for the awareness of the Task Force members. He reiterated that in April of 2022, Hilcorp informed the utilities that they no longer have line of sight into gas supplies for the future and cannot extend current contracts. Most of the Railbelt electric utilities' contracts expire April 1, of 2028. He noted that Enstar's contract expires April 1, 2033. HEA's contract expires in 2024. Mr. Simms explained that the utilities have been working collaboratively and have hired a third-party consultant for the Phase 1 Study to review the available options for gas supply in the future. The study with the top three options will be presented tomorrow at RCA's public meeting. Mr. Simms noted the information will be available on the website and a press release will be issued. He discussed that the cost perspective of the options matter and the utilities continue to make sure they can provide reliable service to all of the customers.

Vice-Chair Thayer indicated that the Phase 1 Study will be provided to the Task Force members and will be posted on the website. There were no questions or comments.

5. July – September Meeting Schedule

Vice-Chair Thayer noted that the proposed work schedule calls for a Task Force meeting every three weeks on Tuesdays. This is in conjunction with a subcommittee process and public comment periods. He understands there is a desire to conduct full-day meetings. Vice-Chair Thayer requested feedback from the Task Force regarding the proposed schedule, and to indicate specific days that can be assigned as full-day meetings. Vice-Chair Thayer noted that discussion can occur now, or members can review and provide feedback later.

Mr. Simms recommended that the Task Force meeting schedule is set in advance and members could adjust their calendars accordingly as agreed when the commitment was made to be part

of the Task Force.

A member agreed, and suggested that during a meeting in the middle of the timeframe, focus can be allocated to take stock of the progress and set the path for completion.

Mr. Hanneman concurred with the previous comments to set the schedule. He expressed concern regarding premature initiation of subcommittee groups before background information and strategic discussions occur.

Mr. Venables concurred with the previous comments to set the schedule. He suggested that a longer meeting could take place every two or three meetings. There were no additional comments.

6. Support

a. Black & Veatch

Vice-Chair Thayer noted that Black & Veatch are consultants under contract with the Governor's Office. They were requested to attend the meeting today. However, no representative responded when called upon. Vice-Chair Thayer asked Mr. Jensen to provide back information. Mr. Jensen indicated that Black & Veatch has a contract with the Governor's Office for support for the Office of Energy Innovation that does include support for the Task Force. A representative is expected to call in soon. Black & Veatch will help facilitate the subcommittee meetings, as well as provide technical, expert analysis and evaluation regarding different energy source scenarios. Vice-Chair Thayer indicated that the meeting could return to this agenda item once the representative is on the line.

b. Michael Baker International

Vice-Chair Thayer requested Jeff Baker, of Michael Baker International (Michael Baker), to introduce himself and provide an overview of their services. Mr. Baker indicated that he is not related to Michael Baker, and it is a coincidence that he is the Senior Executive in Alaska. He discussed that Michael Baker is a national engineering company that provides multi-discipline consulting services. They have been supporting AEA on a number of projects over the last few years and were requested by AEA to help assist and facilitate this work. Michael Baker has offices both in Anchorage and in Fairbanks with approximately 60 employees based in Alaska.

Mr. Baker discussed that their capabilities include highways and aviation, oil and gas, water resources, technology and GIS, environmental, and public involvement. Clients in Alaska include DOT, Alaska Railroad, Port of Anchorage, and North Slope suppliers of oil and gas. Michael Baker's planning and resilience group consists of approximately 300 employees nationwide. Mr. Baker noted that the group will support the Task Force meetings and subcommittee meetings to develop a roadmap to produce the deliverables, to assist with the public involvement and outreach, and to assist with the meeting coordination. Primary work will be focused on the

regulatory and statutes subcommittee, regional generation subcommittee, and the coastal generation subcommittee. Mr. Baker introduced members of his team who were present.

Mr. Guy expressed appreciation for the information on the scope of the consultant's work and experience. He suggested that representatives from roads, highways, and broadband should be included in the conversations. He commented on the discussions that occurred at the Governor's Energy Conference regarding prospective tidal energy capabilities. Mr. Guy believes that the consultant's breadth of experience could benefit the Task Force by focusing attention on utilizing tidal energy. There were no additional comments.

7. **Subcommittee Formation**

    a. **Assignments of Chairs and Co-Chairs**
    b. **Tasking / scope of work**
    c. **Support**

Vice-Chair Thayer noted previous comments regarding the formation of subcommittees. He requested that Vice-Chair Koplin lead the discussion regarding the thought processes behind the subcommittees. Vice-Chair Koplin stated that he wants to be sensitive to Mr. Hanneman's comments. He explained that the goal of 10-cent power is a goal that almost no one has achieved. Alaska will have to do many things, including solving problems that have not been solved previously. He sees value in utilizing the diversity of professional backgrounds, expertise, and insights within a subcommittee structure to examine the particular areas to reach the goal of 10-cent power.

Vice-Chair Koplin suggested that each subcommittee task themselves with reviewing the big picture of the problems and solutions. This includes identifying actions that have not worked in the past and offering possible remedies for the future. He believes the subcommittee structure can be successful, particularly if the members in each subcommittee stay on task and focus on the goal of 10-cent power by identifying the issues that need to be solved and the opportunities available.

Vice-Chair Koplin indicated that the structure is mapped out on page six of the packet. He suggested moving forward with the subcommittees as structured. The intent is that the Chairs and Co-Chairs will bring in other subject matter experts or recommend other Committee members to work on the subcommittee tasks. The Chairs and Co-Chairs will bring their subcommittee elements before the Task Force and continue to make progress.

A member asked if the Incentives and Subsidies Subcommittee focuses on money. Vice-Chair Thayer agreed. The member added that State participation must be included. He believes it should be Financing, Incentives, and Subsidies Subcommittee. He noted that he is an ex officio member, but he becomes a voting member regarding financing. The member requested the Chairs of the subcommittee bring in financial experts. He believes that ultimately, money will drive the plan.

Vice-Chair Thayer discussed that assignment of subcommittees focused on identifying the Co-Chairs. Members can serve on any subcommittee. Additionally, subcommittee members can be subject matter experts recommended by ACEP, by the Governor's Office, and individuals who had expressed interest in serving on the Task Force. The subcommittee will bring their information before the Task Force and the Task Force will discuss and make the final decisions regarding the draft of how to reach the primary goal.

Mr. Guy declared again that he is not happy with the subcommittee structure as presented because of the regional focus. He believes the overarching goal is to connect the entire state with one grid.

Vice-Chair Thayer suggested that members review the subcommittee structure and provide feedback to the subject matter expert facilitators of the subcommittees, Michael Baker and Black & Veatch.

Mr. Izzo indicated that support from Michael Baker is not listed under the Railbelt Subcommittee, and he assumes that information was cut off. Vice-Chair Thayer agreed that Michael Baker was inadvertently left off and would be included as support.

Vice-Chair Thayer explained that when AEA or ACEP is included as an observer, the representative will be available to help answer specific questions and to gather information in addition to the contractors. He noted that AEA included the management team within the subcommittees. For instance, if the subcommittee has questions regarding IIJA, it is important for Ms. Bell to be in the room to answer the question or to return the answer quickly.

Mr. Boyle requested to join the Statutes and Regulations Reform Subcommittee, and he listed two other subcommittees that he would like to serve on.

Mr. Hanneman expressed appreciation to Vice-Chair Thayer for his explanation of the structure and the flexibility envisioned. He offered to also participate in the Railbelt Generation, Transmission, and Storage Subcommittee.

Mr. Mitchell indicated that he would also like to serve on the Subsidies Subcommittee. He asked for clarification regarding the meeting expectations and support mechanisms of the contractor Michael Baker. Vice-Chair Thayer explained that the subcommittee meetings have to be publicly noticed and held in a public setting. The meetings can be hosted at AEA and conducted through Teams and in-person. The meetings will be recorded, and the recording will be available to the public. The full Task Force meetings have minutes and the recording publicly available.
Vice-Chair Thayer asked Mr. Baker to give an overview of their expected support. Mr. Baker noted that their efforts will be split into two categories. One will focus on working with the subcommittees on the deliverables, and the other is the public outreach portion.

Vice-Chair Thayer asked if the representative from Black & Veatch is available. The

representative introduced herself and gave her professional background. She highlighted the energy related support provided to the State over the years. She indicated that Black & Veatch is an Engineering, Procurement, Consulting (EPC) company and can support any technical needs of the committee. They have expertise related to understanding the costs and operational practices of various energy solutions.

Dr. Whitney suggested that it may be more expeditious if after this meeting, members email Vice-Chair Thayer and indicate their subcommittee interests. Vice-Chair Thayer agreed.

Mr. Jensen reminded all members to use the info@akenergysecuritytaskforce.com when communicating with the Task Force to preserve the records.

8. Discussion – Webinar Topics

Vice-Chair Thayer discussed the findings from the member survey regarding the interest and topics that could be covered in webinar format. He noted that the survey also reflected the desire to conduct longer meetings during the work week. Vice-Chair Thayer discussed the proposed energy symposium informational sessions on identified topics would be supported by ACEP and recorded for members and for the public. The informational sessions are not a requirement of the committee

9. Subcommittee formation

A member explained his understanding that the listed subcommittee formation has been provided. Members can email to join other subcommittees, and the subcommittees can begin work immediately. Vice-Chair Thayer agreed. The member suggested that a template meeting document agenda is used. The Chairs and Co-Chairs will utilize Black & Veatch and Michael Baker to support the topics that are listed for each subcommittee. The contractors will be tasked with meeting the goals of each subcommittee. He reviewed that the subcommittees would have the flexibility to address the issues and then bring the problems, solutions, and contributions to the Task Force. Vice-Chair Thayer agreed.

Commissioner Kurber requested clarification regarding the time commitment. He asked if the meetings on the schedule include breakout times or will the Chairs of the subcommittees need to set up separate meetings. Vice-Chair Thayer envisioned that during the scheduled meetings of the whole, there will be break-out sessions for the different subcommittees and then the whole would regroup in the afternoon to discuss the outstanding issue. Vice-Chair Thayer informed that some of the subcommittees will want to meet independently outside of the listed schedule of Task Force meetings. The subcommittee Chair and members would decide those meeting dates and times.

Mr. Jensen suggested that members work with the Co-Chairs to determine which subcommittee or subcommittees they will serve on, and then the subcommittee utilize the services of Michael Baker to help with conforming with the Open Meetings Act and notice requirements of the subcommittee meetings, which could be weekly. Mr. Jensen discussed that the subcommittees

could then report to the full Task Force at the meeting of the full every three weeks.

A member suggested that each of the subcommittees provide a succinct overview of each meeting containing four or five bullet points of the most pressing items to the Task Force as a whole.

Mr. Hanneman expressed his understanding of the need for subcommittees to begin grinding on the issues. However, he feels that the identified purpose and deliverables do not consider the big picture perspective to achieve the bold goal of 10-cent power, rather they fit into the category of supporting the status quo. Mr. Hanneman recommended that the Task Force allocate time at a meeting to brainstorm and inquire of each member what is art of possibilities from their perspective, and possibly recast the focus of the commission into a more creative way. Vice-Chair Thayer agreed and suggested that a brainstorming session could occur at the next meeting, July 18. A longer meeting could occur on August 8.

10. Adjourn

Vice-Chair Thayer requested a roundtable for closing comments. Members provided closing comments.

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 4:26 pm.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #4
TUESDAY, JULY 18, 2023, 1:30 PM – 4:30 PM

STATUS: Active

Alaska Energy Security Task Force, Tuesday, July 18, 2023, 1:30 pm

Please note that the Alaska Energy Security Task Force will hold a meeting on July 18, 2023.

The Alaska Energy Security Task Force will convene at 1:30 pm to conduct Task Force business and continue in session until recess or adjournment.

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting: Kollette Schroeder at 907-465-3500 or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

Task Force Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following instructions:

Microsoft Teams meeting:

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 231 562 039 319
Passcode: XAcFKS

Download Teams | Join on the web

Or call in (audio only)

+1 907-313-5807,,116433746# United States, Anchorage

Phone Conference ID: 116 433 746#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-465-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.07.18 Alaska Energy Security Task Force Agenda.pdf

Revision History

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	

Created 7/10/2023 3:26:54 PM by jlbertolini
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Location(s): Statewide
Project/Regulation #:

Publish Date: 7/11/2023
Archive Date: 7/19/2023

Events/Deadlines:

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, July 18, 2023
1:30 pm to 4:30 pm

Teams Meeting:

Click here to join the meeting
Meeting ID: 231 562 039 319
Passcode: XAcFKS

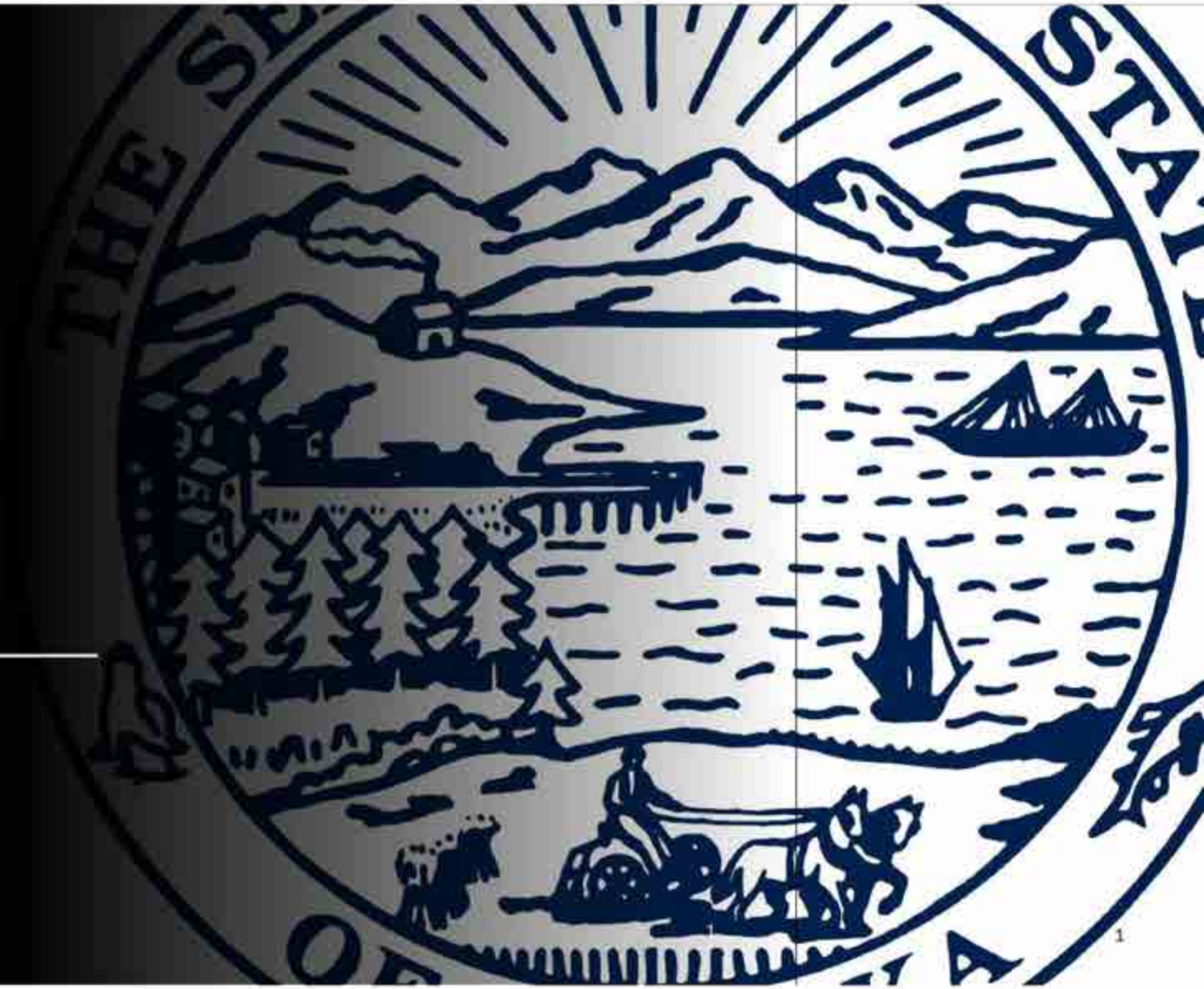
Presentation

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom)
2. Roll Call
3. Prior Meeting Minutes – June 27, 2023
4. Subcommittees Check in
5. Brainstorming Session – "Art of the Possible"
    - Facilitated by Michael Baker International
6. Task Force Meeting Schedule
7. Next Meeting Date, Tuesday, August 8, 2023, 9:00 am
8. Adjourn

Alaska Energy Security Task Force Meeting

July 18, 2023



July 18, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. Welcome and Introductions
2. Roll Call
3. Prior Meeting Minutes
4. Subcommittees Check in
5. Brainstorming Session – "Art of the Possible"
6. Next Meeting Date: Tuesday, August 8, 2023, 9:00 am
7. Adjourn

Organization

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	lt.governor@alaska.gov
Curtis W. Thayer, Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
Clay Koplin, Cordova Electric Cooperative, Vice Chair	ckoplin@cordovaelectric.com
Commissioner John Boyle, Department of Natural Resources	john.boyle@alaska.gov
Commissioner Jason Brune, Department of Environmental Conservation	jason.brune@alaska.gov
Nils Andreassen, Alaska Municipal League	nils@akml.org
Andrew Guy, Calista Corporation	aguy@calistacorp.com
Karl Hanneman, International Tower Hill Mines	khanneman@ithmines.com
Tony Izzo, Matanuska Electric Association	tony.izzo@mea.coop
Jenn Miller, Renewable Independent Power Producers	jenn.miller@renewableipp.com
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John Sims, ENSTAR Natural Gas Company	john.sims@enstarnaturalgas.com
Isaac Vanderburg, Launch Alaska	isaac@launchalaska.com
Robert Venables, Southeast Conference	robert@seconference.org
Dan White, University of Alaska Fairbanks	uaf.chancellor@alaska.edu
Senator Click Bishop (Ex Officio)	senator.click.bishop@akleg.gov
Garrett Boyle, Denali Commission (Ex Officio)	gboyle@denali.gov
Commissioner Keith Kurber, Regulatory Commission of Alaska (Ex Officio)	keith.kurber@alaska.gov
Representative George Rauscher (Ex Officio)	representative.george.rauscher@akleg.gov
Erin Whitney, United States Department of Energy, Arctic Energy Office (Ex Officio)	erin.whitney@hq.doe.gov
*Andrew Jensen, Policy Advisor, Office of Governor Mike Dunleavy	andrew.jensen@alaska.gov

Alaska Energy Security Task Force

Subcommittee Check In

Recent Subcommittee Coordination:

State Energy Data: *(Chair: Dan White)*
- *Kick-off Meeting Scheduled:* ***TBD***

Statutes and Regulations Reform: *(Co-Chairs: Robert Venables & Karl Hanneman)*
- *Kick-off Meeting Scheduled:* ***Monday, July 24, 10:30 am***

Railbelt Transmission, Generation, and Storage: *(Co-Chairs: Tony Izzo & Jenn Miller)*
- *Kick-off Meeting Scheduled:* ***Tuesday, July 25, 3 pm***

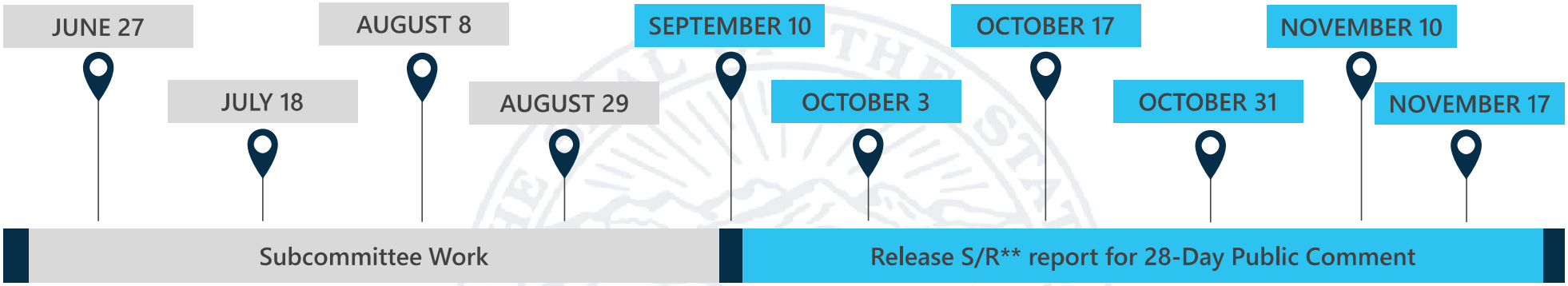
Rural Generation, Distribution, and Storage: *(Co-Chairs: Clay Koplin & Andrew Guy)*
- *Kick-off Meeting Scheduled:* ***Tuesday, July 25, 1 pm***

Coastal Generation, Distribution, and Storage: (*Co-Chairs:* Duff Mitchell, & Robert Venables)
- *Kick-off Meeting Scheduled:* ***Friday, July 28, 11 am***

Incentives and Subsidies: (*Co-Chairs:* Nils Andreassen & Isaac Vanderburg)
- *Kick-off Meeting Scheduled:* ***Tuesday, July 25, 2 pm***

Alaska Energy Security Task Force

Proposed Work Schedule



Key Milestones	Completed By
Regional Sub Status Reports	Tuesday, July 18, 2023
Regional Sub Initial Reports	Tuesday, August 8, 2023
Regional Sub Final Reports and I/S/S/R* Data Sub Initial Reports	Tuesday, August 29, 2023
I/S S/R* Data Sub Final Reports; Release S/R** report for 28-Day Public Comment	Tuesday, September 10, 2023
Receive Initial Report, Release for 28-day Public Comment; Take Public Comment on S/R** Report	Tuesday, October 3, 2023
Discuss S/R** Final Report; Vote on Recommendations; Take Public Comment on Initial Report	Tuesday, October 17, 2023
Discuss Final Report; Vote on Recommendations; Receive Final S/R** Report; send to GOA	Tuesday, October 31, 2023
Task Force Receives Final Report	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023

*Incentives and Subsidies and Statutes and Regulations Reform
**Statutes and Regulations Reform

Upcoming Energy Symposiums

Occurred:

- July 13 — Cook Inlet Natural Gas Supply & Development

Upcoming:

- July 20 — Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy
- July 27 — Electrification*
- August 3 — Hydropower Development in Alaska*
- August 10 — Financing Projects & Funding Opportunities*
- August 17 — Transmission & Storage*
- August 24 — Current Research Efforts & Updates*

*Subject to change



Logistics:

Weekly on Thursdays from 11a.m.-1 p.m.

Format:

- Zoom webinars: recordings will be made available.

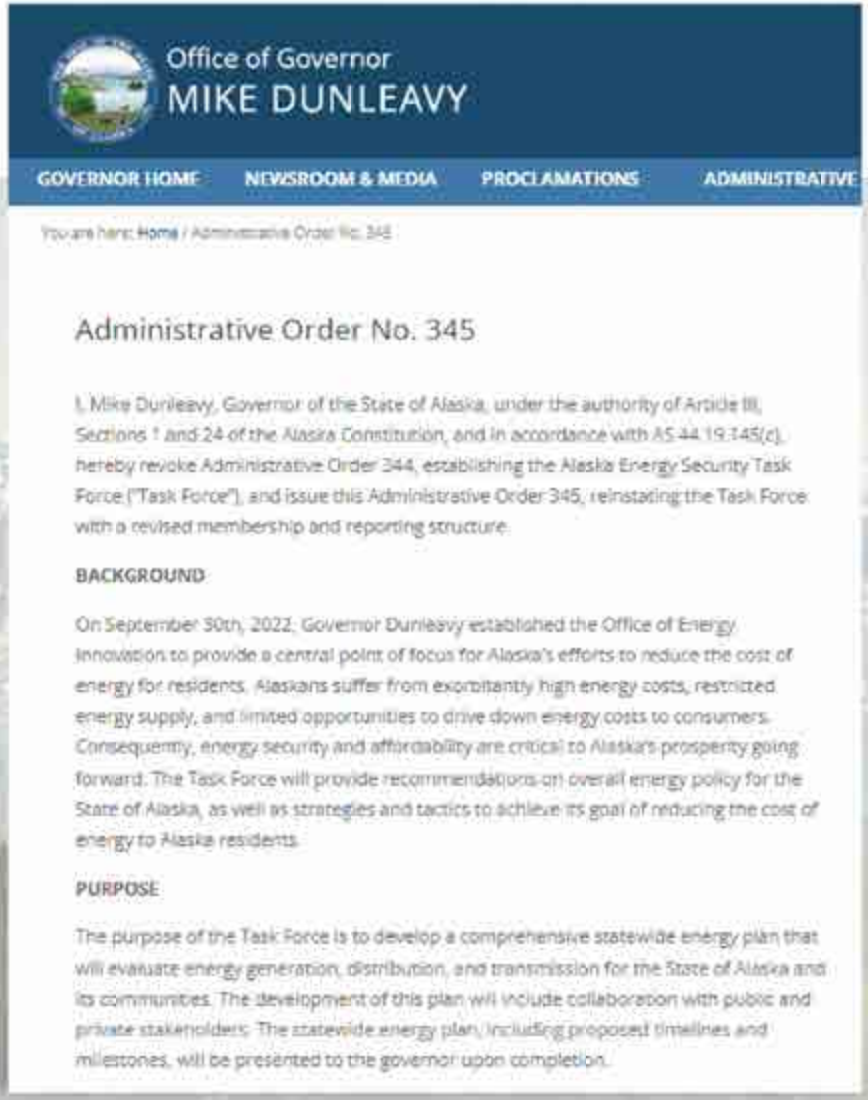
Alaska Energy Security Task Force

Brainstorming Session
The Art of the Possible

Facilitated by Michael Baker International

Administrative Order No. 345

PLEASE REFER TO THE HANDOUT PROVIDED ON A.O. No. 345.



Office of Governor
MIKE DUNLEAVY

GOVERNOR HOME | NEWSROOM & MEDIA | PROCLAMATIONS | ADMINISTRATIVE

You are here: Home / Administrative Order No. 345

Administrative Order No. 345

I, Mike Dunleavy, Governor of the State of Alaska, under the authority of Article III, Sections 1 and 24 of the Alaska Constitution, and in accordance with AS 44.19.145(c), hereby revoke Administrative Order 344, establishing the Alaska Energy Security Task Force ("Task Force"), and issue this Administrative Order 345, reinstating the Task Force with a revised membership and reporting structure.

BACKGROUND

On September 30th, 2022, Governor Dunleavy established the Office of Energy Innovation to provide a central point of focus for Alaska's efforts to reduce the cost of energy for residents. Alaskans suffer from exorbitantly high energy costs, restricted energy supply, and limited opportunities to drive down energy costs to consumers. Consequently, energy security and affordability are critical to Alaska's prosperity going forward. The Task Force will provide recommendations on overall energy policy for the State of Alaska, as well as strategies and tactics to achieve its goal of reducing the cost of energy to Alaska residents.

PURPOSE

The purpose of the Task Force is to develop a comprehensive statewide energy plan that will evaluate energy generation, distribution, and transmission for the State of Alaska and its communities. The development of this plan will include collaboration with public and private stakeholders. The statewide energy plan, including proposed timelines and milestones, will be presented to the governor upon completion.

A.O. 345 – Background

"Alaskans suffer from ***exorbitantly high energy costs***, restricted energy supply, and limited opportunities to drive down energy costs to consumers.

Consequently, ***energy security and affordability are critical to Alaska's prosperity*** going forward.

The ***AESTF will provide*** recommendations on overall energy policy for the State of Alaska, as well as ***strategies and tactics to achieve its goal of reducing the cost of energy*** to Alaska residents."

A.O. 345 – Purpose

"The ***purpose*** of the AESTF ***is to develop a comprehensive statewide energy plan*** that will evaluate energy generation, distribution, transmission, and storage for the State of Alaska and its communities.

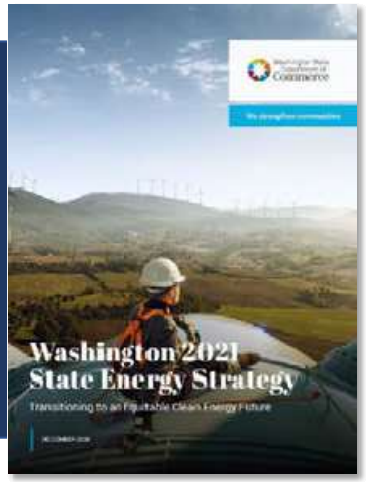
The development of this plan will include ***collaboration with public and private stakeholders.***

The statewide energy plan, including ***proposed timelines and milestones***, will be presented to the governor upon completion."

A.O. 345 – Duties & Responsibilities of AESTF

AESTF's comprehensive energy plan shall include the following:

"***Recommend a statewide energy goal***, a plan to achieve it, and identify additional work that may be required to refine this vision."



Washington State Energy Strategy Goal:
"Maintain competitive energy prices that are fair and reasonable for consumers and businesses and support our state's continued economic success."
Source: Washington 2021 State Energy Strategy

Selection of Goals from other State Energy Master Plans

Utah:

"Committed to ***supporting rural communities*** through economic development and diversification efforts, infrastructure investment, and workforce training and development."

"Utah is committed to American ***energy independence***, pursuing policies and actions that will enable more domestic energy development and enhance ***global energy security***."

"Utah is committed to ***pragmatic, market-driven climate solutions that enable innovative energy production.*** This includes a focus on supporting Utah-based research and development, ensuring we stay good stewards of our environment for future generations of Utahns."

Selection of Goals from other State Energy Master Plans

Wyoming:

Our mission is to advance Wyoming's energy strategy by ***driving data, technology and infrastructure investments.***

Washington:

Increasing competitiveness by ***fostering a clean energy economy*** and jobs through ***business and workforce development.***



Trending Topics

- Energy and the Economy
- Innovation and Technology
- Clean Energy and Greenhouse Gas Limits
- Energy Efficiency
- Energy Decarbonization

Discussion Topic

What Statewide Energy Goal(s) should be included in the Energy Master Plan?

Discussion Topic

Should Key Performance Indicators (KPIs) to measure success of the Plan over time be included?



KPIs can be identified in the implementation (Next Steps) section of the plan.

Discussion Topic

For actions identified in the plan, what timelines and milestones make sense?

Example: 0– 2 years, 2 - 5 years, 5 - 10 years; 10 years plus

A.O. No. 345 Requirements

Comprehensive Energy Plan shall include the following:

Identify Future Changes:

- ***Identify solutions*** for meeting Alaska's energy needs now and in the future ***with a focus on affordability, reliability, and security.***
- ***Identify policies, programs, regulatory changes, and funding*** that could accelerate adoption of these energy strategies.
- ***Identify and evaluate potential future changes*** that could occur ***to energy supply and distribution in the state,*** the impacts of such changes, and the opportunity for mitigating impacts and leveraging opportunities associated with such change.

Discussion Topic



What sources of energy do you feel will provide long term energy security for Alaska/Alaskans?

A.O. No. 345 Requirements

Comprehensive Energy Plan shall include the following:

Energy Data

- Establish a ***baseline energy portfolio*** for the State of Alaska.
- Develop and maintain a ***public database of taskforce information*** and recommend strategies for sharing energy data and information through an ***energy data portal.***

Discussion Topic

What are the current barriers to obtaining energy data?

Alaska Energy Security Task Force

Subcommittee Formation

Subcommittees focused on developing actions *by geography:*

- Railbelt Transmission, Generation, and Storage
- Rural Generation, Distribution, and Storage
- Coastal Generation, Distribution, and Storage

Subcommittees focused on developing actions *to support implementation:*

- State Energy Data Subcommittee
- Statutes and Regulations Reform Subcommittee
- Incentives and Subsidies Subcommittee



Subcommittee Coordination

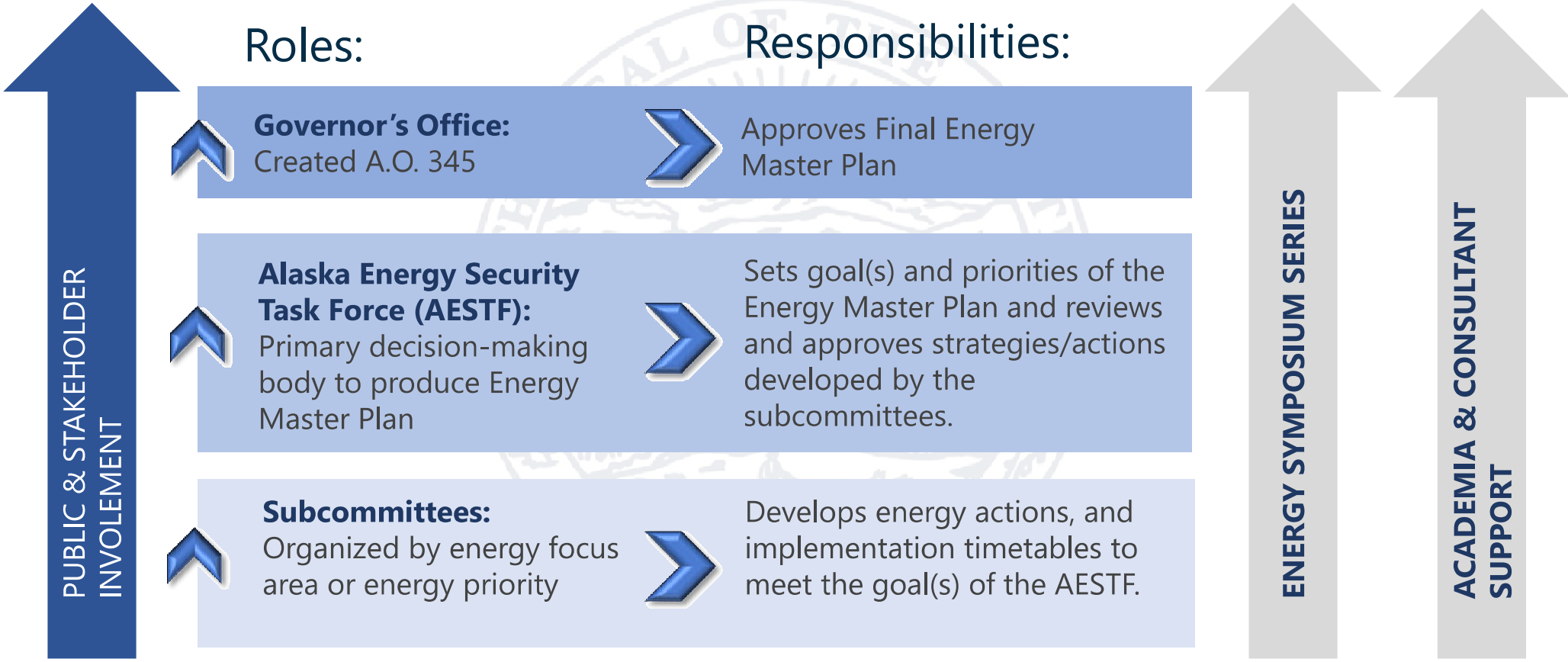
Michael Baker International, Inc. will be assisting facilitate the coordination of common actions that may appear across multiple subcommittees.

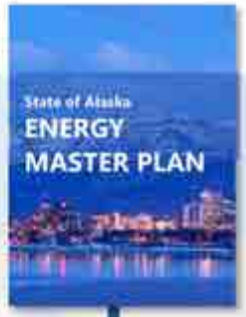
Discussion Topic



Is their consensus on how the geographic areas of Railbelt, Rural, and Coastal are defined? Does this need to be mapped?

Planning Process for the Energy Master Plan

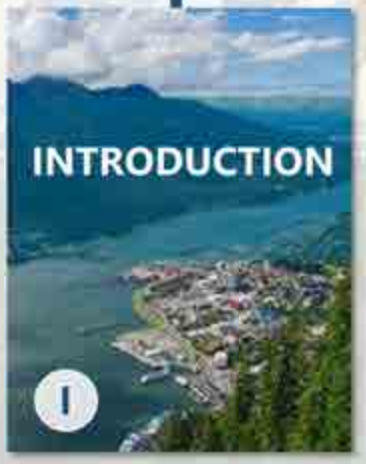




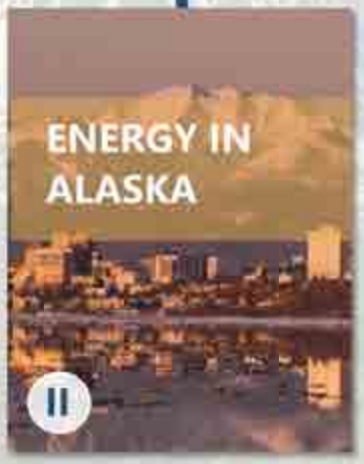
COMPREHENSIVE STATEWIDE ENERGY MASTER PLAN

MAIN SECTIONS

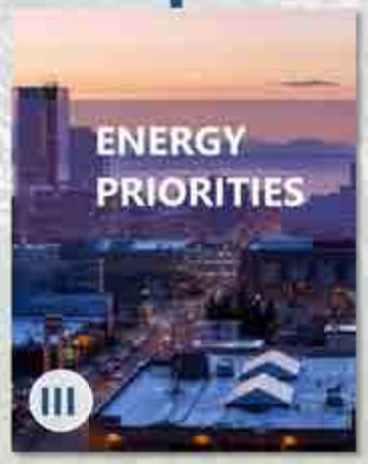
FOR ILLUSTRATIVE PURPOSES ONLY – DRAFT DELIBERATIVE



I. Introduction



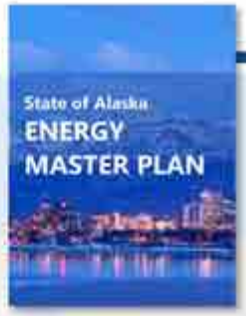
II. Energy In Alaska



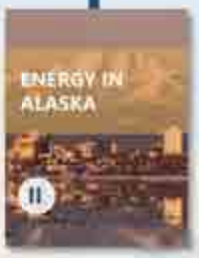
III. Energy Priorities

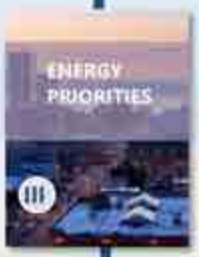


IV. Next Steps









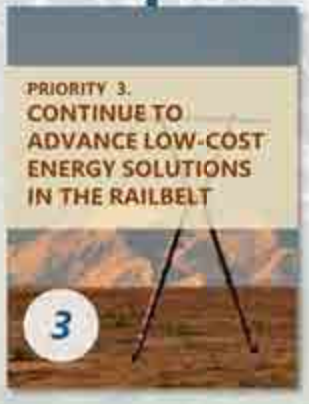


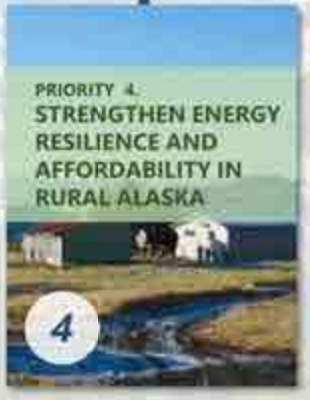
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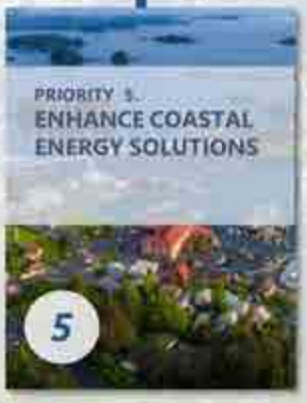
ALASKA ENERGY PRIORITIES

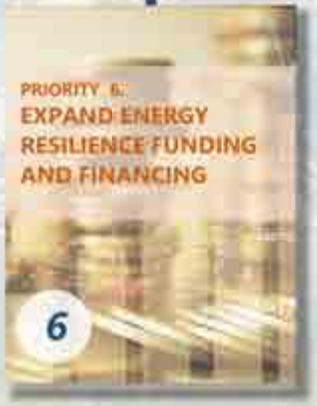












SUPPORT AND SHARE EQUITABLE ACCESS TO ENERGY DATA

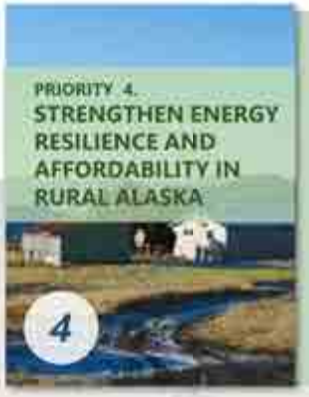
PROMOTE COORDINATED GOVERNANCE OF ENERGY POLICY AND REGULATIONS

CONTINUE TO ADVANCE LOW-COST ENERGY SOLUTIONS IN THE RAILBELT

STRENGTHEN ENERGY RESILIENCE AND AFFORDABILITY IN RURAL ALASKA

ENHANCE COASTAL ENERGY SOLUTIONS

EXPAND ENERGY RESILIENCE FUNDING AND FINANCING



Sample Layout & Organization of Energy Master Plan

PRIORITY

STRATEGY

ACTIONS

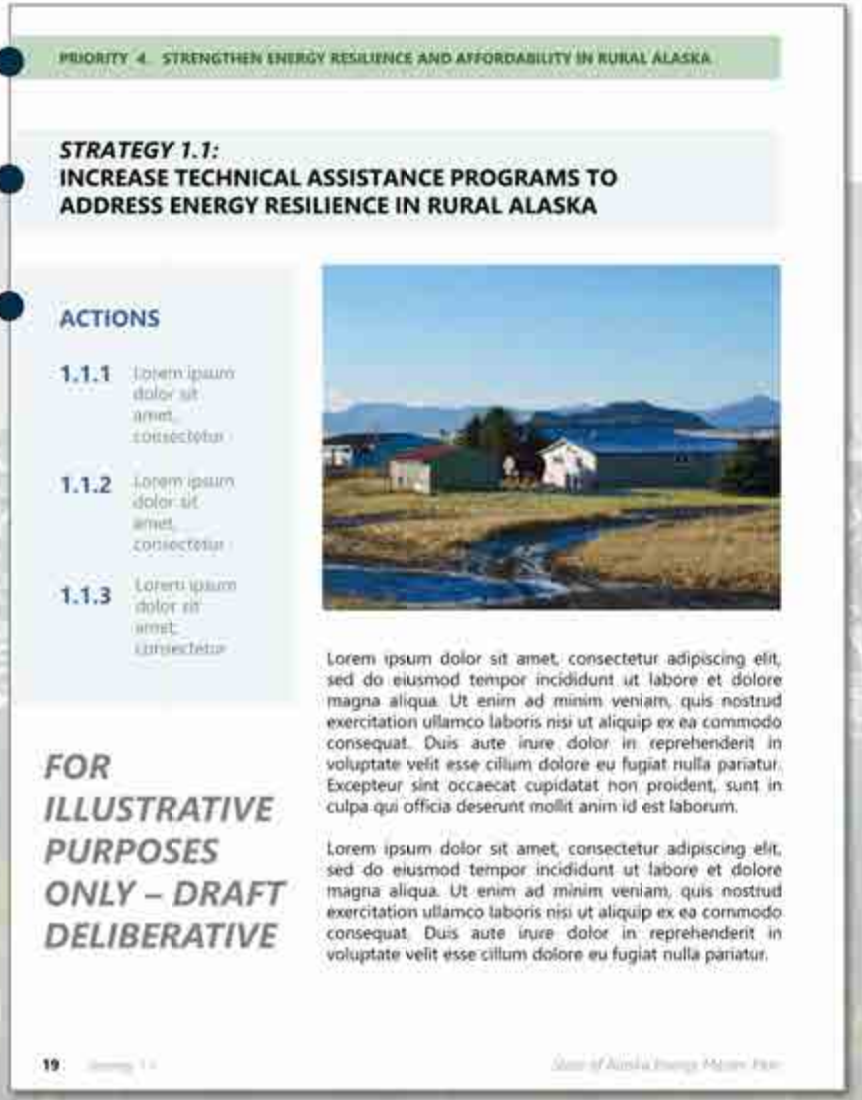
PRIORITY: Focus Area of Subcommittee

STRATEGY: Solution(s) to meet Alaska's energy needs now and in the future related to the priority/subcommittee focus area.

ACTIONS: Identifies specific changes in policies, programs, regulations, or funding to advance strategy.

TIMELINE FOR IMPLEMENTATION: TBD, but may include

0– 2 years, 2 - 5 years, 5 - 10 years; 10 years plus



PRIORITY 4. STRENGTHEN ENERGY RESILIENCE AND AFFORDABILITY IN RURAL ALASKA

STRATEGY 1.1:
INCREASE TECHNICAL ASSISTANCE PROGRAMS TO ADDRESS ENERGY RESILIENCE IN RURAL ALASKA

ACTIONS

1.1.1 Lorem ipsum dolor sit amet, consectetur

1.1.2 Lorem ipsum dolor sit amet, consectetur

1.1.3 Lorem ipsum dolor sit amet, consectetur

FOR ILLUSTRATIVE PURPOSES ONLY – DRAFT DELIBERATIVE

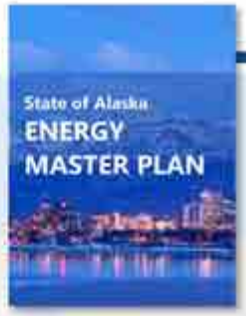
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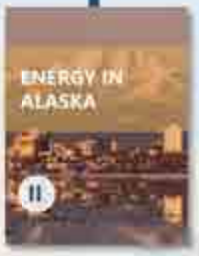
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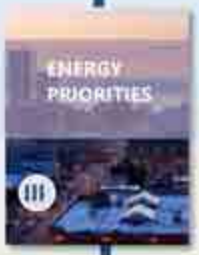
Discussion Topic

We welcome initial feedback on overall structure and layout of the Plan…









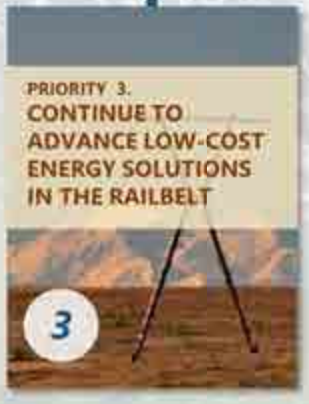


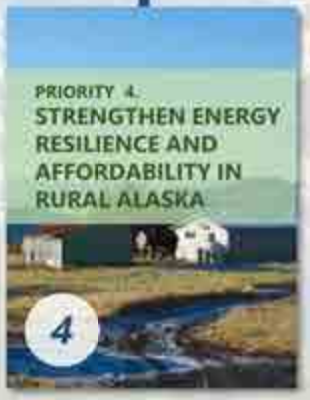
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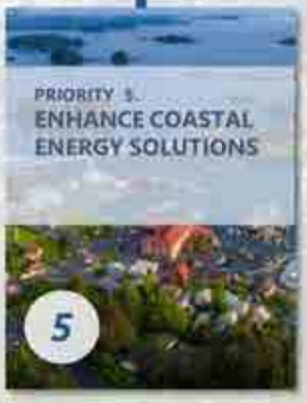
ALASKA ENERGY PRIORITIES

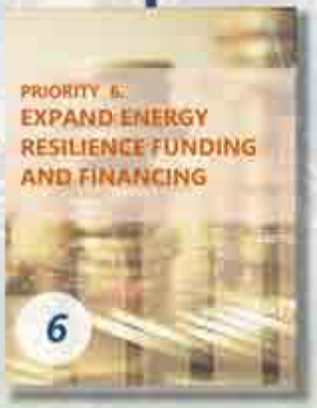












SUPPORT AND SHARE EQUITABLE ACCESS TO ENERGY DATA

PROMOTE COORDINATED GOVERNANCE OF ENERGY POLICY AND REGULATIONS

CONTINUE TO ADVANCE LOW-COST ENERGY SOLUTIONS IN THE RAILBELT

STRENGTHEN ENERGY RESILIENCE AND AFFORDABILITY IN RURAL ALASKA

ENHANCE COASTAL ENERGY SOLUTIONS

EXPAND ENERGY RESILIENCE FUNDING AND FINANCING

PRIORITY 1. SUPPORT AND SHARE EQUITABLE ACCESS TO ENERGY DATA

Subcommittee:
State Energy Data

Chair:
Dan White

Support:
Alaska Center for Energy and Power (ACEP)

Purpose:
- Establish a baseline energy portfolio for the State of Alaska
- Develop and maintain a public database of task force information and recommend strategies for sharing energy data and information through an energy data portal



Discussion Topic

What resources should this subcommittee know about?

Example: New Datasets; Online Mapping Portals, etc.

PRIORITY 2. PROMOTE COORDINATED GOVERNANCE OF ENERGY POLICY AND REGULATIONS

Subcommittee:
Statutes and Regulations Reform

Co-Chairs:
Robert Venables
Karl Hanneman

Subcommittee Support:
Michael Baker International, Inc.
Black & Veatch

Purpose:
- Streamlining permitting and reducing regulatory burden
- Updating outdated provisions
- Promoting renewable energy development
- Encouraging energy efficiency
- Supporting workforce development
- Ensuring Alaska's energy independence



Discussion Topic



What resources should this subcommittee know about?

Example: Recent Legislation Tracking; Policy White Papers, etc.

PRIORITY 3. CONTINUE TO ADVANCE LOW-COST ENERGY SOLUTIONS IN THE RAILBELT

Subcommittee:
Railbelt Transmission, Generation, and Storage

Co-Chairs:
Tony Izzo
Jenn Miller

Subcommittee Support:
Michael Baker International, Inc.
Black & Veatch

Purpose:

- Promoting renewable energy
- Evaluate multiple scenarios
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development
- Evaluating Renewable Portfolio Standards and Clean Energy



Discussion Topic

What resources should this subcommittee know about?

Example: Relationship to other planning initiatives such as Emergency Response Plans.

PRIORITY 4. STRENGTHEN ENERGY RESILIENCE AND AFFORDABILITY IN RURAL ALASKA

Subcommittee:
Rural Generation, Distribution, and Storage

Co-Chairs:
Clay Koplin
Andrew Guy

Subcommittee Support:
Michael Baker International, Inc.
Black & Veatch

Purpose:

- Promoting renewable energy
- Evaluate multiple scenarios
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development



Discussion Topic

What resources should this subcommittee know about?

Example: Suggested stakeholders to engage or success stories to highlight.

PRIORITY 5. ENHANCE COASTAL ENERGY SOLUTIONS

Subcommittee:
Coastal Generation, Distribution, and Storage

Co-Chairs:
Duff Mitchell
Robert Venables

Subcommittee Support:
Michael Baker International, Inc.
Black & Veatch

Purpose:

- Promoting renewable energy
- Evaluate multiple scenarios
- Encouraging energy efficiency
- Supporting workforce development
- Lowering the retail cost of energy
- Ensuring Alaska's energy independence
- Increasing reliability and resilience
- Local economic development



Discussion Topic

What resources should this subcommittee know about?

Example: New coastal initiatives related to permitting or infrastructure improvements.

PRIORITY 6: EXPAND ENERGY RESILIENCE FUNDING AND FINANCING

Subcommittee:
Incentives and Subsidies

Co-Chairs:
Nils Andreassen
Isaac Vanderburg

Subcommittee Support:
Michael Baker International, Inc.
Black & Veatch

Purpose:

- Lowering the cost of energy in Alaska
- Maximizing the use of federal incentives to increase the financial and economic impact of capital projects
- Promoting renewable energy development
- Encouraging energy efficiency
- Supporting workforce development
- Ensuring Alaska's energy independence



Discussion Topic

What resources should this subcommittee know about?

Example: New Financing programs, New Public-Private Partnerships.

Next Steps

- **Meet with your Subcommittee(s):**
  - State Energy Data: TBD
  - Statutes and Regulations Reform: *Monday, July 24, 10:30 am*
  - Railbelt Transmission, Generation, and Storage: *Tuesday, July 25, 3 pm*
  - Rural Generation, Distribution, and Storage: *Tuesday, July 25, 1 pm*
  - Coastal Generation, Distribution, and Storage: *Friday, July 28, 11am*
  - Incentives and Subsidies: *Tuesday, July 25, 2 pm*

- **Next Energy Symposium Presentation**
  - Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy: July 20, 2023, 11:00 am – 1:00 pm

- **Next AESTF Meeting Date:**
  Tuesday, August 8, 2023, 9:00 am

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Alaska Energy Security Task Force
DRAFT MEETING MINUTES
Tuesday, July 18, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on July 18, 2023, at 1:30 pm.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; John Boyle (Commissioner); Jason Brune (Commissioner); Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Jenn Miller; John Sims; Isaac Vanderburg; Robert Venables; Daniel White; Garrett Boyle (Ex Officio); Keith Kurber (Commissioner, Ex Officio); and Representative George Rauscher (Ex Officio).

3. Prior Meeting Minutes – June 27, 2023

MOTION: Mr. Venables made a motion to approve the Minutes of June 27, 2023, as presented. Motion seconded by Mr. Thayer.

Mr. Izzo proposed a friendly amendment to the minutes on the second paragraph from the bottom of page 7 of 18 to read; "Mr. Izzo discussed that GVEA has a strategic generation plan and is looking to shut down Healy 2." There were no objections to the friendly amendment.

A roll call vote was taken, and the motion to approve the Minutes of June 27, 2023, as amended, passed without objection.

4. Subcommittees Check In

Chair Lieutenant Governor Nancy Dahlstrom directed members to page 4 of the packet that lists the AESTF subcommittees. She advised that the subcommittees have started their processes and are meeting. She asked Mr. White if he had scheduled a date for his subcommittee's kick-off meeting. Mr. White noted that the current date is scheduled for August 7, but the subcommittee is looking to move the meeting to a sooner date.

A member asked a question, and Vice-Chair Thayer explained that the subcommittee meetings are publicly noticed. The recorded audio will be posted and used as minutes. There were no other questions or comments.

5. Brainstorming Session – "Art of the Possible"

- **Facilitated by Michael Baker International**

Chair Lieutenant Governor Nancy Dahlstrom requested Michael Yaffe, Michael Baker International, to facilitate this item. Mr. Yaffe introduced himself. He discussed his professional background and his current activities with other clients on similar processes. Mr. Yaffe commented that two of his colleagues were present and taking notes on next steps for each subcommittee and Task Force. Those notes will be distributed via email. Mr. Yaffe requested Mark Luiken of Michael Baker International to introduce himself. Mr. Luiken discussed his professional background.

Mr. Yaffe commented that the room is full of leaders. He discussed that the goal today is to provide clarity of vision and unity of action so that the subcommittees understand the process within the expedited timeline. Mr. Yaffe explained that there will be pauses during the presentation for discussion topics. The goal of some of the topics is to reach a critical decision. However, if a decision is not made, the issue can be carried forward to the next meeting. Governor Dunleavy's Administrative Order No. 345 (AO 345) is the guiding document for this process.

Mr. Yaffe highlighted sections of AO 345. Alaska is experiencing exorbitantly high energy costs. Energy security and affordability are critical to Alaska's prosperity. The AESTF will provide strategies and tactics to achieve its goal of reducing the cost of energy. The purpose is to develop a comprehensive statewide energy plan through a process that is collaborative with public and private stakeholders. The plan will include proposed timelines and milestones. The plan will include a recommended statewide energy goal.

Mr. Yaffe noted that Alaska does not have a common peer in regard to energy. He explained that his team reviewed analogous state energy master plans and examined their goals. Mr. Yaffe read Washington's energy strategy goal. Mr. Yaffe communicated his professional recommendation that such a high level goal would be appropriate and could meet the intent of AO 345. He shared a selection of multiple goals from Utah's energy strategy master plan. Mr. Yaffe noted that if multiple goals are set, then multiple actions and strategies will need to be developed to meet the goals. If the AESTF wants to set multiple goals, Mr. Yaffe recommends that those goals align with subcommittees. He commented that the comprehensive energy master plan examples had a longer timeline for their process, one-and-a-half to two years, compared to Alaska's expedited timeline. Mr. Yaffe suggested that developing and identifying one goal may be beneficial to sharpening the scope of the subcommittees. It is also possible that the AESTF can include an action in the plan to revisit a more comprehensive plan or for the AESTF to continue and examine additional issues.

Mr. Yaffe explained that from review of peer state plans, his team is developing a database of goals to share with AESTF, as well as identifying the legislative actions taken to help implement those plans. The aim is to construct the process so that the subcommittees can expedite their discussions and understand emerging trends.

Mr. Yaffe opened the floor for the first discussion topic; what statewide energy goal or goals should be included in the Energy Master Plan? He commented that the wording of the goal does not have to be defined today. Mr. Yaffe inquired as to the number of goals the AESTF believes are appropriate to explore, given the timeline and the effective mandate.

Mr. White commented that the example of Washington's energy goal uses the broad language of "competitive energy prices that are fair and reasonable." This wording is difficult to define and could have various interpretations. He asked if there is a sharper goal for AESTF. Mr. Yaffe agreed. He explained that professional planners like to make broad goals. Mr. Yaffe is aware of the unofficial executive request for 10-cent energy. He noted that could be used as a goal, but it is so specific, and is more of a measurable objective or key performance indicator. It could be used to measure success at the end of the process and as projects are implemented over time. This leads to the discussion topic that will be reviewed second; should key performance indicators (KPIs) be included in the plan to measure success? Mr. Yaffe reiterated his recommendation to define high-level goals.

Ms. Miller commented that she views this process as creating a mission statement that contains a high-level goal. One of the primary objectives is having low-cost energy for the state so that the citizens and businesses can thrive. Ms. Miller expressed support for KPIs associated with the goal.

Mr. Guy agreed with Mr. White's comment that the 10-cent power goal is specific. He believes the goal is appropriate, especially since it was included in the language provided by the Governor. Mr. Guy commented that the different areas of the state have varied energy issues within communities. He expressed support that a specific goal will help the subcommittees work to create a plan.

Mr. Andreassen agreed that affordability is critical to the goal. He does think the specificity of 10-cent power needs to be included in the wording. He asked if the State currently has other written energy goals. Mr. Andreassen commented on possible legislation regarding renewable energy goals of 50% by 2025, and 10% energy efficiency. He requested to see Alaska's other goals to use as references in this process, specifically the goals from the Alaska Energy Pathway.

Mr. Izzo commented that from a business perspective, the goal of 10-cent power by 2030 is a vision. He believes there are ways to achieve that goal, but he does not know if those ways are affordable, specifically the investment in infrastructure. Mr. Izzo noted that the state does not have a first-world power grid. He expressed his thoughts on how to organize the common goal and the framework for each of the subcommittees to reach the goal. The key components of focus for utilities are affordable, safe, and reliable energy. Mr. Izzo would like to understand the utilities' current status of these

components compared to the utilities' goals, and then compare that goal to where the components need to be to support the overall goal of lower cost or 10-cent energy. Mr. Yaffe agreed and noted that is in line with the framework that will be presented by Michael Baker International.

Mr. Yaffe discussed that there seems to be general agreement that one of the goals is affordability and reduction in the price of energy. He asked if there were any objections to only focusing on affordability and reduction in price of power or if other goals should be included. Mr. Izzo discussed the importance of resiliency and the balance of safety and reliability. He explained that Alaska does not come under the federal standards of reliability because it would take more than a billion dollars to upgrade the current infrastructure for the necessary line redundancy.

Mr. Hanneman noted that he has previously expressed the importance of establishing a definitive goal early in this endeavor. He noted that the Governor has set out a mark of 10-cent power and a determination needs to be made if that will be included in this goal. Mr. Hanneman emphasized that the goal is pivotal in determining the next steps for the subcommittees. He gave the example that if the goal is to aggressively strive for 10-cent power, then pivotal changes have to be made to the way power is currently generated. That could mean adding more hydro facilities or coal facilities or nuclear battery technology. The status quo of incremental additional generation will not reach the 10-cent goal. Mr. Hanneman discussed that if the goal is to have the most affordable and resilient power within the current resources, then support and development of the ongoing efforts will be the focus.

Mr. Yaffe commented that the process now is to determine the overall goal and the subcommittees will provide the plans on how to reach the overall goal.

Mr. Hanneman highlighted that if the hard goal of 10-cent power is changed, then a discussion needs to occur with the Governor to communicate to him that the goal has been softened.

Vice-Chair Thayer discussed that the Governor's AO is included in the presentation. The Governor's AO does not include the Governor's moonshot goal of 10-cent power. Vice-Chair Thayer believes the Task Force needs to follow the Governor's written AO. He gave the example that the goal of 10-cent power cannot be reached without additional transmission assets and other costly upgrades to the system. Those costs will need to be considered to maximize the delivery of the cheapest power. Vice-Chair Thayer gave the example that Bradley Lake power is 4 cents, but the power cannot get to Fairbanks because of line loss and constraints of the transmission lines.

Mr. Yaffe read the first part of the purpose section of the AO; "The purpose of the AESTF is to develop a comprehensive statewide energy plan". Mr. Yaffe discussed that from a professional planner's perspective, the development of a comprehensive statewide

energy plan takes a holistic and systems based approach to develop broad range goals for the state. Mr. Yaffe commented that the process unfolding today reminds him of strategic planning where an end goal is known, rather than comprehensive planning. He asked for feedback if the Task Force wants to go the route of strategic planning or comprehensive planning.

Mr. Venables commented that he heard the Governor discuss 10-cent power, as well as the aspirational process to get to 10-cent power. He believes the mission of Washington State is nice, but would not be effective for Alaska. Mr. Venables noted that Alaska ranks low on state economic success. He believes Alaska's goal has to be aggressive and aspirational, which is in line with the Governor's charge. Mr. Venables noted that AEA has created an amazing body of work with the Alaska Affordable Energy Strategy documents. He suggested that this work is used as a starting point to identify the progress that has been made from the incremental approach and to continue the discussion on ways to adjust the aspirational and aggressive goals to make the changes needed.

Mr. Yaffe asked if there is agreement to sharpen the approach by defining one goal and developing a strategic plan to meet that goal.

Chair Lieutenant Governor Dahlstrom expressed support for having one goal and a strategic plan on how to reach that goal while understanding that the different areas of the state may have different ways to reach the goal.

Mr. White agreed with the comments of Mr. Hanneman and Mr. Thayer that the goal is to create an energy plan. He noted that the cost of power could be used as a KPI, and he supports the sharp goal in the vision of 10-cent power. Mr. White discussed that heat is a key part of the energy plan and it is useful to understand heat in this context. He believes that the vision of the goal will drive the behavior of the Task Force through the subcommittees and will determine what information is gathered.

Ms. Miller agreed with the comments of Mr. Hanneman and Mr. Venables. She suggested using substantial language like "transformative change" or "transformative reduction" to show the level of shift in the mission statement, rather than using a numerical goal.

Mr. Yaffe continued the facilitation and noted that it sounds like there is agreement to have one goal. He explained that the wording and language of that goal can be tabled for a future discussion and perhaps examples could be shown at the next AESTF meeting. He noted that the subcommittees work can begin. Mr. Yaffe moved to slide 16 and opened the discussion regarding timelines and milestones for the actions identified in the plan to meet that goal or KPI of 10-cent energy, such as zero to two years, two to five years, five to 10 years, and over 10 years.

Mr. Izzo explained that he understood the discussion of 10 cents per kWh energy by

2030 to be a vision, similar to the vision of putting a man on the moon safely by the end of the decade. He noted that both visions have specific timeframes. He discussed that there are different levers that could be utilized to achieve the vision in each of the listed timelines. Mr. Izzo gave the example that he believes that 10-cent power could be achieved for the majority of the Railbelt in 2024 with a large down payment of over a billion dollars to pay off debt and an annual subsidy of approximately $500 million to pay for the fuel. He gave another example that if MEA no longer had employee payroll, including himself, the price per kWh could decrease by 1.7 cents, from 20 cents to 18.3 cents, but the lights would probably not be on very often because no one would be there to run the plant or to conduct maintenance. He discussed that the more common sense recommendation could be to use the borrowing power of the annual payment to build an infrastructure that would facilitate a future of cleaner and lower-cost energy and is agnostic to the type of fuel generated. Mr. Izzo believes that access to transmission lines opens future economic development.

Mr. Yaffe discussed that it is important to outline different scenarios and to find multiple ways to achieve the vision. The timelines listed are a guide to determine short-term, medium-term, and long-term goals. Mr. Yaffe asked how often the plan should be updated.

Ms. Miller commented on the efforts of the Alaska Utilities Working Group (AUWG) who is reviewing the forecast of the Cook Inlet gas supply shortage in 2027. She asked what the timeframe is for AESTF. Ms. Miller indicated that it seems like the AUWG is reviewing the near-term supply shortage and she believes AESTF is reviewing for the long-term steady state objective for 10 years and beyond. Ms. Miller noted that AUWG will make recommendations that spends capital. She inquired how the two groups will work together and how the goals will merge to minimize the direct costs.

Vice-Chair Thayer discussed the importance of AESTF having short-term goals and long-term goals. The active study regarding Dixon diversion, which is expected to increase Bradley Lake's capacity by 50%, may be five to eight years away from completion of construction. He noted that a larger hydro opportunity could be planned for 10 years to 15 years completion time. Additionally, he hopes that AESTF will discuss micronuclear options for the long-term of 15 years to 20 years. The shorter-term projects include the ongoing work on solar energy, some of which are completed within 18-month intervals. The larger solar projects will take longer to complete. Vice-Chair Thayer believes it is important to identify and evaluate projects, costs, and timeline. He identified that a couple of the hydro projects have discussion documents dated back to 1959. Vice-Chair Thayer gave the background that Southcentral Alaska originally had a hydro plan and then shifted to natural gas when that fuel was found in Cook Inlet.

Mr. Yaffe indicated that another timeframe is the consideration and implementation of immediate, high priority recommendations. He suggested that the subcommittees use three time horizons: immediate, short-term, and long-term. Mr. Yaffe noted that

immediate is self-explanatory. He asked members for feedback regarding the length of time for short-term and long-term actions.

Vice-Chair Thayer suggested that zero years to five years is used for short-term actions. He noted that some long-term solutions, such as nuclear, are 20 years away, and hydro projects could be 15 years away.

Mr. Andreassen discussed that urgency could be categorized to include challenges that specific communities are facing now, as well as urgency relating to decision points that need to be influenced now. The timeframe could be that urgency is considered zero to two years and is critical in response, whereas short-term actions are focused on making broad and general improvements. Mr. Andreassen expressed support for long-term thinking to build a plan for long-term projects and long-term financing that is responsive to regions and communities.

Commissioner Boyle emphasized the importance for the Task Force to identify long-term goals and ideas to carry the work forward. He believes that the Task Force's analysis on long-term priorities is intended to continue beyond this Administration, so that the focus and forward progress can extend to the next Administration.

Mr. Yaffe asked if the timeline of immediate, short-term, and long-term changes should be based on regionality in the state. A member agreed. Another member commented that the actions proposed by the different regions will change, but the timeline nomenclature and lengths should remain consistent throughout the state.

Discussion continued regarding the timeline nomenclature and lengths of time for each category while being aggressive and aspirational. Mr. Yaffe noted that the consensus for the immediate goals is a timeline of zero to two years. Additional conversation regarding the other category names and lengths of time can occur later.

Mr. Yaffe asked members if discussion should occur today focusing on KPIs for the goals. He noted that the KPIs could be data driven and could be explored within the Data Subcommittee. Mr. White expressed his support for developing specific KPIs. Discussion occurred regarding which KPIs should be utilized. Mr. Yaffe asked if there is current capability to measure the KPIs. A member agreed. Additional discussion occurred regarding the amount of effort that should be focused on KPIs.

Mr. Yaffe moved to slide 20 of the presentation and asked the members if the question about current barriers to obtaining energy data would be best discussed at the Data Subcommittee. Discussion occurred regarding barriers to obtaining current and relevant energy data. The industry data information that is accessible through reports now is nearly two years old. It would be relevant to have more recent data. Mr. Yaffe discussed that the AO calls for a data portal. He noted that the topic of barriers to obtaining energy data could be set as an action item for the subcommittees.

Ms. Miller suggested that by the next meeting, the AESTF agree on the language of the overarching goals. The AESTF could also agree on success criteria, ranking success factors in order of importance, and a decision matrix that would be helpful for the subcommittee.

Mr. Yaffe suggested crafting the topic areas of the overall goal in real-time today. There was no objection. The list includes the words affordability, reliability, transformative, aspirational, and aggressive.

Mr. Guy noted that he has commented numerous times in prior meetings. He asked if the expectation today was that he repeat his previous comments and suggestions. Mr. Yaffe explained that earlier in today's meeting, it was recommended that the Task Force wait on developing the wording for the overall goals. He referenced Ms. Miller's request for AESTF to craft language for the overarching goals. Mr. Yaffe agrees that it would be helpful for the subcommittees to have a goal statement, even if it is a draft statement. Mr. Guy provided additional comments. Mr. Yaffe suggested that the word statewide is added to the goal list. There was no objection.

The suggestion was made to include two additional KPIs; tracking the successful regulatory and statutory changes and tracking the funds invested and money that comes to the State to build the energy infrastructure to achieve the moonshot goal.

The suggestion was made to include energy security and resiliency in the goal language. Discussion continued and a comment was made on the importance of AESTF to provide a clear picture for writing the upcoming energy legislation. Mr. Yaffe indicated that the Regulation Subcommittee will be focused on identifying and tracking upcoming legislation. A suggestion was made for the KPI section to include a metric of tracking increased economic development due to lower costs of energy that incentivizes private investment.

Additional suggestions for the list of words and phrasing of the goals include independence, economic prosperity or thriving economy, and inter-governmental collaboration to leverage incentivize and encourage partnerships.

Mr. Yaffe discussed the overall planning process for the Energy Master Plan as shown on the flowchart on page 23. Academia and consultant support is provided throughout the process, as well as the energy symposium series. Public and stakeholder involvement will occur throughout the process. The subcommittees will help develop the actions and send them to the Task Force. The Task Force will present the plan to the Governor's Office.

Mr. Yaffe reviewed the illustrative design of a possible layout for the plan. He noted that the photos, colors and fonts can change. The primary focus is on the wording of the

main sections. The example includes Introduction, Energy in Alaska, Energy Priorities, and Next Steps. Mr. Yaffe discussed the general items that will be included in each section. The Energy Priorities section is further delineated into action priorities that align with the current subcommittees.

Mr. Yaffe returned to the discussion regarding the list of words and phrases for the overall goals. He noted that the list is long. He suggested creating a high-level goal that captures the high priority of reducing the cost of energy. The subcommittees will be tasked to draft goals that align with their priority areas.

Mr. White commented on the importance of thinking transformatively and prioritizing the words and phrases that have been listed. He discussed that prioritization would lead the work and actions of the subcommittees. Mr. White gave the example that if the top priority was maximizing affordability, the work of the subcommittees would be different from the work if the top priority was energy independence.

Mr. Yaffe opened the floor and asked members to list their top three priorities from the list. A comment was made that members online cannot see the written list. A member asked if a survey for ranking could be sent out to the members after today's meeting. Mr. Yaffe agreed to the recommendation to have a follow-up action to the meeting to send out a survey on prioritization and ranking of the words that were identified. Mr. Yaffe read the list of words and phrases and requested members indicate if any other words need to be included. The list included affordability, reliability, transformative, aspirational, aggressive, safe, statewide, security/resilience, economic prosperity, independence, intergovernmental coordination and collaboration. The KPIs identified are statutes and policies that were passed, funds expended, and investments.

A comment was made to include the consideration for the environmental impact. A suggestion was made to integrate the energy priorities listed in the presentation. A suggestion was made to include renewable and carbon neutral technology. Mr. Yaffe asked if any of the words or phrases are defined in existing documents and plans. Current definitions will reduce ambiguity. A member noted that he has numerous plans that he can review to look for definitions. A member suggested that the survey is crafted in a way that members can rank the whole list in order of priority, rather than just the top three. Mr. Yaffe agreed.

Mr. Yaffe continued the presentation on slide 26 discussing the overall outline and structure of the energy master plan. He showed an example layout of one of the pages of the plan to give the subcommittees structure and understanding of how the plan might be presented. The strategy will consist of collective actions, which will be listed on the side of the page. Mr. Yaffe discussed that Michael Baker will create a master tracking sheet of all of the actions that the subcommittees are considering and will help organize the actions in a framework to be presented to the Task Force. He noted that the subcommittees will have overlapping actions. Mr. Yaffe highlighted that there are six

subcommittees. Three are organized by geographic regions; Railbelt, Rural, and Coastal, and three subcommittees are focused on developing actions to support implementation; State Energy Data, Statutes and Regulations Reform, and Incentives and Subsidies. He noted that Michael Baker will attend the subcommittee meetings to help track the overlapping ideas and actions.

Mr. Yaffe asked if there is consensus on how the geographic regions are designated. He requested the subcommittee chairs and vice-chairs to respond. A question was asked if the Coastal region includes Southeast, Prince Williams Sound, Kodiak, and the Chain. Mr. Thayer agreed and noted that also included is Cordova and Dillingham. The Coastal areas have the opportunities for tidal and hydro energy. He discussed there are rural areas in the Coastal region, but the energy needs are different. The Rural region is primarily comprised of the Interior, Southwest Alaska, Northwest Arctic Borough, and the North Slope. The Railbelt is defined as Homer to Fairbanks.

A brief at-ease was taken.

Mr. Yaffe returned to the presentation and asked for comments regarding the overall structure and layout of the outline of the plan. The four main sections are Introduction, Energy in Alaska, Energy Priorities, and Next Steps. The Energy Priorities are separated into sections that are aligned with the subcommittees. The wording shown is an example and the Energy Priorities will undergo revisions based on feedback from members. A member commented that the outline of the plan seems reasonable. A suggestion was made to change the title of Energy in Alaska to Energy in Alaska and Worldwide. The section could contain benchmark information. The energy data could be a report of the key findings of current energy in the state and the cost of energy solutions around the globe.

Mr. Yaffe commented that suggestion includes outside of Alaska and the intent for this structure is to focus on energy priorities in Alaska. A member suggested removing the energy data out of Section III and moving it into Section II. The Energy Priorities would focus on solutions and the energy data could include worldwide benchmarks. Mr. Yaffe indicated that work with the Data Subcommittee could occur to focus on high-level benchmarks in other states.

A member commented that the Energy Master Plan outlines the goals and provides ways to reach those goals. The question was asked if the goal of Section II, Energy in Alaska, and Priority 1, Support and Share Equitable Access to Energy Data, is to produce a public database on energy information or is the goal to create a plan for a database and a sharing portal. Mr. Yaffe discussed that the Energy in Alaska title is ambiguous on purpose. The high-level summary information should include why the plan exists, the current prices and energy demands in Alaska, and how the information aligns with the goals and the priorities of the next section. The Energy Priorities delineate the actions that are being taken to address the needs.

Mr. Yaffe indicated that the intent is to set up the subcommittees for success at their first meeting. He noted that the presentation reviews the structure and purpose of the subcommittees aligned with each priority. The name of the chair is listed and who is providing support. Mr. Yaffe noted that Mr. White is the Chair of the State Energy Data Subcommittee. Their purpose is to establish a baseline energy portfolio for the State of Alaska, to develop and maintain a public database of Task Force information and to recommend strategies for sharing energy data and information through an energy data portal. Additional actions could include helping to understand and track the KPIs or any data gaps.

Mr. Yaffe requested Task Force members provide feedback and discussion for each of the subcommittees regarding what other resources they should be aware of and consider. The examples listed in the presentation for the State Energy Data Subcommittee are new datasets and online mapping portals. Mr. White verified that his understanding is that the State Energy Data Subcommittee will create a public database as their work product. Mr. Thayer commented that there was a data portal in the past, but it is no longer active due to the high cost structure, budget cuts and loss of priority. The intent is for the Data Subcommittee to share that information again. He believes that current technology will allow the data to be maintained at a lower cost and to address any security issues.

Mr. White stated that the Data Subcommittee's current structure has a technical advisory committee that will be providing the database and will be providing advice. He welcomed and encouraged anyone who is interested to participate in the technical advisory committee.

Mr. Yaffe noted that Michael Baker is supporting all of the subcommittees. Additionally, Black & Veatch has been engaged and they are available to help the subcommittees with data energy models and scenario planning.

Mr. Yaffe reviewed the structure of the Statutes and Regulations Reform Subcommittee. The Co-Chairs are Mr. Venables and Mr. Hanneman. The subcommittee support is Michael Baker and Black & Veatch. The purpose of the subcommittee is to streamline permitting, reduce regulatory burden, update outdated provisions, promote renewable energy development, encourage energy efficiency, support workforce development, and ensure Alaska's energy independence.

Mr. Yaffe noted that examples of resources this subcommittee should know about include recent legislation tracking and policy white papers. Mr. Venables indicated that there is an RCA member within the subcommittee. He believes that the RCA would have a list of the regulatory guidance and he requested the subcommittee is provided with that list. Mr. Venables hopes to track legislation, track known permitting requirements, and determine how to streamline the information.

Mr. Yaffe reviewed the structure of the Railbelt Transmission, Generation, and Storage Subcommittee. The Co-Chairs are Mr. Izzo and Ms. Miller. The subcommittee support is Michael Baker and Black & Veatch. The purpose of the subcommittee is to promote renewable energy, evaluate multiple scenarios, encourage energy efficiency, support workforce development, lower the retail cost of energy, ensure Alaska's energy independence, increase reliability and resilience, support local economic development, and evaluate renewable portfolio standards and clean energy.

Mr. Yaffe discussed that the scenarios are data-driven scenarios potentially supported by Black & Veatch. There are multiple scenario planning structures that will be reviewed and developed at the subcommittee level. Mr. Yaffe noted that each of the regional subcommittees will have discussion regarding what resources the subcommittee should know about, as well as what sources of energy members feel provide long-term energy security for Alaska. The floor was opened for responses that are specific to the Railbelt.

Mr. Thayer commented on the importance of the question for each of the regions due to their specific energy needs and different opportunities.

Mr. Guy reiterated his repeated disapproval for creating separate geographical subcommittees due to the concern that the structure maintains the status quo. He commented that each of the geographical subcommittees should have the same title. He likes the title for the Railbelt, "Continue to Advance Low-Cost Energy Solutions in the Railbelt." In Western Alaska, the word "Continue" could be replaced with "Begin." Mr. Guy discussed that in terms of the purpose of making energy affordable, having two energy companies in Anchorage increases the cost of energy. Similarly, separate facilities for villages that are one to five miles apart also increases the cost of energy. He believes it is important to consider combining energy companies to lower the cost of energy.

Mr. Yaffe noted that the subcommittees can investigate and decide to rename their priority section. Mr. Guy emphasized support for affordability, resilience, and statewide solutions. He believes the three geographic subcommittees should have the same title, with Western Alaska modified using the word "begin," rather than "continue."

Ms. Miller commented that it will be helpful for the Railbelt Subcommittee to have the results of the member survey that ranks the different priorities. There are perhaps competing objectives listed under the subcommittee's purposes and the survey data will guide the solutions, work and analysis. There are likely many paths to follow for achieving the goals. Reviewing multiple scenarios will show different options for flexibility. After the analysis is complete, an evaluation of the renewable portfolio standards and clean energy will occur. Ms. Miller discussed that solar, wind, hydro, and natural gas provide long-term energy security for the Railbelt. She would like to learn more about nuclear.

Mr. Izzo commented that the answer to the question, what sources of energy do you feel will provide long-term energy security for Alaska and Alaskans is all of the above. He does not believe that any sources of energy should be excluded. He noted that his utility tracks the development of possible long-term energy sources, including the North Slope gas pipeline, Susitna-Watana, deep wave geothermal, and fusion.

Mr. Venables suggested that the regional plans that apply to each regional subcommittee could be informative to committee members. Mr. Thayer noted that regional plan documents will be available on Sharepoint and on the public facing website. He will ensure that the members are emailed the access information.

Ms. Miller believes that a Phase II study is underway reviewing generation sources on the Railbelt. She asked if anyone knew the timing of the analysis and report. Mr. Thayer believes that the study is taking a multi-year approach and it is on time.

Mr. Yaffe discussed the structure of the Rural Generation, Distribution, and Storage Subcommittee. The Co-Chairs are Mr. Koplin and Mr. Guy. The subcommittee support is Michael Baker and Black & Veatch. The purpose of the subcommittee has very similar topics to the Railbelt Subcommittee to promote renewable energy, evaluate multiple scenarios, encourage energy efficiency, support workforce development, lower the retail cost of energy, ensure Alaska's energy independence, increase reliability and resilience, and support local economic development.

Mr. Yaffe asked members to discuss what sources of energy they feel will provide long-term energy security for the rural region. Mr. Hanneman commented that each subcommittee will identify that answer through their work and a presumptive answer cannot be made at this point. Mr. Yaffe advised that this question will also be sent out as an online survey. The intent is to have this conversation now to stimulate discussion before the subcommittees meet. He asked for members' opinion regarding which energy sources they would invest in to reduce the cost of energy for the region. Mr. Hanneman stated that question is the art of the possible discussion that he was hoping to have today. He believes that discussion is missing from today's meeting. Mr. Hanneman noted that Mr. Izzo is the only member who has offered any suggestions and he had hoped to nurture that discussion today. Mr. Hanneman commented that the objectives within the presentation were already written. He feels that the word "promoting" is the wrong word to use at this point and stage in the process. The subcommittees will be evaluating options and it is possible that they will present recommendations. The objective should be to determine the steps needed to achieve the goals that the members listed on the board. Mr. Hanneman believes that the purposes in the presentation are premature and he thinks that the subcommittees should establish their purposes and objectives to accomplish the goals.

Mr. Yaffe agreed that the work will be at the subcommittee level and the function of this meeting was to help define the overall scope and the guardrails that the subcommittees

should operate within. Mr. Yaffe believes that the next Task Force meeting will look in detail at the high-level actions that were produced at the subcommittee meetings. Mr. Hanneman asked if there will be time during today's meeting to begin the art of the possible, big-picture, brainstorming session. Mr. Yaffe agreed, and reiterated that the aim of this meeting is to discuss the overall framework and objectives, and to understand the goals and the timelines of what to accomplish.

Ms. Miller asked when the energy data will be shared on the statistics of different energy generation sources, and transmission and storage costs. She believes that it is important for the subcommittees to have similar baseline data while evaluating the various solution options. Ms. Miller requested feedback on how to structure that background information. Mr. Thayer clarified that some of the information has been provided to the members. For the 197 rural villages, all the data for the cost of energy, line losses, and size has already been provided. The presentation on the Railbelt included their utility costs. Mr. Thayer suggested that the subcommittees define what data they need and then it can be determined who provides that data, whether it is AEA, ACEP, or a contractor.

Ms. Miller explained that the cost metrics data she is requesting is related to new generation sources or projects that have been envisioned. Mr. Thayer suggested that Ms. Miller request the specific information and AEA, ACEP, or a contractor will provide the data that they have.

Mr. Yaffe discussed that at the end of the meeting, he can create the list of the recommended actions for the subcommittees that were generated today. Mr. Yaffe continued the presentation reviewing Priority 4, Rural Subcommittee. He noted that Mr. Guy suggested that the titling is revisited. Mr. Yaffe indicated that could be an action item for each subcommittee to review their titling. Mr. Guy restated his suggestion to change the Rural Subcommittee's title and Priority 4 to the same as the Railbelt Subcommittee's title and priority with the substitution of the word "begin" for the word "continue." Mr. Guy disagrees that the main focus and purpose of the Rural Subcommittee is to promote renewable energy. He believes the main focus should be developing affordable energy or connecting to affordable energy. Renewable energy will play a role in the process, but any major development will go beyond renewable energy.

Mr. Yaffe asked Mr. Guy what source of energy he feels would provide long-term energy security. Mr. Guy suggested using natural gas generation and connecting a line to the existing Railbelt grid.

Mr. Yaffe continued the presentation reviewing Priority 5, Coastal Subcommittee. He noted that the purpose statements are similar to the Railbelt Subcommittee and Rural Subcommittee. Mr. Yaffe reiterated that Michael Baker will be assisting the subcommittees throughout their process. He opened the floor to discussion regarding the same two questions for the Coastal area. Mr. Thayer believes that hydro energy

would be the Coastal area's top priority. It has been their backbone energy source and is their lowest cost energy source.

Mr. Venables commented that his focus for the Coastal Subcommittee will be analyzing distribution. He discussed that the Railbelt has scale and transmission connectivity, both of which do not exist in Rural Alaska or Southeast Alaska. Mr. Venables discussed that a transmission line for Southeast Alaska is not economically viable. He will also review storage options. He commented on the importance of having consistent and standardized technologies throughout the state. Mr. Venables believes the Railbelt has the opportunity to lead Rural and Southeast with their storage possibilities, including technology, infrastructure, and servicing technicians.

Mr. Yaffe continued the presentation reviewing Priority 6, Incentives and Subsidies Subcommittee. The Co-Chairs are Mr. Andreassen and Mr. Vanderburg. The purpose of the subcommittee is to lower the cost of energy in Alaska, maximize the use of federal incentives to increase the financial and economic impact of capital projects, promote renewable energy development, encourage energy efficiency, support workforce development, and ensure Alaska's energy independence. The examples of resources the subcommittee should know about are new financing programs and new public-private partnerships.

Mr. Andreassen discussed that he and Mr. Vanderburg have developed a plan for the upcoming meetings. He recognized that there is much interest in this subcommittee. He is looking forward to robust participation to meet the overall scope of work and outlined purposes. Mr. Andreassen commented that it will be interesting to define terms and to understand subsidies relative to incentives, and the different approaches for both.

Mr. Yaffe noted that section was the conclusion of Michael Baker's outlined presentation and brainstorming session. He opened the floor to questions, observations, or discussion by members for the remainder of the meeting.

Mr. Hanneman expressed interest in participating in a candid discussion regarding opportunities and the art of the possible. He appreciated Mr. Izzo's previous comments on one of the ways to get to 10-cent power. Mr. Hanneman would like to hear about other generation sources that could lead to 10-cent power. He believes that investment into basic transmission infrastructure will help regardless of the energy generation sources. Mr. Hanneman inquired as to the different options that could be considered, including a bullet gas line, a big LNG project, Watana, or windmills. He believes this discussion is important to help inform the subcommittees before they meet individually.

Mr. Andreassen expressed appreciation for the outline of the process. He is interested in engaging in specific project discussions once the process is developed further and the capacity for evaluation is established and can be utilized.

Mr. Thayer commented that the Governor has asked for multiple scenarios from the Task Force. Mr. Thayer does not believe that the Task Force is supposed to pick project winners and losers, rather the Task Force should report on the pros and cons of projects. Mr. Thayer suggested that members listen to ACEP's natural gas discussion within the symposium material last Thursday with DNR, DRG and the utilities. He suggested that members listen to the symposium material for Rural Alaska.

Mr. White commented that consideration of different projects like a gas line or Watana depends on the goal. For instance, the goal of affordable power is different from the goal of economic development. He gave the example that wood smoke, a result of affordable energy, in the Fairbanks region is creating a disincentive for economic development in the Interior. Mr. White agreed with Mr. Guy's comments that affordable energy for all Alaska is a different path than separating into regions of the state and approaching the issue from sectors. Mr. White believes that identifying the driving goal and ways to prioritize the driving goal will inform the data each subcommittee gathers, including the kinds of regulations to consider. He reiterated the need for that level of discussion.

Mr. Izzo agreed with Mr. Hanneman and Mr. White's comments. He looks forward to a discussion regarding the art of the possible, and does not want to start with the technologies. He believes that the consideration should be focused on determining the overarching goal of what the end result will look like. Mr. Izzo shared the illustration of the three types of companies: those that make things happen; those that let things happen; and those that don't know what happened. Mr. Izzo discussed his approach is identifying things to make happen. He believes that it is necessary to have an agreement of the priorities in order to determine the possibilities. If the primary focus is an economic priority, then Alaska could become a leader in mining rare earth to develop more revenue for the state. If the primary focus is resilient and reliable energy to ensure a central service of heat and power sources statewide, then there would be no delineation of geographic areas. However, the particular geographic areas would probably guide the various solutions at differing economies of scale. There were no additional questions or comments.

Mr. Yaffe noted that the next steps listed in the presentation contain the schedule of the upcoming subcommittee meetings, the next energy symposium presentation, and the next meeting date of August 8, 2023 at 9:00 am.

Chair Lieutenant Governor Dahlstrom commented on the amount of information reviewed today. She is confident the Task Force will be productive, and she is excited to see the results of the efforts. She noted that the Governor values all of the different ideas and scenarios.

6. Task Force Meeting Schedule

Mr. Thayer discussed the planned meeting schedule of short days and full days. He noted that the meeting on Tuesday, August 29, will most likely be held and hosted by MEA. At 3:00 p.m. that day, MEA will conduct a ribbon-cutting at the state's largest solar farm in Houston, Alaska. Members will have the opportunity to travel to Houston. Mr. Thayer indicated that the meeting on October 17, will be adjusted to accommodate member schedules.

Mr. Venables advised that he will be late for the next meeting, due to his flight schedule.

7. **Next Meeting Date, Tuesday, August 8, 2023, 9:00 a.m.**

8. **Adjourn**

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 4:10 pm.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #5
TUESDAY, AUGUST 8, 2023, 9:00 AM – 4:30 PM

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

Created 8/1/2023 1:49:42 PM by jlbertolini
Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
Modified 8/1/2023 2:23:32 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

NANCY DAHLSTROM
LIEUTENANT GOVERNOR
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907.269.7460
907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, August 8, 2023
9:00 am to 4:30 pm
Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK

Teams Meeting:
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

Presentation

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom) ***(9 am)***
2. Roll Call
3. Prior Meeting Minutes – July 18, 2023
4. Energy Data Presentation - ACEP ***(9:15 am – 10:15 am)***
5. Energy Scenario Planning Process Overview – B&V ***(10:15 am– 10:45 am)***
6. *Break* ***(10 mins)***
7. Subcommittees Concurrent Session 1 ***(10:55 am – 12:25 pm)***
    a. Rural Generation, Distribution, and Storage *(Denali Room)*

        Microsoft Teams meeting
        Click here to join the meeting
        Meeting ID: 274 538 030 674
        Passcode: hAAoUj

    b. Coastal Generation, Distribution, and Storage *(Redoubt Room)*

        Microsoft Teams meeting
        Click here to join the meeting
        Meeting ID: 292 387 066 158
        Passcode: BqFAF4

    c. Railbelt Transmission, Generation, and Storage *(Board Room)*

        Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

d. Incentives and Subsidies *(Aspen Room)*

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 265 983 942 05
Passcode: jL9kiC

8. *Lunch* ***(12:30 pm – 1:30 pm)***
9. Subcommittees Concurrent Session 2 **(*1:35 pm – 3:05 pm)***
    a. State Energy Data *(Redoubt Room)*

Join Zoom Meeting
https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdlh4WXpucDFLdz09
Meeting ID: 811 8299 6861
Passcode: 707323

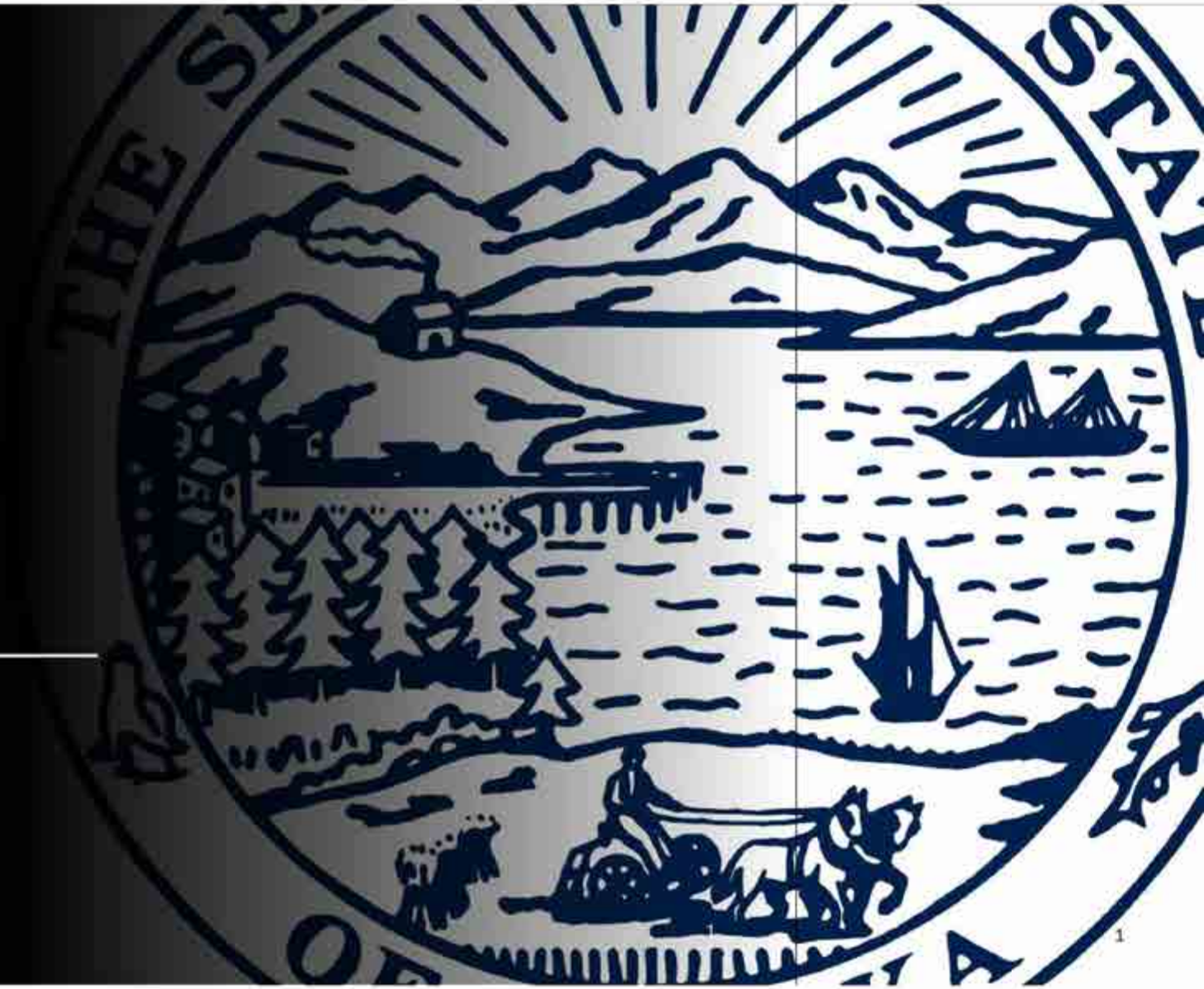
    b. Statutes and Regulations Reform *(Board Room)*

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

10. *Break* **(*10 mins)***
11. Subcommittee Report Outs ***(3:15 pm – 4:30 pm)***
    a. Preliminary Task Force Action Review (by subcommittee)
12. Next Meeting Date,
    a. Tuesday, August 29, 2023, 10:00 am – 2:00 pm, Matanuska Electric Association, 163 E. Industrial Way, Palmer, AK. Optional Ribbon Cutting Ceremony to follow Houston Solar Farm, Houston, AK
13. Adjourn

Alaska Energy Security Task Force Meeting

August 8, 2023



Alaska Energy Security Task Force

August 08, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

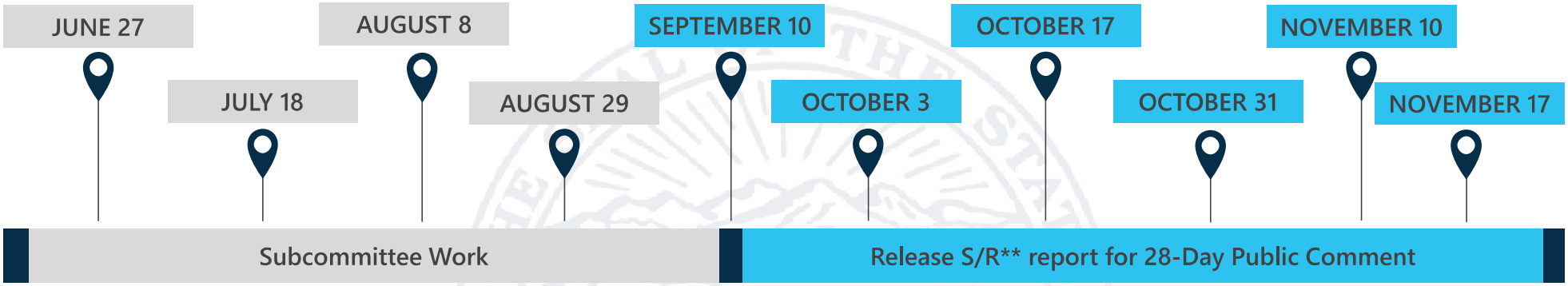
1. Welcome and Introductions ***(9am)***
2. Roll Call
3. Prior Meeting Minutes
4. Energy Data Presentation - ACEP ***(9:15 am – 10:15 am)***
5. Energy Scenario Planning Process Overview - B&V **(10:15 am– 10:45 am)**
6. Break ***(10 mins)***
7. Subcommittee Concurrent Session 1 (Rural, Coastal, & Railbelt, Incentives & Subsides) ***(10:55 am – 12:25 am)***
8. Lunch Break ***(12:30 pm -1:30pm)***
9. Subcommittee Concurrent Session 2 *(State Energy Data, Statutes & Regulations)* ***(1:35 pm – 3:05 pm)***
10. Break ***(10 mins)***
11. Subcommittee Report Outs ***(3:15 pm – 4:30 pm)***
12. Next Meeting Date: Tuesday, August 29, 2023
13. Adjourn

Organization

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	lt.governor@alaska.gov
Curtis W. Thayer, Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
Clay Koplin, Cordova Electric Cooperative, Vice Chair	ckoplin@cordovaelectric.com
Commissioner John Boyle, Department of Natural Resources	john.boyle@alaska.gov
Commissioner Jason Brune, Department of Environmental Conservation	jason.brune@alaska.gov
Nils Andreassen, Alaska Municipal League	nils@akml.org
Andrew Guy, Calista Corporation	aguy@calistacorp.com
Karl Hanneman, International Tower Hill Mines	khanneman@ithmines.com
Tony Izzo, Matanuska Electric Association	tony.izzo@mea.coop
Jenn Miller, Renewable Independent Power Producers	jenn.miller@renewableipp.com
Duff Mitchell, Juneau Hydropower	duff.mitchell@juneauhydro.com
John Sims, ENSTAR Natural Gas Company	john.sims@enstarnaturalgas.com
Isaac Vanderburg, Launch Alaska	isaac@launchalaska.com
Robert Venables, Southeast Conference	robert@seconference.org
Dan White, University of Alaska Fairbanks	uaf.chancellor@alaska.edu
Senator Click Bishop (Ex Officio)	senator.click.bishop@akleg.gov
Garrett Boyle, Denali Commission (Ex Officio)	gboyle@denali.gov
Commissioner Keith Kurber, Regulatory Commission of Alaska (Ex Officio)	keith.kurber@alaska.gov
Representative George Rauscher (Ex Officio)	representative.george.rauscher@akleg.gov
Erin Whitney, United States Department of Energy, Arctic Energy Office (Ex Officio)	erin.whitney@hq.doe.gov
*Andrew Jensen, Policy Advisor, Office of Governor Mike Dunleavy	andrew.jensen@alaska.gov

Alaska Energy Security Task Force

Proposed Work Schedule



Key Milestones	Completed By
Regional Sub Status Reports	Tuesday, July 18, 2023
Regional Sub Initial Reports	Tuesday, August 8, 2023
Regional Sub Final Reports and I/S/S/R* Data Sub Initial Reports	Tuesday, August 29, 2023
I/S S/R* Data Sub Final Reports; Release S/R** report for 28-Day Public Comment	Tuesday, September 10, 2023
Receive Initial Report, Release for 28-day Public Comment; Take Public Comment on S/R** Report	Tuesday, October 3, 2023
Discuss S/R** Final Report; Vote on Recommendations; Take Public Comment on Initial Report	Tuesday, October 17, 2023
Discuss Final Report; Vote on Recommendations; Receive Final S/R** Report; send to GOA	Tuesday, October 31, 2023
Task Force Receives Final Report	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023

*Incentives and Subsidies and Statutes and Regulations Reform
**Statutes and Regulations Reform

Survey Results

Survey received 15 responses in total.

Question 1:

Top energy priority key words that were identified as being “Essential” to identify goals for the Comprehensive Energy Master Plan.

Responses with 50% or more of the vote:

- **Affordability** *(86.67%)*
- **Reliability** *(60%)*
- **Leave no one behind approach** *(57.14%)*
- **Security/Resilience** *(53.33%)*

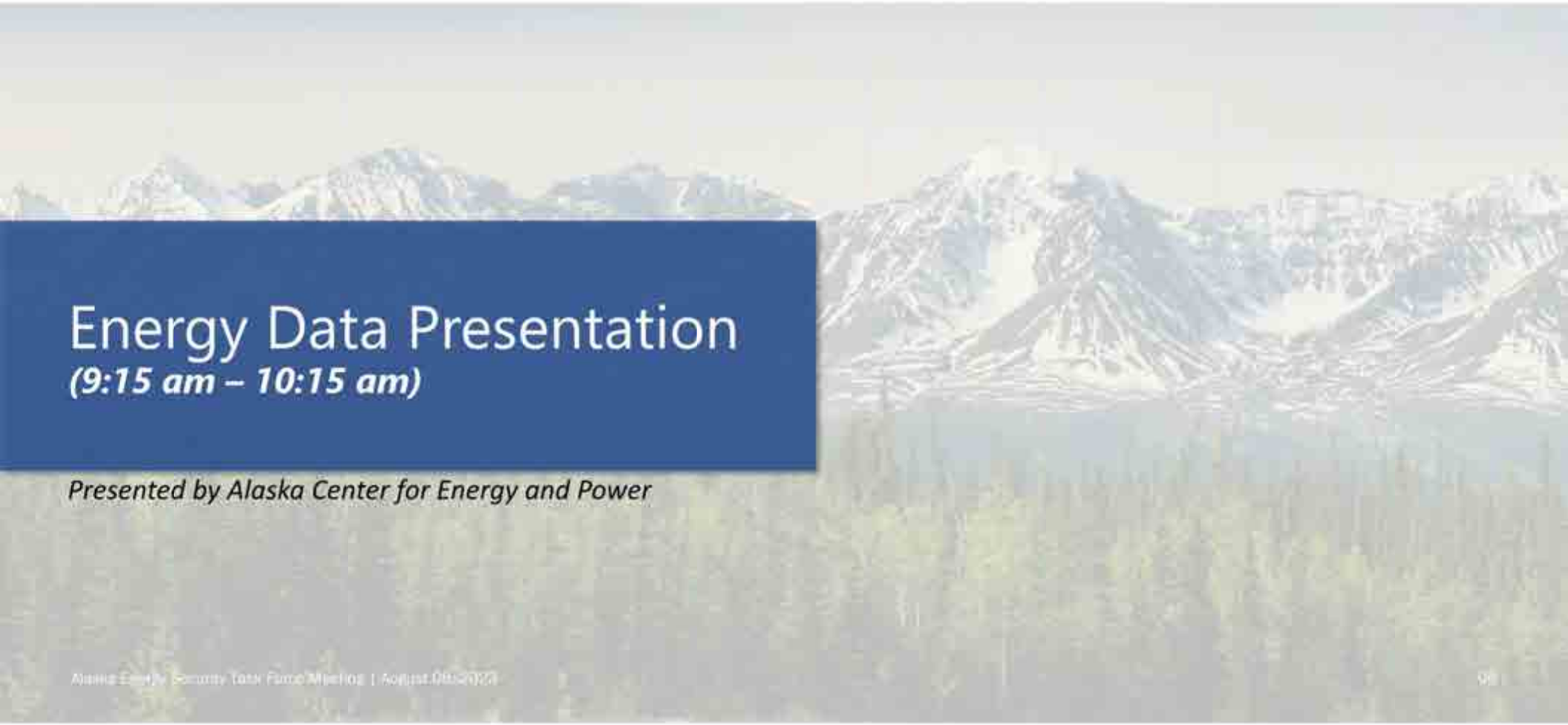
Question 2:

Top energy priority key words ranked 1 through 3, with 1 being the highest priority.

Rank 1: Affordability

Rank 2: Reliability

Rank 3: Security/Resilience



Energy Data Presentation
(9:15 am – 10:15 am)

Presented by Alaska Center for Energy and Power

Energy Scenario Planning Process Overview

(10:15 am – 10:45 am)

Presented by Black and Veatch

Subcommittees Concurrent Sessions 1 *(10:55 am – 12:25 am)*

- Rural Generation, Distribution, and Storage (Denali Room)
  - Microsoft Teams meeting: Click here to join the meeting
  - Meeting ID: 274 538 030 674
  - Passcode: hAAoUj
- Coastal Generation, Distribution, and Storage (Redoubt Room)
  - Microsoft Teams meeting Click here to join the meeting
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  - Passcode: BqFAF4
- Railbelt Transmission, Generation, and Storage (Board Room)
  - Microsoft Teams meeting Click here to join the meeting
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  - Passcode: 3dZXeD
- Incentives and Subsidies (Aspen Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 265 983 942 05
  - Passcode: jL9kiC



Lunch Break -
(12:30 pm – 1:30 pm)

Subcommittees Concurrent Sessions 2 *(1:35 am – 3:05 am)*

- State Energy Data (Redoubt Room)
  - Zoom meeting: Click here to join the meeting
  - Meeting ID: 811 8299 6861
  - Passcode: 707323
- Statutes and Regulations Reform (Board Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 283 663 409 323
  - Passcode: 3dZXeD

Alaska Energy Security Task Force

Subcommittee Report Outs

Preliminary Task Force Action Review of Top Actions Identified at Concurrent Sessions Today *(10 to 12 Minutes per Committee)*

- **Railbelt Transmission, Generation, and Storage:** *(Co-Chairs: Tony Izzo & Jenn Miller)*
- **Rural Generation, Distribution, and Storage:** *(Co-Chairs: Clay Koplin & Andrew Guy)*
- **Coastal Generation, Distribution, and Storage:** (*Co-Chairs:* Duff Mitchell, & Robert Venables)
- **Statutes and Regulations Reform:** *(Co-Chairs: Robert Venables & Karl Hanneman)*
- **Incentives and Subsidies:** (*Co-Chairs:* Nils Andreassen & Isaac Vanderburg)
- **State Energy Data:** *(Chair: Dan White)*

Energy Symposium Series



Future Upcoming Event Dates:

- ~~August 10~~ – Cancelled
- August 17
- August 24
- August 31

Energy Symposium events that have occurred:

- July 13 - Cook Inlet Natural Gas Supply & Development
- July 20 - Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy
- July 27 - Global Trends and Grid of the Future
- August 03 - Railbelt Hydropower Development & Financing: Lessons Learned for the Past, Opportunities for the Future.

Logistics:

Weekly on Thursdays from 11a.m.-1 p.m.

Format:

- Zoom webinars: recordings will be made available.

Next Steps

- **Confirm/Schedule next meeting with your subcommittee(s):**
  (preliminary dates below)
  - Railbelt Transmission, Generation, and Storage: *TBD*
  - Rural Generation, Distribution, and Storage: *August 10, 1 pm*
  - Coastal Generation, Distribution, and Storage: *August 11, 11am*
  - Statutes and Regulations Reform: *August 22, 10:30 am*
  - Incentives and Subsidies: *TBD*
  - State Energy Data: *TBD*

- **Next Energy Symposium Presentation**
  - August 10th

- **Next AESTF Meeting Date:**
  Tuesday, August 29, 2023, 10:00 am @ MEA Headquarters in Palmer, AK

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Alaska Electricity Trends: preliminary data from *2021 Alaska Energy Statistics*

Available in the Internet at:

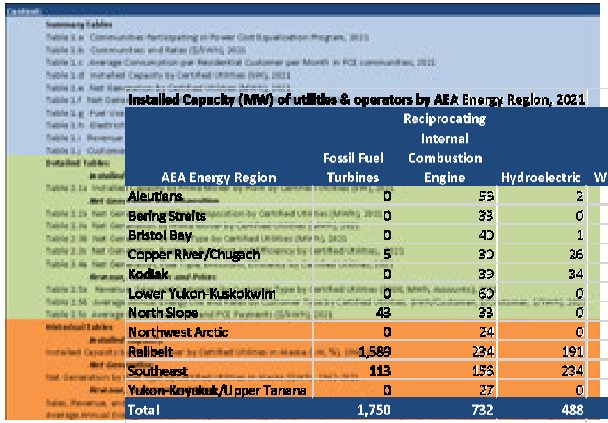
Created by:
Neil McMahon, DOWL

Funding Provided by:
University of Alaska Fairbanks, Alaska Center for Energy and Power

Published:
June 2023

Alaska Energy Authority
Power Cost Equalization Program Data , Calendar Year 2021
http://www.akenergyauthority.org/
AEA - Various infrastructure datasets

Energy Information Administration
EIA final data files from survey forms 860, 861, and 923.
http://www.eia.gov/electricity/data/eia860/index.html
http://www.eia.gov/electricity/data/eia923/
http://www.eia.gov/electricity/data/eia861/index.html



Installed Capacity (MW) of utilities & operators by AEA Energy Region, 2021

AEA Energy Region	Fossil Fuel Turbines	Reciprocating Internal Combustion Engine	Hydroelectric	Wind	Solar	Storage	Region Total	Percent of Statewide Total
Aleutians	0	55	2	1	0	0	58	2%
Bering Straits	0	33	0	3	0	0	37	1%
Bristol Bay	0	40	1	0	0	0	42	1%
Copper River/Chugach	5	30	26	0	0	1	62	2%
Kodiak	0	39	34	9	0	5	87	3%
Lower Yukon-Kuskokwim	0	60	0	6	0	1	67	2%
North Slope	42	33	0	0	0	0	75	2%
Northwest Arctic	0	24	0	4	1	2	31	1%
Railbelt	1,589	234	191	45	2	30	2,150	68%
Southeast	113	153	234	0	0	1	503	16%
Yukon-Koyukuk/Upper Tanana	0	27	0	0	0	0	27	1%
Total	1,750	732	488	68	3	100	3,141	100%

Source: Aggregated from Table 2.1a

Prepared for Governor's Energy Task Force
August 8, 2023

ACEP Alaska Center for Energy and Power

UAF University of Alaska Fairbanks

Presentation Outline

- Context/Overview/History of Alaska Energy Statistics
- Data sources, What's in and what's out
- Total installed capacity (by region/source)
- Net generation (by region/source)
- Electricity Price (statewide)
- CO2 Emissions
- A few other interesting tidbits and trends
- Aspirational charts

Purpose of AK Energy Statistics

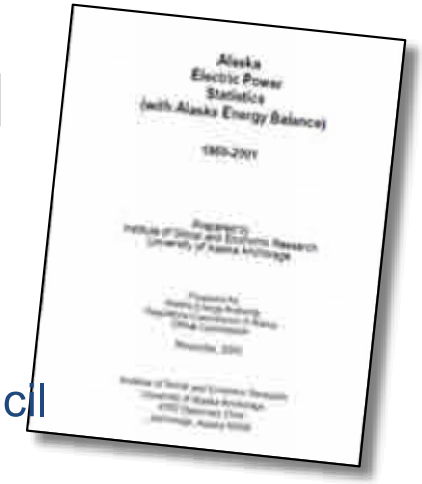
- Report factual information in a way that can be digested and interpreted, and which stakeholders can use to inform decision-making or conduct analysis
- The statistics report does **not** offer pre-analyzed conclusions
- The AK Energy Statistics Report summarizes information from the Alaska Energy Statistics Workbook



Background – 28 volumes published since 1971

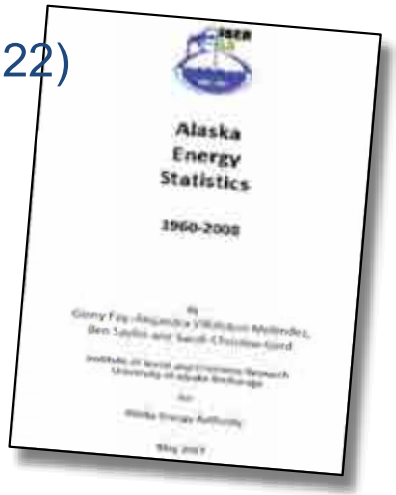
Alaska Electric Power Statistics

1971 – 1985	AK Power Administration (gaps during 70s)
1985 – 1988	AK Power Authority
1988 – 1993	AK Power Authority & AK Systems Coordinating Council
1993 – 1995	ASCC & DCRA Division of Energy
1995 – 2000	*[Not Published]*
2001	AK Energy Authority, Denali Comm, RCA, & ISER (vol. 22)



Alaska Energy Statistics

2008 – 2011	AEA & ISER (vol. 23-26)!
2012 – 2013	Workbooks only
2014 – 2021	*[Not Published] …. YET!*



Energy Security Task Force – Duties and Responsibilities

1. Establish a baseline energy portfolio for the State of Alaska.
2. Identify and evaluate potential future changes that could occur to energy supply and distribution in the state, the impacts of such changes, and the opportunity for mitigating impacts and leveraging opportunities associated with such change.
3. Identify solutions for meeting Alaska's energy needs now and in the future with a focus on affordability, reliability, and security.
4. Identify policies, programs, regulatory changes, and funding that could accelerate adoption of these energy strategies.
5. Develop and maintain a public database of taskforce information and recommend strategies for sharing energy data and information through an energy data portal.
6. Recommend a statewide energy goal, a plan to achieve it, and identify additional work that may be required to refine this vision.

Contributors:



ACEP Research Professor, Energy Economics and Policy



Neil McMahon
DOWL



Gwen Holdmann
Lead, ACEP Energy Transitions Initiative



Sara Fisher-Goad
UAF
Program Manager



Vanessa Raymond
Lead, ACEP Data Program Manager



Lead, ACEP Solar Program Initiative



Diane Hirschberg, Director, ISER



Ian MacDougall
ACEP Data Analyst



Brittany Smart, ETI Coordinator



Dayne Broderson, ACEP ARCTIC PM

… and many others

Funding Partners:









Primary Data Sources

- Alaska PCE program data collected by AEA
- USDOE, Energy Information Administration:
  - Form EIA-860 (plant and unit data)(all producers with > 1 MW installed capacity)
    https://www.eia.gov/electricity/data/eia860/
  - Form EIA-923 (generation and fuel use by plant)
    https://www.eia.gov/electricity/data/eia923/
  - Form EIA-861 and 861S (electricity generation, purchases, and sales)(limited coverage)
    https://www.eia.gov/electricity/data/eia861/
- Other
  - AEA powerhouse inventories
  - Utility annual reports to RCA (containing FERC Form 1 excerpts)
  - Utility COPA filings with RCA
  - ACEP Net Metered BTM (behind-the-meter) capacity reports
  - Renewable Energy Fund (REF) project reports
  - Individual Utilities
  - Additional misc sources

Excel Workbooks produced since 2011…

Regional Summaries…

Installed Capacity (MW) of utilities & operators by AEA Energy Region, 2021

AEA Energy Region	Fossil Fuel Turbines	Reciprocating Internal Combustion Engine	Hydroelectric	Wind	Solar	Storage	Region Total	Percent of Statewide Total
Aleutians	0	55	2	1	0	0	58	2%
Bering Straits	0	33	0	3	0	0	37	1%
Bristol Bay	0	40	1	0	0	0	42	1%
Copper River/Chugach	5	30	26	0	0	1	62	2%
Kodiak	0	39	34	9	0	5	87	3%
Lower Yukon-Kuskokwim	0	60	0	6	0	1	67	2%
North Slope	43	33	0	0	0	0	75	2%
Northwest Arctic	0	24	0	4	1	2	31	1%
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Southeast	113	135	234	0	0	1	503	16%
Yukon-Koyukuk/Upper Tanana	0	27	0	0	0	0	27	1%
Total	1,750	732	488	68	3	100	3,141	100%

Source: Aggregated from Table 2.1a

Installed Capacity by Plant and Prime Mover, 2021

AK Plant	PCE	EPCN	Utility Name	Plant Name	Interlie	AEA Energy Region	Total	Fossil Fuel Turbine	Internal Combustion	Hydroelectric	Wind Turbine	Solar PV	Battery	Biomass	Source	Notes
P001			Agrium US Inc	Agrium Kenai Nitrogen Operatio	Railbelt_grid	Railbelt	12.	12.5	0	0	0	0	0	0	EIA860	
P014		742	Alaska Environmental Power LLC	Delta Wind Farm	Railbelt_grid	Railbelt	1.9	0	0	0	1.9	0	0	0	EIA860	
P101		8	Chugach Electric Assn Inc	Anchorage 1	Railbelt_grid	Railbelt	[illegible]	[illegible]	2	0	0	0	0	0	EIA860	
P102		8	Chugach Electric Assn Inc	Eklutna Hydro Project	Railbelt_grid	Railbelt	44.	0	0	44.4	0	0	0	0	EIA860	
P103		8	Chugach Electric Assn Inc	George M Sullivan Generation P	Railbelt_grid	Railbelt	346.0	346.9	0	0	0	0	0	0	EIA860	
P109		620	Aurora Energy LLC Chena	Aurora Energy LLC Chena	Railbelt_grid	Railbelt	27.	27.5	0	0	0	0	0	0	EIA860	
P120		8	Chugach Electric Assn Inc	Beluga	Railbelt_grid	Railbelt	812.0	812.4	0	0	0	0	0	0	EIA860	
P121		8	Chugach Electric Assn Inc	Cooper Lake	Railbelt_grid	Railbelt	19.	0	0	19.4	0					
P122		8	Chugach Electric Assn Inc	International	Railbelt_grid	Railbelt	15	15	0	0	0					
P128		8	Chugach Electric Assn Inc	Southcentral Power Project	Railbelt_grid	Railbelt	308.0	308.9	0	0	0					
P136		720	Doyon Utilities Fort Greely	Fort Greely Power Plant	Railbelt_grid	Railbelt	7.4	0	7.4	0	0					
P137		726	Doyon Utilities Fort Wainwright	Utility Plants Section	Railbelt_grid	Railbelt	20	20	0	0	0					
P138		724	Doyon Utilities LLC	JBER Landfill Gas Power Plant	Railbelt_grid	Railbelt	11.	0	11.5	0	0					
P142			Fire Island Wind LLC	Fire Island Wind	Railbelt_grid	Railbelt	18	0	0	0	18					
P146		13	Golden Valley Elec Assn Inc	Battery Energy Storage System	Railbelt_grid	Railbelt	40	0	0	0	0					
P147		13	Golden Valley Elec Assn Inc	Delta Power	Railbelt_grid	Railbelt	28.	28.1	0	0	0					
P148		13	Golden Valley Elec Assn Inc	Eva Creek Wind	Railbelt_grid	Railbelt	24.	0	0	0	24.6					
P149		13	Golden Valley Elec Assn Inc	Fairbanks	Railbelt_grid	Railbelt	42.	36.8	5.4	0	0					
P150		13	Golden Valley Elec Assn Inc	Healy	Railbelt_grid	Railbelt	92.	90	2.8	0	0					
P151		13	Golden Valley Elec Assn Inc	North Pole	Railbelt_grid	Railbelt	13.	161	0	0	0					
P152		13	Golden Valley Elec Assn Inc	GVEA Solar Farm	Railbelt_grid	Railbelt	0.56	0	0	0	0	0				
P155		32	Homer Electric Assn Inc	Bernice Lake	Railbelt_grid	Railbelt	76.	76.7	0	0	0					
P156			Alaska Energy Authority	Bradley Lake	Railbelt_grid	Railbelt	12	0	0	126	0	0	0	0	EIA860	
P157		32	Homer Electric Assn Inc	Nikiski Co-Generation	Railbelt_grid	Railbelt	80.	80.8	0	0	0	0	0	0	EIA860	
P158		32	Homer Electric Assn Inc	Sedovia	Railbelt_grid	Railbelt	2.2	0	2.2	0	0	0	0	0	EIA860	
P159		875	Alaska Electric G &T Coop Inc	Soldotna	Railbelt_grid	Railbelt	96.	80	0	0	0	0	16.8	0	EIA-860	
P197		18	Matanuska Electric Association	Eklutna Generation Station	Railbelt_grid	Railbelt	17.	0	17.1	0	0	0	0	0	EIA860	
P235			Renewable IPP	Willow Solar	Railbelt_grid	Railbelt	1.3	0	0	0	0	1.34	0	0	AEA	
P239		100	Seward, City of	Seward	Railbelt_grid	Railbelt	18.	0	18.0	0	0	0	0	0	EIA000	
P243			South Fork Hydro, LLC	South Fork Hydro (Eagle River)	Railbelt_grid	Railbelt	1.2	0	0	1.2	0	0	0	0	AEA	
P257			Tesoro Alaska Company	Tesoro Kenai Cogeneration Plan	Railbelt_grid	Railbelt	6.5	6.5	0	0	0	0	0	0	EIA860	
P267		452	University of Alaska	University of Alaska Fairbanks	Railbelt_grid	Railbelt	59.	50	9.6	0	0	0	0	0	EIA860	
P268			US Air Force Elelson AFB	Elelson AFB Central Heat & Pow	Railbelt_grid	Railbelt	31	25	6	0	0	0	0	0	EIA860	
P275			0	Marathon Hydro	Railbelt_grid	Railbelt	0.1	0	0	0.16	0	0	0	0	AEA	
P296		8	Chugach Electric Assn Inc	Chugach Storage	Railbelt_grid	Railbelt	3	0	0	0	0	0	2	1	AEA	

…of plant-level & community-level data, for DIY analysis

Content:

Summary Tables

Table 1.a Communities Participating in Power Cost Equalization Program, 2021
Table 1.b Communities and Rates ($/kWh), 2021
Table 1.c Average Consumption per Residential Customer per Month in PCE communities, 2021
Table 1.d Installed Capacity by Certified Utilities (kW), 2021
Table 1.e Net Generation by Certified Utilities (MWh), 2021
Table 1.f Net Generation by Fuel Type by Certified Utilities (MWh), 2021
Table 1.g Fuel Use for Power Generation by Certified Utilities, 2021
Table 1.h Electricity Sales by Certified Utilities (MWh), 2021
Table 1.i Revenue by Certified Utilities ($000), 2021
Table 1.j Customers by Certified Utilities (Accounts), 2021

Detailed Tables

Installed Capacity

Table 2.1a Installed Capacity by Prime Mover by Plant by Certified Utilities (kW), 2021

Net Generation and Disposition

Table 2.2a Net Generation and Total Disposition by Certified Utilities (MWh), 2021
Table 2.3a Net Generation by Prime Mover by Certified Utilities (MWh), 2021
Table 2.3b Net Generation by Fuel Type by Certified Utilities (MWh), 2021
Table 2.3c Net Generation, Fuel Use, Fuel Cost and Efficiency by Certified Utilities, 2021
Table 2.4a Net Generation, Fuel Type, Emissions, Efficiency by Certified Utilities, 2021

Revenue, Customers and Prices

Table 2.5a Revenue, Sales and Customers by Customer Type by Certified Utilities ($000, MWh, Accounts), 2021
Table 2.5b Average Annual Energy Use and Rates by Customer Type by Certified Utilities, (kWh/Customer, $/Customer, $/kWh), 2021
Table 2.5c Average Residential Rates and PCE Payments ($/kWh), 2021

Historical Tables

Installed Capacity

Installed Capacity by Prime Mover by Certified Utilities in Alaska (kW, %), 1960-2021

Net Generation

Net Generation by Fuel Type by Certified Utilities in Alaska (GWh), 1962-2021

Revenue, Customers and Prices

Sales, Revenue, and Customers by Customer Type by Certified Utilities in Alaska (MWh, $000, Accounts), 1962-2021
Average Annual Energy Use and Rates by Customer Type by Certified Utilities in Alaska (kWh/Customer, $/Customer, $/kWh), 1962-2021

Communities Participating in Power Cost Equalization Program by AEA Energy Regions, 202				
AEA Energy Region	PCE Eligible Active	PCE Eligible Inactive	PCE Ineligible	% Eligible Active in PCE program
Aleutians	11	1	0	92%
Bering Straits	16	0	0	100%
Bristol Bay	26	1	0	96%
Copper River/Chugach	8	0	15	100%
Kodiak	4	1	5	80%
Lower Yukon-Kuskokwim	46	2	0	96%
North Slope	7	0	2	100%
Northwest Arctic	11	0	0	100%
Railbelt	0	0	95	
Southeast	22	0	6	100%
Yukon-Koyukuk/Upper Tanana	41	1	1	98%
Total	192	6	124	
Some utilities, both in urban and rural Alaska, serve multiple communities.				

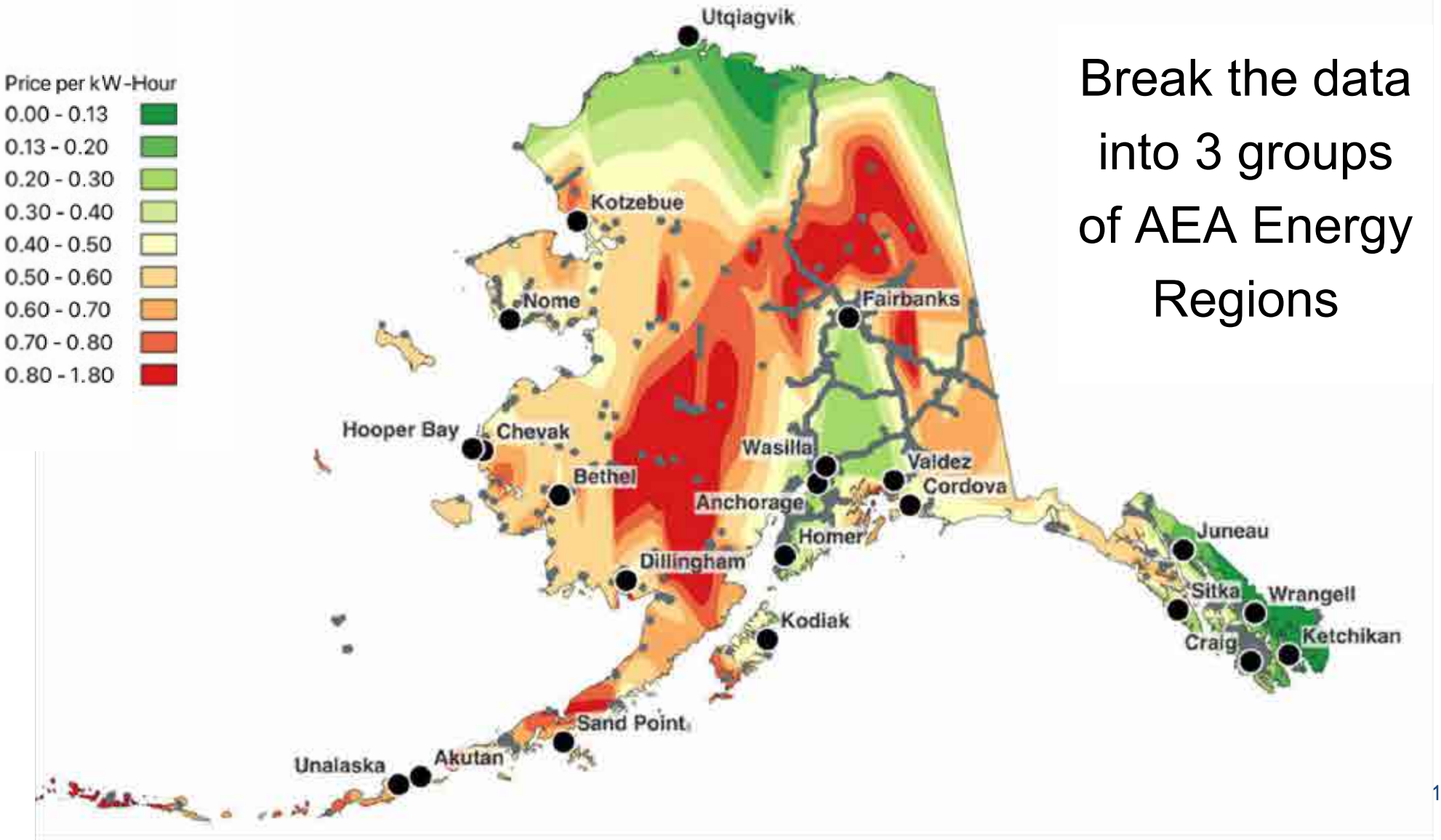
Table 1a (above) and Table 1b (right)

Effective Rate	No. of PCE Communities	Average Residential Rate	Average PCE Rate	Average Effective Rate
Less than 0.20	7	0.14	0.00	0.14
0.2-0.29	117	0.43	0.17	0.26
0.3-0.39	47	0.47	0.15	0.32
0.4-0.49	14	0.70	0.28	0.42
0.5-0.59	4	1.02	0.49	0.53
More than $0.60	3	1.00	0.38	0.62
Total	**192**			

What's included in *Alaska Energy Statistics (and what is not):*

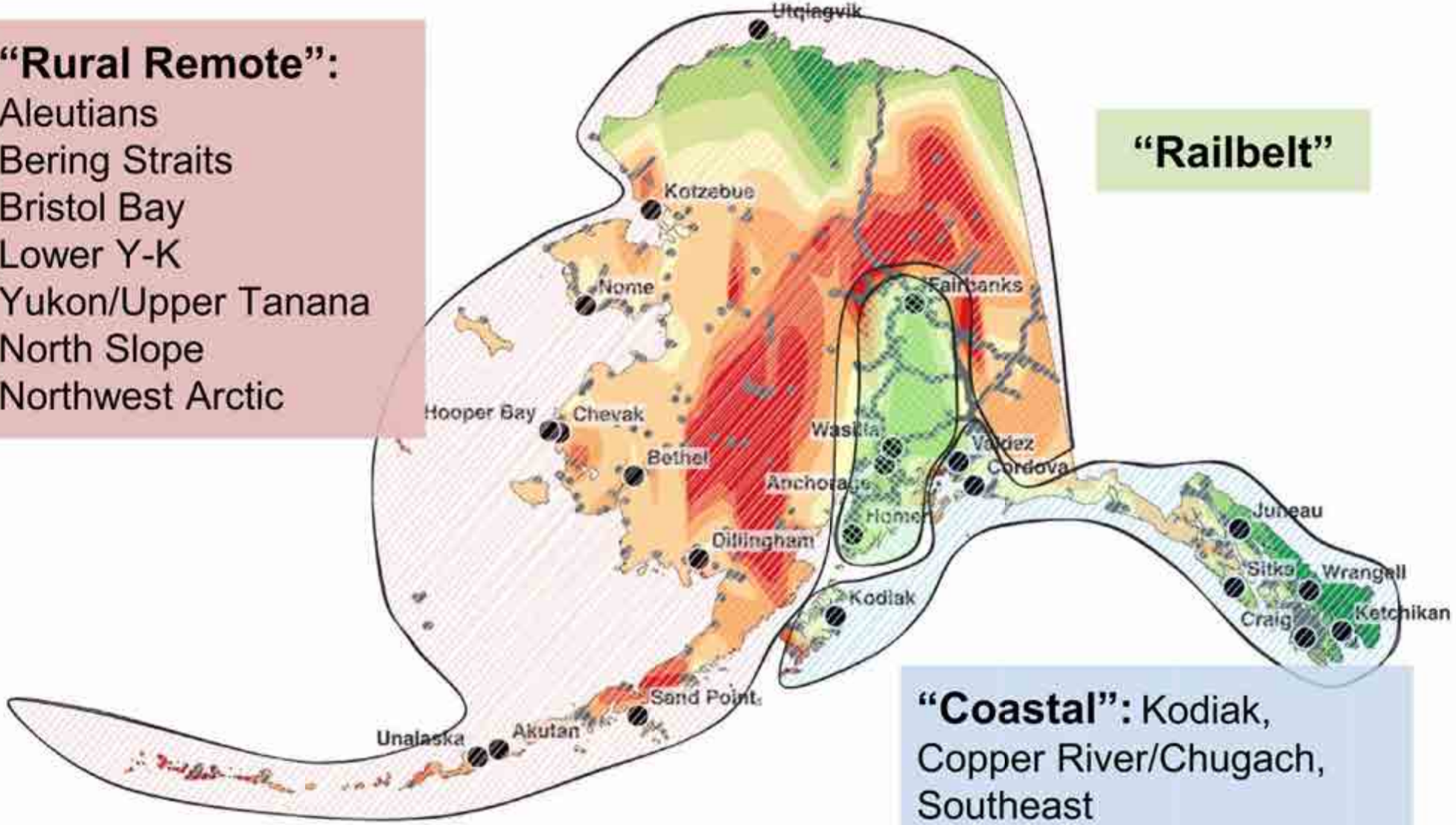
- Includes only electricity
- Excludes North Slope and TAPS oil & gas operations
- Includes Deadhorse (TDX Power is regulated)
- Excludes stand-alone industrial generation
- Currently excludes behind-the-meter (BTM) solar
- BUECI and Wrangell not included in 2021

BUECI = Barrow Utilities Electric Cooperative, Inc



Break the data into 3 groups of AEA Energy Regions

“Rural Remote”:
Aleutians
Bering Straits
Bristol Bay
Lower Y-K
Yukon/Upper Tanana
North Slope
Northwest Arctic



“Railbelt”

“Coastal”: Kodiak, Copper River/Chugach, Southeast

Total installed capacity

(Capacity is measured as nameplate, without regard for capacity factor or intermittent nature of renewables)

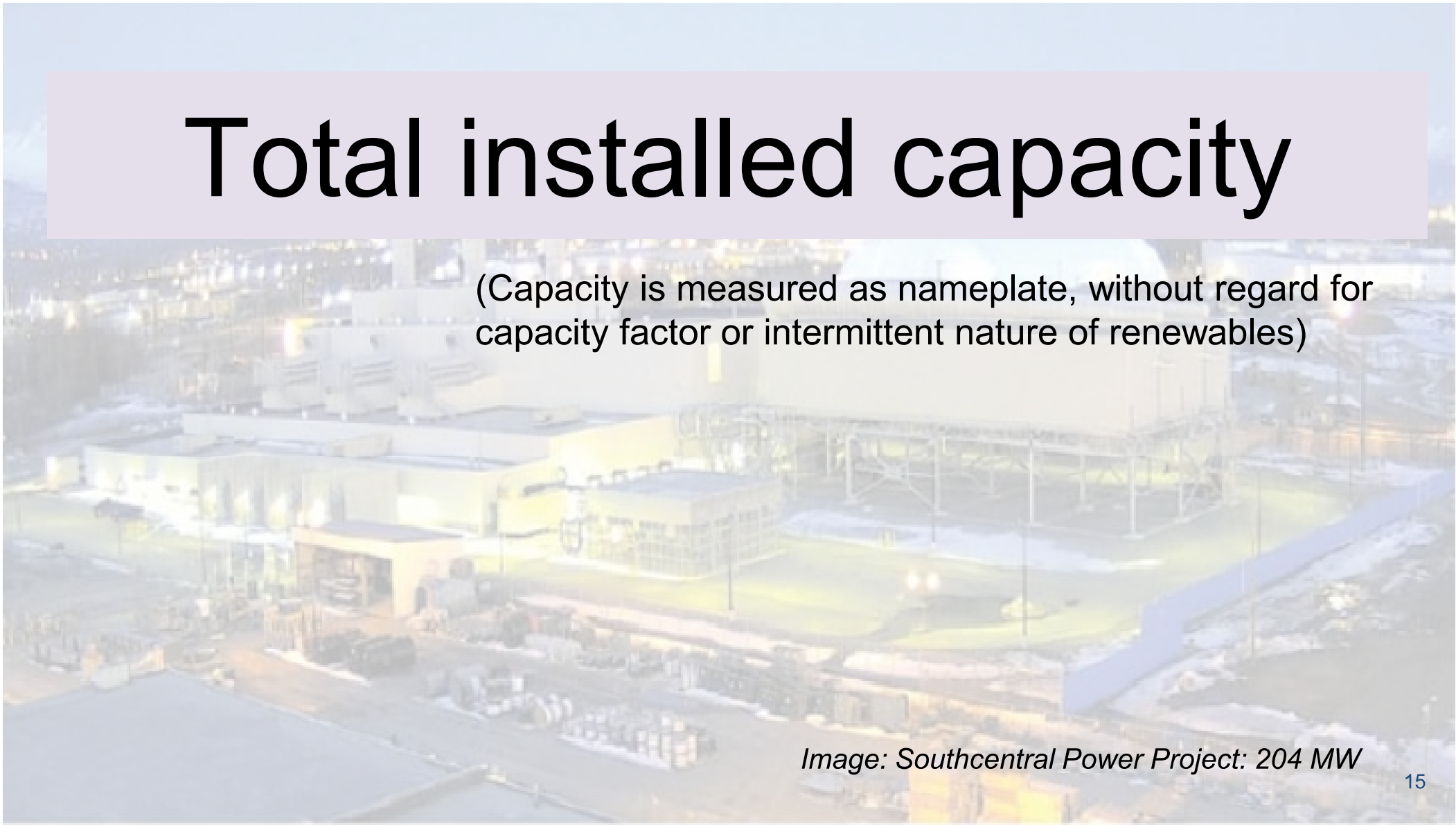
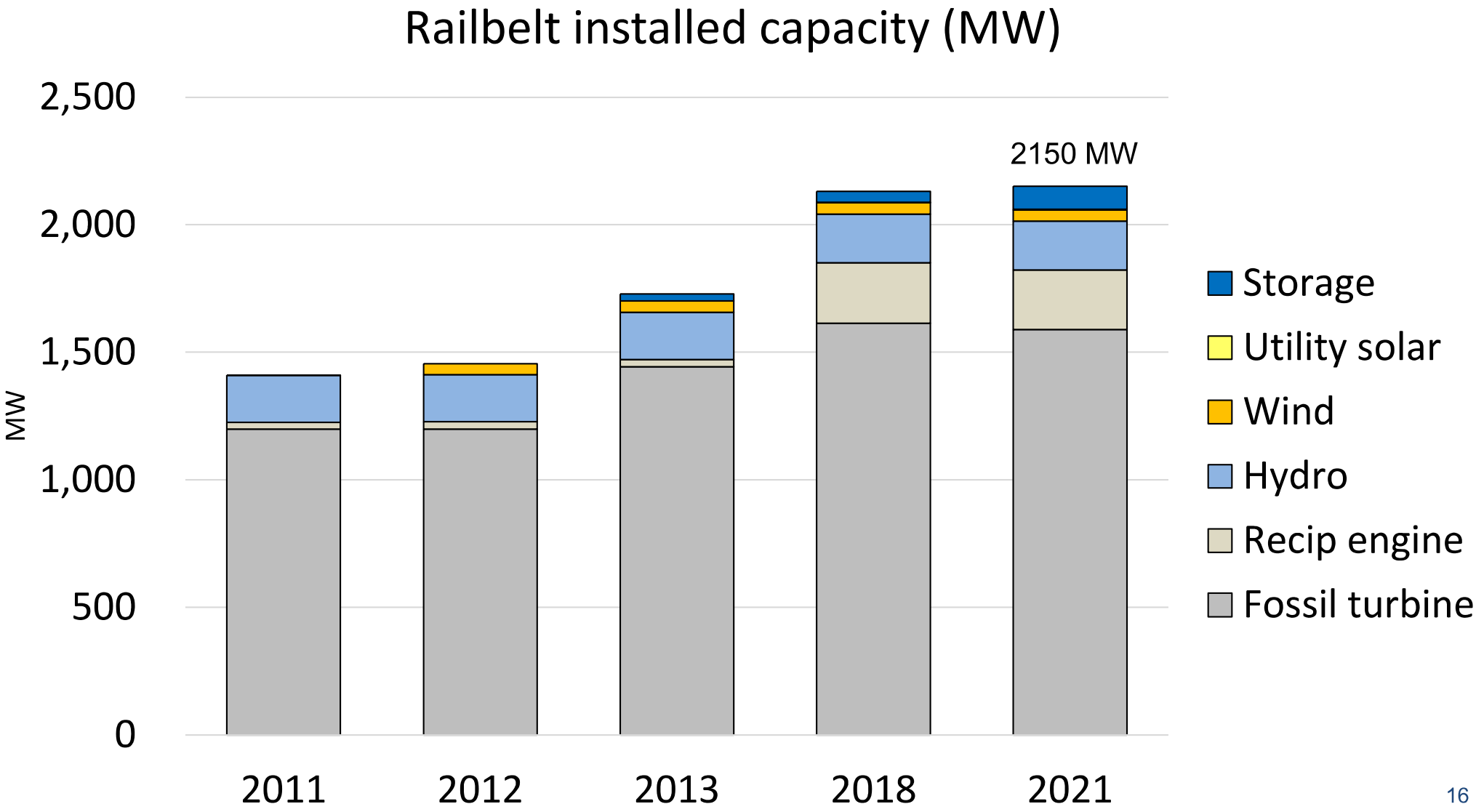
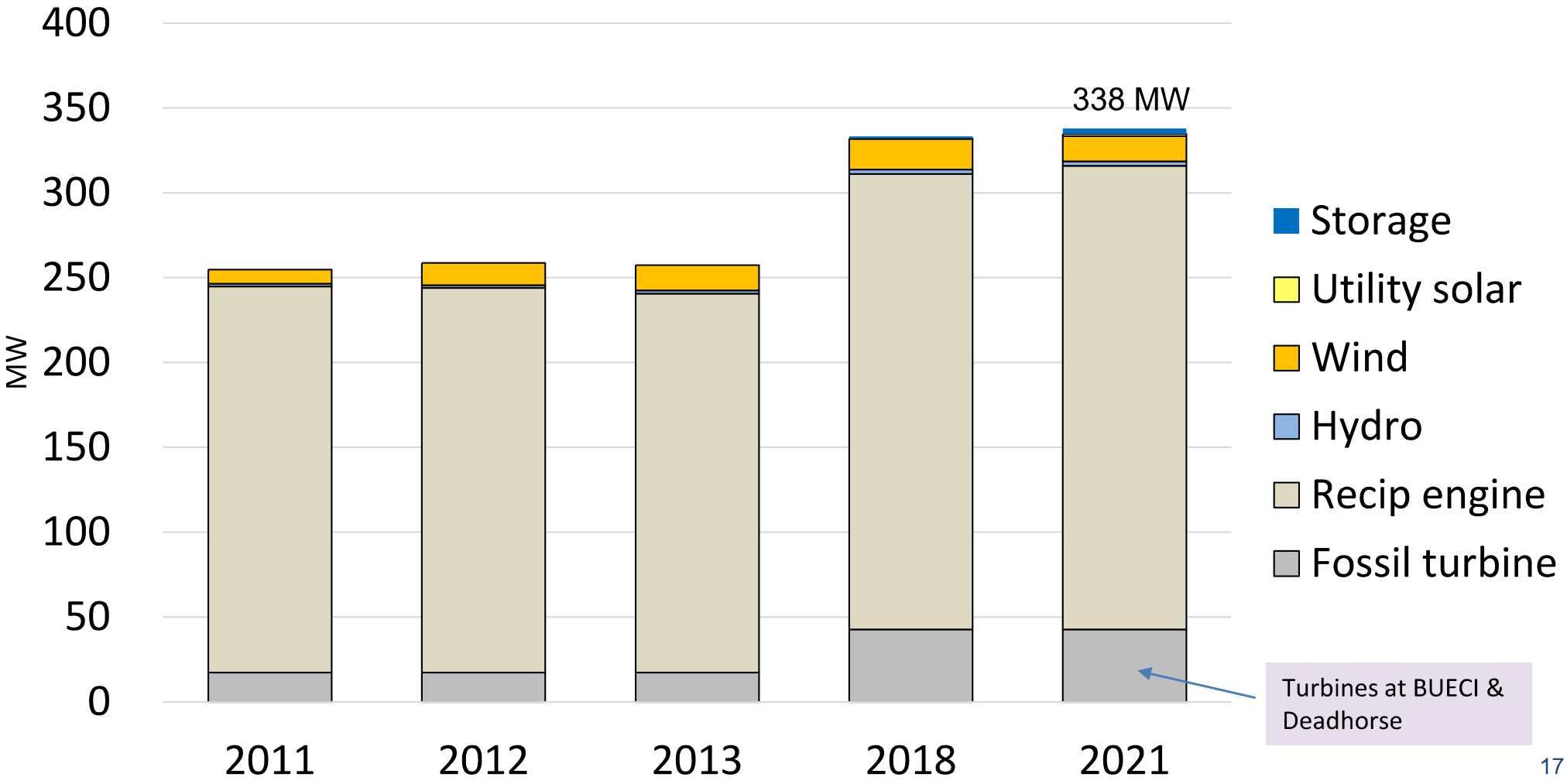
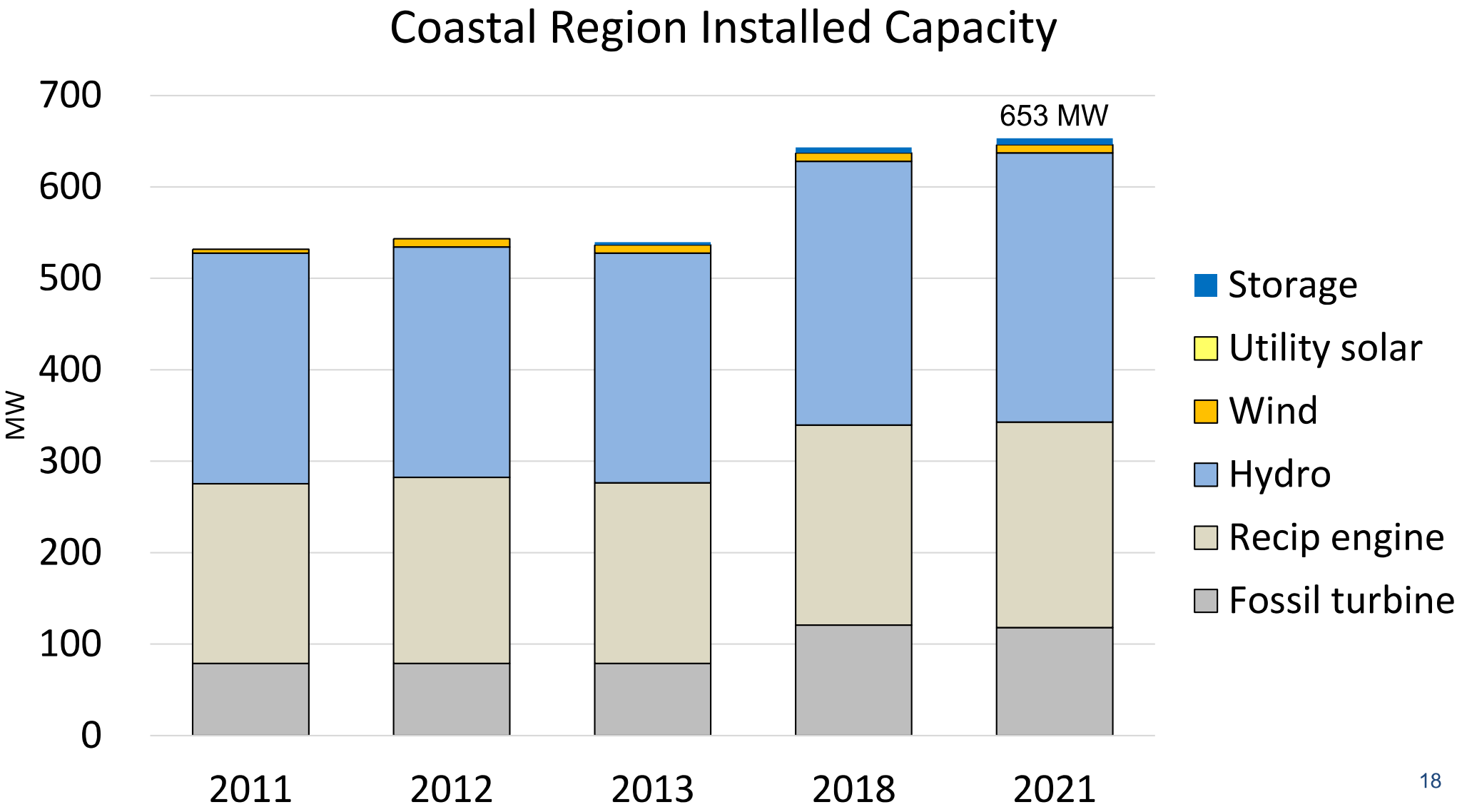


Image: Southcentral Power Project: 204 MW


Railbelt installed capacity (MW)
2,500
2,000
1,500
1,000
500
0
MW
2150 MW
2011
2012
2013
2018
2021
Storage
Utility solar
Wind
Hydro
Recip engine
Fossil turbine

Remote Rural Region Installed Capacity



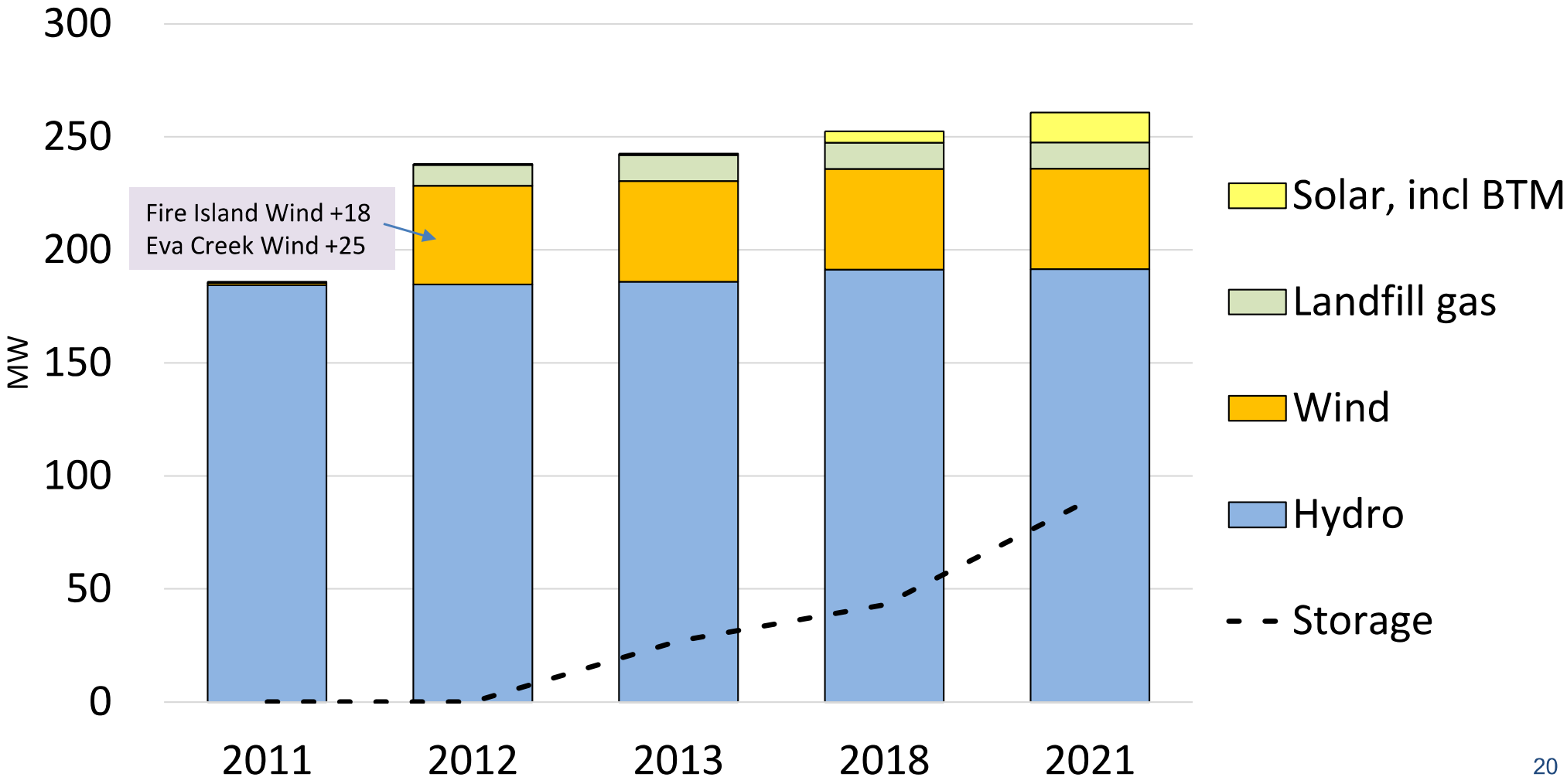

Coastal Region Installed Capacity
700
600
500
400
300
200
100
0
MW
653 MW
2011
2012
2013
2018
2021
Storage
Utility solar
Wind
Hydro
Recip engine
Fossil turbine

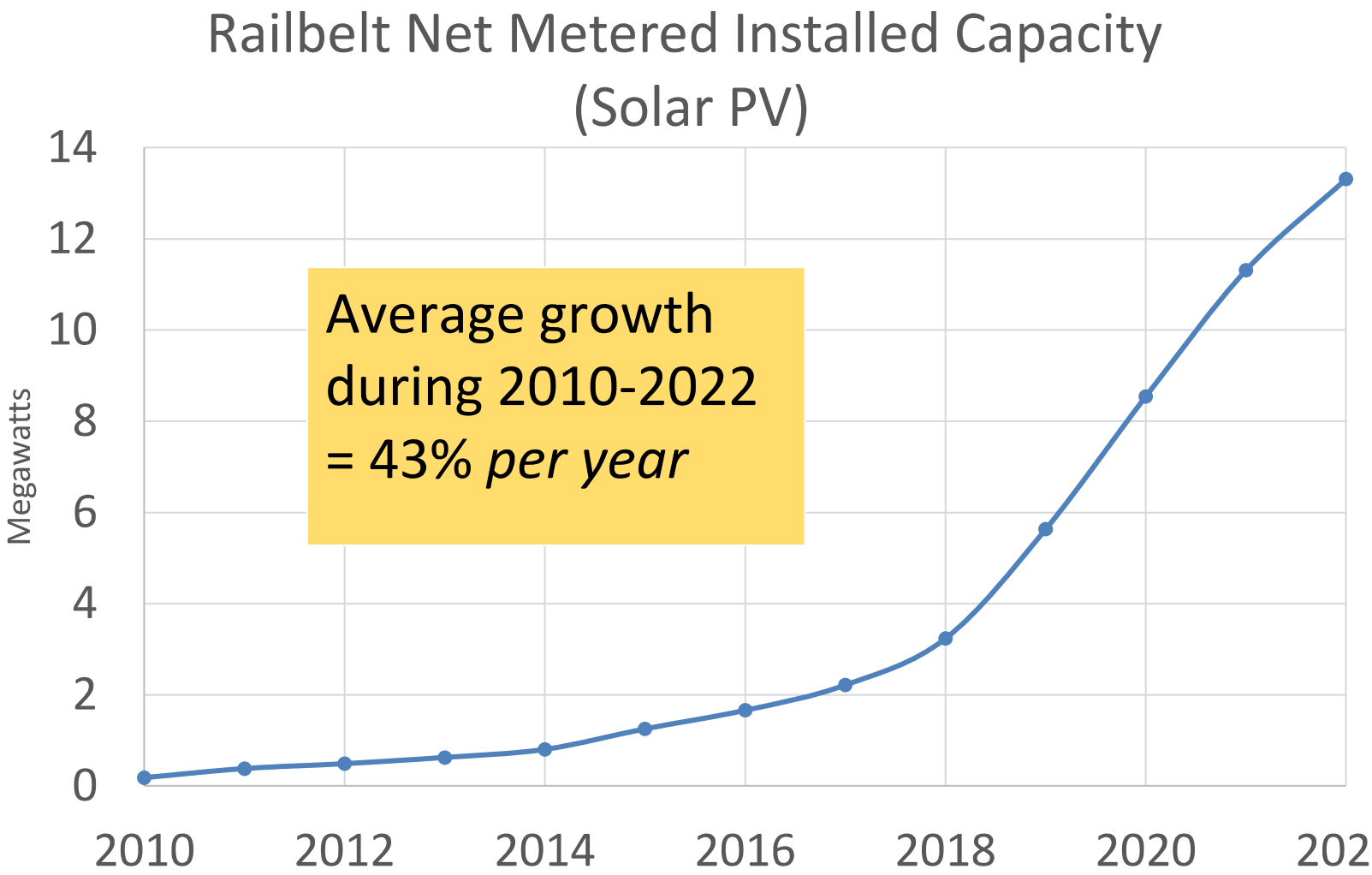
Renewable installed capacity



Credit: Amanda Byrd

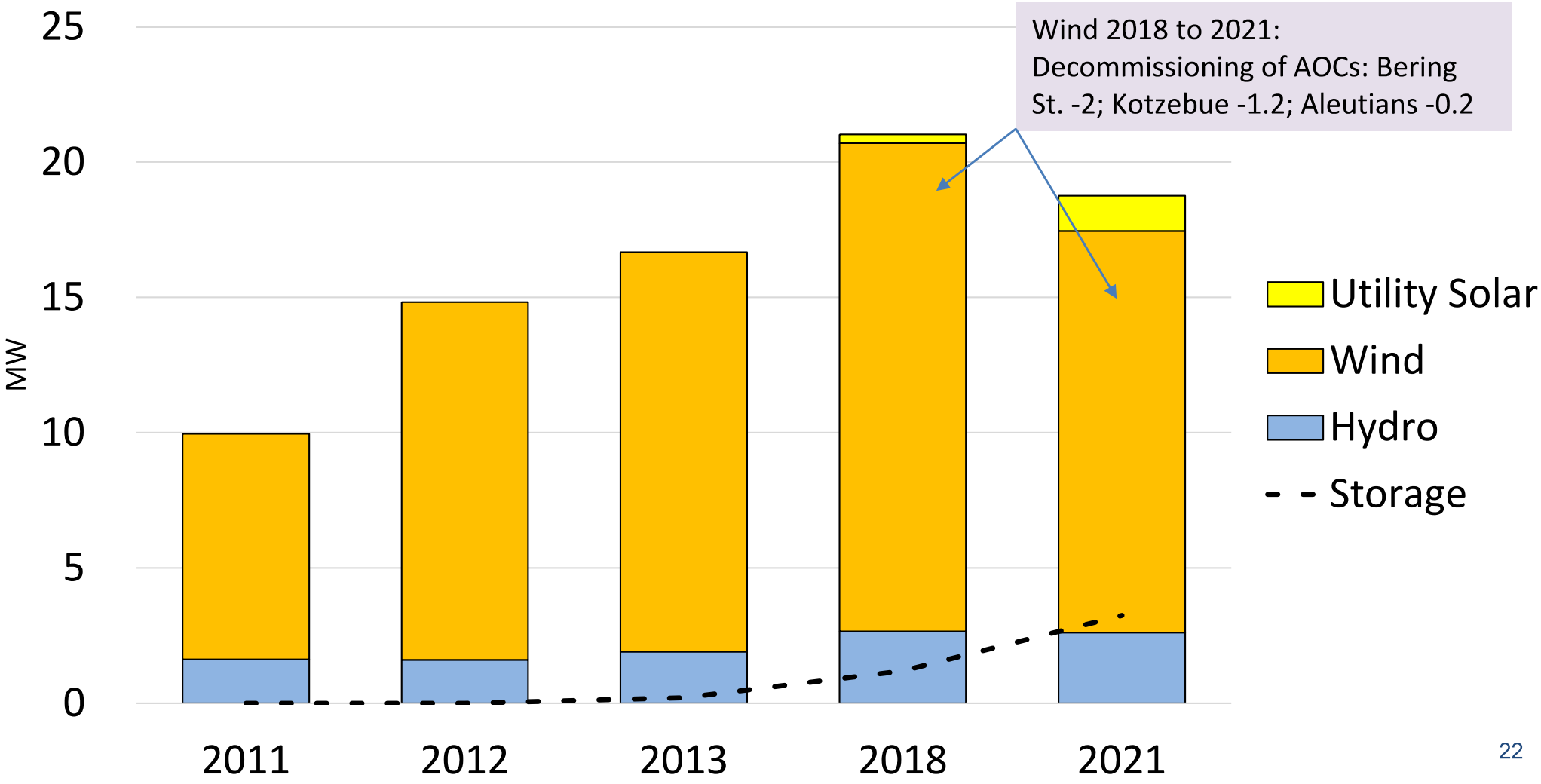
Railbelt Renewables Installed Capacity



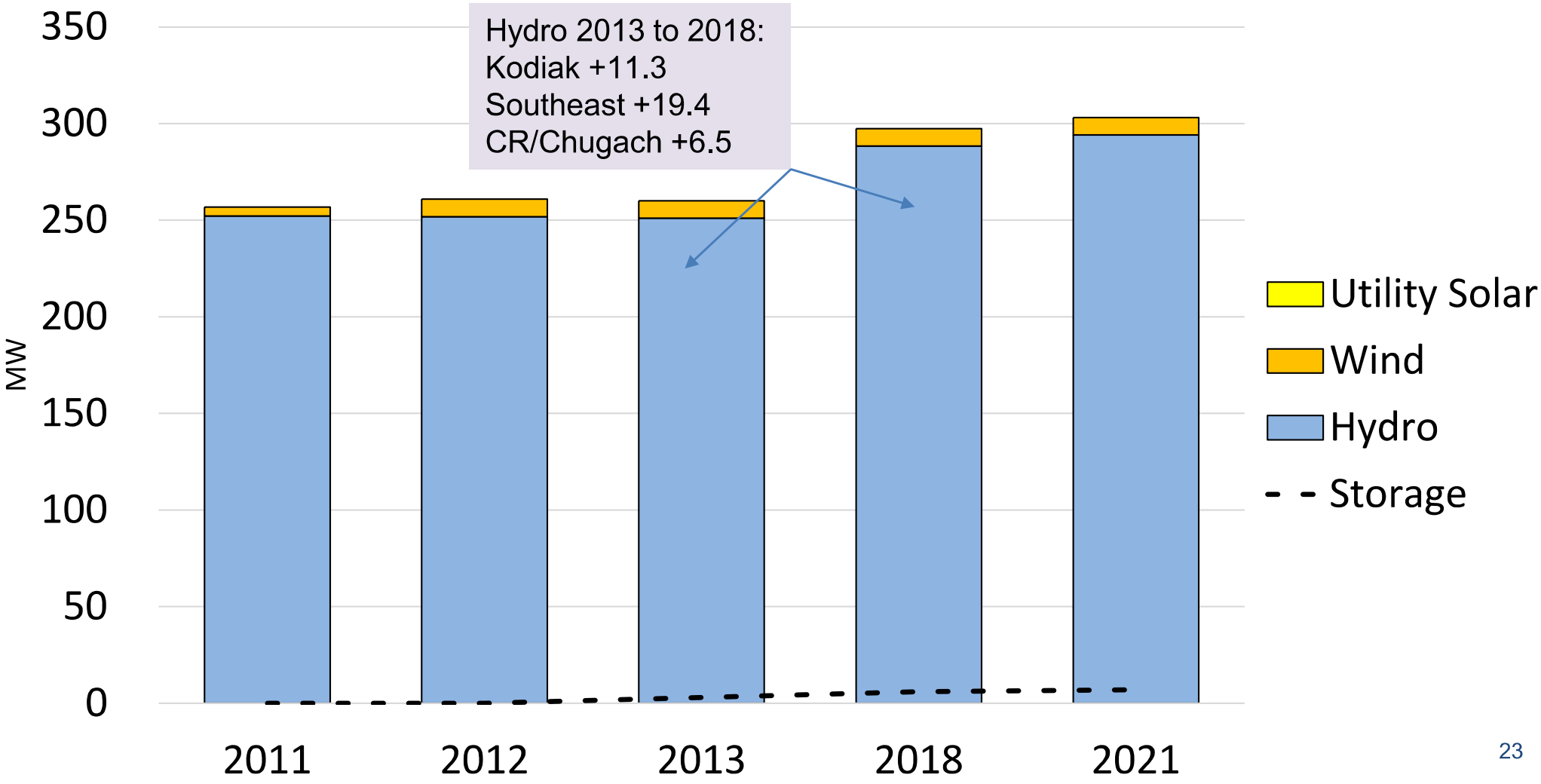


Data source – compiled by ACEP solar technologies program from individual utility RCA reporting

PCE-Eligible Region Renewables Installed Capacity



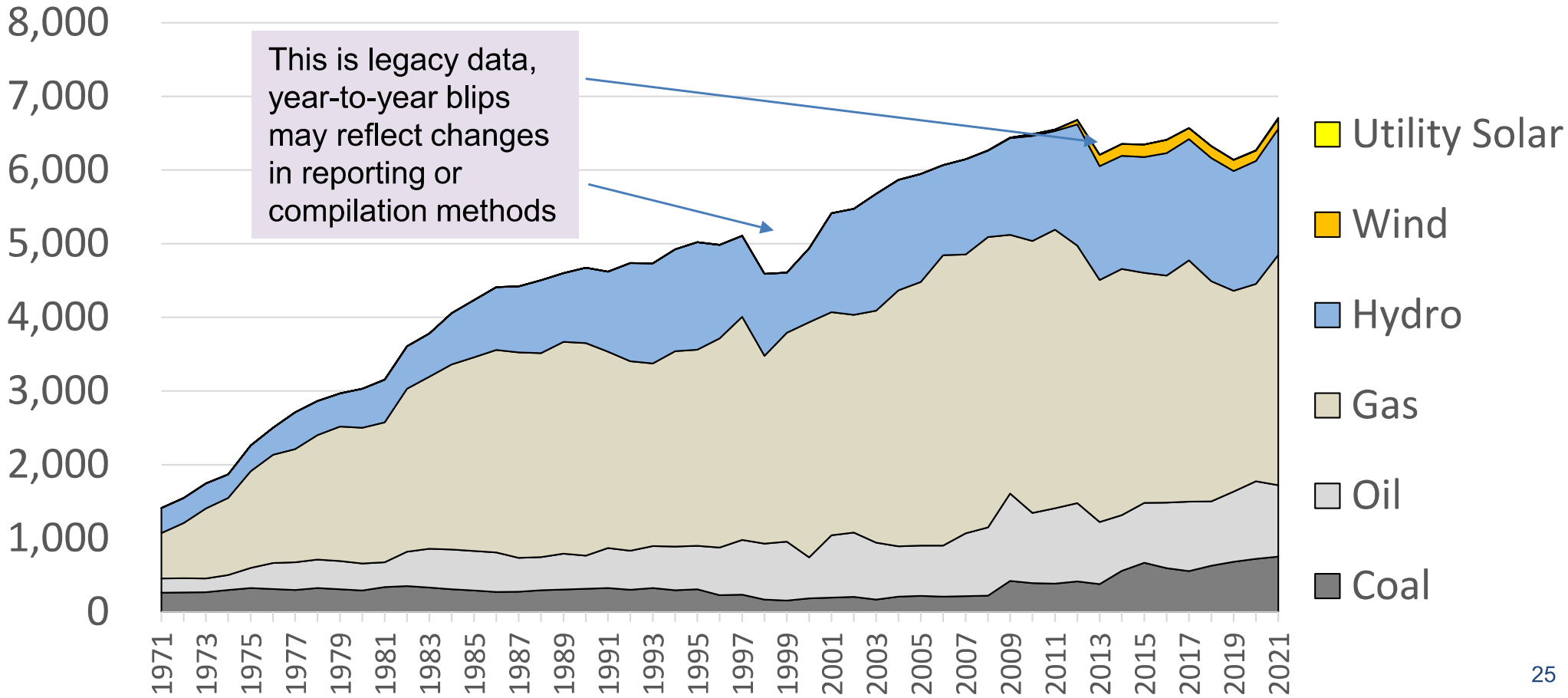
Coastal Region Renewables Installed Capacity

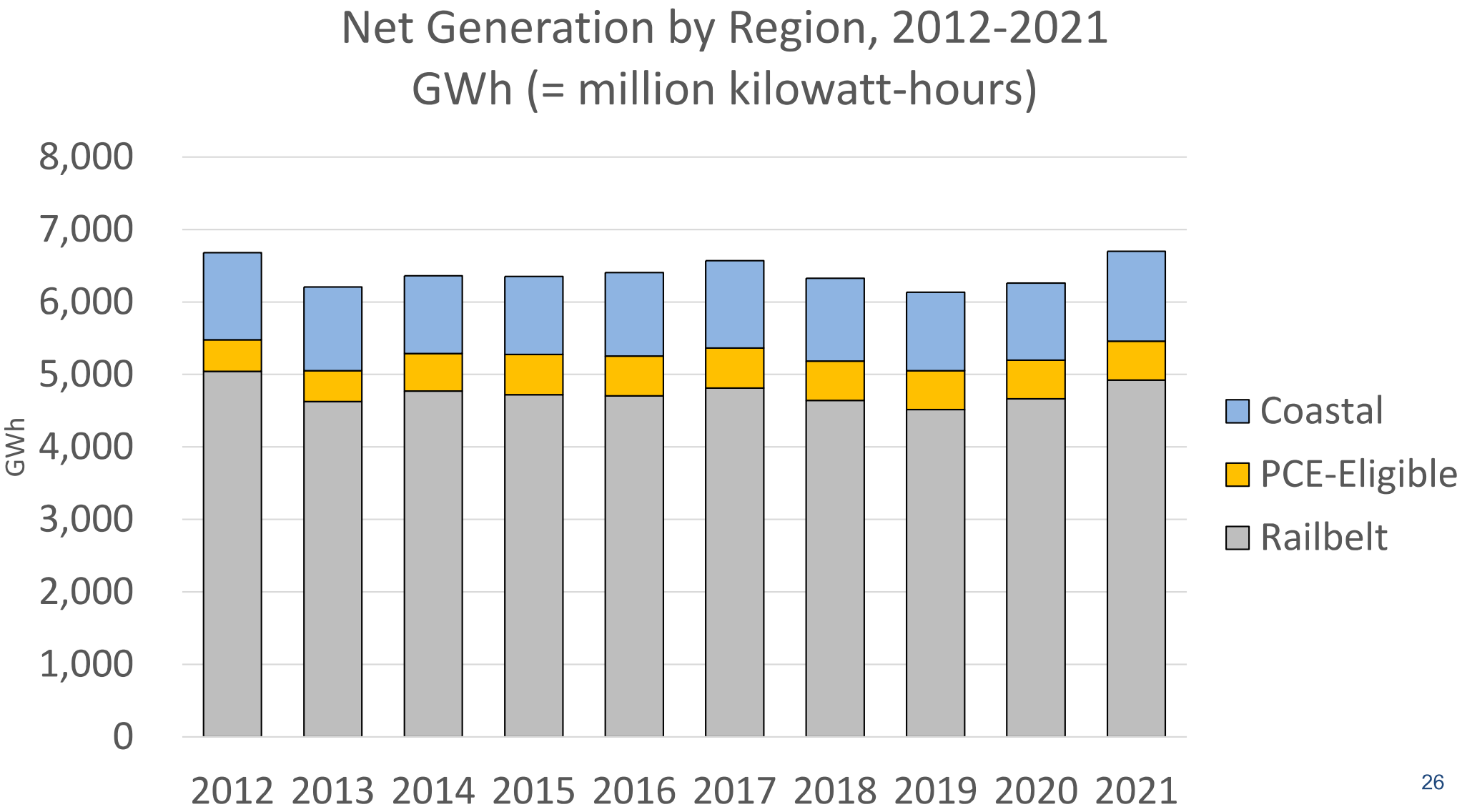


Net generation

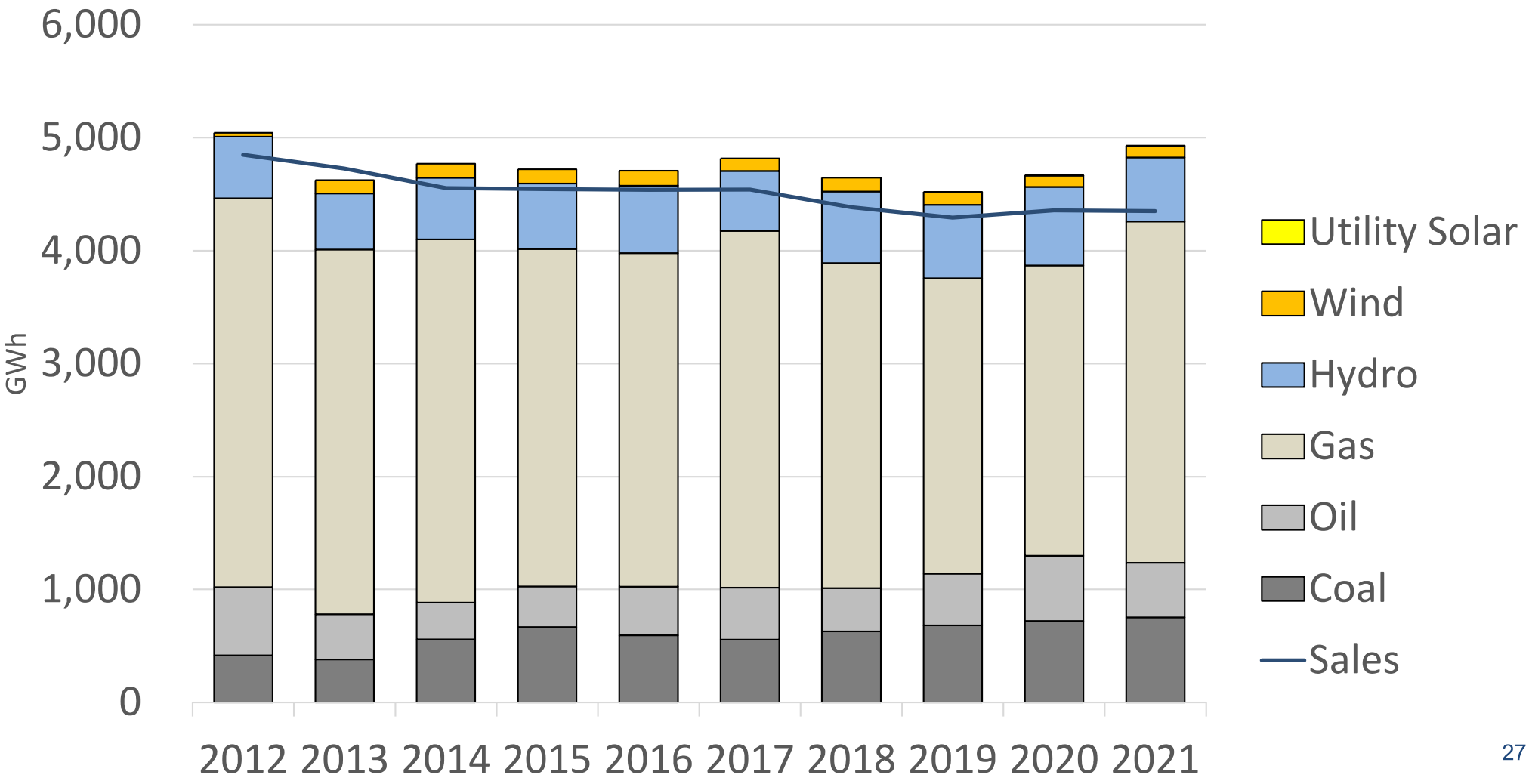
Alt Plant ID	RCA CPCN	Utility Name	Plant Name	Intertie Name	Energy Region	Oil	Gas	Coal	Hydro	Wind	Solar	Storage (MWH)	Other	Oil (gallons	Gas (mcf	Coal (short tons)	Source	Number of monthly records	Communities connected to plant	Notes
P001		Agrium U S Inc	Agrium Kenai Nitrogen Operations	Railbelt_grid	Railbelt															No Data
P014	742	Alaska Environmental Power	Delta Wind Farm	Railbelt_grid	Railbelt	0	0	0	0	3,654	0	0	0	0	0	0	EIA923	12	0	
P101	8	Chugach Electric Assn Inc	Hank Nikkels Plant 1	Railbelt_grid	Railbelt	1	2,261	0	0	0	0	0	0	1,344	110,760	0	EIA923	36	0	
P102	8	Chugach Electric Assn Inc	Eklutna Hydro Project	Railbelt_grid	Railbelt	0	0	0	139,894	0	0	0	0	0	0	0	EIA923	12	0	
P103	8	Chugach Electric Assn Inc	George M Sullivan Generation Plant 2	Railbelt_grid	Railbelt	0	761,372	0	0	0	0	0	0	0	5,928,673	0	EIA923	36	0	
P108	520	Aurora Energy LLC	Aurora Energy LLC Chena	Railbelt_grid	Railbelt	0	0	127,115	0	0	0	0	0	0	0	146,844	EIA923	12	0	
P120	8	Chugach Electric Assn Inc	Beluga	Railbelt_grid	Railbelt	0	2,049	0	0	0	0	0	0	0	138,262	0	EIA923	10	0	
P121	8	Chugach Electric Assn Inc	Cooper Lake	Railbelt_grid	Railbelt	0	0	0	36,381	0	0	0	0	0	0	0	EIA923	12	0	
P122	8	Chugach Electric Assn Inc	International	Railbelt_grid	Railbelt															No Data
P123	8	Chugach Electric Assn Inc	Southcentral Power Project	Railbelt_grid	Railbelt	0	1,041,694	0	0	0	0	0	0	0	8,073,094	0	EIA923	24	0	
P136	720	Doyon Utilities - Fort Greely	Fort Greely Power Plant	Railbelt_grid	Railbelt	60	0	0	0	0	0	0	0	4,158	0	0	EIA923	12	0	
P137	726	Doyon Utilities - Ft. Wainwrig	Utility Plants Section	Railbelt_grid	Railbelt	0	0	65,058	0	0	0	0	0	0	0	39,288	EIA923	12	0	
P138	724	Doyon Utilities, LLC	JBER Landfill Gas Power Plant	Railbelt_grid	Railbelt	0	38,093	0	0	0	0	0	0	0	775,141	0	EIA923	18	0	
P142	0	Fire Island Wind LLC	Fire Island Wind	Railbelt_grid	Railbelt	0	0	0	0	41,759	0	0	0	0	0	0	EIA923	12	0	
P146	13	Golden Valley Elec Assn Inc	Battery Energy Storage System	Railbelt_grid	Railbelt	0	0	0	0	0	0	(3,433)	0	0	0	0	EIA923	12	0	
P147	13	Golden Valley Elec Assn Inc	Delta Power	Railbelt_grid	Railbelt	(121)	0	0	0	0	0	0	0	7,812	0	0	EIA923	12	0	
P148	13	Golden Valley Elec Assn Inc	Eva Creek Wind	Railbelt_grid	Railbelt	0	0	0	0	56,648	0	0	0	0	0	0	EIA923	12	0	
P149	13	Golden Valley Elec Assn Inc	Fairbanks	Railbelt_grid	Railbelt	9,024	0	0	0	0	0	0	0	1,330,266	0	0	EIA923	24	0	
P150	13	Golden Valley Elec Assn Inc	Healy	Railbelt_grid	Railbelt	7,531	0	366,442	0	0	0	0	0	786,618	0	106,511	EIA923	36	0	
P151	13	Golden Valley Elec Assn Inc	North Pole	Railbelt_grid	Railbelt	464,977	0	0	0	0	0	0	0	8,458,004	0	0	EIA923	48	0	
P152	13	Golden Valley Elec Assn Inc	GVEA Solar Farm	Railbelt_grid	Railbelt						560									No Data
P155	32	Homer Electric Assn Inc	Bernice Lake	Railbelt_grid	Railbelt	0	785	0	0	0	0	0	0	0	44,166	0	EIA923	12	0	
P156	32	Homer Electric Assn Inc	Bradley Lake	Railbelt_grid	Railbelt	0	0	0	291,018	0	0	0	0	0	0	0	EIA923	12	0	
P157	32	Homer Electric Assn Inc	Nikiski Combined Cycle	Railbelt_grid	Railbelt	0	599,354	0	0	0	0	0	0	0	3,553,344	0	EIA923	24	0	
P158	32	Homer Electric Assn Inc	Seldovia	Railbelt_grid	Railbelt	224	0	0	0	0	0	0	0	14,868	0	0	EIA923	12	0	
P159	32	Homer Electric Assn Inc	Soldotna	Railbelt_grid	Railbelt	0	33,121	0	0	0	0	0	0	0	329,494	0	EIA923	12	0	
P197	18	Matanuska Electric Assn Inc	Eklutna Generation Station	Railbelt_grid	Railbelt	0	678,552	0	0	0	0	0	0	0	5,860,502	0	EIA923	12	0	
P235		Renewable IPP	Willow Solar	Railbelt_grid	Railbelt						1,217						MEA annrept to RCA			No Data
P289	108	City of Seward - (AK)	Seward (AK)	Railbelt_grid	Railbelt	335	0	0	0	0	0	0	0	26,502	0	0	EIA923	12	0	
P257	0	Tesoro Alaska Company LLC	Tesoro Kenai Cogeneration Plant	Railbelt_grid	Railbelt	0	64,878	0	0	0	0	0	0	0	271,618	0	EIA923	12	0	
P267	482	University of Alaska	University of Alaska Fairbanks	Railbelt_grid	Railbelt	349	8	70,620	0	0	0	0	0	46,242	74	28,085	EIA923	28	0	
P268	0	U S Air Force-Eielson AFB	Eielson AFB Central Heat & Power Pl	Railbelt_grid	Railbelt	292	0	73,660	0	0	0	0	0	10,080	0	28,375	EIA923	24	0	

Statewide net generation by fuel, 1971-2021
GWh (= million kilowatt-hours)

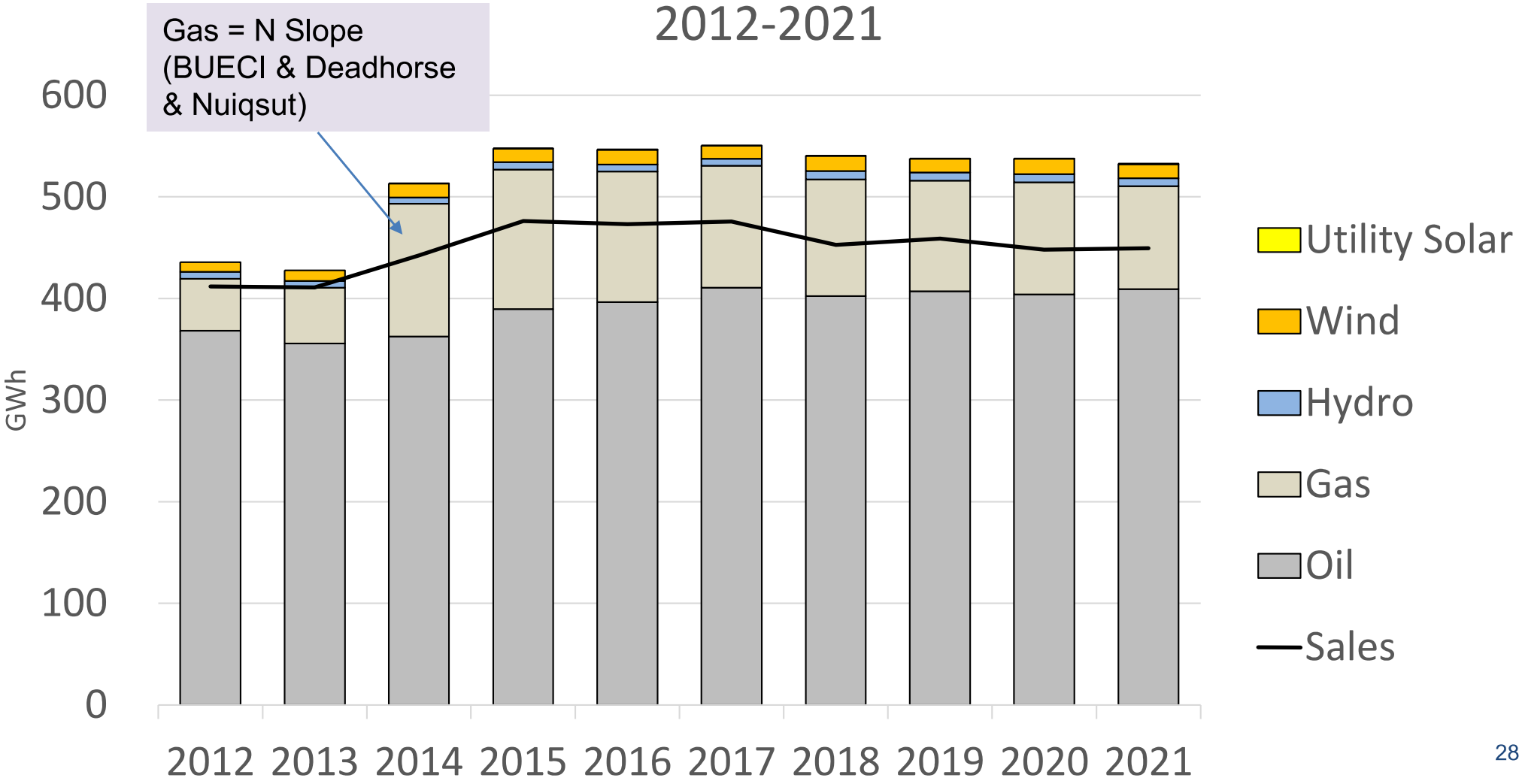



Net Generation by Region, 2012-2021
GWh (= million kilowatt-hours)
GWh
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Coastal
PCE-Eligible
Railbelt

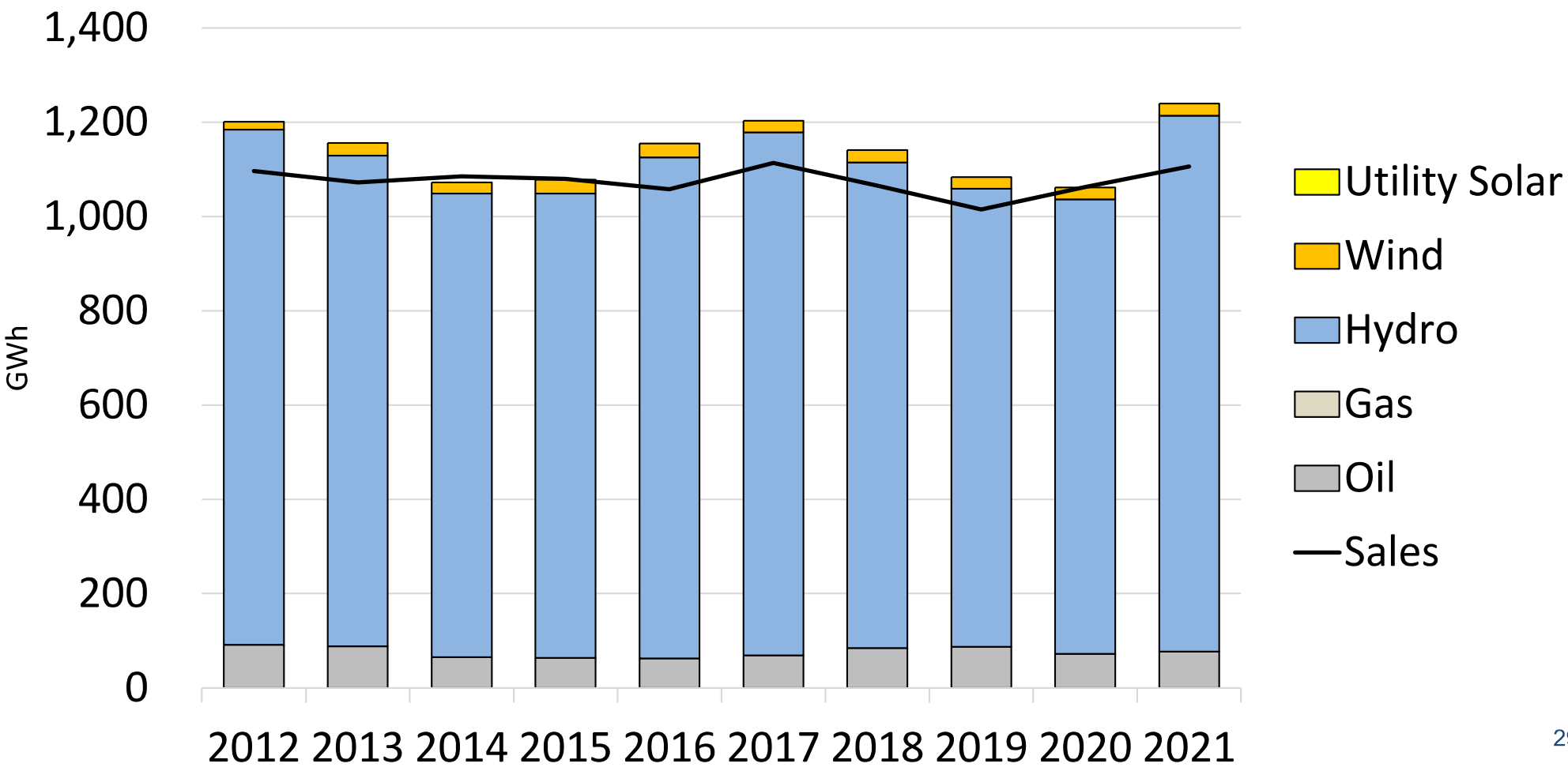
Railbelt Net Generation and Total Sales, 2012-2021



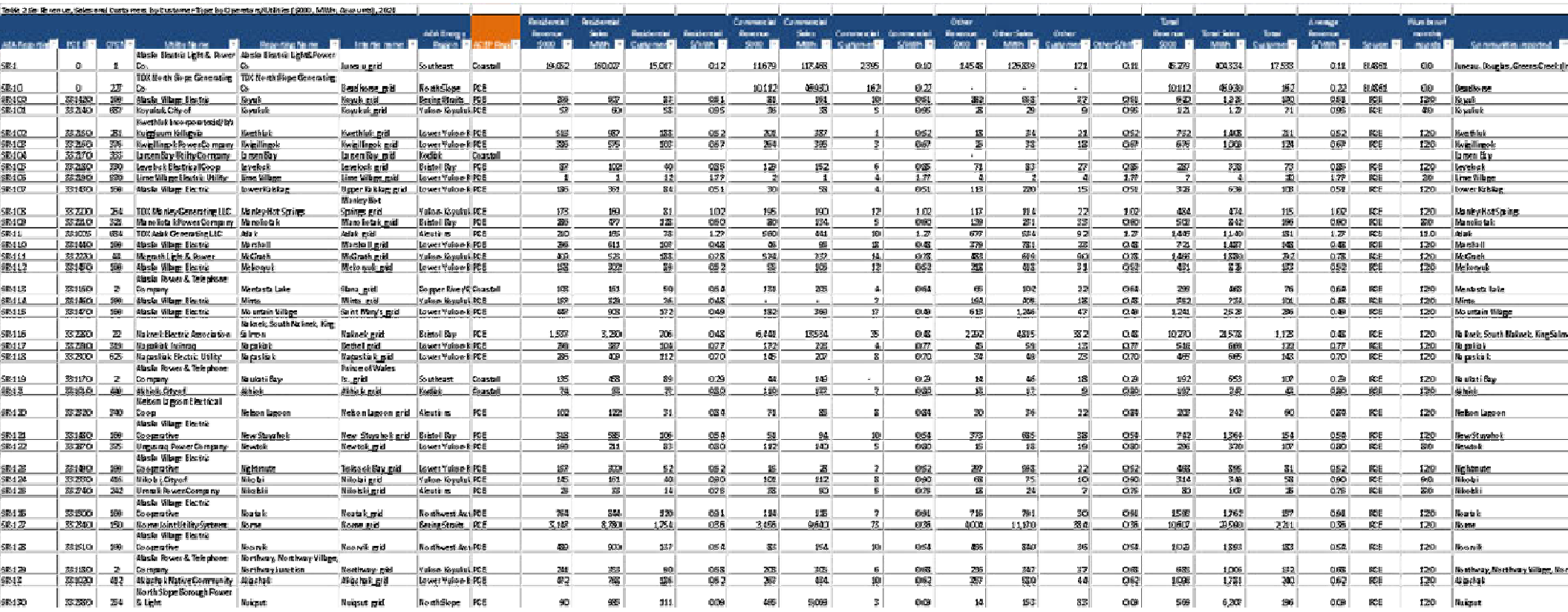
Rural Remote Region Net Generation and Total Sales, 2012-2021



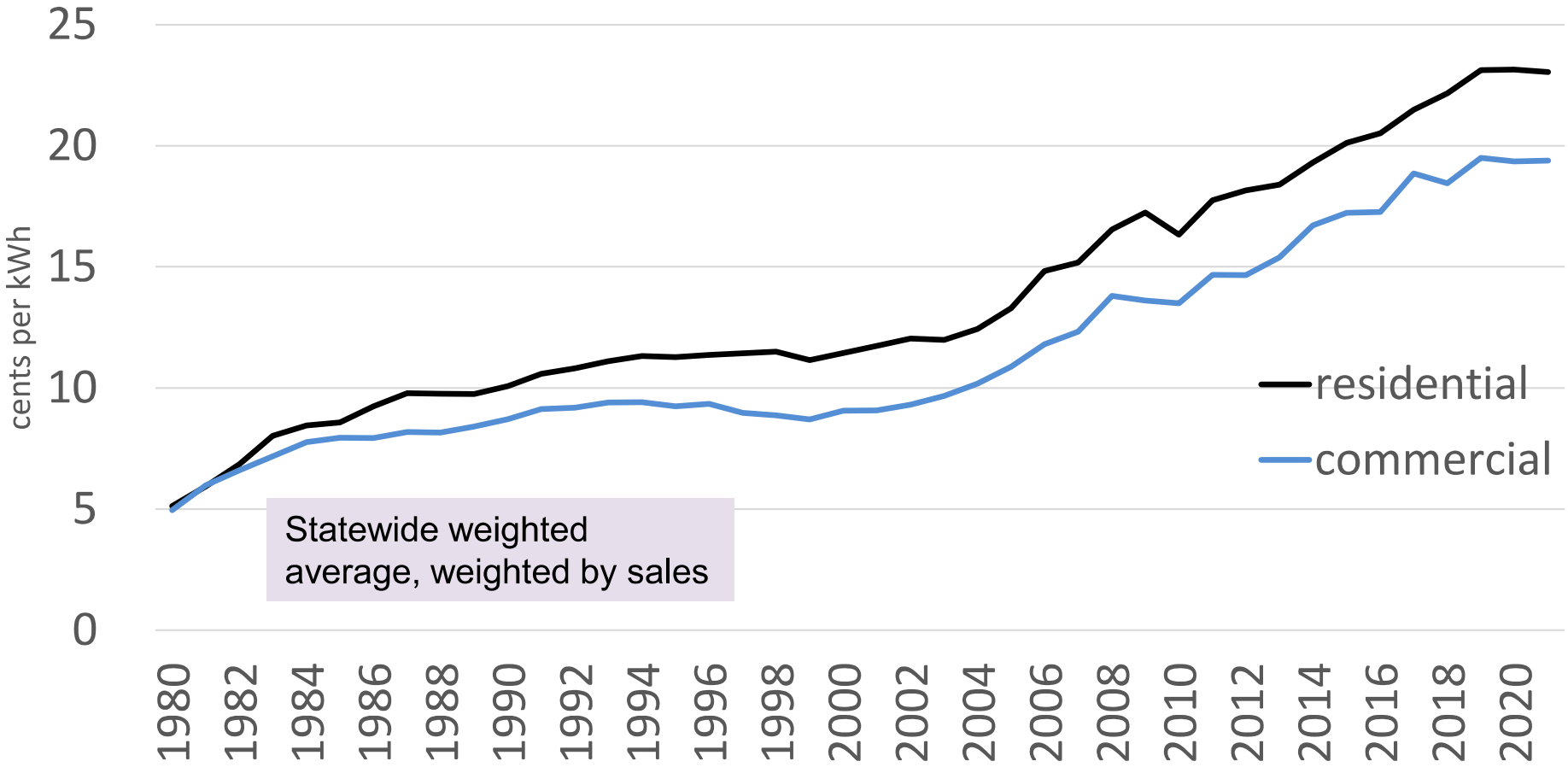
Coastal Region Net Generation and Total Sales, 2012-2021



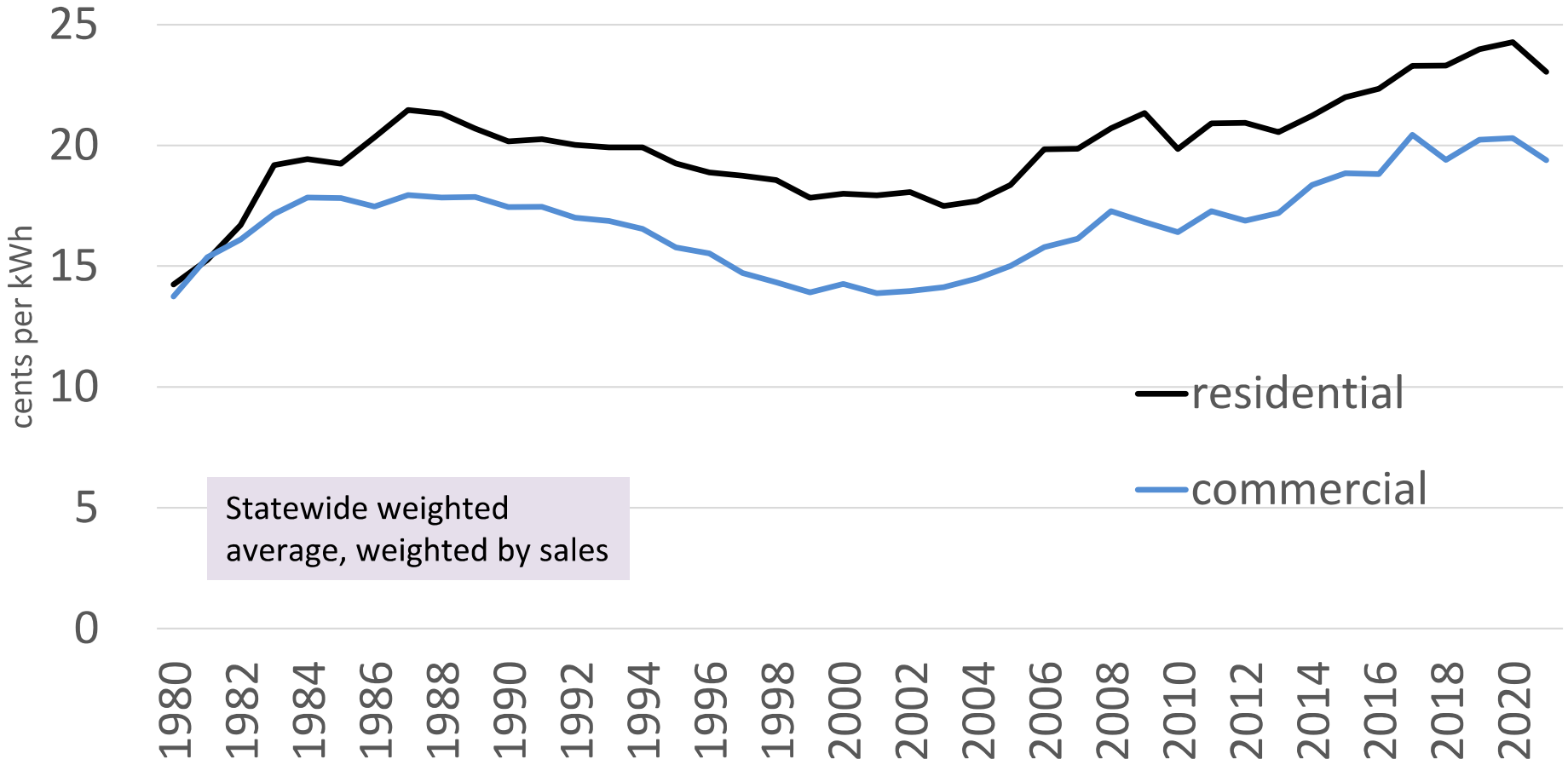
Average price



Average Revenue, cents per kWh, 1980-2021 (current or "nominal" dollars)

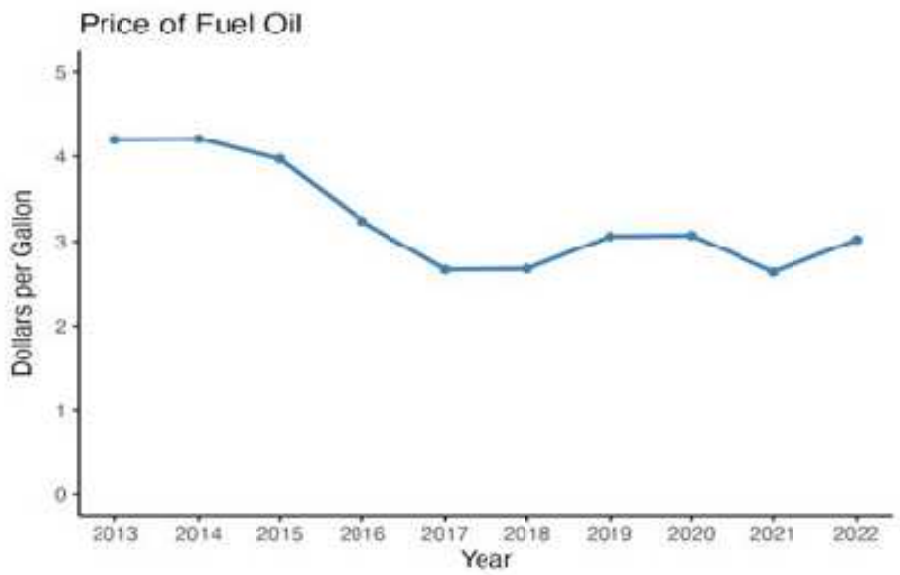


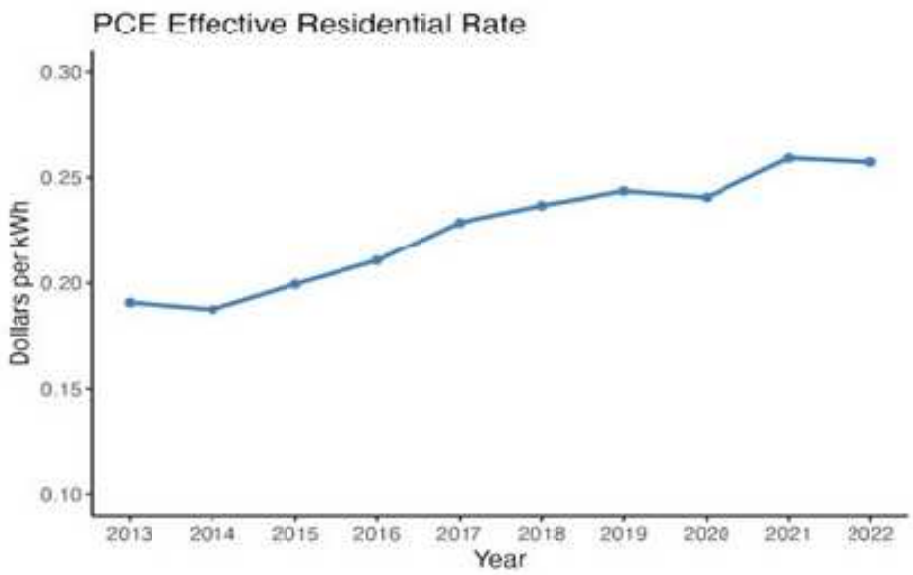
Average revenue, cents per kWh, 1980-2021 (inflation-adjusted to 2021 dollars using Urban AK CPI)

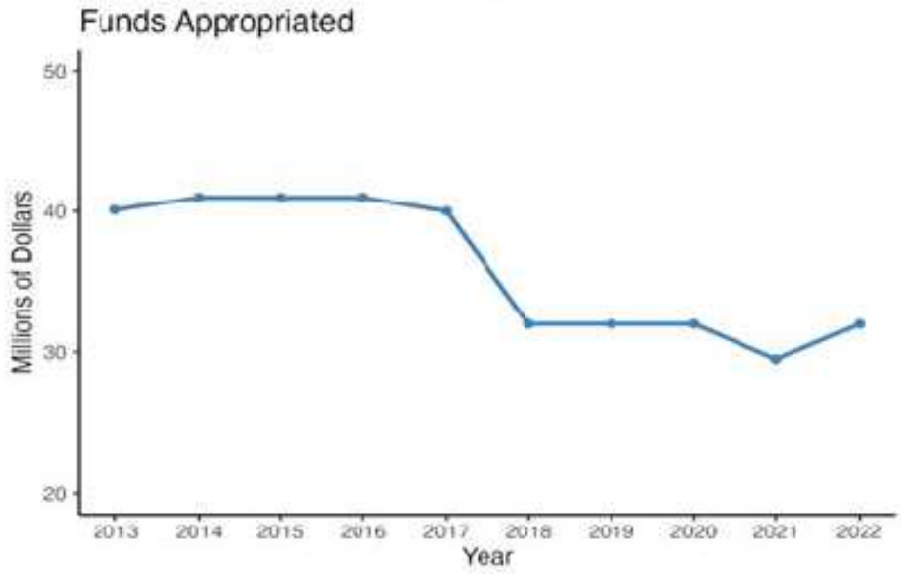


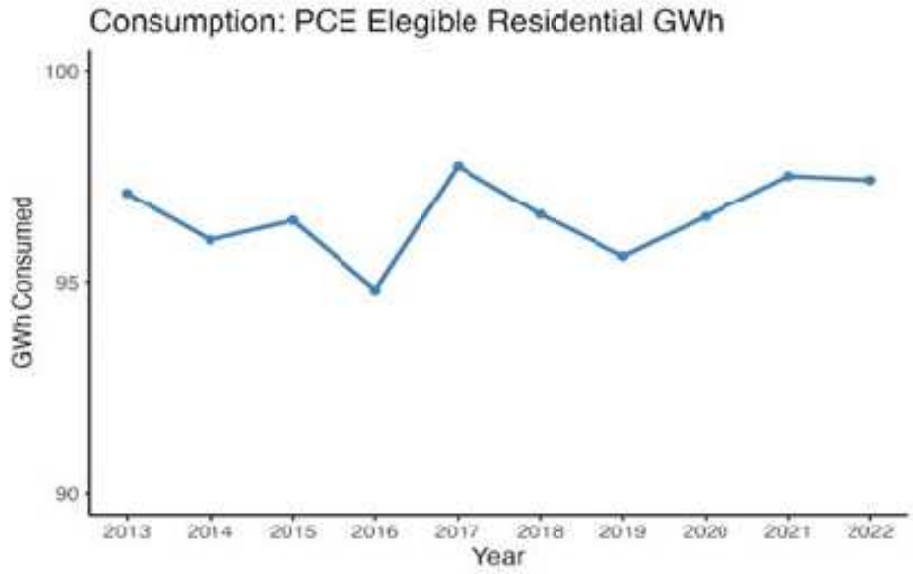
PCE Trends (2013-2022)

Data Source – AEA PCE Annual Report (2022)









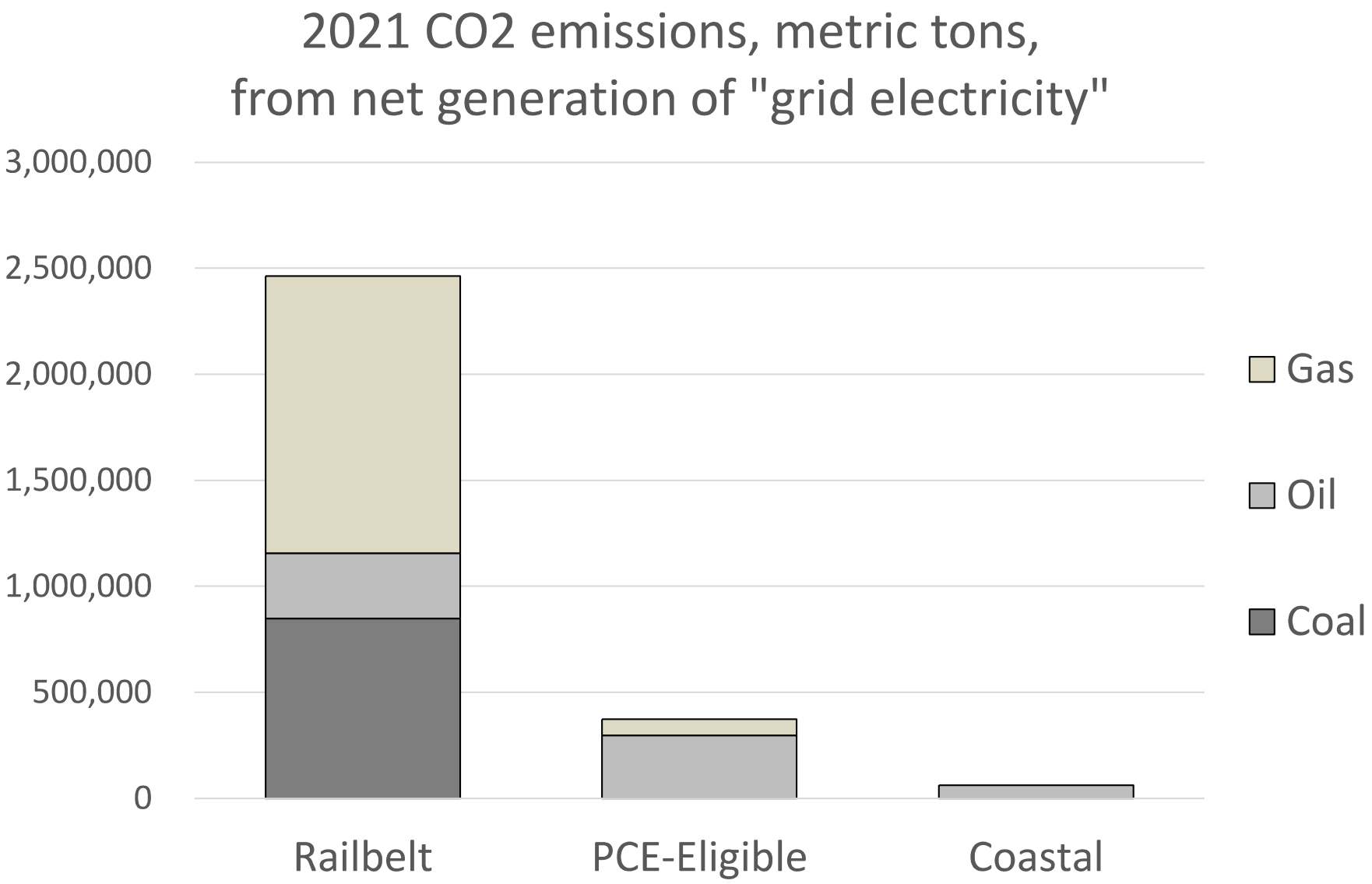
CO2 emissions

Net Generation, Fuel Use, and CO2 Emissions by Plant, Prime Mover, and Fuel Type, 2022

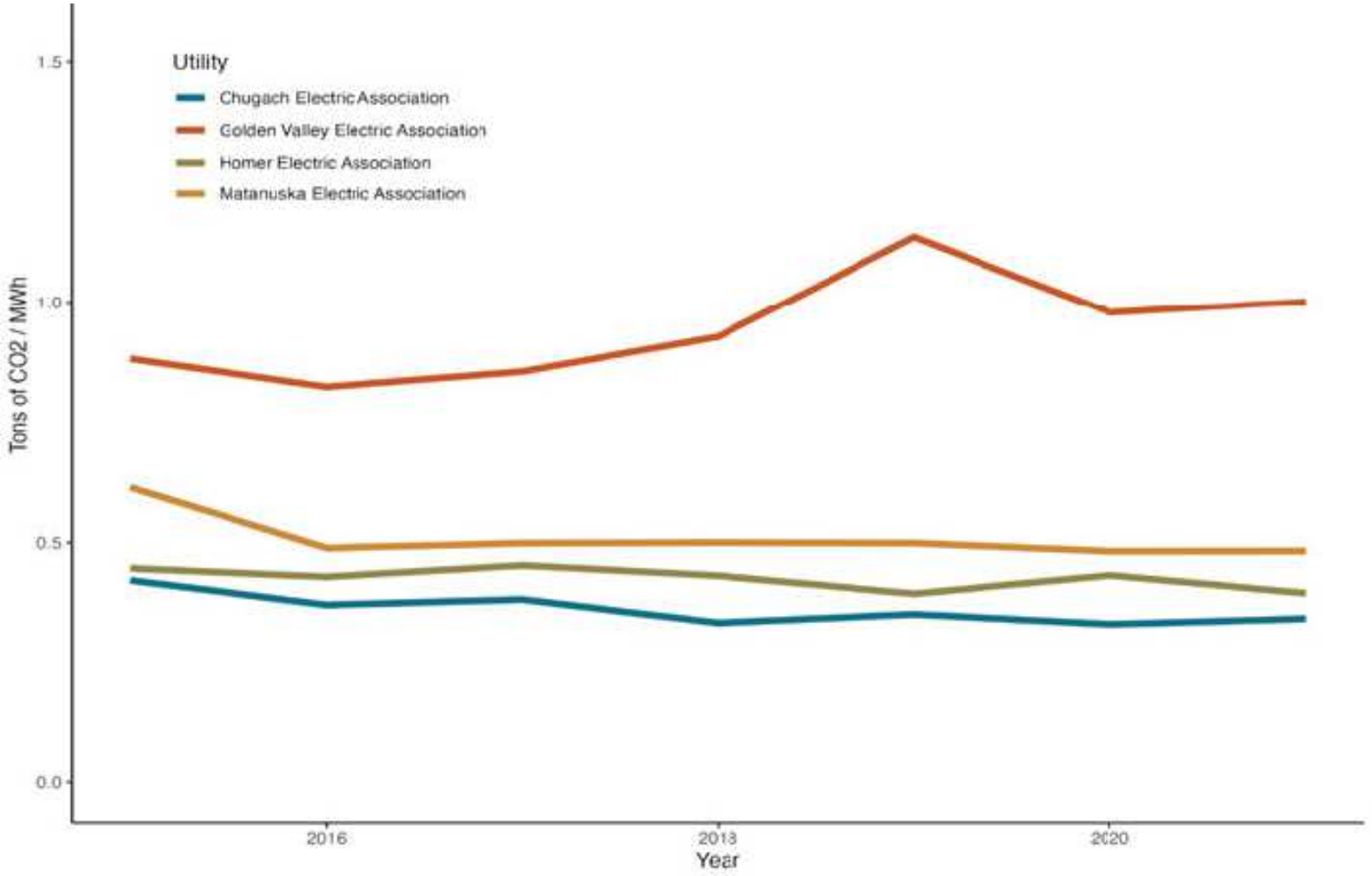
Fuel Types: AB–Agricultural By-Products, BFO–Distillate Fuel Oil, JF–Jet Fuel, NG–Natural Gas, OTH–Other, RFO–Residual Fuel Oil, SUB–Sub-Bituminous Coal, WAT–Waterborne Conventional Hydroelectric Turbine, WC–Waste Coal, WDS–Wood Solids, WND–Wind, WO–Waste Oil, Other

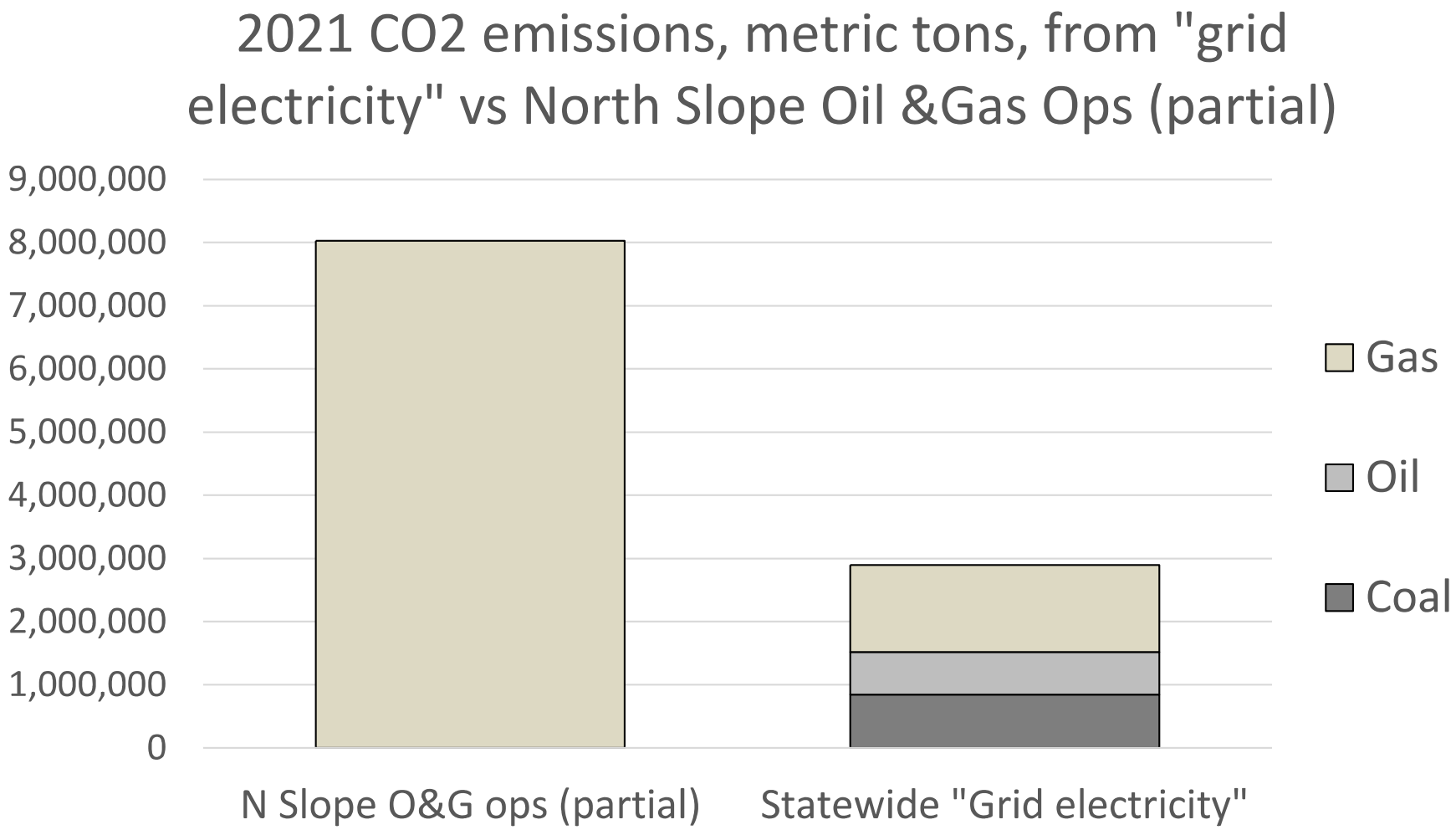
Prime Movers: CA–Combined Cycle, steam part, CT–Combined Cycle–turbine part, GT–Gas Turbine, IC–Internal Combustion Engine, ST–Steam Turbine, WT–Wind Turbine

AK Plant ID	RCA CPCN	Utility Name	Plant Name	Interlie Name	Energy Region	Fuel Type	Prime Mover	Generation MWh	Generation MMBtu	Fuel Use	Fuel Units	Estimated Average Heat Content	Total Fuel MMBtu	Emission Factor kgCO2 per MMBtu	CO2 Metric Tons from Fuel
P001	0	Agrium US Inc	Agrium Kenai Nitrogen Operations	Railbelt_grid	Railbelt	BIO	IC								
P001	0	Agrium US Inc	Agrium Kenai Nitrogen Operations	Railbelt_grid	Railbelt	BIO	ST								
P002	949	Akhiok, City of	Akhiok	Akhiok_grid	Kodiak	DFO	IC	237	991	24270	gallons	0.138	3,349	73.15	245
P003	612	Akiachak Native Community	Akiachak	Akiachak_grid	Lower Yukon-Kuskokwi	DFO	IC	2,004	6,853	145144	gallons	0.138	19,754	73.15	1,445
P004	635	Akiak City Council	Akiak	Akiak_grid	Lower Yukon-Kuskokwi	DFO	IC	225	769	17066	gallons	0.138	2,355	73.15	172
P005	294	Akutan, City of	Akutan	Akutan_grid	Aleutians	WA	HY	166	575	0		-	0	-	0
P005	294	Akutan, City of	Akutan	Akutan_grid	Aleutians	DFO	IC	515	1,767	43356	gallons	0.138	5,953	73.15	436
P006	1	Alaska Electric Light & Power Co	Annex Creek	Juneau_grid	Southeast	WA	HY	25,883	88,870	0		-	228,770	-	0
P007	1	Alaska Electric Light & Power Co	Auke Bay	Juneau_grid	Southeast	DFO	ST	(328)	(1,115)	14741	gallons	0.135	1,990	73.15	146
P007	1	Alaska Electric Light & Power Co	Auke Bay	Juneau_grid	Southeast	DFO	IC	(30)	(96)	1154	gallons	0.133	151	73.15	11
P008	1	Alaska Electric Light & Power Co	Gold Creek	Juneau_grid	Southeast	DFO	IC	5	17	370	gallons	0.135	51	73.15	4
P008	1	Alaska Electric Light & Power Co	Gold Creek	Juneau_grid	Southeast	WA	HY	5,419	18,501	0			47,930		0
P009	1	Alaska Electric Light & Power Co	Industrial Plant	Juneau_grid	Southeast	DFO	ST	(125)	(428)	17075	gallons	0.135	2,309	73.15	171
P010	1	Alaska Electric Light & Power Co	Lake Dorothy Hydroelectric Project	Juneau_grid	Southeast	WA	HY	87,446	298,491	0		-	773,985	-	0
P011	1	Alaska Electric Light & Power Co	Lemon Creek	Juneau_grid	Southeast	DFO	IC	(549)	(1,878)	14071	gallons	0.135	1,898	73.15	139
P011	1	Alaska Electric Light & Power Co	Lemon Creek	Juneau_grid	Southeast	DFO	ST	(295)	(1,009)	15204	gallons	0.135	2,053	73.15	150
P012	1	Alaska Electric Light & Power Co	Salmon Creek 1	Juneau_grid	Southeast	WA	HY	24,590	84,005	0		-	217,802	-	0
P013	1	Alaska Electric Light & Power Co	Snettisham	Juneau_grid	Southeast	WA	HY	288,735	985,952	0		-	2,555,570	-	0
P014	742	Alaska Environmental Power	Delta Wind Farm	Railbelt_grid	Railbelt	WND	WT	3,654	12,480	0		-	32,354	-	0
P015	2	Alaska Power and Telephone Co	Black Bear Lake	Prince of Wales	Southeast	WA	HY	22,727	77,633	0		-	201,274	-	0
P016	2	Alaska Power and Telephone Co	Goat Lake Hydro	Upper Lynn Can	Southeast	WA	HY	14,473	49,431	0		-	128,166	-	0
P017	2	Alaska Power and Telephone Co	Keikahya Creek Hydro	Upper Lynn Can	Southeast	WA	HY	6,902	23,573	0		-	61,116	-	0
P018	2	Alaska Power and Telephone Co	South Fork	Prince of Wales	Southeast	WA	HY	6,206	21,200	0		-	54,961	-	0
P019	2	Alaska Power and Telephone Co	Viking	Prince of Wales	Southeast	DFO	IC								
P020	2	Alaska Power and Telephone Co	Craig (AK)	Prince of Wales	Southeast	DFO	IC	324	1,108	25112	gallons	0.139	4,370	73.15	319
P021	2	Alaska Power and Telephone Co	Fake Island	Prince of Wales	Southeast	DFO	IC	898	2,351	50148	gallons	0.139	6,957	73.15	509
P022	2	Alaska Power and Telephone Co	Hanes	Upper Lynn Can	Southeast	DFO	IC	1,390	4,754	118884	gallons	0.139	18,844	73.15	1,378
P022	2	Alaska Power & Telephone Co	Hanes	Upper Lynn Can	Southeast	WA	HY								
P023	2	Alaska Power and Telephone Co	Hydaburg	Prince of Wales	Southeast	DFO	IC	12	42	3571	gallons	0.139	498	73.15	36
P024	2	Alaska Power and Telephone Co	Klawock Power Generation Station	Prince of Wales	Southeast	DFO	IC	600	2,052	47124	gallons	0.139	6,535	73.15	478
P025	2	Alaska Power & Telephone Co	Northway, Northway Village, Northway	Northway_grid	Yukon-Koyukuk/Upper T	DFO	IC	1,096	3,748	87326	gallons	0.138	12,059	73.15	882
P026	2	Alaska Power & Telephone Co	Skagway	Haines_grid	Southeast	DFO	IC	1,433	5,073	102616	gallons	0.138	14,161	73.15	1,036
P026	2	Alaska Power & Telephone Co	Skagway	Haines_grid	Southeast	WA	HY	2,601	9,556	0		-	0	-	0
P027	2	Alaska Power & Telephone Co	Slana	Slana_grid	Yukon-Koyukuk/Upper T	DFO	IC	1,424	4,871	108293	gallons	0.138	14,948	73.15	1,094
P028	2	Alaska Power and Telephone Co	Thorne Bay Plant	Prince of Wales	Southeast	DFO	IC	20	68	7306	gallons	0.139	1,013	73.15	74
P029	2	Alaska Power & Telephone Co	Tok, Tanacross	Tok_grid	Yukon-Koyukuk/Upper T	DFO	IC	10,334	35,516	716356	gallons	0.138	98,926	73.15	7,236
P030	2	Alaska Power & Telephone Co	Allakaket, Alatna	Alakaket_grid	Yukon-Koyukuk/Upper T	DFO	IC	662	2,264	54977	gallons	0.138	7,587	73.15	555
P031	2	Alaska Power & Telephone Co	Bettles, Evansville	Bettles_grid	Yukon-Koyukuk/Upper T	DFO	IC	518	1,770	43056	gallons	0.138	5,942	73.15	435
P032	2	Alaska Power & Telephone Co	Chistochina	Slana_grid	Copper River/Chugach	DFO	IC								
P033	2	Alaska Power & Telephone Co	Coffman Cove	Prince of Wales	Southeast	DFO	IC								
P034	2	Alaska Power & Telephone Co	Eagle, Eagle Village	Eagle_grid	Yukon-Koyukuk/Upper T	SUN	PV	10	36	0		-	0	#N/A	#N/A
P034	2	Alaska Power & Telephone Co	Eagle, Eagle Village	Eagle_grid	Yukon-Koyukuk/Upper T	DFO	IC	866	2,963	68377	gallons	0.138	9,229	73.15	675
P035	2	Alaska Power & Telephone Co	Gustavus	Gustavus_grid	Southeast	DFO	IC	534	1,825	37531	gallons	0.138	5,179	73.15	379
P035	2	Alaska Power & Telephone Co	Gustavus	Gustavus_grid	Southeast	WA	HY	2,139	7,298	0		-	0	-	0
P036	2	Alaska Power & Telephone Co	Healy Lake	Healy Lake_grid	Yukon-Koyukuk/Upper T	DFO	IC	105	359	11236	gallons	0.138	1,551	73.15	113
P037	2	Alaska Power & Telephone Co	Hollis	Prince of Wales	Southeast	DFO	IC								

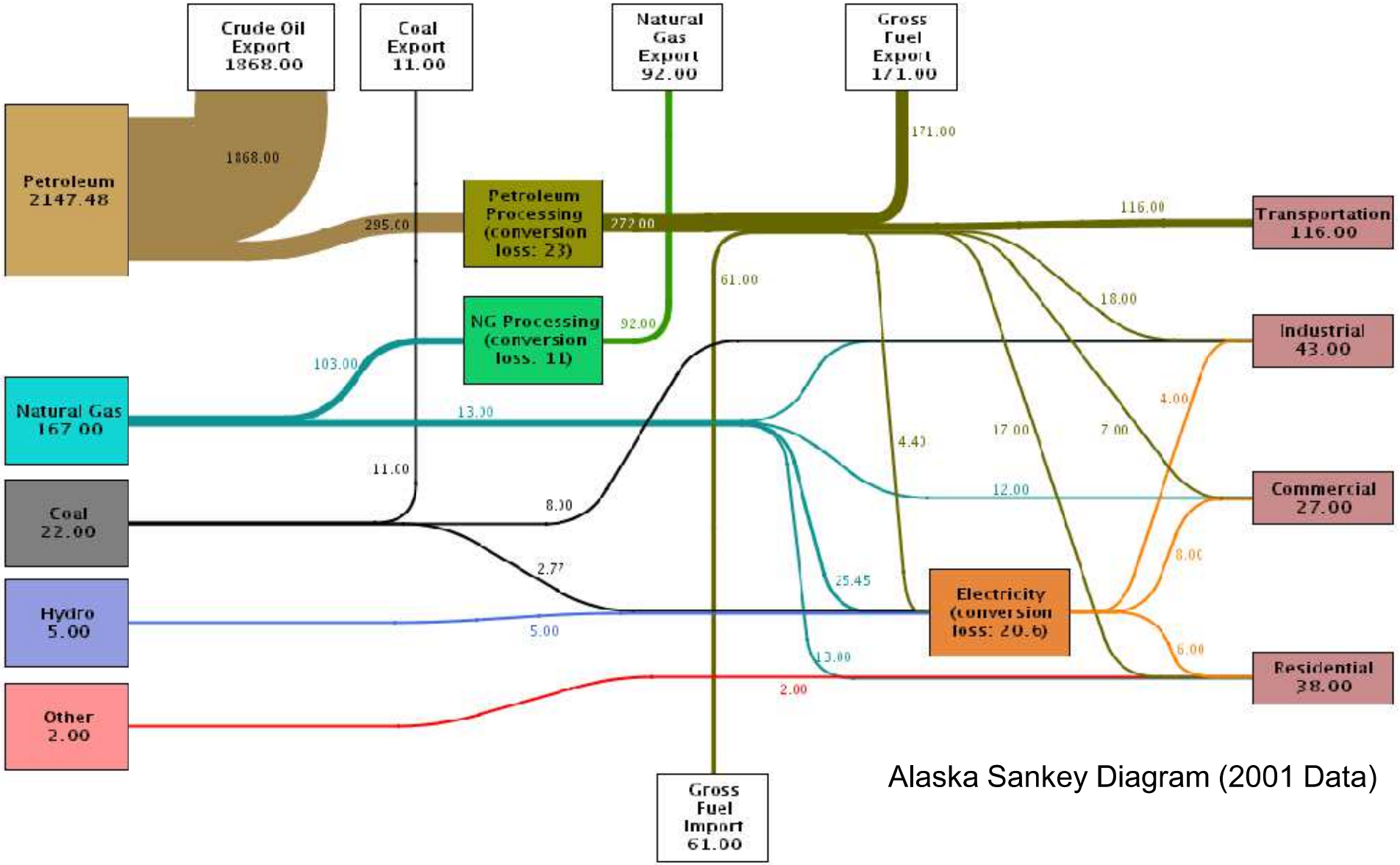

2021 CO2 emissions, metric tons,
from net generation of "grid electricity"
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
Railbelt
PCE-Eligible
Coastal
Gas
Oil
Coal

Railbelt Utilities Self-Reported CO2 Intensity



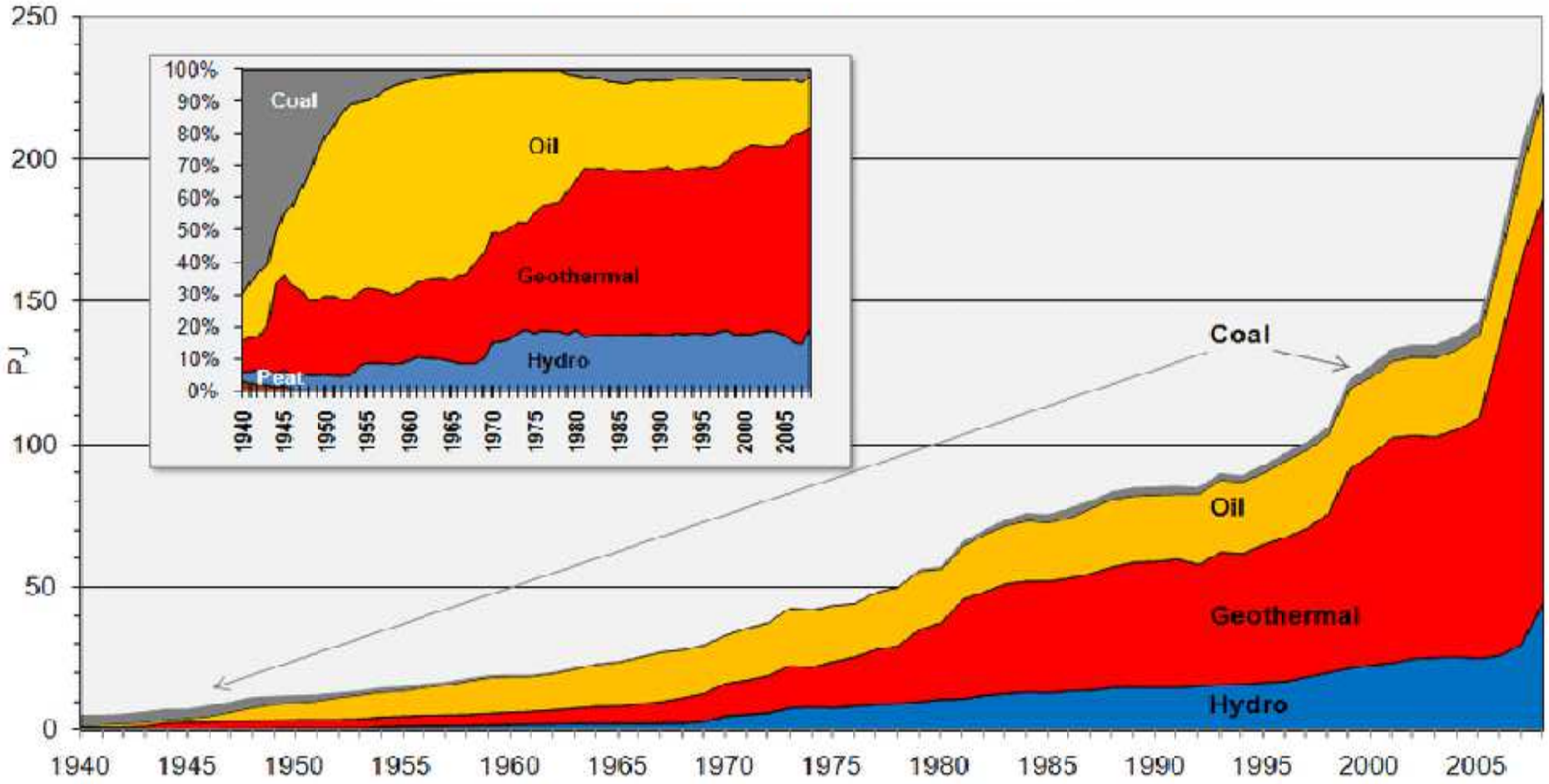


N Slope CO2 from EPA FLIGHT database https://ghgdata.epa.gov/ghgp/main.do

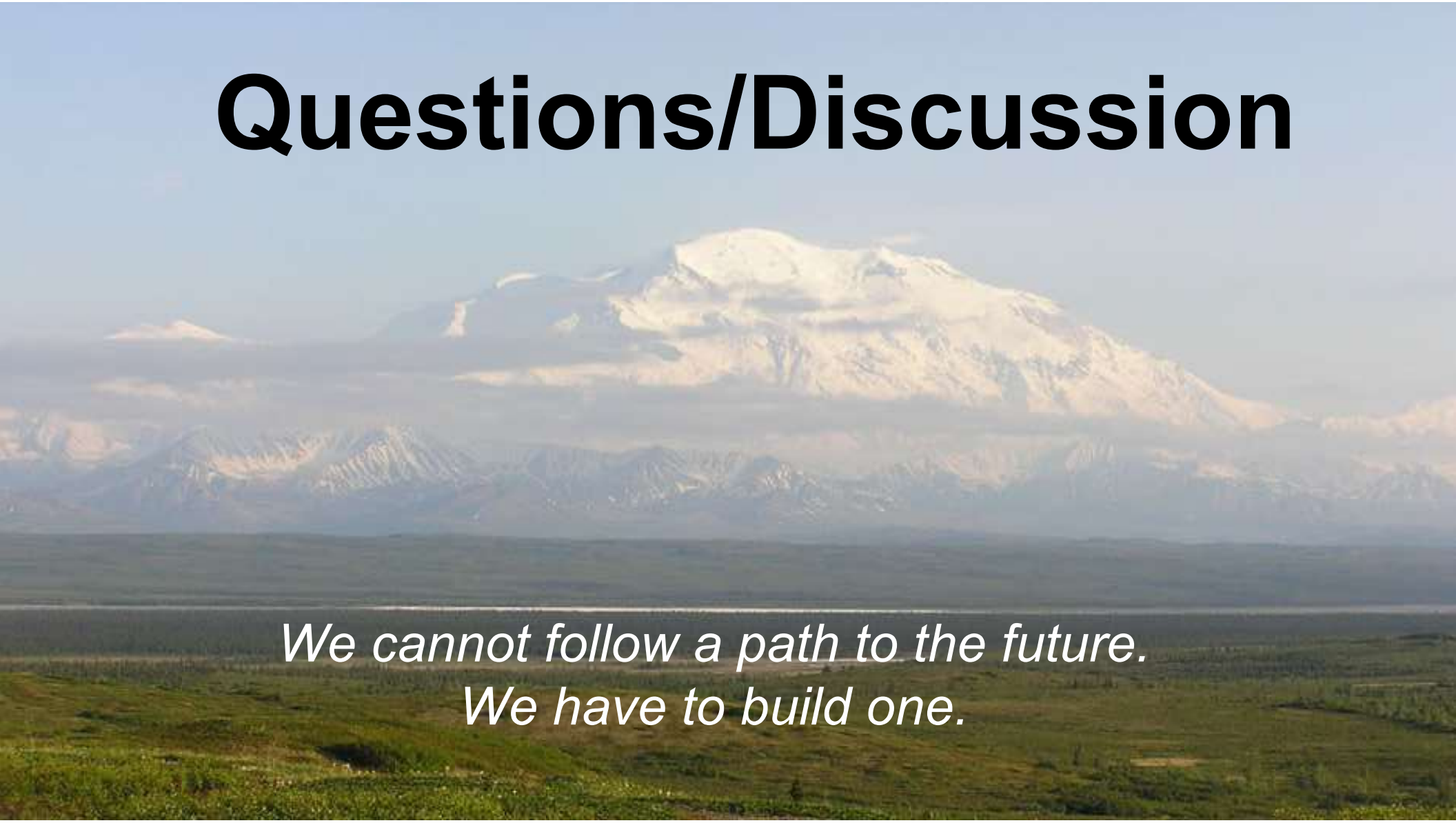


Alaska Sankey Diagram (2001 Data)

Example: Iceland Primary Energy Consumption



Questions/Discussion



We cannot follow a path to the future.
We have to build one.

Alaska Energy Security Task Force
MEETING MINUTES
Tuesday, August 8, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on August 8, 2023, at 9:06 am.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Clay Koplin; Emma Pokon (Acting Commissioner); Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Jenn Miller; Duff Mitchell; John Sims; Isaac Vanderburg; Robert Venables (arrived late); Daniel White; Anne Ritgers on behalf of Senator Click Bishop; Keith Kurber (Commissioner, Ex Officio); and Erin Whitney (Ex Officio).

Chair Lieutenant Governor Dahlstrom officially recognized and welcomed Acting Commissioner Pokon who replaced Jason Brune at Department of Environmental Conservation (DEC).

3. Prior Meeting Minutes – July 18, 2023

MOTION: Vice-Chair Thayer made a motion to approve the Minutes of July 18, 2023, as presented. Motion seconded by Mr. Izzo.

A roll call vote was taken, and the motion to approve the Minutes of July 18, 2023, passed without objection.

4. Energy Data Presentation

Chair Lieutenant Governor Nancy Dahlstrom requested Vice-Chair Thayer move forward with the agenda. Vice-Chair Thayer introduced Gwen Holdmann, Alaska Center for Energy and Power (ACEP), to review the Energy Data Presentation. Ms. Holdmann introduced Sara Fisher-Goad of University of Alaska Fairbanks, and Neil McMahon of DOWL. Ms. Holdmann highlighted that both Ms. Fisher Goad and Mr. McMahon worked on the statistics in the data presentation and are both alumni of the Alaska Energy Authority (AEA).

Ms. Holdmann discussed the purpose of the Alaska Energy Statistics Report is to provide factual information that has been compiled by ACEP over the last year. The report includes raw data statistics and data charts that allow for better visualization. The report does not offer analysis. The raw data information is used by ACEP and others to provide

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analysis. Ms. Holdmann noted the previous statistical data is contained in the historical list of 28 volumes of reports and Excel workbooks. The first publication by the Alaska Power Administration was in 1971. Since then, data has been published by entities, including the Alaska Power Authority, AEA, and Institute of Social and Economic Research (ISER). The workbooks compiled since 2013, however, have not been published. This is the longest gap in publication and she noted the challenges in recreating data sets from 10 years ago. ACEP followed the workbook template created by ISER, and the information can be organized and structured for use in various analyses. Ms. Holdmann made the recommendation to the Committee to publish the workbooks annually.

Ms. Holdmann reviewed the duties and responsibilities of the Task Force. The preparation of the statistics is intended to meet the first responsibility of establishing a baseline energy portfolio for the State of Alaska. Additionally, to help meet the fifth responsibility, there will be recommendations for the Data Subcommittee regarding strategies for sharing energy data on a current and regular basis.

Ms. Holdmann acknowledged the list of contributors shown in the presentation, including representatives from ACEP, ISER, DOWL, and others. She recognized the funding partners of Denali Commissioner, Office of Naval Research, ACEP, and UAF. Ms. Holdmann gave a brief overview of the primary data sources used throughout the workbooks. The data sources are cited for each item. The workbooks include regional summaries, as well as summary tables, detailed tables, and historical tables. Ms. Holdmann reviewed two example summary tables shown in the presentation.

Ms. Holdmann discussed the contents of the Alaska Energy Statistics. Only electricity is included. The North Slope and TAPS oil and gas operations are excluded. She noted the difficulties and future aspirations to include statewide heating statistics along with power statistics. The current statistics include Deadhorse. The current statistics exclude some stand-along industrial and remote generation, such as Red Dog Mine, behind-the-meter (BTM) solar, and utilities that do not report to the PCE Program and are not large enough to report to the Energy Information Agency (EIA). Examples of these utilities include Copper Valley Electric Association, Ketchikan, Barrow Utilities and Electric Cooperative, Inc. (BUECI), and Wrangell. The information from these utilities has to be collected and input individually.

Ms. Holdmann gave an overview of the gradient map of Alaska based on the delivered price of energy per kilowatt hour. She noted that the map is provided as an illustration for the Task Force, but is not part of the statistical data. She noted that AEA follows the 11 energy regions established by Alaska Native Claims Settlement Act (ANCSA). The data is further delineated into three geographic energy regions for the state: Rural Remote, Coastal, and Railbelt. The Rural Remote region was previously titled PCE Eligible. The Coastal region includes Kodiak, Copper River/Chugach, and Southeast. Ms. Holdmann requested the Task Force provide feedback on the three regions and their names to ensure they are relevant and consistent with the Task Force efforts.

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Ms. Holdmann discussed the trends over the last 10 years regarding the Railbelt installed capacity. The data shows an increase in capacity through new generation and does not show the retirement of sources. The categories are defined by the EIA language. She gave the example that Matanuska Electric Association (MEA) is considered under Recip Engines and Golden Valley Electric Association (GVEA) is considered under Fossil Turbine. Ms. Holdmann discussed the slides showing the trends over the last 10 years regarding the installed capacity for the Remote Rural and Coastal regions. She explained that the installed capacity also includes the back-up generation for the region.

Ms. Holdmann reviewed the slides showing the renewable installed capacity for each of the regions. The wind sources and landfill gas source came online in 2012 and the BTM solar sources came online in 2018. Additionally, battery storage capacity statistics are shown beginning in 2012.

Mr. Izzo asked if there is a way to delineate the installed capacity, which includes sources that have not been retired because of their remote nature, from online capacity. He noted that there is generation in Alaska that would not be found in a robust grid in the Lower 48. Mr. Izzo commented that the capacity factor shown on the charts would be much lower if it only included online sources. He asked if that data is available. Mr. McMahon commented that the level of delineation is based on how well the information has been reported. There are various codes provided to EIA that differentiate between power data, such as stand-by power and power that has been offline for a year, but is expected to be available. He noted that there are ways to tease out specific information.

Mr. Izzo commented that if a reader is not familiar with this subject, they could make assumptions that the generation is overbuilt, and then the capacity would have to be separated on a monthly basis due to the seasonality of some of the renewables. He commented on the storage capacity shown on the graph. He asked for additional information and requested that a recommendation is provided regarding the amount of storage that is needed compared to the current status.

Discussion occurred that the information within the workbooks includes storage. There is the ability to isolate the storage information per power plant. The workbook can be used to make individual charts based on parameters selected.

A reminder was given to anyone who speaks to please state their name for accurate reflection in the minutes.

Mr. White complimented the meticulous and detailed quality of the previous minutes. He requested additional information regarding the role of storage as reflected in the chart. He noted that the chart shows generated capacity, and the batteries store the power that is generated by the hydro, wind, landfill gas, or solar. Ms. Holdmann agreed. She recognized that storage is an important part of the grid infrastructure and it was a

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struggle to determine where the information would be reflected. The decision was made to include the information as a dotted line on the bar chart. Ms. Holdmann indicated that the contributors are open to suggestions as to how to incorporate the data in the statistics. The storage information was not included in the last version of the statistics.

Mr. White commented that he assumes that the battery storage is a short-term supply and could provide 30 minutes of power. He asked if that aspect will be acknowledged on the slide or within the report. Ms. Holdmann indicated the possibility of providing a list of the storage that is included in the report. The storage shown is in terms of megawatts (MW) and does not reflect the amount of energy that is available. The amount of power varies from 30 minutes to longer duration storage.

Mr. McMahon commented that the underlying data for storage includes both the energy in megawatt hours (MWh), as well as power in MW. He will need to confirm the extent of the data used as shown in the chart. Ms. Holdmann reiterated the hope that others will use the data that is available and create new graphs or look at different ways to interpret the information.

Ms. Miller suggested that an interesting view would be to pull in the capacity factor and the storage duration of the batteries.

Ms. Holdmann continued the presentation and reviewed that Alaska is exceeding state trends for BTM installed solar capacity. She noted the growth trend this year is expected to rise from 13 MW to 16 MW. This data is compiled by ACEP from individual utility Regulatory Commission of Alaska (RCA) reporting. Ms. Holdmann reviewed the slide showing the installed capacity of renewable energy for the PCE-Eligible Region, also called Rural Remote. The MW scale is much smaller on the chart. She explained that the decrease in wind capacity from 2018 to 2021 is due to the decommissioning of early generation turbines. Ms. Holdmann discussed the slide showing the installed capacity of renewable energy in the Coastal Region, which is almost entirely hydro, as expected.

Ms. Holdmann showed an example of the raw data information spreadsheet that is used to generate the summary tables and the charts. She discussed the statewide net generation by fuel type from 1971 through 2021. Ms. Holdmann indicated that some of the dips shown in the graphic may be related to reporting nuances.

Ms. Whitney asked if the data contains a level of uncertainty, and if so, are the dips within that level of uncertainty. Mr. McMahon explained that there is no accommodation for a level of uncertainty because the information shown is based on the reported amounts. He noted that he would have to go back and review the data from 2011, 2012, and 2013 to ascertain if any of the entities did not report during that time or were not included for some reason. Ms. Holdmann explained that the Alaska Energy Statistics is comprised of reported data only. Blank data is not filled in with estimated data.

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Ms. Holdmann discussed the graphic showing the comparative net generation by region. The PCE-Eligible title is the Rural Remote region. Additionally, she reviewed the individual regions' net generation and total sales data. Ms. Holdmann explained that the data does not track perfectly. She gave the example that it is unlikely that the Railbelt net generation in 2013 was lower than the total sales, as shown in the graph. Similarly, the Rural Remote region's sales were 13% less than its reported generation, as shown in the graph. Ms. Holdmann requested member insight into the reasons for these results. She highlighted a consideration of Deadhorse, for example, is the possibility that generation data is being captured, but sales data is not being captured. Ms. Holdmann noted that contributors are reviewing data to ensure the understanding of the data that is being processed and that the trends are accurately reflected. A technical advisory committee is also utilized to assist in the efforts to accurately report the trends.

Mr. Mitchell commented that he has seen Federal Energy Regulatory Commission (FERC) reports filed with the RCA that include a component that the utility may generate power that they use themselves. He noted this could contribute to the discrepancy in the data. Ms. Holdmann believes that station power is considered in the data. She explained another contributing factor is that reported line loss in the Power Cost Equalization (PCE) program is kilowatt hours (kWh) that are produced, but are not sold. This is separate from station power. However, this amount does not explain the entire 13% discrepancy.

Mr. McMahon stated that reporting to EIA is net generation and reporting to PCE is gross generation. This could contribute to some of the statistical differences.

Mr. Izzo remarked that the utility information includes station service, line loss of hopefully 5% or less, and the 30% spinning reserve requirement. He is unsure if the spinning reserve is reported as sales, even though the cost is recovered. Ms. Holdmann indicated that spinning reserve is not reported as generation.

Ms. Holdmann expressed that this level of feedback is helpful in understanding the information. She observed that the Coastal net generation and total sales chart shows the sales tracking more closely with the generation. Looking at the data, one could then begin to ask questions regarding the reasons for the dip in generation in 2019. Mr. Mitchell asked if the drought could have contributed to the dip in generation. Ms. Holdmann stated that it does not appear that fossil fuel generation increased in 2019. Mr. Mitchell commented that interruptible customers may not be captured in utility statistics. Ms. Holdmann acknowledged the excellent point and thanked him for his feedback.

Ms. Holdmann reviewed the statewide average revenue data in nominal dollars and in inflation-adjusted dollars. She discussed the charts showing the PCE trends from 2013 through 2022, including PCE effective rate, funds appropriated, price of fuel oil, and consumption. The information is provided in a visual way so that discussions can occur regarding policy and future programs. Ms. Holdmann highlighted that the CO2

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emissions numbers in the bar chart are calculated based on the source of generation. She gave the example of the significant contribution that coal makes in the Railbelt, despite its small part of Railbelt generation. Ms. Holdmann reviewed the slide showing the Railbelt utilities self-reported CO2 intensity information. This data may or may not be included with the final statistics. She identified the increase in GVEA's intensity in 2019. These types of indicators open the conversation to ensure the data is accurate, rather than inaccurate from reporting errors. Discussions can then occur with the utility to determine possible reasons for the changes.

Mr. Izzo discussed that the Swan Lake Fire occurred in 2019. The fire disabled the intertie for three months at Bradley Lake and cost an additional $12 million in natural gas fired generation and other fossil fuel generation substituting the lost hydro. Ms. Holdmann believes there are additional factors, other than the intertie, because no other utility shows an increase in intensity during that same period. Mr. McMahon identified that HEA's self-reported CO2 intensity decreased during 2019, which would be consistent with using more hydro available.

Ms. Holdmann discussed that there is a high degree of CO2 intensity on the North Slope. The information shown in the graph is not comprehensive. She reviewed the 2001 Alaska Sankey Diagram and would like to develop a new version, working with Department of Energy (DOE), Arctic Energy Office. The diagram shows the categories of primary energy and the significant amount of crude oil exports. Ms. Holdmann reviewed a slide showing an example of the way Iceland presents their primary energy consumption data. She hopes at some point that Alaska can view not only electric power, but also primary energy consumption data.

Ms. Whitney informed that the Arctic Energy Office is working on a 2021 version of the Alaska Sanke Diagram. She asked when and how the data will be shared and what conditions there are for using the data. Mr. McMahon responded that the workbook is near completion.

Mr. Hanneman expressed appreciation for the excellent presentation. He recommended that the AESTF also consider space heating energy security for Alaska. He asked if AEA is drafting an energy security report. Mr. Thayer discussed that the Alaska Energy Security Profile through DOE is for emergency purposes and lists the types of fuel sources. It is in the final stages of drafting and has to be approved by the Governor. The profile is a requirement for the Infrastructure Investment and Jobs Act (IIJA) funding.

A member asked the question if there is information regarding the anticipation of increased load to the grid if 10-cent power was available. It was noted that the load is anticipated to significantly increase at 10-cent power, but there is no specific data forecasting the amount of that increase. ACEP recently published a load forecast for the grid that does not include impacts of cheaper power. The example was given that if 10-cent power were available in Fairbanks today, people would switch to electric heating

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because it would be less expensive than oil-fired heating. It was mentioned that data can be retrieved from regulated utilities like Enstar, but data cannot be retrieved from unregulated entities. A comment was made that other states collect heating data by having a requirement for reporting, such as charging and then waiving a sales tax that is reported.

Mr. Mitchell expressed that it would be helpful to have a projection analysis for a scenario that if 10% of the Railbelt switched its fuel source to electrification, what impact that would have to the potential load, and thus what impact it would have to possible projects financing. Ms. Holdmann explained that the data provided is historical. She explained that the critical forward trending information Mr. Mitchell is discussing is a separate type of effort being conducted by ACEP. She informed there is a presentation today at lunch from ACEP to the Fairbanks Economic Development Corporation on Railbelt decarbonization modeling, projecting future scenarios of different growth projections, including the uptake of electric vehicles (EV), BTM solar, and heat pumps. She discussed that those forecasts are important, however, she differentiated that the statistical information presented today is historical, and it can be used to help understand future trends.

Ms. Miller expressed appreciation for the great presentation. She asked if it is possible to expand the data collection to include tracking the cost base per generation type and debt servicing information. Ms. Holdmann indicated that some of that information is available. The current challenge is in determining what data is included in the statistics report and how soon the statistics report is released. The purpose of the data is to be able to conduct additional analysis that may be presented as companion information.

Mr. Mitchell reiterated the request for the cost base per generation type. He asked if this information is available in the current data. Mr. McMahon noted that type of analysis is not within the information reported to EIA. He stated that some information could be pulled from certain utilities who report to RCA, but that the process would be time intensive and would not be comprehensive. Mr. Mitchell believes that it would be useful to the Task Force to have that data specifically from Southeast Alaska Power Agency (SEAPA), Snettisham, and Bradley Lake. He stated that the information may be in FERC One reports, other publicly available reports, or available upon request. Mr. Mitchell requested information on the modeling and cost specifically for Hyder's Tongass Power and Light Company that purchases its power for BC Hydro. Mr. Mitchell has been told it is one of the lowest costs of power in the state due to its postage stamp rate. He noted this could be an anomaly, and he would like the information of the modeling and cost from British Columbia on a comparison basis.

Ms. Holdmann commented that she is very interested in the Canadian models for postage stamp rates versus the PCE program. She noted the possibility of rethinking the cost of power throughout the state in a more egalitarian way. She discussed that there are pros and cons that have to be considered.

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Mr. Izzo provided insight into utility thinking and the challenges and opportunities going forward for beneficial electrification. The other side of the issue being analyzed is the scenario in which there is 15% proliferation of electric vehicles, which then exceeds the capacity of distribution lines, residential transformers, and substations transformers. Utilities do not build out in 10-times capacity. Today's rate payer cannot necessarily pay the capital costs to construct infrastructure for the next generation. It is most likely that the distribution upgrades will be targeted in locations of population growth. He noted that there will be costs associated with the upgrades. There were no other comments or questions.

5. Energy Scenario Planning Process Overview

Vice-Chair Thayer indicated that the next presentation will be provided by the contractor Black & Veatch (B&V). The B&V representative introduced herself. Vice-Chair Thayer noted that the B&V representative is able to review the PowerPoint presentation by sharing her screen. Vice-Chair Thayer advised that the B&V presentation will be made available through Sharepoint. The B&V representative discussed that B&V will focus on the data to help develop and propose a strategy to reach the Task Force's objective of reducing the energy cost in Alaska. The scope of work includes providing support for the regional subcommittees and reviewing different available and appropriate technologies within the scenario planning process. Cost/benefit analysis of the different technologies and scenarios will also be provided within each subcommittee based on their objectives and energy market characteristics.

The B&V representative discussed the regional assumptions and trends that likely will be used in the proposed scenarios and analysis. The information included residential, commercial, and industrial electricity sales in Alaska. She reviewed the summary data from 2021, for example. She discussed that the primary supply of natural gas from Cook Inlet is declining, and plausible scenarios need to be developed to compensate for this disappearance of gas production in Cook Inlet.

Vice-Chair Thayer noted that the graphs shown in the presentation do not accurately reflect the composition of the utilities referenced. He noted that the information may have been pulled from different reports and additional discussion with the utilities should occur to ensure accurate information.

Ms. Whitney inquired if the numbers are averaged over different customer classes. The B&V representative agreed that the information is averaged over different customer classes. Ms. Whitney asked Task Force members if the aspirational goal is to achieve 10-cent power for residential customers or for all customers.

Mr. Mitchell commented that he believes the goal of 10-cent power is for all customers, which will contribute to the prosperity and economic development of Alaska. He believes

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it is important to view the classes on a granular level, rather than on an averaged basis.

Vice-Chair Thayer requested Mr. Izzo, President of MEA, comment on the graph regarding the information presented for MEA. Mr. Izzo noted that the map on the left side has discrepancies. He discussed that the actual energy basis breakdown is 84% natural gas and 16% other, with the vast majority of that in hydro from Bradley Lake and Eklutna hydro. The B&V representative indicated that they may be interpreting the data differently. The information was meant to illustrate that the data will be used to understand historical trends in order to inform the assumptions moving forward. B&V will rely on the Task Force's recently compiled installed capacity data and generation data as a starting point.

Mr. Koplin commented on the nuances within data that is analyzed more deeply at the utility level. He noted that the previous slide showed trends of bulk use over time in the community. Mr. Koplin gave the example that if the population of the community is declining and the average use per customer is increasing, the data could reflect a flat line. He indicated that the residential rate class and use per customer bottomed out in 2018, as customers were taking advantage of energy efficiency and conservation opportunities. Since then, residential use has been trending back up, whereas the commercial rate class has been flat. The industrial rate class has been inclining. Mr. Koplin discussed that planning efforts can almost be responsive and focused on how to manage the current status. He encouraged the Task Force to engage in proactive and forward-looking planning efforts to establish goals that work collaboratively to achieve greater goals.

Mr. Venables asked for the meaning and relevance of the line in the presentation that is titled "state". The B&V representative explained that information was meant to show the majority of the state's member customers and sales volume. Mr. Venables commented that it seems as if the small footprint of the majority of the population is skewing the harsh reality of the rest of the state. He noted the subcommittees reflect the three states within the state. Mr. Venables commented that the information shown is masking the struggles of communities and villages. The B&V representative discussed that the slide data is presented on a summary level. The focus is on selecting assumptions and identifying the most effective ways to reach the objective. Additional compiled data will also be used.

The B&V representative continued her presentation discussing that solutions could differ based on the population in a community. Those statistics will help inform which scenarios are possible, which technologies could be considered, how to evaluate the cost/benefits, and ultimately, help to identify the most fruitful solution for each subregion.

Ms. Whitney expressed her understanding that the role of B&V is to provide the subcommittees with high-level technology overviews and to support the subcommittees

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with scenario analysis. Ms. Whitney asked why the information is being presented in the current format. She noted that clarification is needed because some of B&V's statistics are inconsistent with ACEP's energy statistics, but at the same time, she does not want to get preoccupied at this level. The B&V representative discussed that the goal is to use the data and assumptions that have been compiled to investigate the proposed scenarios and to determine which technologies are most likely to be relevant and considered in the Alaska context. The B&V representative explained that the process begins with an initial screening to review the possible technologies. A comprehensive assessment matrix will then narrow the scope of those technologies. The next step is to define the scenario and to set up the key framework and unique elements for analysis. The scenario analysis is a comprehensive model for energy markets, considering load and supply side, and will dispatch the most economic resource to meet the scenario goals and profile for each of the particular submarkets.

Vice-Chair Thayer recommended that the B&V representative continue her presentation. He suggested that additional discussion could occur at a later point. Vice-Chair Thayer highlighted that the Task Force members are responsible for requesting specific modeling. He noted the importance of ensuring that the misrepresentations within the B&V models and assumptions are aligned with the ACEP models and assumptions. The B&V representative continued the presentation and gave a high-level overview of the technology consideration process, which would occur at the direction of the subcommittee members. This includes review of commercial accelerators, potential risks, impacts, and specific cost/benefit analysis. There were no other comments or questions.

6. Break

Vice-Chair Thayer gave the room locations for the four subcommittee concurrent sessions that will occur after the break. All sessions are publicly available through the Teams link. There were no comments or questions.

A break was taken.

7. Subcommittees Concurrent Session
- **a. Rural Generation, Distribution, and Storage**
- **b. Coastal Generation, Distribution, and Storage**
- **c. Railbelt Transmission, Generation, and Storage**
- **d. Incentives and Subsidies**

8. Lunch

9. Subcommittees Concurrent Session 2
- **a. State Energy Data**
- **b. Statutes and Regulations Reform**

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10. Break

The regular meeting resumed at 3:15 pm. Chair Lieutenant Governor Dahlstrom requested Vice-Chair Thayer continue the agenda.

11. Subcommittees Report Outs

a. Preliminary Task Force Action Review

Vice-Chair Thayer requested each of the subcommittees provide an overview of their status and vision. He began with the Railbelt Transmission, Generation, and Storage Subcommittee, Co-Chaired by Ms. Miller and Mr. Izzo. Ms. Miller summarized the framing discussion that occurred at the first meeting. It included the scope and deliverables of the Task Force, and the generation, transmission, and storage priorities for the Railbelt. The primary focus is to review pros and cons of multiple possible scenarios for the Railbelt, including renewable and clean energy standards.

Ms. Miller discussed the energizing presentation given by Ms. Holdmann on the story and timeline of the transition of the Iceland grid and the key insight of coupling the energy problem with the economy problem. Ms. Miller commented on the benefits of meeting in-person and the robust session that occurred regarding how to potentially increase the industrial load, the structure and model of Iceland's state-owned transmission system and rate structure. Ms. Miller noted that topics for future meetings were discussed and include demand forecasts, supply options, ownership structure options for transmission and storage. She and Mr. Izzo will review the topics and prepare a schedule to address the topics, as well as submit information requests to B&V for analysis. There were no other comments or questions.

Vice-Chair Thayer advised that the Co-Chairs for Rural Generation, Distribution, and Storage are Mr. Koplin and Mr. Guy. Mr. Koplin commented that the first meeting went well and was broadly attended. The group mapped out four to five actionable pieces to be brought to the full Committee. One of the actions is to inventory and understand the current status of technical assistance, training, available workforce development, and on-the-ground capacity needs, while acknowledging the new tools and technology to extend resources to rural areas. This action would be combined with asset management capabilities in rural communities.

Mr. Koplin discussed the next key item is to holistically identify economies of scope and development opportunities, such as ways to integrate a water treatment plant upgrade with an energy upgrade or another system upgrade in order to share costs and share benefits of rural investments. The discussion included broadband, fiber, and transportation. The transportation imperative was grouped in its own category that encompasses the physical ground and water parallels between transportation and energy, as well as supply chain issues and the delivery of parts, equipment and materials to Rural Alaska. Discussion in the Subcommittee also focused on innovative

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opportunities to connect communities not only by energy, but also by transportation corridors.

Mr. Koplin informed that each of these items are posted on the Sharepoint site. He reviewed the next item to identify the opportunities to connect rural communities through transmission lines and other shared energy projects. The last item of discussion was the challenge of funding for rural communities. Focus will be directed at identifying financing mechanisms and to support local matches for federal grants and other funding mechanisms. He specifically highlighted the estimated billion dollars in upgrades that are currently needed on the bulk fuel tank farm. Mr. Koplin believes the meeting met its goal and was productive. There were no comments or questions.

Vice-Chair Thayer advised that the Co-Chairs for Coastal Generation, Distribution, and Storage are Mr. Mitchell and Mr. Venables. Mr. Mitchell discussed that the Coastal Region is Southeast Alaska, Cordova, and Kodiak. He emphasized that even though each of the communities has unique differences, they are collaborating to address energy issues. The Subcommittee compiled 12 policy, data, and action areas. Mr. Mitchell discussed a few of those areas; enhance affordability in energy in the region, including the integrated and inseparable areas of power, heat and transportation; establish standardized metrics related to power generation compared to future demand; integrate sea water heat pumps and ground source heat pumps; collect data to benchmark use and net metering to understand growth; integrate and understand how storage systems can help the smaller grids and interregional grids; identify federal funding and mechanisms to build transmission and distribution lines across Alaska, including authorizations that have not been fully funded; electrify the Alaska ferry fleet to lower the operating costs, including the utilization of diesel hybrid sources; partner with Alaska Tribes to assist with grid funding and other opportunities; dedicate focus on workforce training; implement and integrate shore power for stability; recommend ways to streamline renewable energy development on federal land; and review other subcommittee actions for overlap, synergy, and integration.

Mr. Mitchell noted that the Subcommittee is reviewing the baseline of current data in the region and understands that each community has a distinct profile and each community's path forward will be individualized. He discussed that B&V and Michael Baker will be utilized to fulfill the data requests regarding heat pumps and other information necessary to focus on the action areas. Mr. Venables reiterated that the Subcommittee has many data requests for B&V and Michael Baker regarding coastal utilities, rates, and supplemental information that they would like to see brought forward in order to make recommendations for action. There were no additional comments or questions.

Vice-Chair Thayer advised that the Co-Chairs of the Statutes and Regulations Reform Subcommittee are Mr. Venables and Mr. Hanneman. Mr. Venables believes that the Subcommittee made good progress and had great support from the Alaska Power

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Association, whose information is available to the Task Force. The review included discussion regarding the legislative path through statutes and the regulatory path through administrative actions of the Regulatory Commission of Alaska (RCA). Views were considered on how to best empower the RCA to be as nimble and effective as possible. Rather than recreating the wheel, the Subcommittee requested Michael Baker to conduct a global search and provide examples of successful formats from which to pattern the path forward to lower the barriers and cost impacts to the rate payers. There were no additional comments or questions.

Vice-Chair Thayer requested the Incentives and Subsidies provide their report. An unidentified member noted that Co-Chair Andreassen had to attend a separate board meeting. The member informed that he would report for the Subcommittee. The approach is to first create a baseline of the incentives and subsidies currently established and then to identify the opportunities at the state level and at the federal level. Assessment will occur regarding best practices from other states, including tax breaks, and what is appropriate and executable for Alaska. The review will include analysis of ways to fully utilize the Emerging Energy Technology Fund and the Renewable Energy Fund (REF). The Subcommittee's interest was piqued with discussion of postage stamp rates in Alaska. Additional information will be provided by ACEP on possible implementation strategies. The Subcommittee requested AEA to provide data on the different ways the State is paying for energy and subsidizing energy.

The member informed that the Incentives and Subsidies Subcommittee would like to propose a meeting with the Statutes and Regulations Reform Subcommittee to review their shared focus items, including funding for the REF, data reporting mandates, and potential match funding opportunities. The member discussed that the Incentives and Subsidies Subcommittee will examine methods to offer low interest financing for projects and will look to ACEP to provide more information on the status of current programs. Another consideration the subcommittee discussed was the review of State tax base rates to encourage the economics on new energy projects. There were no comments or questions.

Vice-Chair Thayer expressed appreciation to State Energy Data Subcommittee Chair White and ACEP for the presentation this morning. He believes it provided clear foundational information. Mr. White thanked attendees for joining the subcommittee meeting both today and yesterday, including members of the Task Force, representatives from his office, Commissioner Boyle's office, Michael Baker, AEA, and others. The discussion at today's meeting was lively and included information from the Technical Advisory Committee that was created to get perspectives from a broad range of stakeholders, such as data providers, data modelers, people who maintain and aggregate databases, IT platform providers, and end-users. The Technical Advisory Committee is working diligently on the subcommittee's deliverables of the initial report due on August 29th and the final report due on September 10th. In order to meet that timeline, the Technical Advisory Committee will meet in-person two days this week.

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Mr. White noted the subcommittee's purpose includes establishing a baseline energy portfolio derived from the information presented this morning, maintaining a public database of the Task Force information through Sharepoint, and recognizing strategies for sharing energy data and information to an energy portal. Mr. White noted the subcommittee discussed the limitations of the previous data portals. Mr. White explained that the subcommittee is focused on providing meaningful data for decision-makers, including data that will answer future questions. There were no comments or questions.

12. Next Meeting Date

a. Tuesday, August 29, 2023, 10:00 am – 2:00 pm, Matanuska Electric Association, 163 E. Industrial Way, Palmer, AK. Optional Ribbon Cutting Ceremony to follow Houston Solar Farm, Houston, AK

Vice-Chair Thayer informed that the Energy Symposium Series is ongoing, with the upcoming event scheduled for August 17th. The next meeting dates and times for the subcommittees were listed.

Chair Lieutenant Governor Dahlstrom informed that the next AESTF meeting and working lunch is scheduled for August 29th at MEA. A ribbon cutting ceremony will occur after the meeting and attendance at that event is optional.

13. Adjourn

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 3:45 pm.

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ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #6
TUESDAY, AUGUST 29, 2023, 10:00 AM – 2:00 PM

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, August 29, 2023, 10:00 am - 2:00 pm

Please note that the Alaska Energy Security Task Force will hold a meeting on Tuesday, August 29, 2023.

The Alaska Energy Security Task Force will convene at 10:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Matanuska Electric Association
163 E. Industrial Way
Palmer, Alaska

To attend virtually, please use the following:

Microsoft Teams meeting
Join on your computer, mobile app or room device
Click here to join the meeting
Meeting ID: 280 656 217 887
Passcode: vTRDVr

Or call in (audio only)
+1 907-313-5807,,161937199# United States, Anchorage
Phone Conference ID: 161 937 199#

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State oof Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangement.

Attachments, History, Details

Attachments
None

Revision History
Created 8/18/2023 1:06:14 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/22/2023
Archive Date:	8/30/2023
Events/Deadlines:	

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, August 29, 2023

In person meeting to be held from 10:00 am to 2pm at
Matanuska Electric Association Headquarters
163 E. Industrial Way
Palmer, Alaska 99645

Teams Meeting Link:
Click here to join the meeting
Meeting ID: 280 656 217 887
Passcode: vTRDVr

Agenda

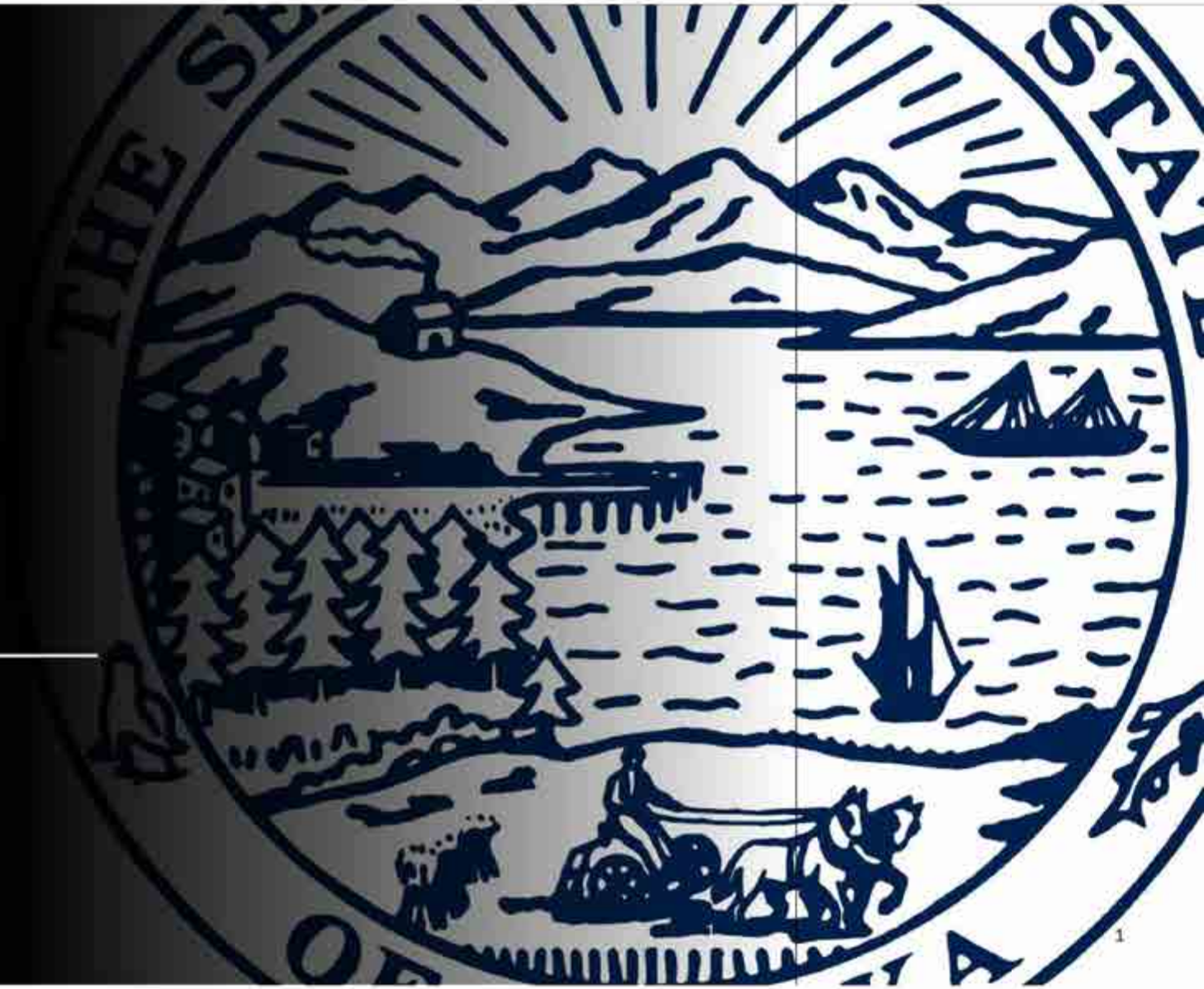
1. Welcome and Introductions (Lt. Gov. Dahlstrom)
2. Roll Call
3. Prior Meeting Minutes – August 08, 2023
4. Presentation:
    a. State Energy Data Subcommittee: Updates from their 2 Day Technical Working Group Session
5. Subcommittee report outs & updates: Review of current draft, subcommittee action recommendations. *(Hold questions until Round Table Discussion)*
    a. Rural Generation, Distribution, and Storage
    b. Coastal Generation, Distribution, and Storage
    c. Railbelt Transmission, Generation, and Storage
    d. Statutes and Regulations Reform
    e. Incentives and Subsidies
    f. State Energy Data
6. Round Table Discussion: Questions and discussion related to subcommittee report out of draft, subcommittee action recommendations.
7. Facilitated Discussion: Energy Symposium Series – Discuss lessons learned, review of topics explored, and if there are any actions to be

added to the plan based on known gaps or knowledge presented at these symposiums.

8. Next Meeting Date:
    a. September 19, 2023
9. Adjourn

Alaska Energy Security Task Force Meeting

August 29, 2023



August 29, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. **Introductions**
2. **Roll Call**
3. **Prior Meeting Minutes**
   August 8, 2023
4. **State Energy Data Subcommittee Presentation:**
   Update from Two-Day Technical Working Group Session
5. **Subcommittee Report Outs**
6. **Round Table Discussion:**
   on preliminary subcommittee action recommendations.
7. **Facilitated Discussion:**
   Energy Symposium Series Discussion
8. **Adjourn**

Organization

Member	Email Address
Lieutenant Governor Nancy Dahlstrom, Chair	lt.governor@alaska.gov
Curtis W. Thayer, Alaska Energy Authority, Vice Chair	cthayer@akenergyauthority.org
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Alaska Energy Security Task Force

Proposed Work Schedule



Key Milestones	Completed By
Regional Sub Status Reports	Tuesday, July 18, 2023
Regional Sub Initial Reports	Tuesday, August 8, 2023
Regional Sub Final Reports and I/S/S/R* Data Sub Initial Reports	Tuesday, August 29, 2023
I/S S/R* Data Sub Final Reports; Release S/R** report for 28-Day Public Comment	Tuesday, September 19, 2023
Receive Initial Report, Release for 28-day Public Comment; Take Public Comment on S/R** Report	Tuesday, October 3, 2023
Discuss S/R** Final Report; Vote on Recommendations; Take Public Comment on Initial Report	Tuesday, October 17, 2023
Discuss Final Report; Vote on Recommendations; Receive Final S/R** Report; send to GOA	Tuesday, October 31, 2023
Task Force Receives Final Report	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023

*Incentives and Subsidies and Statutes and Regulations Reform
**Statutes and Regulations Reform

Alaska Energy Security Task Force

Revised Proposed Work Schedule for Consideration

Key Milestones	Completed By
Regional Sub Status Reports	Tuesday, July 18, 2023
Regional Sub Initial Reports	Tuesday, August 8, 2023
Regional Sub Final Reports and Data Sub Initial Reports	Tuesday, August 29, 2023
Data Sub Final Reports	Tuesday, September 19, 2023
Receive Initial Report & Presentation, Public Comment Meeting	Tuesday, October 3, 2023
Task Force Meeting; Release Draft Report for Public Comment *(Meeting Added)*	Tuesday, October 10, 2023
(Meeting rescheduled to October 10, 2023)	~~Tuesday, October 17, 2023~~
Discuss Final Report; Vote on Recommendations; send to GOA; Public Comment on Final Report	Tuesday, October 31, 2023
Public Comment Incorporated in Draft Final Report (No Task Force Meeting)	Tuesday, October 24, 2023
Task Force Receives Final Report	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023

State Energy Data Subcommittee Presentation

Presented by Alaska Center for Energy and Power

Alaska Energy Security Task Force

Subcommittee Report Outs

- **Railbelt Transmission, Generation, and Storage:** *(Co-Chairs: Tony Izzo & Jenn Miller)*
- **Rural Generation, Distribution, and Storage:** *(Co-Chairs: Clay Koplin & Andrew Guy)*
- **Coastal Generation, Distribution, and Storage:** *(Co-Chairs: Duff Mitchell, & Robert Venables)*
- **Statutes and Regulations Reform:** *(Co-Chairs: Robert Venables & Karl Hanneman)*
- **Incentives and Subsidies:** *(Co-Chairs: Nils Andreassen & Isaac Vanderburg)*
- **State Energy Data:** *(Erin Whitney for Chair: Dan White)*



Round Table Discussion:

on draft, preliminary subcommittee action recommendations.

Energy Symposium Series :

Discuss lessons learned, review of topics explored, and if there are any actions to be added to the plan based on known gaps or knowledge presented at these symposiums.

Facilitated by Michael Baker International, Inc.

Energy Symposium Series

Energy Symposium events that have occurred:

7/13 - Cook Inlet Natural Gas Supply & Development

7/20 - Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy

7/27 - Global Trends and Grid of the Future

8/03 - Railbelt Hydropower Development & Financing: Lessons Learned for the Past, Opportunities for the Future.

8/17 – Alaska Energy Statistics and Economics

8/24 - Transmission and Storage: Building a More Resilient Grid

Future Upcoming Event Dates:

8/31- Emerging Technologies and Opportunities for Alaska: Small Scale Nuclear

9/07 - RPS and Clean Energy Standards: National Policy Comparisons

For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php



Logistics:

Weekly on Thursdays from 11a.m.-1 p.m.

Format:

- Zoom webinars: recordings will be made available.

July 13th Energy Symposium:

Cook Inlet Natural Gas Supply and Development

Presentations included:

- **2022 Cook Inlet Gas Forecast**

  Prepared by: Division of Oil & Gas,
  Alaska Department of Natural Resources

- **Cook Inlet Gas Supply Project Phase I**

  Prepared by: Regulatory Commission of Alaska

- **Alaska Liquified Natural Gas (LNG) Project**

  Prepared by: Alaska Gasline Development Corp



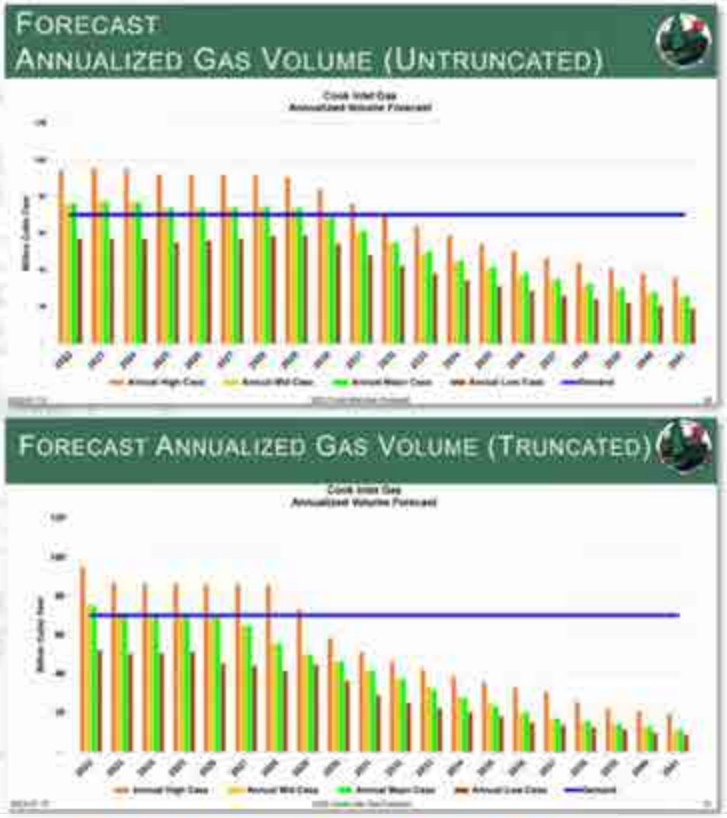
*Watch the complete July 13th Energy Symposium recording **here.***

July 13th Energy Symposium:

Cook Inlet Natural Gas Supply and Development

Key Topics Explored:

- Cook Inlet gas won't meet forecasted demand beyond 2026 (current reserves) or early/mid 2030s (assuming incremental supply development)
- Viable options for Cook Inlet Gas supply must be reduced to single sanction decision by Dec 2023
- Alaska LNG project update



2022 Cook Inlet Gas Forecast Truncated vs Untruncated

July 13th Energy Symposium:

Cook Inlet Natural Gas Supply and Development

Discussion Topic

Any transformative actions for the TF to consider related to Natural Gas Supply and Development?

July 20th Energy Symposium:

Alaska Rural Energy: Challenges & Opportunities for Reducing the Cost of Energy

Presentations included and linked below:

- **Providing Electricity in Rural Alaska**
  Prepared by: Alaska Village Electric Cooperative
- **How is AVEC Doing?**
  Prepared by: Alaska Village Electric Cooperative
- **Standalone Rural Electric Utilities**
  Prepared by: Matanuska Telephone Association
- **Public Private Partnerships & The Case for Community – IPPs**
  Prepared by: Northwest Arctic Borough & NANA Regional
- **From the Frontier to the Future**
  Prepared by: Intelligent Energy Systems, LLC



*Watch the complete July 20th Energy Symposium recording **here.***

For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php

July 20th Energy Symposium:

Alaska Rural Energy: Challenges & Opportunities for Reducing the Cost of Energy

Key Topics Explored:

Why electricity is expensive in rural Alaska?

- Small populations, small loads, isolated systems, remote, expensive fuel, O&M, limited personnel, etc.

Strategies discussed to reduce power cost:

- Improve generation efficiency, minimize distribution loss, interconnect villages, add renewables and renewables-based microgrids, capture and sell recovered heat, excess wind energy, promote energy education, and incentivize reduction of diesel use.



Case Studies and examples from standalone utilities and cooperatives:

- Alaska Village Electric Cooperative; Chaninik Wind Group; NWAB Independent Power Producers (IPPs)/Community Solar; and Nikolski

Public Private Partnerships – IPPs

- Vision of Northwest Arctic Borough to be 50% reliant on regionally available energy sources (renewable and non-renewable) by 2050.

July 20th Energy Symposium:

Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy



Discussion Topic

What actions are necessary to advance alternative energy sources for rural communities (e.g. micro-nuclear, renewables, etc)?

July 20th Energy Symposium:

Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy

Discussion Topic



What are TF members initial thoughts on the current PCE program?

July 27th Energy Symposium:
Global Trends and Grid of the Future

Presentations included:

- **Energy Transformation – It can Happen Faster than you Think! South Australia as a Case Study,**
  Prepared by: Sandia National Laboratories

- **Opportunities for Electric Load Growth in Alaska**
  Prepared by: Sandia National Laboratories

- **Insights into the Icelandic Energy Market**
  Prepared by: Alaska Center for Energy and Power



*Watch the complete July 27th Energy Symposium recording **here.***

For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php

July 27th Energy Symposium:

Global Trends and Grid of the Future

Key Topics Explored:

- Heating space and water is the biggest energy user in Alaska
- Cold-climate air source heat pumps (ccASHP): problems and solutions with widespread heat pump adoption and solutions
  - Potential Solutions include: dual fuel heat pumps, better building envelope, geothermal heat pumps

Case Studies:

- Proliferation of diverse energy in South Australia – are there lessons to be learned?
- Overview of Iceland's energy market and how it compares to Alaska

July 27th Energy Symposium:
Global Trends and Grid of the Future



Discussion Topic

Any topics from this symposium the TF members would like to discuss?

August 3rd Energy Symposium:

Railbelt Hydropower Development & Financing: Lessons Learned from the Past, Opportunities for the Future

Presentations included and linked below:

- **Small Hydropower in Southcentral Alaska**

  Prepared by: Polarconsult Alaksa, Inc.

- **Railbelt Hydropower – Current & Upcoming Projects**

  Prepared by: Alaska Energy Authority

- **Bradley Lake Operations and Governance**

  Prepared by: Bradley Lake Project Management Committee

- **Susitna-Watana Hydro**

  Prepared by: Susitna-Watana Hydro



*Watch the complete August 3rd Energy Symposium recording **here.***

For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php

August 3rd Energy Symposium:

Railbelt Hydropower Development & Financing: Lessons Learned from the Past, Opportunities for the Future

Key Topics Explored:

- Dixon Diversion – would be largest renewable energy project since Bradley Lake
- Susitna-Watana Hydro: ~50% of Railbelt's energy demand
- Southcentral small hydro: 100MW capacity is achievable
- Bradley Lake Operations and Governance



August 3rd Energy Symposium:

Railbelt Hydropower Development & Financing: Lessons Learned from the Past, Opportunities for the Future

Discussion Topic

Any TF recommendations to move Railbelt Hydropower projects forward?

Alaska Energy Security Task Force

August 17th Energy Symposium:

Alaska Energy Statistics & Economics

Presentations included and linked below:

- **Alaska Energy Data: The Good, the Bad, the Missing**

  Prepared by: Alaska Center for Energy and Power

- **Alaska Comprehensive Economic Development Strategy (CEDS) Overview**

  Prepared by: UA Center for Economic Development, Alaska DCCED

- **CEDS Energy – Specific Goals & Objectives**

  Prepared by: Department of Commerce, Community, and Economic Development



*Watch the complete August 17th Energy Symposium recording **here.***

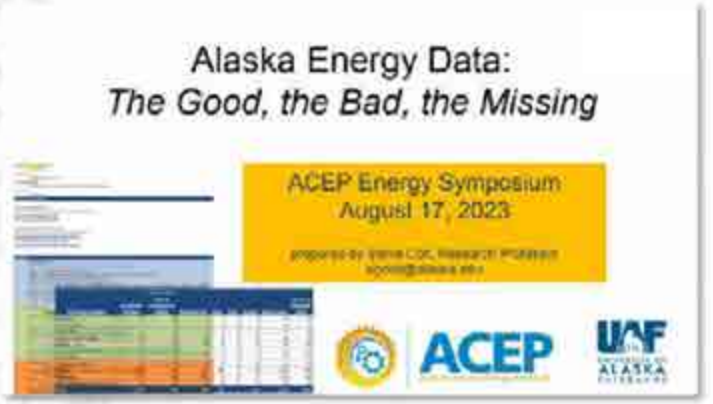
For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php

August 17th Energy Symposium:

Alaska Energy Statistics & Economics

Key Topics Explored:

- Need for central energy data repository with regular maintenance and updates
- Unreliable/uncleaned data is worse than no data
- There is almost zero measured fuel oil consumption data
- Impact of EVs and Heat Pumps



Slide from the CEDS presentation.

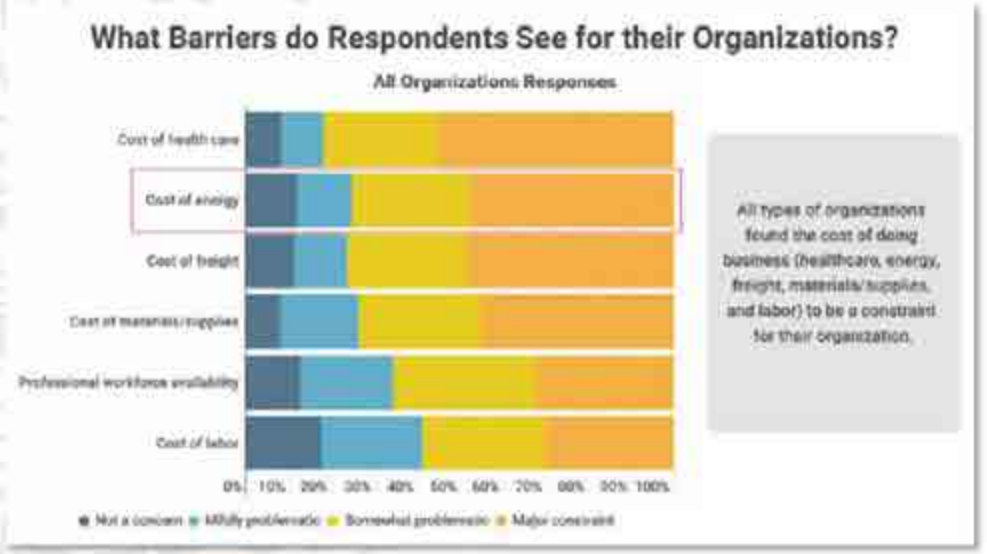
August 17th Energy Symposium:

Alaska Energy Statistics & Economics

Key Topics Explored:

Alaska Comprehensive Economic Development Strategy (CEDS) includes actions and objectives related to the following:

- Sustainable Energy
- Affordable Energy
- Alternative Energy Workforce
- Resilience Capacity
- Resilient Infrastructure
- Oil & Gas
- Alternative Energy
- Timber



Slide from the CEDS presentation.

August 17th Energy Symposium:

Alaska Energy Statistics & Economics



Discussion Topic

TF comments on the relationship of the Energy Security Masterplan with CEDS Economic Development Strategy?

August 24th Energy Symposium:

Transmission & Storage: Building a More Resilient Grid

Presentations included and linked below:

- **Energy Storage Options and Selection Considerations**

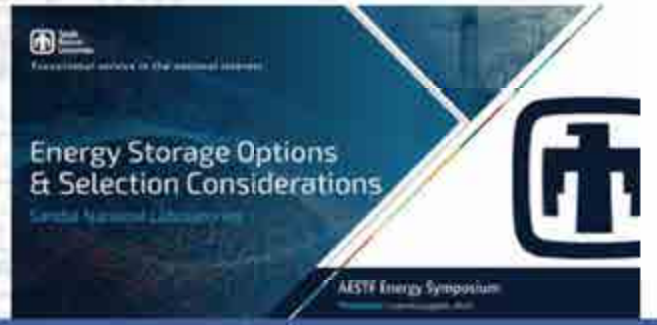
  Prepared by: Sandia National Laboratories

- **Beneficial and Equitable Electrification**

  Prepared by: Alaska Center for Energy and Power

- **Tidal Power in Alaska**

  Prepared by: Alaska Center for Energy and Power



*Watch the complete August 24th Energy Symposium recording **here.***

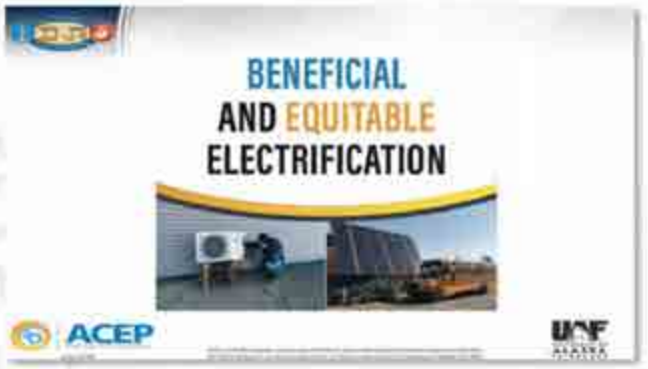
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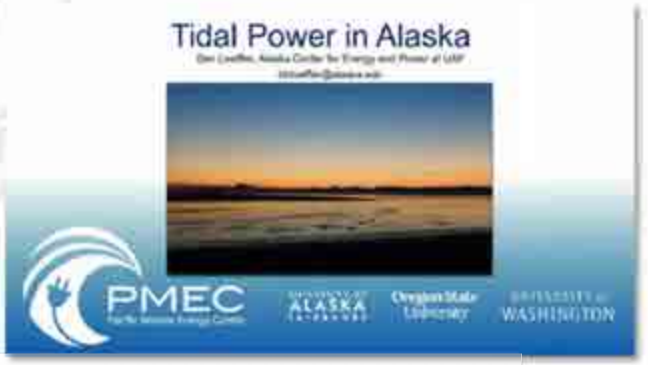
August 24th Energy Symposium:

Transmission & Storage: Building a More Resilient Grid

Key Topics Explored:

- **Energy storage system (ESS) selection is scenario specific, key scenario considerations include:**
  - Power purchase agreement;
  - Grid demand;
  - Available energy for charging;
  - System Round Trip Efficiency; % demand met requirement; and
  - Levelized Cost of Energy Storage requirement/ROI requirement
- **Beneficial and Equitable Electrification**
  - Harnessing local, sustainable, and cost-effective energy resources to electrify energy loads such as transportation and heating.
- **Tidal Power in Alaska**
  - Policy & Permitting Recommendations:
    - Identify and Fill Regulatory Data Gaps
    - Support Adaptive Management Approaches
    - R&D Investment





August 24th Energy Symposium:

Transmission & Storage: Building a More Resilient Grid



Discussion Topic

TF recommendations for leveraging existing and future transmission and storage technology?

Next Steps

- **Confirm/Schedule next meeting with your subcommittee(s):**
  - Railbelt Transmission, Generation, and Storage: *August 30th, 1:00 pm*
  - Rural Generation, Distribution, and Storage: *September 7th, 1:00 pm*
  - Coastal Generation, Distribution, and Storage: *September 8th, 11:00 am*
  - Statutes and Regulations Reform: *September 5th, 10:30 am*
  - Incentives and Subsidies: *September 11th, 8:00 am*
  - State Energy Data: *TBD*

- **Next Energy Symposium Presentation**
  - Thursday, August 31st, 2023

- **Next AESTF Meeting Date:**
  Tuesday, September 19th, 2023

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Railbelt Transmission, Generation, and Storage Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

(Draft as of 8/29/2023)

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Railbelt - 1	Sell all existing transmission assets along the Railbelt and Bradley lake to AEA or new regulated utility for the net book value	•Would likely require legislation to effectuate •The "entity" would also absorb the debt and associated proceeds and complete the anticipated network upgrades committed from those recently issued bonds and other potential funding sources. •Would eliminate transmission rate charges between utilities •The consolidation would eliminate a significant amount of duplicative management and governance overhead •Would optimize economic dispatch of all generation assets from Fairbanks to Kenai and eliminate the micro service territories and excess reserve capacity •If third party to acquire the transmission assets----net proceeds received by the AEA should be utilized to complete the FERC licensing for the Susitna-Watana project	Medium (5 - 10 years)	AEA	Legislature; Dept of Revenue; Dept of Law; Railbelt Utilities	New
Railbelt - 2	Invest in Grid Innovation	Consider policies and/or regulatory frameworks that promote investment in innovative technologies. Conceptualize projects that use innovative approaches to transmission, distribution, and storage infrastructure to enhance grid resilience and reliability. Explore funding opportunities such as the DOE Grid Innovation Program.	Medium (5 - 10 years)	AEA	Utilities; DCCED; Legislature; Dept of Law	New
Railbelt - 3	Evaluate multiple Railbelt utility governance structures and the impact to electricity cost	Identify and prioritize goals and objectives for an effective utility governance structure. Establish a criteria and metrics to evaluate different governance structures. Compare the traditional governance structure against a not-for-profit or cooperative entity considering high priority goals and cost considerations.	Short (2 - 5 years)	AEA/RCA	Dept of Law; Railbelt Utilities; ACED	New
Railbelt - 4	Evaluate multiple electricity supply & demand scenarios	Establish a framework to evaluate electricity supply & demand scenarios including metrics and criteria. Consider electricity supply models or methodologies that quantify multiple supply scenarios against the identified metrics and criteria.	Short (2 - 5 years)	ACEP	B&V; AEA; Railbelt Utilities	New

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Railbelt Transmission, Generation, and Storage Subcommittee - Preliminary Actions

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Railbelt - 5	Identify how BESS (Battery Energy Storage Systems) and other Energy Storage Systems (ESS) could be successfully integrated and lower the cost of power.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure.	Short (2 - 5 years)	Railbelt Utilities/AEA	B&V; ACEP	New
Railbelt - 6	Investigate lessons learned and case studies from Icelandic Energy Grid, including comprehensive policy decisions and rate allocation.	Identify successful case studies from Iceland for potential applicability to Alaska, including interties, transmissions, and spreading rates across the jurisdiction. Include cross-topical references and discussion, regarding industry and food production. Identify components of the Icelandic system that are attractive to the committee, and flesh out applicability to Alaska. Break out into subtopics for future discussion - transmission, generation, cost sharing systems.	Short (2 - 5 years)	ACEP	B&V; AEA	New
Railbelt - 7	Explore a scenario that articulates change to electricity demand and cost to convert residences to electric heat	Note: Need to confirm if in scope vs out of scope with main task force.	Short (2 - 5 years)	ACEP	B&V; AEA	New
Railbelt - 8	Evaluate opportunities to invest in/fund additional transmission and connectivity into a regional transmission commission to facilitate an equal playing field regarding shared online energy.	Evaluate cost, solutions, and shared responsibilities.	Short (2 - 5 years)	AEA	RCA; Railbelt Utilities	New
Railbelt - 9	Adopt a Clean Energy Standard	Adopt a Clean Energy Standard	Long-term (10 years plus)	State Legislature/Governor's Office	RCA	New
Railbelt - 10	Develop Dixon diversion to increase Bradley Lake Power	Increase Bradley output by 50%	Medium (5 - 10 years)	AEA	Railbelt Utilities	On-going
Railbelt -11	Complete FERC Licensing of Susitna-Watana	Increase renewable on Railbelt by 50%	Long-term (10 years plus)	AEA	Railbelt Utilities: Private Investment	New
CEDS Action (For Consideration)	Railbelt Clean Energy Portfolio	Adopt a clean energy portfolio standard that targets 80% clean energy while simultaneously reducing energy costs for users in the Railbelt by 2040.	Long-term (10 years plus)	Governor's Office	RCA	From CEDs 2022 Plan (For Consideration)
CEDS Action (For Consideration)	Railbelt Transmission Line Capacity Expansion	Upgrade Railbelt transmission lines to increase transmission capacity.	Medium (5 - 10 years)	AEA	Electric utilities	From CEDs 2022 Plan (For Consideration)

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Rural Generation, Distribution, and Storage Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

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Rural - 1	Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce.	Explore technical assistance such as: workforce training programs, financing mechanisms, grant support, and economic development.	Immediate (0 - 2 years)	DCCED	DOL; DOR ,P3 Partners	New
Rural - 2	Identify Economies of Scope to Provide Multi-Benefit Utility Projects.	Identify development opportunities to be shared amongst multiple utilities. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Develop energy projects in coordination with other utilities, such water, sewer, heat, communications (broadband, fiber) or other infrastructure projects (transportation). Share costs associated amongst participants to enhance affordability, and thus pass off affordability to the users.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Rural - 3	Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.	Identify new innovations in transportation that may support/improve supply chain logistics and reliability in rural AK - follow up with DOT&PF. Prioritize continuity of operations, and enhance redundancy where feasible.	Immediate (0 - 2 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Rural - 4	Identify Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.	Where feasible, identify opportunities to connect rural communities through transmission lines and shared energy to enhance redundancy and connectivity. Focus on cost-effective solutions for connectivity. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas. Upgrade rural energy infrastructure such as power houses and bulk fuel farms.	Medium (5 - 10 years)	AEA	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New

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Rural Generation, Distribution, and Storage Subcommittee - Preliminary Actions

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Rural - 5	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.	Identify local or state funding mechanisms to "bridge the gap" commonly found with federal grant funding - the local match component is often a prohibitive hurdle for rural communities to receive federal grant funding.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Rural - 6	Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.	Identify opportunities to educate local communities about proposed or future energy projects. Focus on benefits, particularly related to affordability. Curate outreach to known controversial projects, such as hydro-power or mining. Identify past projects that have successfully navigated opposition mounted by local communities and environmental NGOs. Develop case studies and a suite of tools to engage with opposition. Recognize concerns from those who are opposed, and implement mitigation actions as appropriate. Engage early and often, incorporate visuals and avoid fear mongering.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Rural - 7	Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.	Invest in resilient energy infrastructure with focus on most frequent/severe hazards, instead of focusing on repair after the damage or destruction occurs. Reference case studies and future opportunities with FEMA as a funding resource. Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC	New
Rural - 8	Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.	to share costs on energy projects and development. Examples include fishing, mining, industrial tenants. Explore opportunities where anchor tenants can partner with other business and communities for mutually beneficial projects, and enhance affordability.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC	New
Rural - 9	Explore opportunities to enhance remote sensing and drone technology to support maintenance and operations of energy infrastructure in rural/remote locations.	Explore opportunities to enhance remote sensing and technology for energy infrastructure in rural/remote locations.	Medium (5 - 10 years)			New
Rural - 10	Invest in expanding the grid in rural areas to support micro nuclear	Invest in expanding the grid in rural areas in cost effective ways to connect micro nuclear as it is adopted and built in the next 10+ years.	Long-term (10 years plus)		P3 Partners, Utlities	New

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Rural - 11	Support research, pilot testing, development, and production of oil, and natural gas to produce hydrogen fuel as appropriate for Rural Communities.	Support research, pilot testing, development, and production of oil, and natural gas to produce hydrogen fuel as appropriate for Rural Communities.	Medium (5 - 10 years)		AGDC	Modified CEDs 2022 Plan Action

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Coastal Generation, Distribution, and Storage Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

(Draft as of 8/29/2023)

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Coastal - 1	Enhance the affordability of energy in Alaska, including power, heat and transportation energy.	Identify policy recommendations relating to the cost of heat as part of the Alaska Energy mix - power, heat, transportation.	Immediate	AEA	Governor's Office; Dept of Law; RCA; AHFC	New
Coastal - 2	Establish Standardized Metrics Related to Power Generation Compared to Future Demand.	Identify metrics related to power generation vs demand and potential future growth of both by community or service area.	Short (2 - 5 years)	AEA	RCA; Utilities; DCCED; ACEP	New
Coastal - 3	Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.	Plan to promote heat pumps as an alternative energy/heat source in Coastal Alaska. Identify successful case studies for further implementation in Alaska (there is data available on heat pumps, e.g. Heat Pumps Center).	Immediate	Local Leadership	DCCED; Legislature; Dept of Law; Utilities; AHFC; Community Development Organizations; Local Governments; Tribes	New
Coastal- 4	Are modifications required for net metering integration into coastal community utilities and grids.	Note: Subcommittee will coordinate to explore this topic further.	Short (2 - 5 years)		Tribes and native corporations; schools; Utilities; DCCED; AEA; RCA	New
Coastal - 5	Identify how BESS (Battery Energy Storage Systems) and other Energy Storage Systems (ESS) could be successfully integrated into smaller, microgrid utilities and lower the cost of power.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure and stabilize grids. Integration of renewables. Acknowledge O&M of the systems.	Immediate	Local Leadership	B&V; AEA; utilities; AIEDA; local communities	New
Coastal - 6	Identify Funding and Financing Mechanisms to Build Transmission and Distribution Lines Across Alaska.	Identify funding/financing sources a the federal, state and local level to expand transmission lines across Alaska. Prioritize innovative construction and product types, such as submarine transmission and underground transmission.	Spectrum of timeframes based on local needs and initiatives	Local and Regional Leadership	Utilities; DCCED; AEA, AIDEA; local governments; tribal	New
Coastal - 7	Identify opportunities to support and streamline state and federal regulatory and land use requirements for coastal projects.	Identify burdensome regulatory requirements at the state and federal level, with focus on hydro-electric power. Collaborate with appropriate state and regulatory agencies to promote solutions to streamline approvals, decrease costs, and expedite schedules.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Coastal - 8	Beneficially electrify the Alaska Ferry Fleet to lower cost of transportation and assist in lowering the cost of power in coastal communities.	Establish plan to convert ferry fleet to electric or electric hybrid vessels, using BC Ferries as a case study for implementation. Identify key ferry routes in Alaska, and evaluate for feasibility and implementation. Work with AKDOTPF strategy and plans. Use electric demand forecasts to assist coastal region utilities and communities generation and transmission resource planning.	Short (2 - 5 years)	DOT&PF	DCCED; Legislature; Dept of Law; Local utilities and IPPs	New
Coastal - 9	Partner with Alaska Native Tribes for Mutually Beneficial Energy Development, Production, and Distribution.	Explore opportunities to collaborate with Alaska Native Tribes for mutually beneficial energy projects. Projects could include land exchanges, grid transmissions/tie-ins, or tribal-state joint energy projects.	Medium (5 - 10 years)	DCCED	AEA; Dept of Law; AEA	New

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Coastal Generation, Distribution, and Storage Subcommittee - Preliminary Actions

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Coastal - 10	Educate and Train a Alaskan Workforce with Technical Skills in Electrification.	Establish a workforce development program to educate, train, and retain skilled workers in electrification.	Medium (5 - 10 years)	DCCED	DOL; DOR	New
Coastal - 11	Plan, fund and Implement Shore - to - Ship Power at State Ports and Harbors to Sell Excess Energy to Cruise Ships and provide energy market for coastal communities.	Identify Alaskan Ports and Harbors for Shore - to - Ship Power feasibility and implementation. Identify funding sources, including Marine Passenger Fees. Partner with major cruise lines to ensure ships are electrification ready.	Medium (5 - 10 years)	AEA	Dept of Law; DCCED; DOT	New
Coastal - 12	Streamline Renewable Energy Development on Federal Lands.	Establish a renewable energy land use designation or transmission line land use designation to allow small community renewable energy development on federal lands.	Medium (5 - 10 years)		DCCED; Legislature; Dept of Law; AEA	New
Coastal - 13	Support Hydro Projects	Build Hydro Projects to the benefit of business, industry and private sector opportunities	Short (2 - 5 years) [licensed] Long-term (10 years plus) [unlicensed]		AIDEA	New
Coastal - 14	Co-locate data severs with Hydro Plans	Note: Emerging Opportunity - Subcommittee will review in detail in September 2023.	Short (2 - 5 years)	Private Industry	DCCED	New

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Statutes and Regulations Reform Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

(Draft as of 8/29/2023)

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Statutes - 1	Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.	Legislation should be passed (similar to Iowa House File 577) which allows for advanced ratemaking principles Under this legislation, significant projects/improvements are reviewed and approved in advance so all parties have clarity on costs, return on equity, and approval before proceeding (versus traditional pay and pray methodology)	Medium (5 - 10 years)	DCCED	AEA; Dept of Law; RCA; Legislature	New
Statutes - 2	Streamline permitting for energy projects	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Statutes - 3	Establish state funding to help with local match for federal grant cost share	Work with the utilities to understand the feasibility of meeting the local match requirements for various federal grants. Establish a fund to contribute to grant match requirements that may pose a challenge to potential grant recipients. In some cases, utilities may need to raise costs to come up with the local match amount, which negates some of the benefits of being awarded the grant.	Medium (5 - 10 years)	AEA	Legislature; DCCED; OMB	New
Statutes - 4	Continue to allow transmission and distribution lines to share DOT right-of-way	Note: Need to coordinate with DOT and partners to understand issue to define a recommendation.	Medium (5 - 10 years)			New
Statutes - 5	Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.	Investigate through energy commissioner organizations and inter-state governmental organizations.	Short (2 - 5 years)	ACEP	AEA	New

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APA Policy Position (For Consideration)	Clarify statute on wildfire liability	Alaska's electric utilities work hard to maintain their rights-of-way for transmission and distribution lines but have no control over vegetation that grows outside their rights-of-way -- but tall enough to fall into the right-of-way -- can cause damage, such as a wildfire. The Alaska legislature can protect electric ratepayers by making clear in statute that electric utilities can only be held liable for damage, death or personal injury from contact between vegetation and the utility's facilities if the vegetation is located entirely within the boundaries of the utility's right-of-way. The state can help mitigate fire risk by continuing to provide funding for the mitigation of spruce beetle-killed trees, which are a significant problem in many parts of the state. Alaskans already pay some of the highest costs for electricity in the country. Making Alaska utilities, and ultimately their customers, responsible for damages caused by vegetation outside of utility control will drive those costs even higher. This could raise the prospect of financial difficulty for utilities themselves, as has happened in California.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	APA Policy Positions (For Consideration)

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Statutes and Regulations Reform Subcommittee - Preliminary Actions

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APA Policy Position (For Consideration)	Prioritize state investment in electric infrastructure and leverage federal funding opportunities	Electric infrastructure is the bedrock of the state's economy and the operation of the daily lives of Alaskans. The Alaska legislature must leverage every federal dollar available that benefits infrastructure with a strong emphasis on electric infrastructure – generation, transmission, and distribution. The legislature should direct the appropriate state agencies to work with electric utilities statewide to determine where funding can best serve Alaskans through investment in electric infrastructure, including renewable energy technologies and digital communications infrastructure. Concurrently, the legislature should call on Congress to focus on funding for electric infrastructure when passing spending bills and when funding federal agency operations. Many areas of the United States continue to benefit from long running federal power marketing administrations (PMAs) that have brought low-cost power to vast reaches of the country. Alaska has not been afforded such federal programs. Through robust state and federal investment in electric systems, Alaska would strengthen its economic health during and following the COVID-19 pandemic.	Short (2 - 5 years)		Legislature; Dept of Law; OMB	APA Policy Positions (For Consideration)

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APA Policy Position (For Consideration)	Support reasonable and economic carbon reduction strategies that consider costs to consumers	Carbon reduction efforts, whether legislative or regulatory, must allow for a technology neutral approach to decreasing fossil fuel consumption. Integrating renewable generation is one method of lowering reliance on fossil fuels, in addition to demand side management, energy efficiency, dynamic demand, and beneficial electrification, among others. Collectively, they are proven pathways to achieving carbon reduction. Above all, safety, reliability, and affordability must be considered as carbon reduction efforts are undertaken. For many years, Alaska's electric utilities have developed renewable generation assets and integrated renewable generation into their systems while exploring additional, economically feasible renewable generation. This integration, while partially driven by a goal to decrease carbon emissions, is also reliant on what is technologically and financially feasible at the various-sized electric utilities around the state. It must always be taken into consideration when creating new laws and regulations that ratepayers ultimately bear the costs of any new generation assets. All legislative or regulatory efforts that aim to reduce carbon emissions and increase renewable energy should carefully account for the cost impacts on Alaska electric consumers.	Short (2 - 5 years)		DEC; DCCED; Dept of Law: AEA	APA Policy Positions (For Consideration)

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Statutes and Regulations Reform Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

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APA Policy Position (For Consideration)	Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023	The Power Cost Equalization (PCE) Endowment must be preserved and maintained to provide certainty for 200 Alaska communities. The PCE program is a vital, lifeline program that makes it feasible for rural Alaskans to have access to affordable electric power and for rural communities to have affordable electricity for streetlights, water and sewer facilities, and other essential infrastructure. The Alaska Power Association urges the Legislature to fund the PCE program from PCE Endowment earnings at 100 percent for FY 2023. Until there is a permanent solution to the high cost of energy in rural Alaska, the PCE program must continue providing economic assistance to customers in areas of our state where the cost of electricity per kilowatt-hour can be three to five times higher than the cost in more urban areas. The state should also explore ways to address the diminishment of PCE for communities that have invested heavily in renewable electricity generation. Some communities that have lowered their reliance on fossil fuels by bringing on clean electric generation have seen lower PCE rates while still facing high electric rates. The state should allow for flexibility within the PCE program to accommodate communities that increase renewable generation but still face high electric costs.	Short (2 - 5 years)	AEA	AEA; RCA; OMB: State Legislature	APA Policy Positions (For Consideration)
APA Policy Position (For Consideration)	Alternative Uses for Coal Regulations	Explore alternative uses for coal, such as gasification and hydrogen production.	Long-term (10 years plus)		University of Alaska, Mining companies	From CEDs 2022 Plan (For Consideration)
CEDS Action (For Consideration)	Carbon and Sequestration Regulations	Pursue carbon capture and sequestration to make existing resources cleaner.	Long-term (10 years plus)			From CEDs 2022 Plan (For Consideration)
CEDS Action (For Consideration)	Hydrogen Roadmap and Regulations	Develop and implement Hydrogen Roadmap for Alaska.	Long-term (10 years plus)	UAF	Governor's Office, AGDC, University of Alaska Center for Economic Development, ACEP	From CEDs 2022 Plan (For Consideration)

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CEDS Action (For Consideration)	Establish Alaska Hydrogen Hub	Support the establishment of an Alaska Hydrogen Hub and an Alaska Carbon Capture, Utilization and Storage (CCUS) Hub.	Short (2 - 5 years)	Governor's Office	AGDC:,Governor's Office, Congressional delegation	From CEDs 2022 Plan (For Consideration)

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Incentives and Subsidies Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

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Incentives - 1	Develop a funding and implementation toolkit for energy projects in Alaska	Funding and implementation toolkit for energy projects in Alaska will include: resources, guidelines, case studies, and a funding tracker of opportunities for Alaskan communities, ANCs, State Agencies, Utilities, etc.	Medium (5 - 10 years)	AEA	DCCED; DOR; ACEP; State Legislature	New
Incentives - 2	Provide commercial incentives to encourage anchor tenant Investment	Explore potential incentive programs to encourage business or anchor tenant investment.	Medium (5 - 10 years)	AEA	DCCED; State Legislature	New
Incentives - 3	Encourage municipalities/local governments to provide a Property Tax exemption to attract private investment in new generation and transmission	Attract private capital in Alaska's generation and transmission infrastructure by exempting new assets from Property Taxes for a given set of years. Property taxes add to the cost of power and exemptions to property tax provide the outweighed public benefit of lowering the cost of energy for Alaskans.	Medium (5 - 10 years)	DCCED	Alaska Municipal League; Dept of Law; Legislature; OMB	New
Incentives - 4	Create a State of Alaska Income tax exemption on revenue produced from private investment in new generation and transmission.	Attract private capital in Alaska's generation and transmission infrastructure by exempting new assets from State Income taxes for a given set of years. Income taxes add to the cost of power and exemptions to property tax provide the outweighed public benefit of lowering the cost of energy for Alaskans.	Medium (5 - 10 years)	DCCED	Dept of Revenue; AEA; Legislature	New
Incentives - 5	Provide liability exemption to Alaska Utilities for transmission forest fire issues in return for FERC defined "open access" on all State owned/subsidized and RCA regulated utility transmission lines.	Transmission related fires can bankrupt utilities. Provide relief and risk exposure to Alaska utilities in return for FERC defined Open Access which would justify the public benefit for providing risk reduction and exposure to Alaska utilities.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	New
Incentives - 6	Encourage SOA departmental regulatory streamlining and prioritization. Provide regulatory streamlining and departmental priority for review and adjudication in ADNR, DEC, ADFG, DOTPF for new generation and transmission	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Incentives - 7	Work with partners to gain State primacy on all federal land for RS 2477 and SAFETE Act Sec. 4407 Rights of way for new generation and transmission lines	Pursue State of Alaska primacy on all federal land for RS 2477 and SAFETE Act Sec. 4407 Rights of way for new generation and transmission lines in Alaska.	Medium (5 - 10 years)	Office of Governor	Congressional Delegation; DOT&PF	New
Incentives - 8	Work with federal partners to establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans.	Establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans to allow small community renewable energy development and transmission line corridors on federal lands.	Medium (5 - 10 years)	DCCED	Congressional Delegation	New
Incentives - 9	Garner support from federal government to establish an Alaska Renewable Energy and Transmission Line Fund	Requires federal support to bring Alaska into this century with same level of service and transmission line capacity aligned with national standards.	Medium (5 - 10 years)	State Legislature	DCCED; DOR; Dept of Law, AEA	New

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Incentives - 10	Pursue State of Alaska primacy on 404 Wetland permitting for generation and transmission line projects	transmission projects bringing down risk, time, and project uncertainty.	Medium (5 - 10 years)	DEC	AEA; OPMP; Dept of Law;	New
Incentives -11	Attracting Private Co-Investment	Attract private co-investment for projects across the state and that reduce the costs of energy in Alaska.	Short (2 - 5 years)			From CEDs 2022 Plan (For Consideration)
Incentives - 12	Research, Development & Deployment	Partner with and continue to support R&D in the development and utilization of energy sources for deployment in Alaska. Encourage federal and state funding for pilot and demonstration projects. Align university research with the R&D needs of Economic Engines and Emerging Sectors. Target R&D at where we're going to be in 10+ years.	Long-term (10 years plus)	UAF	Governor's Office, AGDC	From CEDs 2022 Plan (For Consideration)
Incentives - 13	Energy Technology Demonstration Programs	Execute pilot and demonstration projects for energy technology that lowers energy costs and leads to commercialization, including through collaboration with entities such as AEA, Launch Alaska, and the National Laboratories.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska	From CEDs 2022 Plan (For Consideration)
Incentives - 14	Energy Infrastructure	Build energy infrastructure that increases locally based supply at lower costs, leveraging public and private investment.	Medium (5 - 10 years)	AGDC	AIDEA	From CEDs 2022 Plan (For Consideration)
Incentives - 15	Weighted criteria	Implement statewide energy project evaluation process that takes into account low cost, local, clean, and lifecycle. Alaska could use the levelized cost of energy for infrastructure projects.				
Incentives - 16	Commercial Property Assessed Clean Energy Program	Fully implement Commercial Property Assessed Clean Energy (CPACE) financing to help commercial building owners increase energy efficiency and reduce costs at the local government level. Improve current model to take into account local needs, and include utility on-bill financing. AEA to expand support and technical assistance for other communities. Explore State nexus (oil/gas) with property assessment, tax, incentives.	Short (2 - 5 years)		AEA, Local governments, Commercial lenders	From CEDs 2022 Plan (For Consideration)
Incentives - 17	Establish a Green Bank for Financing	Establish a green bank to finance energy efficiency projects at the community scale in partnership with the private sector. Support initial capitalization by the State.	Short (2 - 5 years)	AHFC	AEA	From CEDs 2022 Plan (For Consideration)
Incentives - 18	Evaluate PCE Reimbursement for Incentives	Increase analysis of potential benefits of PCE, to reduce disincentives for lowering energy costs.	Short (2 - 5 years)			

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Incentives - 19	Federal Grants for Workforce Training	Obtain federal grants under the IIJA to conduct workforce development, reskilling, and training, including as part of broad industry collaboration.	Medium (5 - 10 years)			From CEDs 2022 Plan (For Consideration)
Incentives - 20	Clean and Affordable Energy Deployment	as geothermal, hydro, tidal, and microreactors, including to develop a low-interest (.5% debt facility) loan program. Attract equity investors through low-cost capital. Explore interest match at the state level.	Medium (5 - 10 years)	AEA	ACEP, Launch Alaska	From CEDs 2022 Plan (For Consideration)
Incentives - 21	Statewide Energy Plan	Conduct and implement a statewide strategic plan for energy development.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska, REAP, Alaska Power Association	In Progress
Incentives - 22	Energy Incentives Programs Study	Conduct a study on state level energy incentives programs across the U.S. with a goal of expanding energy incentive programs in Alaska.	Medium (5 - 10 years)		State of Alaska, Launch Alaska, AEA, AHFC	From CEDs 2022 Plan (For Consideration)
Incentives - 23	Federal Grants for Retrofits	Utilize federal infrastructure funds to retrofit commercial and industrial buildings for greater efficiency.	Long-term (10 years plus)		AEA, AHFC, DCCED	From CEDs 2022 Plan (For Consideration)
Incentives - 24	Explore on-bill financing.			AHFC		

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State Energy Data Subcommittee - Preliminary Actions

Alaska Energy Security Task Force

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Data - 1	Establish a Data Department within the Alaska Energy Authority (AEA)	a. Fund, develop, and implement a technical and needs assessment b. Fund, develop, and implement a capital asset plan c. Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms d. Appropriately staff the department based on the technical and needs assessment	Immediate (0 - 2 years)			New
Data - 2	Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	a. Form a technical advisory committee to draft recommendations on where the data governance committee should be supported and staffed, committee membership, scope of responsibilities, and other issues that may need to be addressed. b. Fund a long-term data governance strategy	Immediate (0 - 2 years)			New
Data - 3	Fund data capacity	a. Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department b. Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis	Short (2 - 5 years)			New

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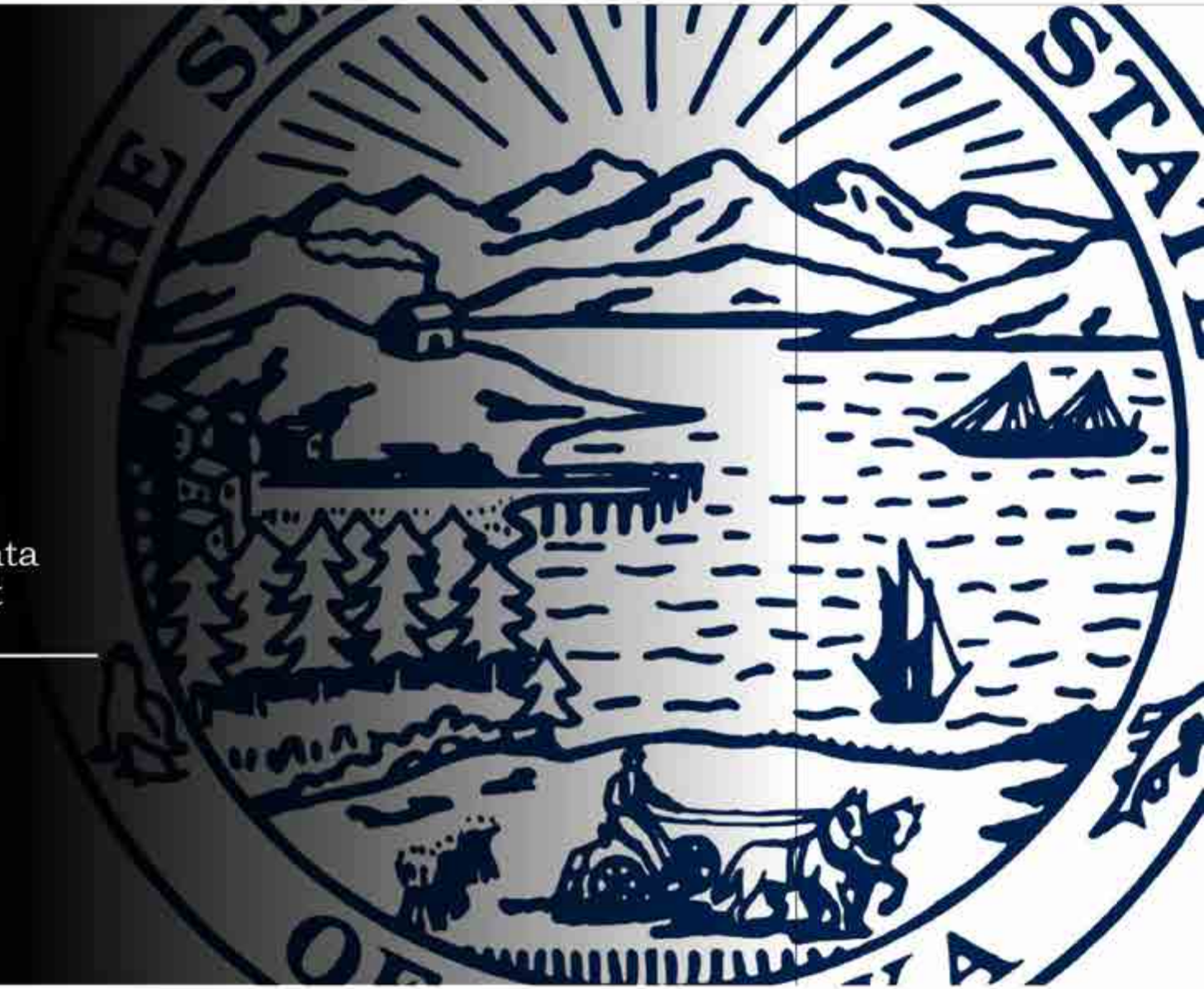
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Data - 4	Improve existing energy data and collect new, needed data	a. Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is needed for decision making b. Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data c. Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations d. Expand the Power Cost Equalization (PCE) report and extent of such data reported e. Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data f. Understand how heating and transportation fuel is delivered and used g. Re-establish annual updates to the Alaska Energy Statistics report	Short (2 - 5 years)			New
Data -5	Collect Data to Benchmark the Use of Net Metering.	net-metering around the country. Have data and information to make decisions about applicability, benefits, and future implementation.	Short (2 - 5 years)		Utilities; DCCED	Recommendation from Coastal Committee

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AESTF State Energy Data Subcommittee Report

August 29, 2023



State Energy Data Subcommittee: Formation

Chair:	Chancellor Dan White
	Commissioner John Boyle
	Dr. Erin Whitney
Observer:	Conner Erickson, AEA
Support:	Alaska Center for Energy and Power (ACEP)

State Energy Data Subcommittee: Purpose

Support the AESTF's duty to establish a statewide energy plan that includes:

- Establish a baseline energy portfolio for the State of Alaska
- Develop and maintain a public database of task force information and recommend strategies for sharing energy data and information through an energy data portal

State Energy Data Subcommittee: Responsibilities

- Identify valuable energy data resources, data ownership, and determine data availability
- Identify data systems, products, services, and platforms used for data collection, storage, documentation, preservation, and sharing

State Energy Data Subcommittee: Deliverables

- Inventory of available energy data, data ownership, and data availability
- Inventory of data systems, products, services, and platforms used for data collection, analysis, and reporting
- SWOT analysis of data end users and their needs
- Recommendations for data schemas, frameworks, partners, and standardizations to improve interoperability and collaboration between data and service providers to establish, serve, and maintain data tools

Technical Advisory Committee: Formation

State Energy Data Subcommittee established the a Technical Advisory Committee to support the plan development by leveraging existing projects, collaborations, partnerships, and subject matter experts. The TAC developed draft deliverables for the State Energy Data Subcommittee's consideration.

Chair:	Brittany Smart (ACEP)
Data Providers:	Diane Hirshberg (ISER), Vanessa Raymond (ACEP), Mark Spencer (AHFC)
Data Modelers:	Erin McKittrick (AKWarm), Neil McMahon (DOWL), Conner Erickson (AEA)
Platform Providers:	Leslie Jones (DNR), Dayne Broderson (ACEP)
Data End Users:	Katie Conway (Denali Commission), Grace Beaujean (DCCED), Chad Nordlum (Native Village of Kotzebue), Nolan Klouda (UA CED), Ian Mills (UA CED), Connie Fredenberg (MTA Online)

Technical Advisory Committee: Process

In order to produce draft deliverables in a timely fashion, ACEP coordinated a two-day facilitated Energy Data Retreat in Anchorage, Alaska.

- ACEP secured Vision Foresight Strategy to facilitate the Energy Data Retreat
- A pre-survey was sent to interested TAC members to gather initial thoughts on SWOT and recommendations ahead of the retreat
- Two-day Energy Data Retreat
  - Day One – SWOT
  - Day Two – Recommendations

Energy Data: Defined

For clarity, the TAC established and defined the term "energy data" in this report as follows:

"Information about how electricity, heat, and transportation fuels are sourced, generated, stored, distributed, used, and governed; and the impacts on the built, natural, and socioeconomic environments."

Alaska Energy Security Task Force

Summary SWOT (Strengths, Weaknesses, Opportunities, & Threats)

Strengths	Weaknesses
Valuable energy data needed for decision-making already exists, especially for electrical energy	● Existing data can be inconsistent, inaccessible, provided in formats which do not meet end-user needs ● Thermal and transportation datasets are lacking
Opportunities	**Threats**
Increase collaboration and data sharing	● Security and access concerns ● Lack of sufficient funding/staffing to meet needs

Prioritized Recommendations

1. Establish a Data Department within the Alaska Energy Authority (AEA)

2. Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access

3. Fund data capacity

4. Improve existing energy data and collect new, needed data

Recommendations: Priority #1 Actions

1. Establish a Data Department within the Alaska Energy Authority (AEA)

a. Fund, develop, and implement a technical and needs assessment

b. Fund, develop, and implement a capital asset plan

c. Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms

d. Appropriately staff the department based on the technical and needs assessment

Recommendations: Priority #2 Actions

2. Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access

a. Form a technical advisory committee to draft recommendations on where the data governance committee should be supported and staffed, committee membership, scope of responsibilities, and other issues that may need to be addressed

b. Fund a long-term data governance strategy

Recommendations: Priority #3 Actions

3. Fund data capacity

a. Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department

b. Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis

Recommendations: Priority #4 Actions

4. Improve existing energy data and collect new, needed data

a. Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is needed for decision making

b. Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data

c. Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations

d. Expand the Power Cost Equalization (PCE) report and extent of such data reported

e. Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data

State Energy Data Subcommittee: Discussion Points

- Develop a stronger statement regarding the importance of ongoing funding for all aspects of energy data

- Consider adopting the following as a priority recommendation (currently included in Appendix B: Recommendations):

  "Identify and assign the responsible agency or organization for energy data collection, aggregation, and sharing in Alaska State Statute"

Appendix A: SWOT – Strengths

- Strong network of agencies monitoring, developing, and regulating energy resources and data, including DNR, AEA, ANTHC, RCA, Denali Commission, and the University of Alaska system
- Passionate stakeholders and energy champions
- Alaska Energy Data Gateway provides community, regional, and statewide dashboards for baseline energy data
- The Alaska Affordable Energy Strategy serves as a useful template for information which would be useful for future potential data platforms and services to offer
- Alaska Geospatial Office and Alaska Geospatial Council administers the State Open Data Geoportal and fosters collaboration
- RCA requires reporting by regulated and PCE-eligible utilities
- RCA reports have been converted to text and put in a database by ACEP
- AEA currently has two different infrastructure inventories underway
- Existing data is heavily used and useful for energy and related activities
- Federal and state demographic data is available and consistent
- DCCED community profile maps have baseline information for rural communities
- ACEP shares information through community and virtual meetings, presentations, and publications
- AHFC recently improved ARIS data access methods to improve availability for energy data analysis
- ACEP is leading the effort to publish an update to the Alaska Energy Statistics Workbooks and Report
- Willingness of organizations to share their available data with external organizations
- Individual initiatives across various agencies have been very successful over time
- Energy data is a priority for many stakeholders, public and private, who are seeking such information to support projects and programs

Appendix A: SWOT – Weaknesses

- Alaska Energy Data Gateway data has not been updated since 2017
- Lack of metadata standards or controlled vocabularies across the energy data landscape
- Alaska Geospatial Office is not sufficiently staffed
- Energy data is difficult to access and/or is not shared in a format that is easily usable or that meets the needs of end-users
- Lack of authoritative energy data and sources
- Lack of centralized database leads to disparate data sets and duplication of efforts
- Lack of a defined plan for data management and distribution, including energy, labor, and other socio-economic datasets
- Lack of project and data coordination
- Lack of adequate foundational data, such as Railbelt transmission lines and utility data that need to include more key attributes in the existing datasets
- Existing energy data lacking in quality, provenance, and thus reliability
- Non-residential rates and community facility rates in PCE communities, including other fees or demand charges, are not included in monthly PCE reports to AEA or annual reports to the RCA
- Lack of clarity in reporting on wind, solar, and hydro energy data
- Federal data has long time lags and sampling issues
- Issues related to access of proprietary data, such as location of assets and infrastructure
- Lack of data in rural communities, especially regarding thermal/heat
- Existing Alaska Energy Statistics Workbooks and Report has not been updated in 10 years
- Significant data gaps in thermal/heat production and use with no existing formalized data collection processes established
- Lack of seasonal understanding of energy generation and sales
- Energy data from some communities is missing due to lack of reporting
- Railbelt energy data is segmented by utility, limited to certain regulated utilities, and not available Railbelt-wide
- DCCED community profile maps are outdated snapshots of information
- Lack of baseline datasets, especially in rural communities
- Communities lack the workforce, skill sets, and capacity needed to create and manage the data required
- Lack of capacity and knowledge on how to secure funding opportunities
- Funding agencies requiring deliverables inhibits coordination on energy projects
- Lack of technical capacity, data leadership, and sufficient funding
- Lack of reporting requirements for unregulated utilities
- Lack of understanding, technical skills, and capacity by utilities and independent power producers to know what data is useful and how to make it available
- Requesting and receiving data can be very onerous and time intensive

Appendix A: SWOT – Opportunities

- Leverage existing data infrastructure and sources, such as the Alaska Energy Data Gateway, to inform decision making for project and policy development
- Funding agencies could require energy data reports as a requirement of funding opportunities
- Leverage the Alaska Geospatial Council as a collaborative space regarding energy data sharing and distribution
- Use the Alaska Affordable Energy Strategy as a resource for the development of a statewide energy data inventory
- Shared interest of communities and researchers to coordinate and improve on unified data
- Strengthen existing pathways to better understand thermal/heat production and use
- Standardize energy data collections, aggregation, and association between various data sources, and regularly share the datasets to have better maintained and consistent statewide electrical production data
- Identify gaps where energy data exists
- Understanding what kinds of data are the most valuable to potential stakeholders
- Unprecedented levels of federal funding opportunities
- New technologies are available for data collection
- Influx of federally funded projects could lead to new, updated data collection on energy and infrastructure across the State
- Increased interest in the Arctic as a matter of national security and energy transitions could lead to increased community-military partnerships
- Funding opportunities allow for new infrastructure and connectivity in rural communities
- The establishment of the AESTF provides a platform to have collaborative discussions to identify needs and best practices while offering recommendations

Appendix A: SWOT – Threats

- Lack of cybersecurity protocols and restrictions on existing websites, data portals, and increasingly tech-reliant energy systems limit the ability to host and serve sensitive or restricted datasets
- Existing data is out of date and not being updated or maintained on a regular basis
- Inconsistent, sporadic, or lack of sufficient funding for data collection, distribution, analysis, and modeling
- Military solutions to meet their energy needs will heavily influence the options available for the surrounding communities, with decisions being influenced by national energy security frameworks
- Lack of workforce, technical skills, and capacity across the state, but especially pronounced in rural communities, to collect, manage, update, collate, analyze, and distribute energy data
- Poor technical choices and/or lack of coordination at critical junctures that hamstring data reliability, access, and reusability

Appendix B: Recommendations

- Identify and assign the responsible agency or organization for energy data collection, aggregation, and sharing in Alaska State Statute
- Fund the revitalization of the Alaska Energy Data Gateway in a version which is reflective of current and future needs and leverages newer sharing platforms including ongoing update and maintenance efforts
- Increase capacity of the Alaska Geospatial Office to support energy data management and distribution needs
- Incentivize or mandate private entities to share heating fuel information, such as tank farms, heating oil purchase costs and volumes, and delivery methods and costs
- Fund an update and implement the Alaska Affordable Energy Strategy
- Establish an Energy Working Group as part of the Alaska Geospatial Council
- Develop a long-term data management strategy to ensure data quality, reliability, and public and private access
- Keep energy systems up-to-date with proper security restrictions and access controls, allowing for granular and proper data sharing and access
- Establish a public database of statewide electric utility data to include railbelt, coastal, and rural data
- Leverage existing Alaska Geospatial Data Portal to provide public and restricted access of energy data managed by AEA and other appropriate agencies
- Adequately fund the Alaska Geospatial Office to support additional staff to meet statewide data needs
- Re-license existing data sources to partner agencies to support collaboration and access
- Secure the Alaska Geospatial Office in Alaska State Statute with accompanying operating budget
- Identify authoritative data sources
- Use authoritative energy data to inform energy policy and project development
- Establish a task force to develop energy data cyber security requirements
- Require AEA to create and track offset diesel data, kWh sales by all rate classes, kWhs sold for heat and at what price, and identify the specific renewable resource used by the utility
- Require PCE calculations to value excess renewably-generated energy that is used for heat by providing a waiver
- Use bulk fuel loan data by DCRA to begin capturing the rural heating load
- Fund a comprehensive survey to identify the size and generation type of the thermal load in Alaskan communities, ensuring military demands are included
- Fund an inventory and assessment of transportation fuel datasets needed and available to develop a regional- or community-level transportation energy burden study, ensuring such an effort is repeatable
- Coordinate with rural utilities to establish baseline infrastructure needs
- Research and explore establishing an Alaska Data Trust, similar to a Land Trust

Email and Website

Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com

Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Alaska Energy Security Task Force
MEETING MINUTES
Tuesday, August 29, 2023
Matanuska Electric Association
163 E. Industrial Way
Palmer, Alaska 99645
and via Teams Meeting

1. Welcome and Introductions

Vice-Chair Curtis Thayer called the meeting of the Alaska Energy Security Task Force (AESTF) to order on August 29, 2023, at 10:03 a.m.. He thanked Tony Izzo and staff at MEA headquarters in Palmer for hosting the task force meeting today. Mr. Izzo provided a safety moment to meeting attendees.

2. Roll Call

Members present: Vice-Chair Curtis Thayer; Clay Koplin; Nils Andreassen (on Teams); Karl Hanneman (on Teams); Tony Izzo; Jenn Miller (on Teams); Duff Mitchell; John Sims (on Teams); Isaac Vanderburg; Robert Venables; Senator Click Bishop (Ex Officio--on Teams); Keith Kurber (Commissioner, Ex Officio--on Teams); Erin Whitney (Ex Officio).

Vice-Chair Thayer recognized Mr. Bill Kendig, who serves on the Alaska Energy Authority (AEA) Board of Directors in the audience. He thanked Mr. Kendig for his attendance and support of the task force. And while Commissioners from DEC and DNR are unable to participate today, we do have staff form those departments in attendance online through Teams.

3. Prior Meeting Minutes – August 8, 2023

MOTION: Duff Mitchell made a motion to approve the Minutes of August 8, 2023, as presented. Motion seconded by Tony Izzo.

A roll call vote was taken, and the motion to approve the Minutes of August 8, 2023, passed without objection.

4. State Energy Data Subcommittee Presentation

Vice-Chair Thayer stated that UAF recently hosted a two2-day technical work session for the Energy Data Subcommittee. Erin Whitney is representing the chair of the subcommittee, Chancellor Dan White, and has an update for us.

Ms. Whitney stated Brittney Smart from Alaska Center for Energy and Power (ACEP) put today's presentation together. Subcommittee member Conner Erickson is present in the room. While

Brittney isn't in attendance today, she is available to answer Task Force Member's questions as they come up later.

The purpose of the Energy Data Subcommittee is to support the Task Force in establishing a statewide energy plan. Today's presentation is meant to foster discussions and feedback from Task Force members. ACEP is leading the effort to establish a baseline energy portfolio for the State of Alaska through work to update the Alaska Energy statistics workbook and report. Currently, the Workbook has been released for peer review and a full report is expected in December. If you recall, at the last Task Force meeting, Gwen Holdmann gave a presentation on some of those products and outputs and some of the examples of the analyses that can be done with that.

The other purpose of the Energy Data Subcommittee is to develop and maintain a public database by identifying data resources, ownership, availability, and to look at various materials, systems, products, and platforms for the data equipment systems. One way the Task Force shares energy data is through its web site, which ACEP maintains.

The Energy Data Subcommittee's deliverable is to determine the energy data out there along with who owns it, is it available or not available and to inventory the whole data ecosystem, as in how we get the data, how we manage the data, how it's distributed, analyzed, supported, and where we need improvement. To assist the Subcommittee, a technical advisory group was formed of folks from the university, private stakeholders, federal and state agencies. Brittney Smart of ACEP is the chair of this technical working group. In mid-August, the technical working group held a two-day retreat to discuss strategies to provide input for the Subcommittee's deliverable.

For Day 1, the group decided that they needed to define energy data before delving into all things related to energy data. This is what they came up with.

> *Energy data is information about how electricity feeds and transportation fuels are sourced, generated, stored, distributed, used, and governed and the impacts on the built, natural, and socio-economic environments.*

The technical working group then developed an analysis of data users and data needs through SWOT or Strength, Weakness, Opportunities and Threshold analysis, per below.

Strength - There is valuable energy data in the state that is needed for our decision making maneuvers. It already exists--especially for electrical energy.
Weakness - Data can be inconsistent. Inaccessible, hard to get, in strange formats; thermal heating, transportation data sets are sometimes missing.
Opportunities - increasing collaboration and data sharing so that we can have more seamless and transparent conversations and exchange of these products.
Thrust - includes security. Sometimes data is sensitive; access is limited, and data disappears, depending on who owns it.

Day 2 was spent on developing recommendations and the technical group came up with the following four prioritized recommendations:

Recommendation 1 - establish a data department within the Alaska Energy Authority, as the State's energy institution. To codify as a central repository authority on state energy data. This would be long-lasting, stable, and can be funded to be effective.
Recommendation 2 - establish an energy data governance committee. Governance means protocols on how data is collected, quality of data, how it's stored, how it's used, how it's accessed. Important to have some uniformity in these different categories of data production and usage so it's accessible when needed.
Recommendation 3 - fund data capacity. The capacity to collect date, store data, manage , the tools to analyze it. These all take investment in tools and a work force.
Recommendation 4- to improve existing energy data and collect new and needed data. This refers to some of the gaps we have in currently available energy data.

The technical advisory group also concluded that there is a lack of sufficient funding and staffing to meet the needs of having a fully realized data ecosystem in the state. There was a lot of internal debate among group members about how strongly to word the need and how descriptive to make it. The Energy Subcommittee would like some feedback from the Task Force to develop a stronger statement regarding the importance of ongoing funding for all aspects of energy data.

Ms. Whitney concluded the presentation by stating that the presentation slides will be distributed to Task Force members. The Energy Subcommittee welcomes comments, questions, suggestions, and feedback from Task Force members.

Vice-Chair Thayer asked if there were any questions on the data report.

Mr. Mitchell stated great work. He asked about the timeline for the subcommittee to execute the recommendations. While this Task Force will expire in November, the requests for data will continue on. Has the subcommittee had a discussion concerning the timeline and do they have a recommendation. Also, who will be the master of this task and would prioritize the work product. Would it be the Governor, Governor's Office, the University, AEA or a private stakeholder.

Ms. Whitney responded that if we focus on the first recommendation to establish a data department--if it is a department within the AEA, for example, then we need the Task Force to write up strong language for a statute that would govern this data department, where is resides, and what funding the legislature will provide for staffing and tools, such as software or databases. Mr. Erickson added that if it's decided that AEA should be the lead agency on this data collection and storage, then from the interested parties, both public and private, a governing committee should be established to focus on the data needs across the state, the

data gaps, and security of our data. Other issues to address would be funding opportunities to start up this new data department and staffing.

Energy Subcommittee is looking for comments from the Task Force regarding who will be on the governance committee, who would chair, what the body looks like. All stakeholders would have a significant say in forming this committee. Ms. Whitney added that the Energy Statistic Workbook and Report is on track for release in December and will be a valuable trove of data for use by the Task Force and other interested members.

Mr. Andreassen stated he appreciated the report. He wanted to make the Energy Subcommittee and Task Force aware of a couple of things that are intersecting with this committee's efforts. The Department of Environmental Conservation (DEC) is conducting the State's gas emissions inventories over the next one to two years in response to the EPAs carbon emission reduction program. So this data component will be incredibly important to that work. Second, the Alaska Municipal League (AML) will be collecting project level data or information for what the needs are statewide.

Mr. Hanneman stated that he appreciated the report. He appreciates that the Subcommittee keeps the focus on thermal heat and transportation energy components as well as electricity. As we learned from development and compilation of the energy workbook, as staff attempt to quantify different data for heating, transportation, and electricity, there are big gaps in available data. We know electricity is pretty solid in terms of reporting data, heating may be a weakness. Can you identify how these gaps might be filled in terms of regulations or statutes. Or what guidance may be necessary to fill the data gaps. Ms. Whitney responded that data for heating and transportation is harder to collect because they are not metered. This is something that needs more attention. Mr. Hanneman stated that for transportation, there is a fuel tax, which provides data that is available through the State to feed into your broad studies. Heating has a big gap and maybe John Sims may have an idea of what is currently available, so we don't duplicate efforts.

Mr. Sims stated that our heating information is publicly filed with the Regulatory Commission of Alaska (RCA). So, it is easily accessible for Southcentral. In the past they worked closely with Alaska Housing Finance Corporation (AHFC) to track home use for the home energy program. We were successful in reducing the amount of energy and natural gas used for homes. Concerning statewide, it is more challenging to collect information because most homes aren't regulated for fuel or propane use. We've done some market research and we'd be happy to work with AEA or whomever to provide what information we have. We feel is it important to educate folks on the costs of heating and would definitely want to participate.

5. **Subcommittee Report outs and updates. Review of current draft, subcommittee action recommendations.**

Vice-Chair Thayer stated that this section are reports from the various subcommittees.

a. Railbelt Transmission, Generation and Storage - Tony Izzo

Mr. Izzo gave a shout out to the State Energy Data Subcommittee. They have set a high bar for the rest of us. Last meeting of the Railbelt Subcommittee was in July. The August meeting was postponed due to schedule conflicts. We will be meeting tomorrow and look to address and discuss our deliverables, multiple scenarios about future railbelt generation, transmission storage, the need to evaluate and compare scenario metrics--for example, cost, reliability, implementation timing, etc. as well as environmental impact. Second is evaluation of the renewable portfolio standards and clean energy standards.

Through AEA staff, we've been in touch with other co-chairs about putting together a work plan to address these things between now and the deadline due, so we are in alignment. Mr. Izzo stated that, based on the deliverable due date, he will advocate for a strategy session of this committee similar to what Erin Whitney described. It's necessary to discuss and to come up with recommended actions in the short-term, 0-5 years, and the long-term. Ms. Whitney noted that there are over ten recommendations for the railbelt transmission. How would these be prioritized. Mr. Izzo responded that this is why a strategy session would be good to have.

b. Coastal Generation, Distribution and Storage - Duff Mitchell and Robert Venables

Mr. Mitchell reported that their next meeting is on September 7th. He stated that while the one-hour meetings have been good for brainstorming and putting a good action plan on paper, in order to meet the Governor's deadline, like the other subcommittees, they need to hold a strategy session as well to crystalize, encapsulate, and bring out the essence of their deliverable.

A couple of meetings ago Sean Binkley from Ward's Cove attended their meeting to discuss dock electrification, the impact of the tour industry and how it's beneficial for their community. He brought out a unique point that building of the extra transmission substation and distribution for dock collector vacation helps solidify the grid and makes it more robust in those communities. So he used the benefits of the tourism industry to help lower the cost to power the community and to reduce the number of outages in winter.

We also had two gentlemen dial in from Juneau Commission on Sustainability and from Alaska Eat Smart. They talked about air source heat pumps primarily. There's a high demand for air pumps in Juneau. It's growing because of federal benefits and tax incentives. They're estimating the average resident in Juneau will save between $1,500 to $2,000 a month in energy costs, which is significant. Since the market is going in this direction, there was discussion on how we're working on this in the coastal communities.

Mr. Mitchell stated that he made a call to European Heat Pump Association, which is funded by European Union (EU), for data with conditions similar to Alaska. They provided data for Estonia, North of Russia, Sweden, Finland, Norway, Denmark and so on. Over 90% of heating loads are in heat pumps, which is interesting. The committee also discussed electric vehicles and

transportation. We have hydro power, which is beneficial for electrification. Going forward, we want to crystalize our ideas into action items. Mr. Robert Venables added that he is looking to other committees' suggestions that could be applied to our area and go forward from there.

Ms. Whitney asked which of their recommendations are the most hard hitting or have the most impact towards the overall goal of reducing the cost of energy.

Mr. Mitchell responded that he doesn't like to establish priorities because the sixth priority could suddenly become the first priority because there's funding available now. In his mind, the big ones are moving forward because of the market, such as heat pumps and electric vehicles. We need to follow what the railbelt has done with battery energy storage systems and stabilizing the grids. We have outages inter-island. So there's a role to play there, as battery energy storage systems tie in nicely with dock electrification and possibly ferry electrification. He doesn't want to say those are the priorities of the coastal committee. He's more likely to say they're all important in their own ways and their own interests. And they all affect the lowering of the cost of energy. He would be hard pressed to say there's one silver bullet, or these are the top five priorities.

Mr. Venables added beneficial electrification is the one thing that will move the needle for our coastal communities. So, the more we can get into heat pumps, and application of electrical vehicles on the water and transportation as well, those sort of things help spread the cost and lower cost of energy.

Mr. Mitchell added that we don't have the data of the trend line growth. To help you understand, each cruise ship is about 6,000 megawatts impact a year. You put four docks in Skagway, that's 24,000 megawatt hours. It's more than the whole community uses or close to it. We also are limited with the trend analysis and integrated resource planning of demand, supply. We do not have IRPs. There is some trend analysis going on that makes it pretty clear of where things are headed in the coastal communities, or at least in some of the larger ones in terms of energy consumption and demand. Do we need new generation and/or better transmission and distribution to get it to those needs.

Mr. Hanneman asked if anyone is thinking about scale and ability to select hydropower of generation facilities of coastal that could be scaled up to either export power to BC or integrate with the BC grid or central southern Alaska. Or even export power to railbelt. Is anyone thinking about those types of opportunities.

Mr. Venables responded that in Southeast we have exhaustively looked at this. It was determined that we have to focus on economic development before we can get to scale. We've looked at BC three different times over the last 15-20 years. We've done it twice from Skagway to the Yukon. So, yes, it's on our radar.

Mr. Koplin stated that Cordova Electric is both coastal and rural so he's going to grab another piece of this in the rural discussion. It's what's keeping us up at night--how to grow the

economy to scale. The economic scope of being able to deliver electricity both air source heat pumps and electric vehicles is an obvious opportunity. Selling more kilowatt hours is our single biggest rubber in my community to reduce our electric energy cost. We've also been looking and recognizing that in Prince William Sound there's probably in excess of 100 megawatts and many gigawatts hours of hydro capacity. Many of these projects have been studied at least once or twice. And there is an opportunity especially with emerging technologies, many high voltage DC transmissions and so forth to think about ultimate railbelt connections. And then I would extend that to Copper Valley and the hydro they have in their region.

So there are several ways to approach the economy of scale. On the rural side that competes with the high energy cost. So, there's a little different approach there where, if you can look for anchor tenants, especially in industry -- whether its mines or resource production, timber and so forth, fisheries, where you can have anchor tenants to grow those sales. More sales can feed into being able to amortize new projects. So, there's a chicken and egg problem. Many of our hydro resources are too big right now. But if we think ahead and think of adjacent communities, there's opportunities to develop larger projects that recognize that same rapid growth in air source heating--for example, the Douglas Docking. That tripled the resident load for us, and it could double the commercial load. That's a great opportunity and what we're thinking about.

Mr. Mitchell stated that one mine in Juneau consumes more power than all of the power combined in Skagway and Haines, British Columbia, north of Juneau, North of Skagway, there's a sliver of British Columbia and then there's the Yukon. I've had personal discussions with the energy minister of the Yukon and the Premier on connecting. It is not just for residential, but it's for industrial development. Our past studies have always looked at how are we going to help the resident. There's little or scant information on how we help industry. There's a refreshing view that needs to be looked at. When you're lowering the cost of energy, it's not just the residents, but it's how are you also helping the economy, the jobs, and the prosperity of our southeast communities. Even in the papers in Skagway over the last year, there has been discussions with Yukon Energy and the City of Skagway. Robert's right. There have been studies. It's a perennial discussion. It's also boiling underneath the surface. A couple of years ago, I got 25 letters of support from the cruise industry, mining association and Yukon supporting the transmission lines. So, there's a lot of moral support. Question is where's the financial support for these transmission lines. Yukon wants to build the line all the way to the Canadian border. It would be how to make it a lot more feasible.

If you can get the state or the feds to fund all the way to the Skagway border, we'll go to Ottawa and do our fishing expedition too. So, it's all about economics at some point. There is a coalition of the willing to answer your question. And with you coming from a mining background, you can appreciate how much energy one mine can provide and provide the economy to scale that Clay was mentioning for buying an output for hydro power project.

Mr. Sims added that there's a dangerous assumption out there. In most cases it's correct. The assumption if you increase demand, it's going to lower the cost for all the other utilities across

the board. There is a point in which infrastructure improvements are required with the increase in demand. We need to factor in those improvements to ensure the entire system stays alive. We've seen that in our system with gas. As we've expanded out to the Valley, the prices of the pipeline get lower and lower as we increase that demand, which require us to place infrastructure improvements in those area. So, it's generally a good assumption that increased demand is going to lower the cost. But be careful that you don't apply that across the board because there are instances where you have to improve on the infrastructure to improve reliability in those areas.

Mr. Hanneman stated that this is the most encouraging discussion as a group with respect to this hydropower. Think of transformative action, like what Iceland did. If there's 100 megawatt in Prince William Sound through Whittier or whatever, is that close to the railbelt. I understand transmission cost, but I also believe that a lot of the money flowing into energy projects now, doesn't necessarily pencil. I wish they all would. We really need to think about transformative behavior and long-term hydro power I think is a big thing for Alaska. I think we should be more aggressive on it.

Mr. Izzo stated that based on the discussion, and an answer Erin's question, he agrees with so much that's been stated. Specifically in the service territory where this meeting is being held today. We continue to see growth. Not necessarily a good story statewide because growth is not part of rising tide lifting all boats. It's people shifting around, builders tell us that 50% are coming from Anchorage. Another percentage is military, another percentage is from rural communities. In the last couple of years we've come to know that the Valley is the second largest population center. It is now larger than Fairbanks, which was the second largest. It's not because we have grown at an equal pace, it's because people are shifting form one location to another location.

The growth, we use heat maps, populate new growth on the system service area map and what we're seeing is it doesn't happen across the board. It happens in these localized areas like Meadow Lake. This area has really taken off to the point where we need two new substations in 20 miles of transmission, which is just a reinforcement of John Sims' point earlier. We're looking at things like EV growth and time of use rates and we're all about wanting beneficial electrification. But we're seeing that even at 15% of vehicles in service area were to be electric, we're going to do everything we can to push that demand into off peak periods. But around 15%, we start to see distribution system inadequate, transformers inadequate, and then it just cascades back to substation improvements that are going to be needed. So, while the growth is terrific, I've seen our capital budget double in just a few years. So, as a result, you have to look at capital costs associated with growth in the equation.

And to Erin's question earlier, this is not just an opportunity. I look at the three-legged stool—in my opinion, first it's 0-5 years of fuel supply. Fuel supply can be up to 40% for railbelt resale rate. For MEA, it's 37.5%. If that went away, rates would drop from 20 cents to 13 cents. In my opinion, we have to do that because we have an inefficient grid. We don't have transmission that is up to par with lower-48 states. We've made grid application under the Biden

Administration efforts for transmission. It's a combination of infrastructure. It's addressing the fuel equation. And then it comes down to what is the future construct.

Now I'm definitely speaking for myself and not anyone else. I think if you were to look at the overall railbelt, you have to acknowledge what it is and how it was formed. We should also have a sense of what would it be like if we did it today. Or how would you build the foundation, if you were trying to predict what the world would be like in 50 years. I think there's a lot of indicators in that regard. So, for me, the first step would be federal dollars coming in with state already owning part of transmission system. Some form of transmission authority or federal and state investment could go to ensure a one-stop shop that makes that investment in the most efficient economic way.

Open up other opportunities in the future for maybe, a railbelt GNT, where your next generation aspect. At railbelt subcommittee, we can talk in more detail about a cooperate structure, capital credits, bylaws, to jump all the way to consolidation without it being mutually agreed upon would be extremely difficult. It would be an asset taking, you'd end up with lawsuits, member owned have the equity in utility. Just get it down to operation and maintenance of the system. It opens up other things in the fuel supply area for independent power producers. After tomorrow's subcommittee meeting, he may feel differently.

c. Rural Generation, Distribution and Storage - Clay Koplin and Andrew Guy

Mr. Koplin stated this subcommittee has moved farther and faster and may be able to help the other subcommittees map out their process as well.

We have the three regions that will be included in the overall plans, and they have three subcommittees, the Rural, the Coastal, and the Railbelt. And then the other three subcommittees are kind of forward looking. They are things that we need to implement--the Data, the Regulatory and Policies, and Incentives and so forth. So the Rural is where we've really been spending a lot of our resources over the last 30 years because of the high energy costs in those areas and the challenges. So the State programs, AEA programs, Federal programs have really been thoroughly vetted and a lot of the opportunities have surfaced through those planning processes.

So, we've been able to quickly move through to our recommendations in the spreadsheet. To answer Erin's question, we were able to prioritize ours. What we did was go through the first 15 or 20 projects and map them into the six priorities that would feed into the Task Force for discussion. The first six are the priorities.

Some of the things we brought up may overlap with regions. For example, an opportunity for nuclear deployment would provide a great opportunity for coastal, and rural, and railbelt areas. Hydro, for example, may be great in southcentral and southeast, not so much northern arctic rural regions. One other piece, for hydro, are water sales. Global water supply and sales are a huge opportunity for hydro's. There's kind of a billion gallon a year tipping point where you

need to be able to export. The water market approaches the energy market in value. That's another way to spread those costs.

In our last subcommittee meeting, we were able to vet and map the community economic development strategy that AEA created into four or five overarching priorities for rural Alaskans, per below.

No. 1 - Expand the inventory of technical assistance,

No. 2 - training and workforce development for gas by increasing capacity and capacity building activities; Human resources in rural areas. A huge challenge.

No. 3 - Identify economies of scope to provide multi benefit utility projects. Again, anchor tenants with industry for heat, transportation, and legacy electricity. Basically, any way and every way we can trade those economies of scale, and grow sales where it makes sense. To get to that tipping point and start building a lot of infrastructure.

No. 4 - Identify innovation broadly as innovation offering all kinds of opportunities. For example, identify opportunities to connect rural communities with transmission lines, especially if it's adjacent. Recognize that if you build out railbelt transmission, it's nice to have rural communities that are adjacent and can connect and feed into that.

No. 5 - Identify funding and financing mechanisms for rural communities. Including what are bigger lists in rural areas for federal grants.

For example, look at the broadband build out happening in this state. Almost $2 billion, fiber broadband infrastructure is being built from north to south with redundant paths from south to north, speaks to data especially because there's data transports that happen on that infrastructure. But it also provides remote access for locally hosted hub servers, something we discussed that can also be an anchor for hydro and other projects. It's just something to think about—how that broadband infrastructure and transmission mapping compares to how we think about electric transmission. If someone had told me 30 years ago that statewide infrastructure for communications would reach more communities and be more robust than our electric grid, I would have said they're crazy. But here we are.

On the data piece, I wanted to emphasize the cloud hosting local services--local electric load. We can start bringing some of those data processing, artificial intelligence, some other things that can add efficiency to your local grid. We need to look at that data. Glad to answer questions.

Statutes and Regulations Reform - Robert Venables and Karl Hanneman

Mr. Venables stated that we began with hearing from utilities through the Alaska Power Association on some of the concerns they had with regulatory issues. We've had great input and good conversations. Michael Baker brought forth real world examples that lead to good discussions on regulatory, restructuring of the RCA, and so on. Mr. Venables asked Karl Hanneman if he had anything to add. He did not.

Mr. Mitchell noted that we have two powerful ex-officio members on the Task Force who have a lot to say with legislation that goes through. He is curious as to their input and guidance for the committee. There's a wish in one hand and pragmatism in the other. These two members would bring strong pragmatism as we go forward. Mr. Venables responded that so far they have not inflicted anything on us. However, for the record, either they or their staff have been actively listening to the concerns expressed and engaged in going forward.

Incentives and Subsidies - Nils Andreassen and Isaac Vanderburg

Mr. Vanderburg stated that the theme of our subcommittee is looking at the limited amount of funds the state has, how do we position ourselves to attract as much private investment or other kinds of money to the State, so we get the projects done that we want to for Alaskans. The Incentives and Subsidies Committee has had several meetings with great recommendations, many of which are in the action item spreadsheet. He will highlight a few.

Loan Program - A low interest loan fund for energy projects in the state to bring down the debt for those developing and building new energy projects. State of Alaska is committed to levelized cost of energy analysis and/or life type analysis any time we're using state dollars to invest in energy projects in the state to make sure we're comparing apples to apples.

Commercial – Property Assessed Clean Energy (C-PACE) - spreading C-PACE throughout the State by having more communities actually set up a C-PACE program. And also looking at our PACE. Two programs that provide great incentives for getting things like solar and heat pumps on businesses and homes.

Research and Development and Deployment - looking at not only research and development of technologies that we're going to need in 10-15 years, but also adding in Deployment. Using state dollars not just to research for research's sake, but also to get technical demonstrations done in the state. There are companies that want to work here. And giving them a little bit of funding to determine if their technologies work to both bring down energy costs and to make our energy systems more resilient is a good use of funds.

Tax incentives - State of Alaska income tax exemption on revenue producing private investment in generation and transmission.

Our group had a conversation about how do we prioritize our many recommendations. The conversation went towards banking through the Governor's original charge to get up to 10 cent power and bring down the cost of energy for Alaskans. If we rank through what are we doing here as a group, we need to remember that that's what we're about. And that's a useful framework to think about.

Which of our recommendations could actually have the biggest impact or we could actually draw lines, in these recommendations and release them in cost of power. It's how we're

thinking about it. We're bucking the idea that we'll have only three or five or seven prioritized actions. To Duff's comments earlier. It's all important, it's all part of the basket of incentives we need to make these projects bloom. We're actually not heading towards a winnow down list. Curious to get other committees thoughts on that.
He added a reminder for Task Force member to think about how do we have bold and game changing ideas to change the trajectory of energy costs in the future.

Mr. Andreassen added that while we covered a lot of ground for incentives and subsidies, we have to come back to basic questions--do we have funds available to make incentives or do we forego revenue in one form or another.

We will keep coming up against that. There are lots of mechanisms that could be utilized if there were funding identified as secured. We want this to be a meaningful endeavor, but we're not in a position to say how we allocate the state's resources. So we're struggling a little bit with that item. Concerning prioritization, he likes the idea of all tools available should be mobilized in response to priorities of all the subcommittees. He's excited with what we've identified so far and looking forward to wrapping it up and packaging it in ways that make it usable for the other subcommittees and the Task Force generally.

Mr. Koplin asked if they discussed RCA's role. An unregulated utility would have a lot of flexibility with incentives and policy changes and so forth. However, the dynamics for regulated utilities are completely different. He's concerned that some of these new approaches may not have structures in place to manage them. Mr. Vanderburg responded that we haven't discussed this much but they do know that RCA plays a key role. One item of discussion was the importance of ensuring the folks on the RCA have a technical background whether in energy, investment, economics and so on because the incentives and regulations that we have or establish are only as good as the technical guys on the RCA. They can understand the issues and what's needed to resolve them and help us design the right regulations for the state. We view that as outside of our subcommittee's domain.

Mr. Izzo stated that his comment may be better suited to the round table discussion, but he thinks it would be a positive thing for a regulated utility to have the ability to quickly make decisions around an atypical opportunity provided, for example, by an industry wanting to come into the community and operate a business. While the new industry would increase demand for energy, and eventually a need for more infrastructure, it would be offset by jobs, an improved economy, and other supported industry in the community. He has several examples for further discussion.

Mr. Venables asked about opportunity zones in these federal programs. Has the subcommittee looked at any way that that might be leveraged for state incentives and subsidies. Mr. Vanderburg responded that they really haven't for a variety of reasons. He will add it to the agenda for their next meeting.

6. Round Table Discussion related to subcommittee report and preliminary subcommittee action recommendations. - Clay Koplin and Michael Yaffe

Mr. Koplin stated that during the subcommittee reports, several topics came up and it would be appropriate explore them further in our round table discussion while they're still fresh in everyone's mind. Most are contained in the 11x17 spreadsheet in your packets.

Mr. Yaffe began the discussion by stating that this spreadsheet is a draft document, and everything is subject to change. Regional subcommittees may have their own prioritization matrix based on their regions needs and goals. As a reminder, the Task Force, as a whole, may set priorities according to their overall goals of affordability, reliability, energy resilience and leave no one behind approach. At the end of our process, we're going to make high level recommendations for immediate action by the state legislature. For each subcommittee, he will read the recommendations first, then open the floor for discussion.

Ms. Whitney mentioned that there can be a more data driven approach to establish priorities. While an action item may show as a low level priority, it may rate high for implementation because of the timeline. In addition, within the four goals, she didn't hear anything about timeline—immediate, short-term, mid-term, long-term. Michael responded that to help answer this question, he recommends that the Task Force go through a prioritization exercise at their next meeting.

Mr. Koplin added that we look at timeframe as part of the exercise to help us understand the synergy between timeframe and priority to help us understand why one action will be implemented over another. That there is a relationship between action items, or one step needs to be taken before the action can be implemented. Mr. Yaffe reminded members of the priority areas to keep in mind—broad groups, data, alignment with Task Force's main goals, and does it require legislative action at the end of this process.

RAILBELT TRANSMISSION GENERATION AND STORAGE

Action 1 – catalog in transition assets along the railbelt and Bradley Lake to AEA or new regulated utility for the netbook value.
Action 2 – invest in grid innovation.
Action 3 – evaluate multiple railbelt utility governance structures and the impacts the electricity costs.
Action 4 – evaluate multiple electricity supply and demand scenarios.
Action 5 – identify how battery energy storage subsumes other energy storage systems ... can be integrated to lower the cost of power.
Action 6 – investigate lessons learned and case studies from (indiscernible) energy grid, including comprehensive policy decisions and rate allocation.
Action 7 – explore scenarios that articulate change to electricity demand and cost to convert residents to electric heat.

Action 8 – evaluate opportunities to invest in and fund additional transition and connectivity into a regional transmission commission facilitate an equal plan regarding (indiscernible) online energy.
Action 9 – adopt a clean energy standard
Action 10 – develop Dixon's version to increase Bradley Lake power.
Action 11 – complete FERQ licensing of Susitna-Watana.

Fed's Action 1 - Railbelt clean energy portfolio.
Fed's Action 2 - Railbelt transmission line capacity extension.

At this time the Railbelt Committee has not yet met to decide if these will be included or not.

Mr. Yafferead the action items into the record and then opened the floor for discussion.

Mr. Izzo asked what are the sources of these action items on the list. Michael responded that some action items were form the Task Force subcommittee for the railbelt, some have been added by other subcommittees that have met and have identified issues, and then some action items are from existing plans that are being integrated. He acknowledged that the Railbelt subcommittee is currently working through their work plan, and we may need to discuss these action items further. In addition, as we go through our discussion, we can note in the action status column if an item is withdrawn, ongoing, or connected with another action. Then, as the Task Force evolves, we can clean up the spreadsheet even further. As stated earlier, this is a draft document, and everything is subject to change.

Mr. Hanneman stated that he doesn't think we're being bold enough. I think that big picture for Alaska energy includes thermal and heating, but we've also got to get something on there about natural gas transit from the North Slope that needs to be brought to market. Alaska needs to invest in such a way that we partner to make that happen for next 40 years. For energy stability and security. Not just for the railbelt, but for all of Alaska through equalization or investment in the infrastructure dynamics. We've missed our mark if we don't have something bolder. Short term gain in transmission upgrades is very critical and has to be near the top.

Mr. Izzo responded that we need to align this with recently drafted Railbelt Subcommittee Agenda to make sure the natural gas issues are incorporated. Maybe John Sims or other subject matter expert would come and talk to the subcommittee about that particular issue.

Mr. Andreassen commented on how a few of these actions are statutory or regulatory in nature, one is about innovation. Is there a process to identify or to move certain action items to other subcommittees for evaluation. There may be overlap with rural, coastal or incentives and subsidies and the Task Force may benefit from input from those committees. Incentives and Subsidies ran into this question too around investments in projects. How would we invest, with what resource and to what extent. Do we need to be more specific in any action that talks broadly about investment or even deployment. The more specifics we have in an action item, the better.

Ms. Whitney added that as she's reading through the action items, she's seeing different categories and maybe they can be refined. A number say evaluate, investigate, or analyze. Then others say acquire transmission system assets. Adopt a clean energy standard, develop a diversion, and so on. There may need to be a distinction between identifiable actions and more studies to be done. Or recognition in the different types of action.

Mr. Mitchell agrees with Erin. These action items seem to be either passive or active. For example, invest or evaluate could be a small study or one we invest millions of dollars in without a conclusive outcome. The goal is lower cost of power, affordability. How did that action item tie into that. We want, not just this committee, but all committees to focus on the goals. If we look at the first recommendation. First sell all existing transmission assets along the railbelt and Bradley to AEA or new regulated utility for the book value with the purpose to lower cost. It's marketing and sales where this recommendation would go because this Task Force is going to get done with its work. Then the decision makers, such as Curtis, AEA board, the governor's office, will implement. They will determine if it needs more evaluation or studies.

Another example would be the Susitna-Watana project. I know Susitna's an issue that has lots of emotions and other things. But we have complete FERQ licensing of Susitna-Watana. That is a step towards another goal, which is build or build and operate Susitna-Watana. FERQ is nothing but a steppingstone to get there. But if you don't have your need for power analysis, you don't have your lead environmentally from the engineers, and you don't have the pre-sold, so there's a marketing part. These are steps to move the project forward. To put Susitna-Watana on there, it has to be active role as opposed to this committee working on it but not impose anything. Move towards an active voice on the spreadsheet.

Mr. Koplin responded that is the challenge. To draft a plan that is general but captures all the priorities. To have a framework where you can look at the individual projects and initiatives and measure them against a typical operation. Establish a litmus and a project portfolio mapping process to recommend proceeding with a project now, at another timeline, or take it off the table altogether under current circumstances.. FERQ license keeps a project in play, while we continuously measure how well it stacks up against alternatives.

To Nils' question about subcommittees, we want to capture those detailed discussions, if not in the body of our plan, at least as an appendix to it. The handoff is from each subcommittee to the Task Force for them to go through these recommendations as a whole

Mr. Izzo commented that we have to look at this from the big picture perspective because it's all interwoven. If we were to recommend make transmission lines from point A to point B, it has to be black and white. If someone from outside wants to invest billions of dollars in the state, it has to be black and white. When he looks at selling transmission lines, he has to remind himself it's for affordability because he could talk for an hour or more on all the reasons why it would fail. For example, utilities have debt covenants. Instead of selling electricity, they're borrowing from it. Or they have mortgages that you can't prepay. He knows there are other constructs,

like Iceland, where they lease some of it. With current federal programs, we're going to have to take a wholistic view combined with the other two legs of the stool—fuel and economic development. We have the grid we can afford for today for this economy, and the rates are too high. If you want to add rate base to the equation without anything on the other side to balance it, you cannot develop it. If we move towards renewables and away from natural gas, then we need to look at reliability. Which means there are capital costs to maintain that reliability. So I don't look at any of these as one and of themselves. We have to look at it wholistically. I don't have the answer. I just wanted to affirm what Clay was saying and put meat on the bone.

Mr. Venables asked if the fed action item, Railbelt Clean Energy Portfolio, is the same as Committee's recommendation No. 9. He was wondering about whatever lofty target your committee is looking at while simultaneously being committed to reducing energy cost to users. I don't see a virtue in having a standard that raises the cost of energy. It's not what the Governor has asked us to do and not what the mission statement is for the State's energy office. He wondered if those things were married.

Mr. Izzo responded that he completely agrees. Again, you can have an aspirational goal, some utilities have them, my own utility has one. We'd like to exceed it if we can. I think this is an assignment of the committee because of RPF legislation. We're going to see if RCA opens an I docket on this as well for other inputs. It's a big list.

Mr. Thayer added that when we look at railbelt, some of these investments in infrastructure are already underway. Currently, there are two applications pending with Department of Energy for a total of approximately $650 million that the State has to match. One grant is for $250 million for rural Alaska micro grids. The second is for $413 for railbelt improvements. I don't believe we'll get both grants, and we would be happy to receive one. In addition, we have partnered with Alaska Housing Finance Corporation (AHFC) on another application for $100 million for solar power in the state. It's due September 26th. These opportunities keep happening and we want the Task Force to be aware of them. Some may be answered by November while others will still be outstanding.

Mr. Koplin added that we have an RPF in front of the legislature, how do each of these proposals affect the Task Force's goal of a clean energy plan and our priorities of affordability, security, resilience, and leave no on behind.

RURAL GENERATION, DISTRIBUTION AND STORAGE.

Action 1 – extend an inventory technical assistance, training, and workforce development to identify gaps. Increase capability and capacity building activities for training of rural energy workforce.
Action 2 – Identify economies of scope to provide multi-benefit utility projects. A
Action 3 – identify innovation and logistic transportation to improve supply chain reliability.

Action 4 – identify opportunities to connect rural communities through transmission lines and other shared energy projects.
Action 5 – identify a funding or financing mechanism for rural communities including a local match for federal grants.
Action 6 – create and implement a community outreach and education programs to combat NIMBYism and energy projects in rural areas.
Action 7 – invest in critical repairs in resilient infrastructure that may be at high risk to current and future natural hazards. For example, wildfires, extreme cold, storms, etc. to avoid energy disruptions and preserve continuity of operations..
Action 8 – identify energy anchor tenants provide common use scale for rural communities.
Action 9 – explore opportunities to enhance remote sensing and direct technology to support maintenance cooperation with energy infrastructure and rural remote locations.
Action 10 – invest in expanding the grid in rural areas to support record nuclear.
Action 11 – support research, pilot testing, development, and production of oil and natural gas to produce hydrogen fuel as appropriate for rural communities.

Mr. Yaffe read the action items into the record and then opened the floor for discussion.

Mr. Venables stated that it's important to note that a lot of these action items are not just railbelt, rural, or coastal but that they have a lot of statewide impacts that should be recognized. They transcend regional. I appreciate the work that the committee did.

Mr. Vanderburg added that it's important on any of these actions across subcommittees, a lot of this seems like really good ideas and it's exciting and things we've all talked about. But if we're not paying close attention to cost, that, to me, is a recipe for disaster or projects that go on and on and are never built. It makes me nervous when we're picking particular energy technologies out of the gate when we say let's commit to that goal of bringing down costs, resiliency and reliability and leave no one behind. Do we have demonstration projects for technologies that will be cost competitive in ten years as opposed to deploy projects now with technologies that we know are cost competitive. It speaks to Erin's comments earlier about pay attention to verbs—explore, investigate, appropriate.

Ms. Whitney asked if under the partners, collaborators column, would it be useful for the subcommittees to think about and group priorities and actions into state action, national, federal, private, other domains and so on. It would be clear who do we talk to and at what stage of a project. What the governor, state legislature, federal agency, or private stakeholder can do.

Mr. Koplin asked for an example. Ms. Whitney responded with identify energy anchor tenants, is that private. Repair infrastructure. Is that state, federal or both. Community outreach and education program, that's state.

Mr. Koplin stated that's a great comment and it speaks to what Tony was saying about thinking wholistically. For example, you have a transmission line being built adjacent to a military facility. You have a potential private partner. This is an opportunity to check off about five or six things

on the rural list. Or you have a huge heat demand by an anchor tenant so you may lean towards nuclear, which has an excess heat resource. This project checks the boxes. There is a vast diversity of Alaska's regions, resources, and challenges. But if you have a framework where we can tick six or seven boxes, you reach critical mass and three or four parts fail, you still have something that's going to be affordable at the end of the day. A project that meets business and economic growth needs and fuel supply needs.

Mr. Yaffe commented on the point raised about the lead organization for a project and how they can be categorized. The lead organization may speak to prioritization. Actions may be dependent on the lead organization, which may not necessarily be a local organization or entity. Mr. Koplin added that the lead organization may be the one that makes the investment in the project.

Mr. Mitchell went back to his military training in that someone has to lead the charge. Someone has to be the champion. Who's in charge and responsible. Just sharing his thoughts that we want to keep this in mind as well as we go through this process.

Mr. Izzo stated that various actions keep popping up for me and he wanted to share them with the committee. For these recommendations, how do we identify and then measure expected results. It may be hard for some of these recommendations to come up with a firm answer. But we have to be prepared to answer the question, were we successful. What are we getting for this global or wholistic approach.

Mr. Mitchell commented that as we identify overlap of recommendations in these discussions, are they being tracked and communicated to the various chairs so we have a heads up and can add that item to our committee discussion. Mr. Koplin responded that Michael Baker has been doing that—both the tracking and communicating with co-chairs.

COASTAL GENERATION, DISTRIBUTION, AND STORAGE

Acton 1 – enhance affordability of energy in Alaska including power, heat, and transportation energy.
Acton 2 – establish an (indiscernible) metrics related to power generation compared to future demand.
Action 3 – integrate from heat pump technology and systems as an alternative to energy resource in coastal Alaska.
Action 4 – modifications required for net metering integration the coastal community utilities and grades.
Action 5 – identify how battery energy sources or other energy source systems can be (indiscernible) integrated into smaller micro (indiscernible) utilities and lower the cost of power.
Action 6 – identify funding and financing mechanisms to build transmission and distribution lines across Alaska.

Action 7 – identify opportunities to support and streamline state and federal regulatory (indiscernible) requirements for coastal projects.
Action 8 – unofficially electrify the Alaska (indiscernible) to lower cost of transportation and assist in lower cost of powering the coastal communities.
Action 9 – partner with Alaska Native tribes for mutually beneficial energy development, production, and distribution.
Action 10 – educate and train Alaskan workforce in technical skills, electrification.
Action 11 – plan, fund and implement shore to ship power at state ports and harbors to fill excess energy to cruise ships to provide energy market for coastal communities.
Action 12 – streamline renewable energy development on federal lands.
Action 13 – support hydro projects.
Action 14 – (indiscernible) data servers with hydro plans.

Mr. Yaffe read the action items into the record and then opened the floor for discussion.

Mr. Venables commented that he had to leave the last subcommittee meeting early, so he was late in updating information for the spreadsheet. He then provided some fine tuning edits for committee members.

Mr. Mitchell weighed in on Action No. 3 by stating this has applicability statewide. Also heat pumps, identifying funding mechanisms, transmission, and distribution line, which dovetails with railbelt. For smaller projects in rural Alaska, partner with Native Tribes. Co-locating data servers with hydro plan or other energy sources. Any rate strategy or solutions we come up with for a community needs to be completely local.

Mr. Vanderburg added that we take an iterative approach and be comfortable with things not working right away. Projects are moving forward, we have a clear view of our destination, but be open to the fact that it is a winding road in some areas, and we may need to adjust the process. Have a working group to support the state, to monitor actions over time to tweak them as needed. As unintended consequences rear their head, we respond to that. To think through the process. We'll have good ideas out the starting block. Get comfortable with experimenting over time. Not sure how you would build that into a plan, but it seems necessary.

STATUTES AND REGULATIONS REFORM

Action 1 – restructure the RCA to three commissioners and administrative law judges to streamline, handle (indiscernible) cases, example states include Iowa and Virginia.
Action 2 – streamline permitting for energy projects.
Action 3 – establish state funding to help with local match for federal grant cost share.
Action 4 – continue to allow transmission distribution lines to share DOT right-of-way.
Action 5 – evaluate similar states such as Wyoming and North Dakota for case studies and best practices regarding energy distribution, transmission connectivity.

And then the following actions are from the APA policy position papers for consideration but haven't been officially identified as action yet.

APA 1 – clarify statute (indiscernible) liability.
APA 2 – prioritize state investment in electric infrastructure and leverage federal funding opportunities.
APA 3 – support reasonable economic carbon reduction strategies that consider cost to consumers.
APA 4 – preserve power cost equalization endowment using the endowment only for statutory purposes ensuring all eligible communities can maximize the PC program and full funding the PC program in FY23.
APA 5 – alternative uses for coal regulations, (indiscernible) regulations, hydrogen road map and regulations. To clarify, last two actions came from discussed plan for consideration.
APA 6 – establish Alaska hydrogen health.

Mr. Yaffe read the action items into the record and then opened the floor for discussion.

Mr. Hanneman, stated that as co-chair, the list presented is very preliminary and from outside input. The committee itself has not taken a position on any of those items.

Mr. Venables asked Mr. Yaffe if links to the cases studies cited from Iowa and Virgina are available and can they be provided to both subcommittee and Task Force members for review. Mr. Yaffe responded that he can do that.

Mr. Kurber commented that he wasn't sure hose Action 1 might affect the future of the agency. He has been following this meeting with interest. And since he recently went through a power outage, he appreciates the comments about getting system into first world status. He looks forward to next subcommittee and going through items on the list.

Mr. Izzo commented Action 1 restructure RCA. In the past, I've mentioned about the need for innovative rate structures. That the commission functions by statute and regulations. Sure he could bring in an example of innovative rate design for consideration, but without the authority and statute in some way or another, you would have to bring it before the legislature, which can take years. So, I'm not proposing that.

However, something for the committee to consider. I have had businesses and industry come and look around the service area and have asked what discount can I provide based on the load we bring in or I'll pay the going rate, but can you dedicate to renewable energy. Technically, I can't do that because we have a blended rate. However, if you have a new development, something nuclear, hydro or whatever, it could be dedicated to the right type of economic development that would create a subsidy which benefits all rate payers in the region. So, innovative rate design would be a broad category that should be included in our review.

Co-Chair Thayer stated that for Action No. 4, all transmission lines to share DOT right -of way, he has had conversations with the current DOT commissioner about this topic. As DOT has been working on the fiber optic project for broadband, they've been dealing with right of way issues. So, if you could give him a couple of examples of where the disconnect is within his organization, he will deal with it directly. He would expect that right of way should be shared with utilities as a cost saving. So, this action could be completed with a conversation.

Mr. Izzo responded that the Alaska Power Association has done a good job of representing the utilities that have had this issues. They've gathered the data, taken advantage of land experts, and have met with the prior commissioner. It would be good to have this in writing as it has been a continuous and ongoing process of we don't want you in the right of way, which opens up a whole other set of issues dealing with NIMBY and individual landowners. The other issue that we're dealing with is the desire not to issue a permanent permit, but a temporary one. So that if a road ever needs to be relocated again, they don't have to relocate it. This is called planning. And if it's done well, you can avoid a lot of these issues. Mr. Venables asked if he could take this to the Association for follow-up. Mr. Izzie replied that he would be happy to.

Mr. Vanderburg asked that on Action 3, establish state funding to help with local match for federal grant cost share that we not leave out other sources of capital, interest (indiscernible) funds, private capital providers, and so forth. A lead organization could have partners or collaborators that they could reach out to. The Denali Commission is a good one to consider. Concerning the comment about NIMBY, this is an issue across the state, not just a rural issue. It's everywhere across the country and a challenge.

Mr. Mitchell commented on Action 2, streamlining permitting for energy projects. We don't know what we don't know. But we know there is an issue in developing new energy projects. He heard of an example that someone was trying to develop a hydro power project and they had a DNRF application for 17 years. During that time, the project increased in cost four times since initiation. We have a real opportunity with this legislature and governor who wants to get to a Yes! He's made it real clear when he was first elected that Alaska is open for business. Through commissioners, AEA and AIDEA, how do we get to yes. Streamline for permitting for energy projects is very vague. Allen Osterman and Lisa Murkowski as a state legislator, passed a bill, and it's still on the books, to add Alaska to regulate 5 megawatt and under hydro power through RCA. RCA would be the adjudicator. We have small hydro projects tied up for long periods of time. We have examples of projects and lessons learned or what could be in the world of possibility. This is a very big issue that we could move the needle on.

Mr. Koplin wanted to respond to Tony Izzo's comments about regulatory process and Isaac's comments are a perfect segue way. We don't think of Alaska regulatory and statutes as an agile space for innovation. But it's actually one of Alaska's strengths that we are much, much less regulated than other states. Emerging technologies, innovative rate structures or regulatory constructs are so constrained on other grids in ways that aren't in Alaska's grid simply because we haven't developed the regulations yet. There are opportunities here whether it's establishing a pilot project, where we just reach some investment threshold, it can have an exemption from

the regulatory process or have a pass to demonstrate a rate case or something for three or four years. Or do we give it exceptions for newly emerging technologies, which allows Alaska to better deploy emerging technologies and innovations, which I think is one of our strengths. So I would like to see us structure a plan with recommendations on how to double down on that.

Mr. Hanneman asked Mr. Mitchell to expand on his comment about what needs to change to improve or shorten the timeline under which small hydro projects could be improved. Is it utilization of that statute that Murkowski helped pass. Or is it a RCA regulation change--what needs to be improved to shorten our permitting cycle on small hydro.

Mr. Mitchell responded that a couple of things need to change. For example, the bill that passed years ago where Governor Murkowski was trying to develop many small hydro projects or open the gates for investment to do small hydro power projects. One example, little fish communities have a great running stream. But they don't have the ability to pay hundreds of thousands of dollars that it takes for licensing. There was an effort to speed process up. You still need to look at fish, you need to look at environmental things. But you shouldn't have to spend seven years of lawyers and consultants going through FERQ process, which can be very tedious for a small community of 50 people. So, you give up. You're done. Can't afford it. That's an example of one item on the books.

Another thing to consider is that each agency has its own mission, its own people, its own culture. So the overlying issue could be how do we get to yes. One way to get there is if I apply, and the government doesn't get around to adjudicating it in nine months, it's passed. What that will do is if there's a deadline. You will get that permit adjudicated. Will that cost money? Sure. But I also think if we're trying to lower the cost of power on hydro and other projects, we need to re-invigorate how we collectively work through the processes. How do we harmonize so we're not short circuiting the process. There are good things we could do to move the needle faster. I don't have silver bullet answer. But the answers are out there. How do we get to Yes and how do we make it happen.

Mr. Hanneman stated that we have a hydro power person for fish and game, one for DNR. Are they coordinated? Probably not. While they communicate with each other, they have different missions. There's some retooling that can be done. As a Task Force we may not have specific ideas. But it is an area that with more analysis we could speed up process.

INCENTIVES AND SUBSIDIES

Action 1 – Develop a funding and implementation tool kit for energy projects in Alaska.
Action 2 – provide commercial incentives to encourage Anchorage tenant investment.
Action 3 – encourage municipalities, local governments to provide a property tax exemption to attract private investment in new generation and transmission
Action 4 – create a State of Alaska income tax exemption on revenue produced from private investment in new generation transmission.

Action 5 – provide liability exemption to Alaska utilities for transmission. Forest fire issue and return for FERQ defined open access at state owned, subsidized and RCA regulated utility transmission lines.
Action 6 – encourage SOA departmental and regulatory streamlining and prioritization. Provide regulatory streamlining in departmental priority for review, adjudication in ADNR, DEC, AGFC, DOT&PF, for new generation transmission.
Action 7 – work with partners to gain state primacy on all federal lands for RS2477 and SAFETEA-LU Act 44-07, right to way for new generation and transmission lines
Action 8 – work with federal partners to establish a renewable energy and land use designation or transmission line (indiscernible) designation and Chugach forest plans.
Action 9 – garner support form federal government to establish an Alaska renewable energy and transmission line fund.
Action 10 – pursue State of Alaska primacy on 404 wetland permitting for generation transmission line projects.
Action 11 – attracting private co-investments.
Action 12 – research development and deployment
Action 13 – energy technology demonstration projects
Action 14 – energy infrastructure: build energy infrastructure that increases locally based supply at lower cost by reaching public and private investment.
Action 15 – weighted criteria—implement statewide energy project evaluation process that takes into account low cost, local clean and life cycle. Alaska could use the levelized cost of energy for infrastructure projects.
Action 16 – commercial property assessed for energy program.
Action 17 – establish a green bank for financing.
Action 18 – evaluate PC reimbursement for incentives.
Action 19 – federal grants for workforce training.
Action 20 – clean air, affordable energy deployment.
Action 21 – statewide energy plan. (in progress).
Action 22 – energy incentives program study.
Action 23 – federal grants for retrofits.
Action 24 – explore on bill financing.

Mr. Yaffe read the action items into the record and then opened the floor for discussion.

Mr. Koplin stated that the nature of this subcommittee is to be specific. Because it's regulations. So, there's a long list here and we can easily get lost in the weeds. But I'm getting sensitive to the clock. We do have staff from our two legislators here along with our two co-chairs, Mr. Andreassen and Mr. Vanderburg to help answer questions.

Mr. Venables commented on Action No. 4, tax exemption on Alaska income. Would it be better to say incentive or variable and not use the word exemption. Have an incentive program that include exemptions. Want to keep it fluid. Mr. Andreassen responded that your intent is broader than how it's listed. It's always been noted that we have a corporate income tax

structure that could be leveraged in some way. Could include abatement, exemption, credits, etc. Depending on how the state wants to structure it.

Mr. Venables had the same thing about debt relief. It's a big item within the community and wanted it considered.

Mr. Mitchell commented on municipal government property tax exemption and the state income tax is primarily to attract private investment because they're tax driven. The recent IRA bill and it's federal legislation. Something we have is provide direct pay for co-ops and utilities. This was primarily listed to attract the private investment when the Governor had his task force. There was a lot of interest at the time to invest for tax breaks. It goes back to Tony's comment about have someone bring in their billion dollars and co-join it with the state or something. There are opportunities where both levers become an opportunity. It's not mutually exclusive from other forms of incentives.

Mr. Vanderburg wanted to clarify that Action 3 is really geared at improving the economics on projects where you're seeing outside investment. Some projects hinge on fractions of a penny. So having a tax exemption would pencil out and go forward.

Mr. Mitchell added that tax is a pancake against the cost of power. So, if it's helping nontaxable and then it flows to the utility that's buying it, it's flowing in the right direction for lowering cost of power.

Mr. Koplin shared that in Cordova they had a case of constructing a hydro project to reducing energy rates helped attract more use by a private sector, but it was fisheries. So it generated an increase in raw fish tax revenue when it crossed the dock. From the community basis, many times the main tax stream is property tax, which landowners in the community pay. So any alternatives to those can help. There can be a virtual circle there where you can give an industry a break that creates revenue in other ways that relieves pressure on the property tax. It's counterintuitive. So, the unintended consequences in this case were positive.

Mr. Mitchell commented on RF2477, which is SAFETEA-LU, authored by Don Young. Section 4047 writes a way for new generation and transmission lines. This is extremely important and goes beyond energy development. It goes to mining development and other industrial development projects. And I know this is a near and dear concern with commissioner for DNR and DOT. RF2477 is where a grease trail, a training trail, a mineral trail, any kind of trail in Alaska has primacy under certain federal laws for transmission lines and roads. There's always a national debate on whether or not Alaska can assert those rights. It feels pretty strong for any future transmission line development, energy, project development as well as other roads. And then SAFETEA-LU, Section 4047 has specific rights that state receives from the Forest Service for the specific purpose of roads and transmission lines,

STATE ENERGY DATA

Action 1 – establish a data department within the Alaska Energy Authority.
Action 2 – establish an energy data governance committee that's responsible for establishing minimum protocols for data collection, quality, storage use and access.
Action 3 – fund data capacity.
Action 4 – improve existing energy data and collect (indiscernible) data.
Action 5 – collect data to benchmark the use of net metering (provided by Coastal Subcommittee)

Mr. Yaffe read the action items into the record and then opened the floor for discussion.

Ms. Whitney commented that Action 5 is already done. ACEP produces a net metering report every year for the railbelt. So, you can mark that as complete.

Mr. Venables stated that he appreciates the work put in by this subcommittee. He has a question on Action 2. We already see the need for protocols for data collection. It will take some task force or committee to set that up. Is the intent of this to be a long-term, rate payer supported, to be of assistance for an indeterminate amount of time or is this task force driven, one and done sort of thing.

Ms. Whitney responded that the idea is a bit of an advisory or oversight committee that works in concert with a data department, at AEA for example. This oversight committee will be around for the long-term to provide the institutional checks and balances and structural integrity. Don't know if it would be rate payer supported or not. That's a great question. Mr. Ericson with Alaska Energy Authority added that it's not clear yet how the committee would be funded.

But the view of the technical advisory committee is for this to be a data department that would serve as a clearinghouse for all stakeholder data. To be the people that house the date, that manipulate the data, collect data as a whole. What are the best practices security, governance, how reactive is the data, how it's hosted, where it's hosted. If it's within AEA, what would the data department look like. Not sure how it would be funded. Is it through member agencies. Are there charges associated with setting up the data department. Would it be a part of an operating budget.

Mr. Venable commented that there's an ongoing responsibility for data, so it doesn't just get thrown out with the bathwater. We may need to create a level of bureaucracy for this but in the end we're all ratepayers. I totally support this...

Mr. Vanderburg commented on the format of the subcommittee's recommendations of showing a shorter list of actions, but a bunch of actions underneath as very clever and other subcommittees may borrow it. Great work. I also noticed that some of the lead organizations and partners and collaborators are still in development. Encourage you to make sure that the private sector is at the table on the data collection. There are great firms out there that have great approaches to collecting data and they may be helpful. Also the kinds of data you're seeking and how to format it in a way that's useful to IPPs, technology developers and private

developers. Hope that the voice of the people trying to build projects and their needs are considered.

Vice- Chair Thayer commented that one thing to understand is that the Governor is looking for a venue to host the data. And consider where all this information is currently located. We aren't reinventing the wheel so much as centralizing it. The University has data, RCA has data, AEA has data, DNR has data. We just want to consolidate it. We've done data gathering before, but it's fallen by the wayside because of funding or other things. I would imagine this is two or three people doing this. AEA doesn't receive money from utilities, as we have different revenue sources. So this might fit into a revenue source that already exists.

The State is just lacking is a central repository. The State has spent hundreds of millions of dollars on reports that we have that we can resurrect, scan, and put into a library that is accessible to utilities, developers, engineers, and so forth. It can be a report we did 20 years ago or last year, you can go to this library and find it. It takes the collaboration of everyone as to how we use data and who has it. The data is all public information, and we need to get it set up and available.

Mr. Koplin added between utilities, monopolies, and governments, I don't think we fully appreciate operation data that unlocks the value for organizations. The private sectors is so much farther down the road with data. I feel like we need engagement or training from private partners to accelerate our operations. Very well structured and presented.

7. **Energy Symposium Series – discuss lessons learned, review of topics explored and if there are any actions to be added to the plan based on known gaps or knowledge presented at these symposiums.**

Vice-Chair Thayer acknowledged and thanked the University and ACEP for the wonderful job they have done in facilitating these energy symposiums. They started these in July and will continue through September. He then turned it over to Michael Yaffe.

Michael Yaffe reminded everyone that the Energy Symposium series is an available resource for everyone. These presentations are posted on the AEA website, and they will be distributed to members. The presentation title is a link and along the bottom you can watch the video recording, see the high level notes, key take aways, and topics that were discussed. Below is a list of the symposiums held so far.

7/13 Future National Gas Supply For The Alaska Railbelt
7/20 Alaska Rural Energy: Challenge And Opportunities Or Reducing The Cost
7/23 Global Treads And Grid Of The Future
8/3 Railbelt Hydropower Development And Financing: Lessons Learned
8/17 Alaska Energy Statistics And Economics
8/24 Transmission And Storage: Building A More Resilient Grid
8/31 Emerging Technologies And Opportunities For Alaska: Small Scale Nuclear

Vice-Chair Thayer stated that it's nice that we can go back and watch these symposiums again. So, if you have a question on a particular project or subject, you can watch the video presentation or look at the PowerPoint.

Mr. Koplin added that he goes back and watches the presentations again over the weekend. They are key resource materials. A lot of written plans. The great thing about these symposiums is its strong projects, processes, and real world examples in both inside and outside the state. It's time well spent revisiting these presentations. He encourages everyone to take advantage of them.

Task Force Member Comments

Vice-Chair Thayer went around the room and online seeking comments from members.

Mr. Vanderburg wanted to reiterate Vice-Chair's comments about the symposium series. Learned a lot makes me feel good about Alaska being able to solve our own problems. There's quite a brain trust in this state. Appreciate that and the process that Michael Baker has walked us through here as well for being on a short timeline. Remember to think boldly and the end game in sight. Looking forward to next few weeks with our next deadlines coming up.

Mr. Izzo stated that we had a good meeting today. Key take away is that time is running short and a growing list of important things to grind through. Thanks to AEA for providing us the support form your team, Michael Baker and Black and Veatch.

Mr. Koplin thanked MEA for hosting. He is looking forward to the ribbon cutting on the Houston solar panel project and good discussions there afterwards.

Mr. Venables echoed the comments. Kudos on these meetings being well run and the support provided by staff. Appreciate the work of the other committees.

Mr. Mitchell thanked Tony and MEA for hosting us today so we can check out the ribbon cutting. These are great meetings. I feel like a kid on a roller coaster. It's been slow going up, but now we're going fast to reach our deadline.

Ms. Whitney expressed her gratitude for all the effort to host today's meeting. She's feeling anxious about the timeline. A draft report to be released in early October. We have subcommittee reports due in the next month. Encourage all committee members to come up with aggressive and specific recommendations. That will make our work easier as a Task Force. We were grappling with some of these priorities in the spreadsheet today. But it's a draft and something we can dig into. We need to focus in on specific actions so we can come up with clear recommendations.

Mr. Sims appreciates the opportunity. He has been learning a lot through this process. He saw the rural generation meeting for September 7 and another symposium schedule for September 7th. So he hopes they are coordinated so we can participate in both.

Mr. Hanneman thanked everyone for their input today. He's sorry he'll be missing the ribbon cutting. But he's looking forward to our next meeting.

Mr. Kurber noted that the one symposium was very timely, as he ran into a representative at the Fairbanks library. In his conversation, he recommended that he look up the symposium as it fits into the aspirational aspect of this Task Force.

Mr. Andreassen commented that he's in the Erin Whitney camp that he's anxious about the upcoming deadline and feels that there's just as much work ahead of us as there is behind us. He's looking forward to a successful end.

Vice Chair Thayer again thanked MEA for hosting the meeting and he thanked the behind the scene's team for all the work they do to keep us on task.

8. Next Meeting Date:

Vice-Chair Thayer reminded everyone that we have a symposium on Thursday, August 31, and then our next Task Force meeting is **all day on September 19th** at AEA offices in Anchorage.

He also directed Task Force members to watch their emails for updated meeting schedule and deliverable due dates in October. AFN is in October, so there are several scheduling conflicts to work around.

For the public's benefit, Vice-Chair Thayer mentioned the meeting schedule of the various subcommittees through September. He also stated that these meetings are also posted on the Task Force's website.

9. Adjourn

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 2:00 p.m.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #7
WEDNESDAY, SEPTEMBER 13, 2023, 9:00 AM – 10:00 AM

STATUS: Active

Alaska Energy Security Task Force - Status Update - September 13, 2023, 4:00 pm

Please note that the Alaska Energy Security Task Force will hold a Status Update at the 2023 National Hydropower Association Regional Meeting on Wednesday, September 13, 2023.

The Alaska Energy Security Task Force Executive Team will provide a Status Report at 4 pm to the National Hydropower Association Regional Meeting.

The Task Force Meeting will be conducted at the following location:

The Hotel Captain Cook
939 W 5th Avenue
Anchorage, Alaska 99501

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Person requiring special modifications to participate should contact 907-465-3500 to make arrangements.

Attachments, History, Details

Attachments
None

Revision History
Created 9/8/2023 1:32:51 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/8/2023
Archive Date:	9/14/2023
Events/Deadlines:	

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/8/2023 2:53:48 PM by jlbertolini
Modified 9/12/2023 9:20:14 AM by jlbertolini
Modified 9/14/2023 11:52:39 AM by jlbertolini
Modified 9/14/2023 1:08:31 PM by jlbertolini
Modified 9/19/2023 7:07:23 AM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023

Events/Deadlines:

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #8
TUESDAY, SEPTEMBER 19, 2023, 9:00 AM – 4:30 PM

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

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Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

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Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

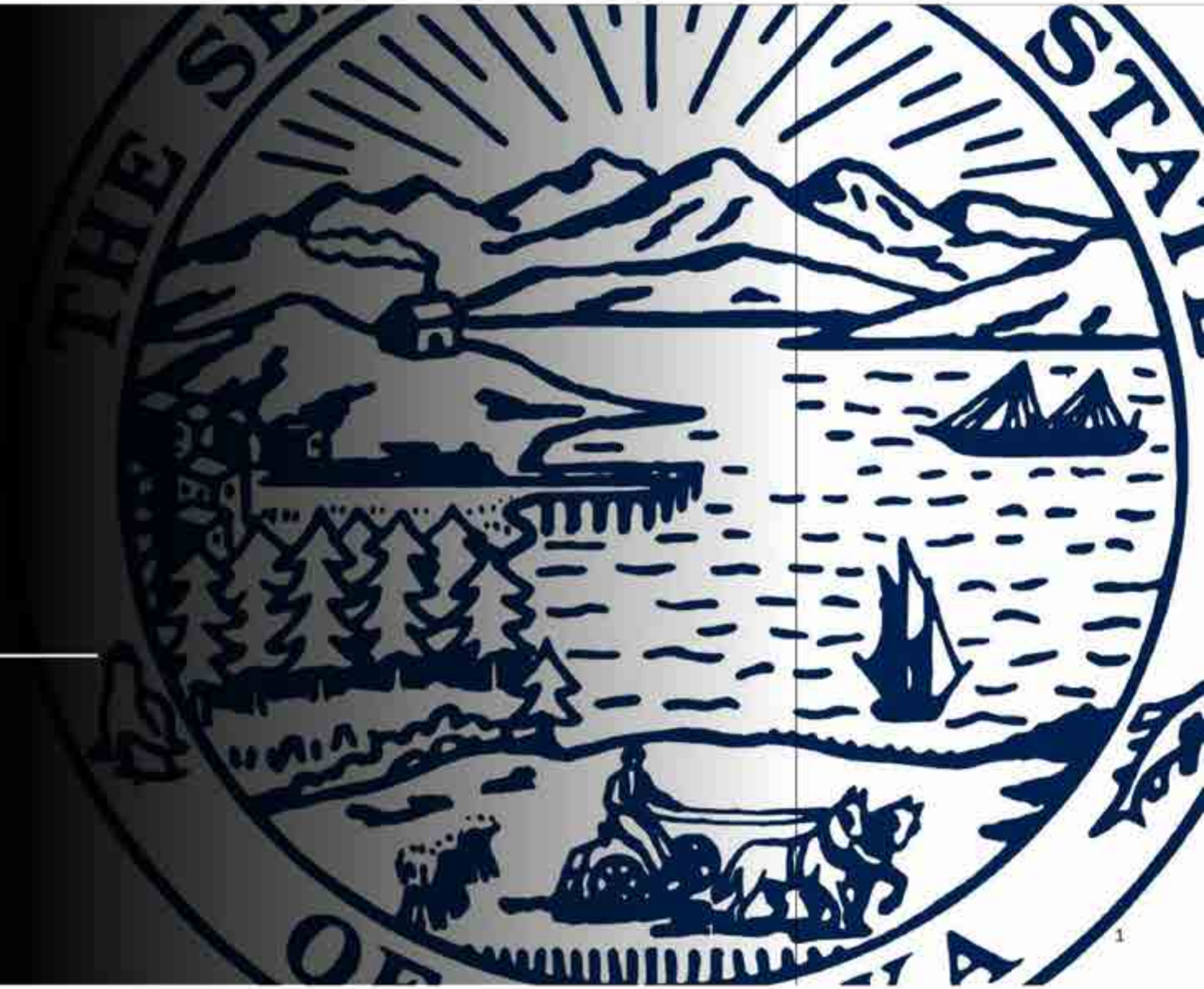
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Modified 9/12/2023 9:20:14 AM by jlbertolini	[Details]
Modified 9/14/2023 11:52:39 AM by jlbertolini	[Details]
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

Alaska Energy Security Task Force Meeting

September 19, 2023



September 19, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. Welcome and Introductions ***(9am)***
2. Roll Call
3. Prior Meeting Minutes
4. PCE Presentation - AEA ***(9:15 am – 10:15 am)***
5. Breakout Session Preparation - MBI **(10:15 am– 10:30 am)**
6. Break ***(10 mins)***
7. Subcommittee Concurrent Session 1 *(Rural, Coastal, & Railbelt)* ***(10:40 am – 12:00 am)***
8. Lunch Break ***(12:00 pm -1:00pm)***
9. Subcommittee Concurrent Session 2 *(State Energy Data, Statutes & Regulations, Incentives & Subsides)* ***(1:10 pm – 2:30 pm)***
10. Break ***(10 mins)***
11. Subcommittee Report Outs ***(2:40 pm – 3:45 pm)***
12. Next Meeting Date: Tuesday, October 3, 2023
13. Adjourn

Alaska Energy Security Task Force

Task Force Organization

15 Member Board

Chaired by Lt. Governor Dahlstrom

5 Ex-officio members from legislature, state & federal agencies


Lieutenant Governor
Nancy Dahlstrom
Chair


Curtis W. Thayer
Alaska Energy Authority
Vice Chair


Clay Koplin
Cordova Electric Cooperative
Vice Chair


Commissioner John Boyle
Department of Natural Resources


Commissioner Emma Pokon
Department of Environmental Conservation


Nils Andreassen
Alaska Municipal League


Andrew Guy
Calista Corporation


Karl Hanneman
International Tower Hill Mines


Tony Izzo
Matanuska Electric Association


Jenn Miller
Renewable IPP


Duff Mitchell
Juneau Hydropower


John Sims
ENSTAR Natural Gas Company


Isaac Vanderburg
Launch Alaska


Robert Venables
Southeast Conference


Dan White
University of Alaska Fairbanks


Senator Click Bishop
(Ex Officio)


Garrett Boyle
Denali Commission
(Ex Officio)


Commissioner Keith Kurber
Regulatory Commission of Alaska
(Ex Officio)


Representative George Rauscher
(Ex Officio)


Erin Whitney
U.S. Department of Energy
Arctic Energy Office
(Ex Officio)

Energy Symposium Series

Energy Symposium events that have occurred:

7/13 - Cook Inlet Natural Gas Supply & Development

7/20 - Alaska Rural Energy: Challenges and Opportunities for Reducing the Cost of Energy

7/27 - Global Trends and Grid of the Future

8/03 - Railbelt Hydropower Development & Financing: Lessons Learned for the Past, Opportunities for the Future.

8/17 – Alaska Energy Statistics and Economics

8/24 - Transmission and Storage: Building a More Resilient Grid

8/31- Emerging Technologies and Opportunities for Alaska: Small Scale Nuclear

9/07 - RPS and Clean Energy Standards: National Policy Comparisons

For more information on the symposiums visit uaf.edu/acep/news/energy-symposium.php



Logistics:

Weekly on Thursdays from 11a.m.-1 p.m.

Format:

- Zoom webinars: recordings will be made available.

Alaska Energy Security Task Force

Task Force Proposed Work Schedule

Key Milestones	Completed By
Data Sub Final Reports	Tuesday, September 19, 2023
Receive Initial Report & Presentation, Public Comment Meeting	Tuesday, October 3, 2023
Task Force Meeting; Release Draft Report for Public Comment *(Meeting Added)*	Tuesday, October 10, 2023
Discuss Final Report; Vote on Recommendations; send to GOA; Public Comment on Final Report	Tuesday, October 31, 2023
Public Comment Incorporated in Draft Final Report (No Task Force Meeting)	Tuesday, October 24, 2023
Task Force Receives Final Report (No Task Force Meeting)	Friday, November 10, 2023
Vote to Approve Final Report	Friday, November 17, 2023
Final Submittal to Governor	Thursday, November 30, 2023

Power Cost Equalization (PCE) Presentation

Presented by Alaska Energy Authority

Break Out Session Preparation

Presented by Michael Baker International

Survey Results

Q1: Please select evaluation and prioritization criteria below that should be considered and included in a prioritization exercise at the next Task Force Meeting. (Select all that apply).

Alignment with Goals of the Plan:

Affordability - Does the action help maintain competitive energy prices that are fair and reasonable for consumers and businesses and supports our state's continued economic success?

Reliability - Does this action provide access to reliable energy supply, help energy infrastructure withstand instability, , uncontrolled events, cascading failures, or unanticipated loss of system components?

Energy Resilience - Does this action support a leave no one behind approach to advance equal access to affordable, reliable energy for all Alaskans no matter which community they live in?

Alignment with Regions:

Coastal Region - Does the action support coastal communities?

Railbelt Region - Does the action support railbelt communities?

Rural Region - Does the action support rural communities?

Legislative/Regulatory - Does the action recommend potential legislative or regulatory changes within the first year of State Comprehensive Energy Master Plan?

Best available energy data - Is the action supported by best available energy data?

Related to other actions - Does the action enable or facilitate other actions?

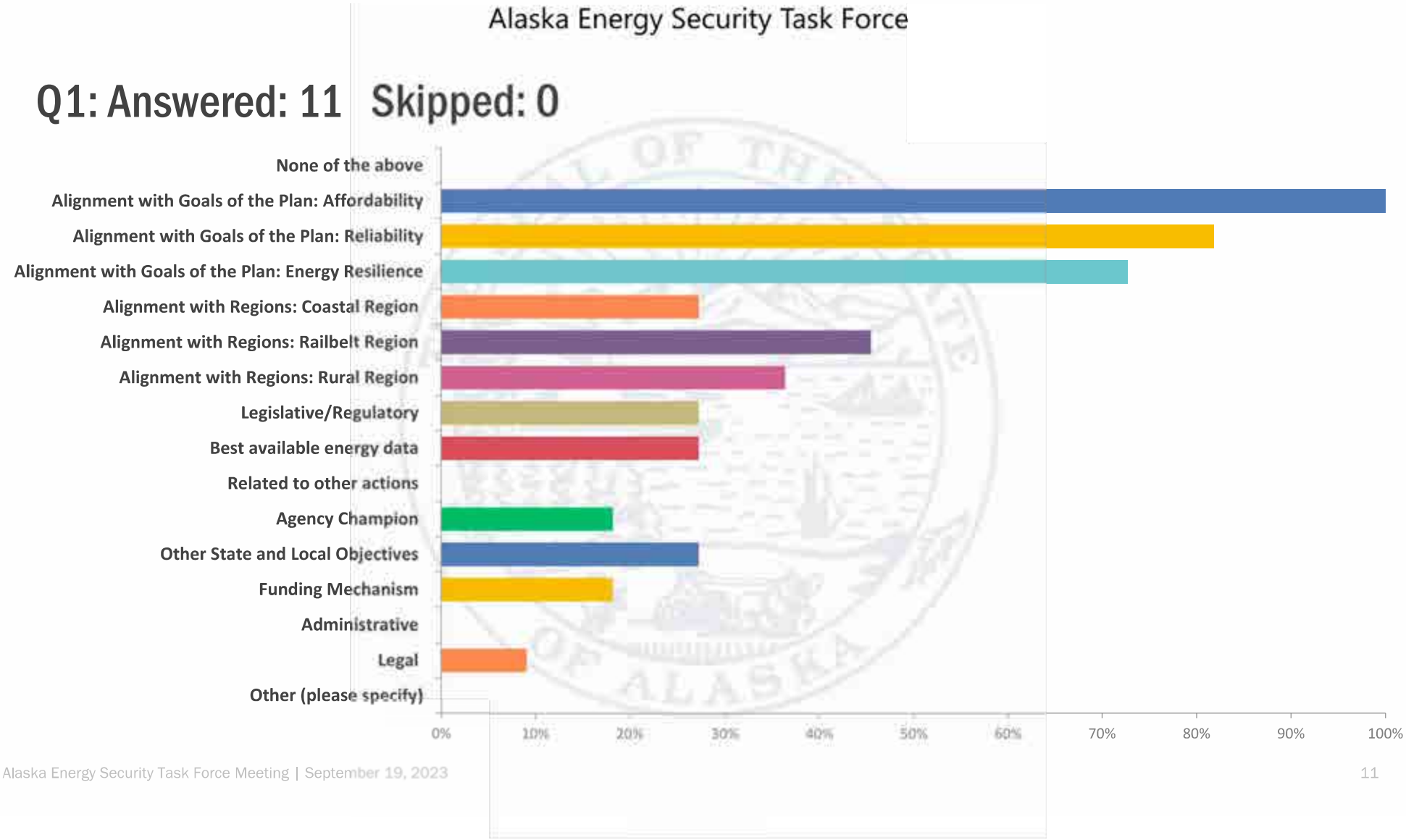
Agency Champion - Is there a strong advocate for the action or project among State agencies that will support the action's implementation?

Other State and Local Objectives – Does the action advance other State and local objectives, such as capital improvements, economic development, or workforce development? Does it support the policies of other plans and programs?

Funding Mechanism – is the funding mechanism for the action known?

Administrative – Does the State have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?

Legal – Does the State have the authority to implement the action?


Alaska Energy Security Task Force
Q1: Answered: 11 Skipped: 0
None of the above
Alignment with Goals of the Plan: Affordability
Alignment with Goals of the Plan: Reliability
Alignment with Goals of the Plan: Energy Resilience
Alignment with Regions: Coastal Region
Alignment with Regions: Railbelt Region
Alignment with Regions: Rural Region
Legislative/Regulatory
Best available energy data
Related to other actions
Agency Champion
Other State and Local Objectives
Funding Mechanism
Administrative
Legal
Other (please specify)
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Survey Results

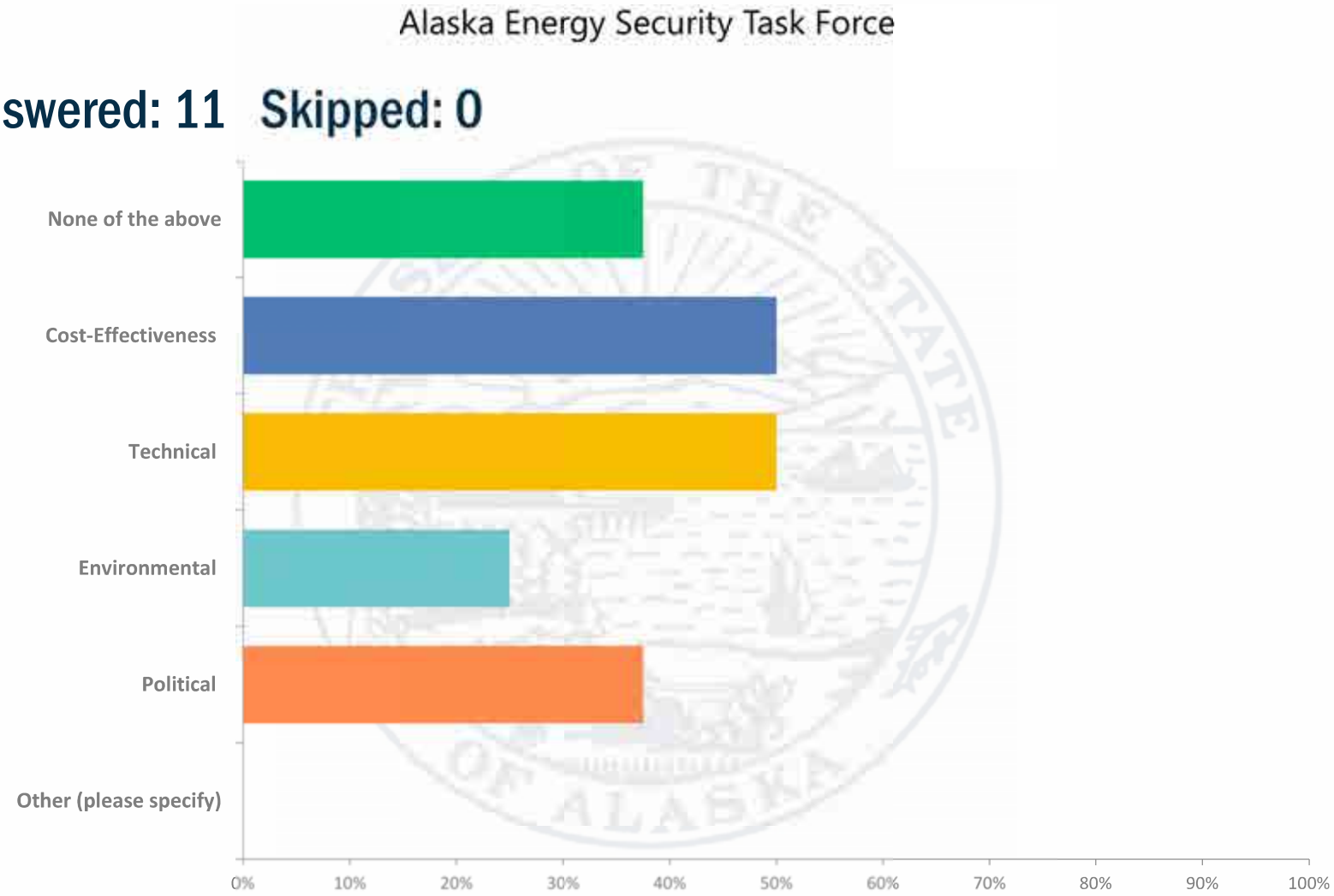
Q2: The following evaluation and prioritization criteria were considered, but not included as they may be a more appropriate metric at the implementation stage, rather than this current planning stage. However, if members wish to consider any for inclusion in the Comprehensive Energy Master Plan, please select from the list below for consideration and discussion at the next Task Force Meeting. (Select all that apply).

Cost-Effectiveness – Are the costs to implement the project or initiative commensurate with the benefits achieved?

Technical – Is the action currently technically feasible for implementation within five years of adoption of the State Comprehensive Energy Master Plan?

Environmental – Is the action free from environmental constraints and impacts that would delay implementation beyond practical constraints and financial feasibility?

Political – Is there overall public support for the action? Is there the political will to support it?



Q2: Answered: 11 Skipped: 0

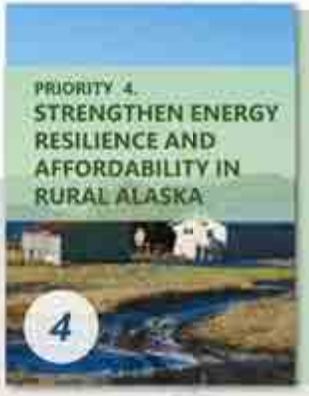
Q3: Are there any additional comments on the criteria or metrics that should be considered at this time (e.g., descriptions of criteria, new criteria, etc.)?

Answered: 1 Skipped: 10

Answer: It is critical to consider the impact to the largest population in Alaska. We can't be all things to all people.



Note: Final names of each section will be determined by AESTF subcommittees and approved by task force. Names above are for illustrative purposes only.



Sample Layout & Organization of Energy Master Plan

PRIORITY

STRATEGY

ACTIONS

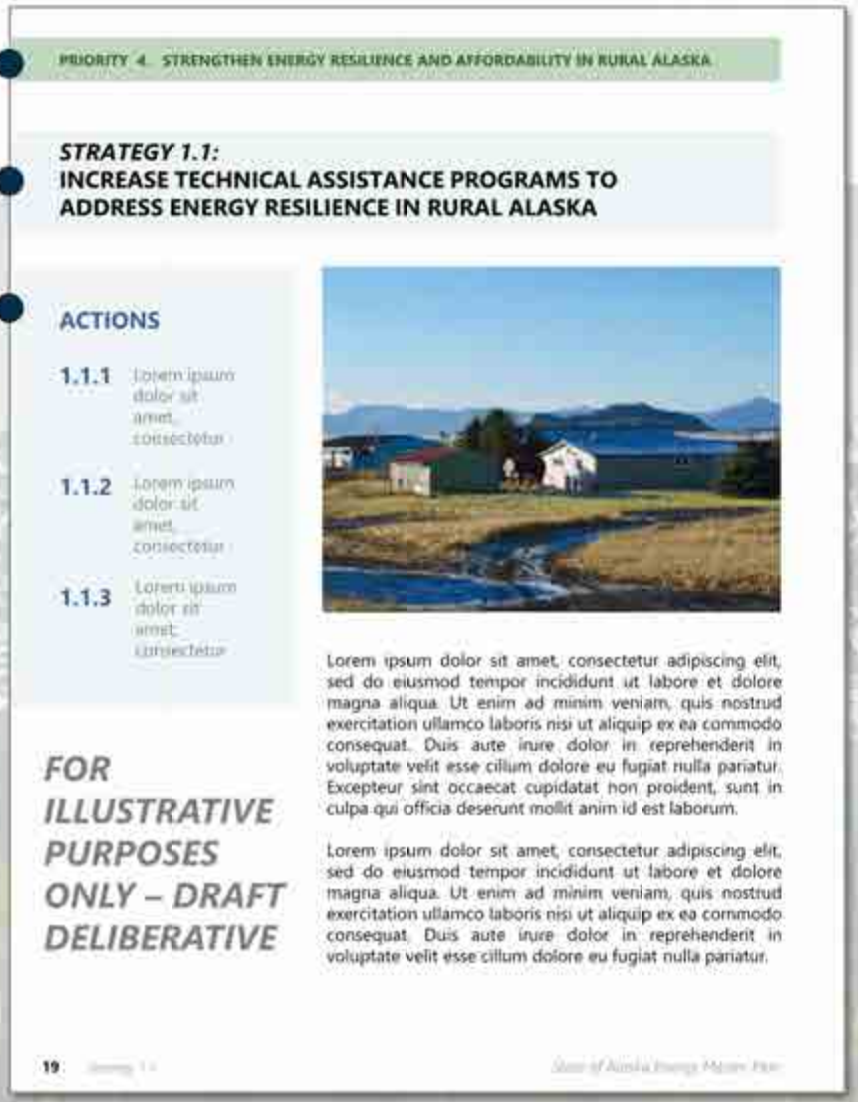
PRIORITY: Focus Area of Subcommittee

STRATEGY: Solution(s) to meet Alaska's energy needs now and in the future related to the priority/subcommittee focus area.

ACTIONS: Identifies specific changes in policies, programs, regulations, or funding to advance strategy.

TIMELINE FOR IMPLEMENTATION: Immediate, Short-, Med.-, and long-term.

0– 2 years, 2 - 5 years, 5 - 10 years; 10 years plus



PRIORITY 4. STRENGTHEN ENERGY RESILIENCE AND AFFORDABILITY IN RURAL ALASKA

STRATEGY 1.1:
INCREASE TECHNICAL ASSISTANCE PROGRAMS TO ADDRESS ENERGY RESILIENCE IN RURAL ALASKA

ACTIONS

1.1.1 Lorem ipsum dolor sit amet, consectetur

1.1.2 Lorem ipsum dolor sit amet, consectetur

1.1.3 Lorem ipsum dolor sit amet, consectetur

FOR ILLUSTRATIVE PURPOSES ONLY – DRAFT DELIBERATIVE

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19

Subcommittees Concurrent Sessions 1 *(10:40 am – 12:00 am)*

- Rural Generation, Distribution, and Storage (Denali Room)
  - Microsoft Teams meeting: Click here to join the meeting
  - Meeting ID: 291 864 551 562
  - Passcode: VLvB6w
- Coastal Generation, Distribution, and Storage (Redoubt Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 211 468 734 796
  - Passcode: 3f6x6Q
- Railbelt Transmission, Generation, and Storage (Board Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 288 918 743 959
  - Passcode: cCsLbE

Lunch Break -
(12:00 pm – 1:00 pm)

Subcommittees Concurrent Sessions 2 *(1:10 am – 2:30 am)*

- State Energy Data (Denali Room)
  - Zoom meeting: Click here to join the meeting
  - Meeting ID: 298 296 950 855
    Passcode: ocayWY
- Statutes and Regulations Reform (Redoubt Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 241 511 954 510
  - Passcode: VCWSsD
- Incentives and Subsidies (Board Room)
  - Microsoft Teams meeting Click here to join the meeting
  - Meeting ID: 288 918 743 959
  - Passcode: cCsLbE

Alaska Energy Security Task Force

Subcommittee Report Outs

- **Railbelt Transmission, Generation, and Storage:** *(Co-Chairs: Tony Izzo & Jenn Miller)*
- **Rural Generation, Distribution, and Storage:** *(Co-Chairs: Clay Koplin & Andrew Guy)*
- **Coastal Generation, Distribution, and Storage:** *(Co-Chairs: Duff Mitchell, & Robert Venables)*
- **Statutes and Regulations Reform:** *(Co-Chairs: Robert Venables & Karl Hanneman)*
- **Incentives and Subsidies:** *(Co-Chairs: Nils Andreassen & Isaac Vanderburg)*
- **State Energy Data:** *(Chair: Dan White)*

Next Steps

- **Confirm/Schedule next meeting with your subcommittee(s):**
  - Finalize Writeups before October 3rd Task Force Meeting.
  - Confirm Desire for additional subcommittee meetings prior to October 3rd.

- **Next AESTF Meeting Date:**
  Tuesday, October 3, 2023

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

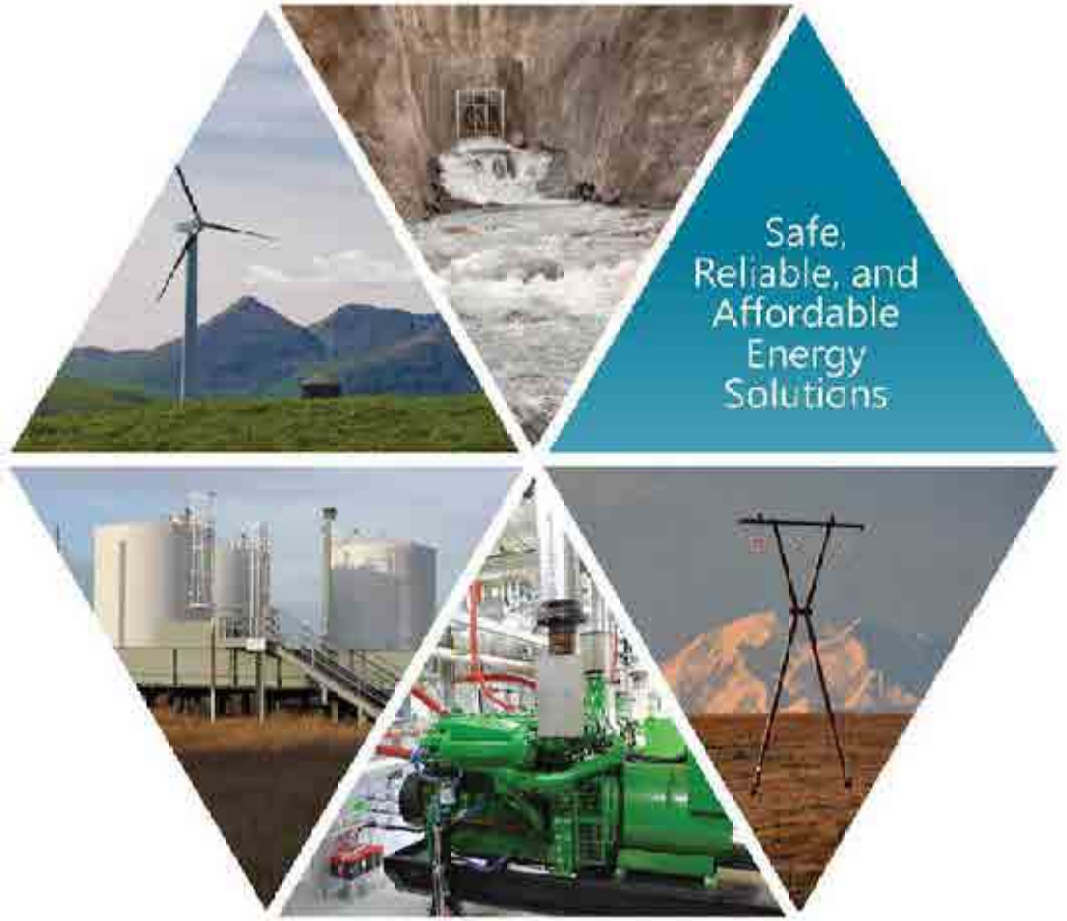
http://akenergysecuritytaskforce.com

ALASKA ENERGY AUTHORITY

POWER COST EQUALIZATION

Tim Sandstrom
Chief Operating Officer

Alaska Energy Security Task Force
September 19, 2023



ALASKA
ENERGY
AUTHORITY

About AEA

AEA's mission is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio — increasing resiliency, reliability, and redundancy.



Railbelt Energy – AEA owns the Bradley Lake Hydroelectric Project, the Alaska Intertie, and the Sterling to Quartz Creek Transmission Line — all of which benefit Railbelt consumers by reducing the cost of power.



Renewable Energy and Energy Efficiency – AEA provides funding, technical assistance, and analysis on alternative energy technologies to benefit Alaskans. These include biomass, hydro, solar, wind, and others.



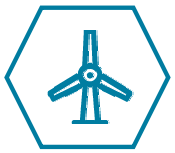
Power Cost Equalization (PCE) – PCE reduces the cost of electricity in rural Alaska for residential customers and community facilities, which helps ensure the sustainability of centralized power.



Grants and Loans – AEA provides loans to local utilities, local governments, and independent power producers for the construction or upgrade of power generation and other energy facilities.



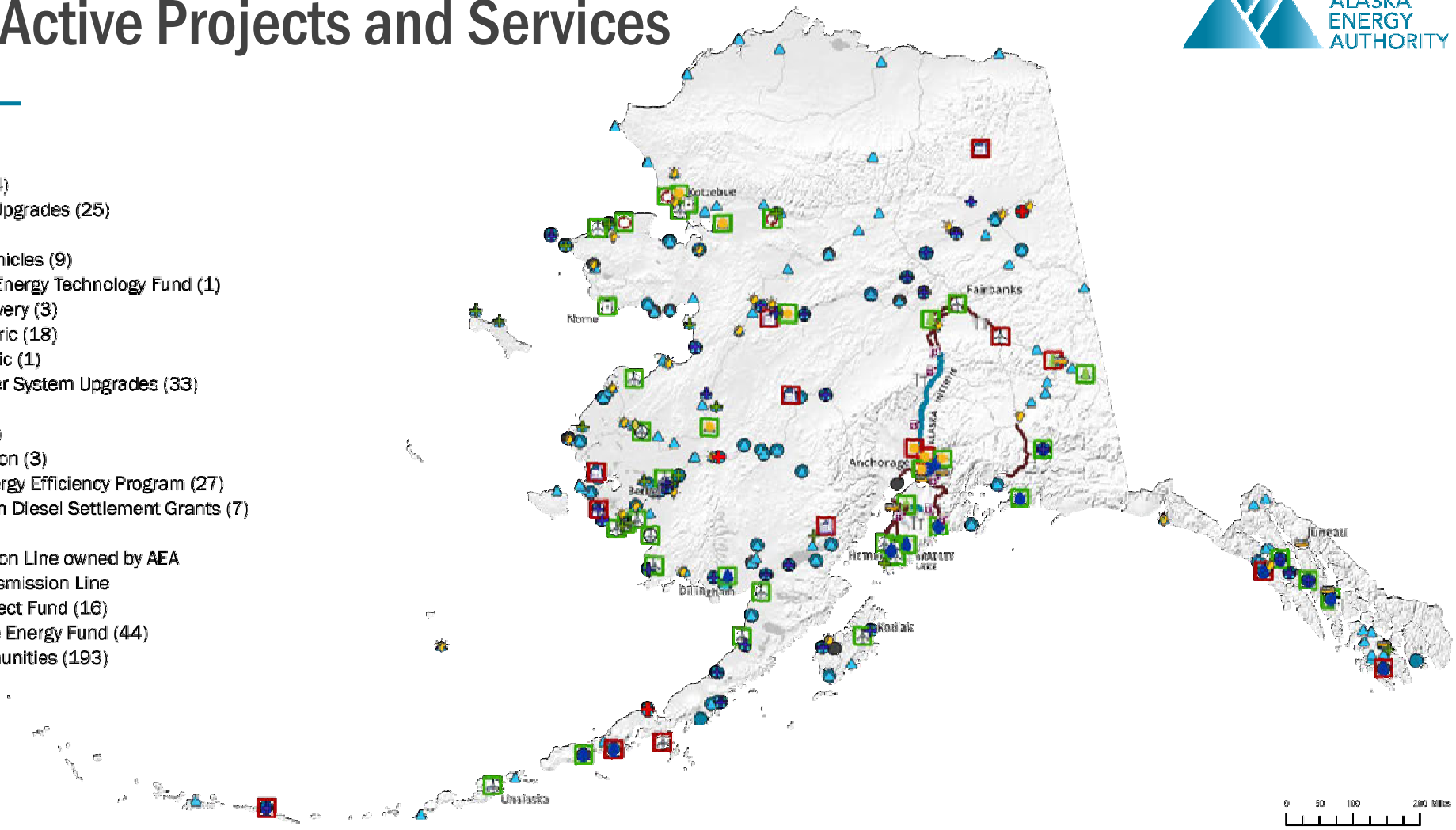
Rural Energy – AEA constructs bulk fuel tank farms, diesel powerhouses, and electrical distribution grids in rural villages. AEA supports the operation of these facilities through circuit rider and emergency response programs.



Energy Planning – In collaboration with local and regional partners, AEA provides economic and engineering analysis to plan the development of cost- effective energy infrastructure.

AEA Active Projects and Services

- Biogas (1)
- Biomass (4)
- Bulk Fuel Upgrades (25)
- Diesel (6)
- Electric Vehicles (9)
- Emerging Energy Technology Fund (1)
- Heat Recovery (3)
- Hydroelectric (18)
- Hydrokinetic (1)
- Rural Power System Upgrades (33)
- Solar (8)
- Storage (3)
- Transmission (3)
- Village Energy Efficiency Program (27)
- Volkswagen Diesel Settlement Grants (7)
- Wind (21)
- Transmission Line owned by AEA
- Other Transmission Line
- Power Project Fund (16)
- Renewable Energy Fund (44)
- PCE Communities (193)



Power Cost Equalization (PCE)

The PCE Program was established in 1985 as one of the components of a statewide energy plan to help "equalize" the high cost of electricity in rural communities with the lower costs in more urban areas.

Who is Eligible to Participate in PCE?

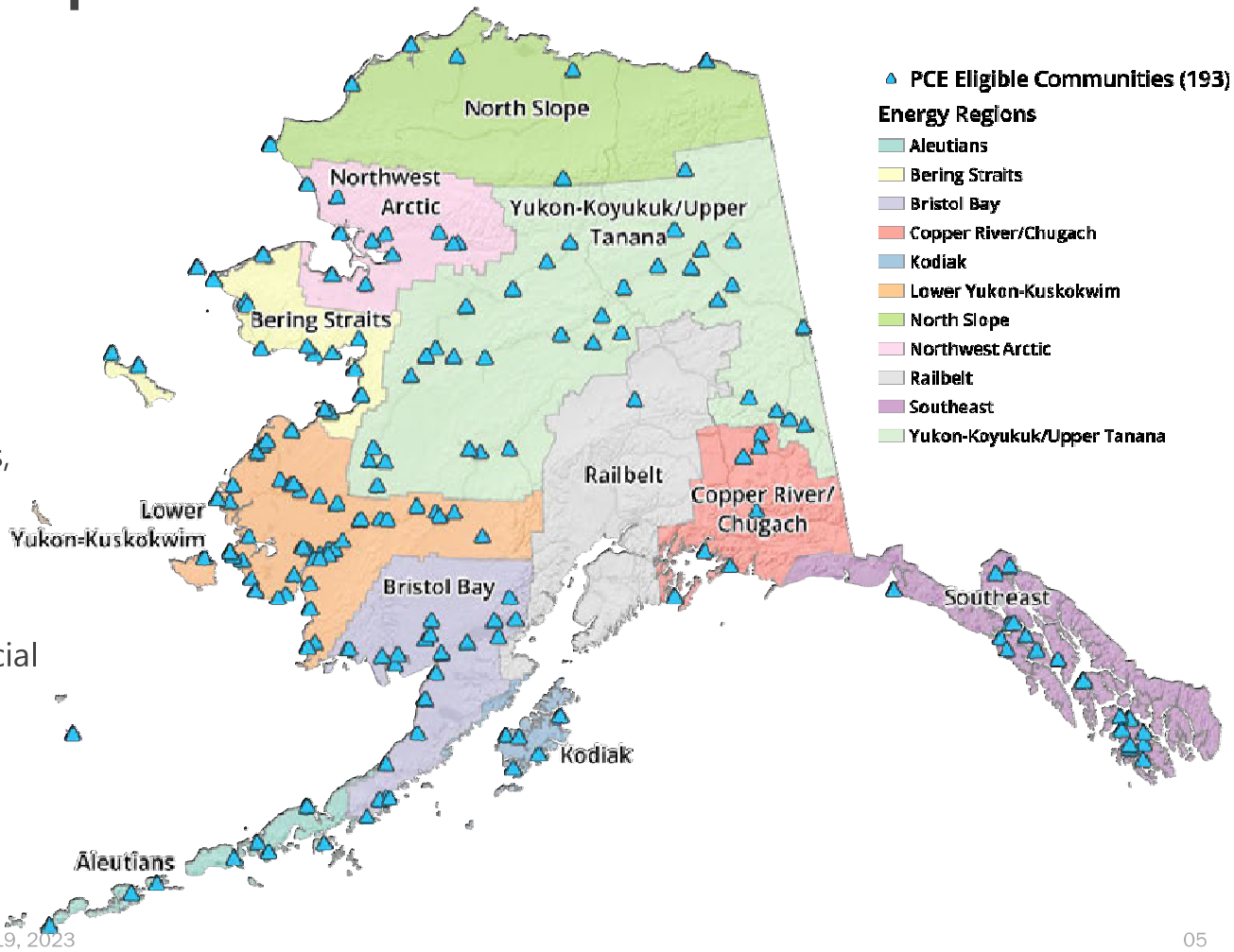
PCE eligibility is determined by the Regulatory Commission of Alaska in accordance with Alaska Statute 42.45.100-170.

Eligible customers include:

- Residential and community facilities (water, sewer, public lighting, and clinics, etc.)

Non-eligible customers include:

- State and federal facilities and commercial customers
- Any community with rates lower than the urban average (the PCE floor)



Power Cost Equalization (PCE)

AEA, along with the Regulatory Commission of Alaska, administers the PCE program, which serves remote communities that are largely reliant on diesel fuel for power generation.

1??
RURAL COMMUNITIES

?1?
ELECTRIC UTILITIES

?2??
ALASKANS

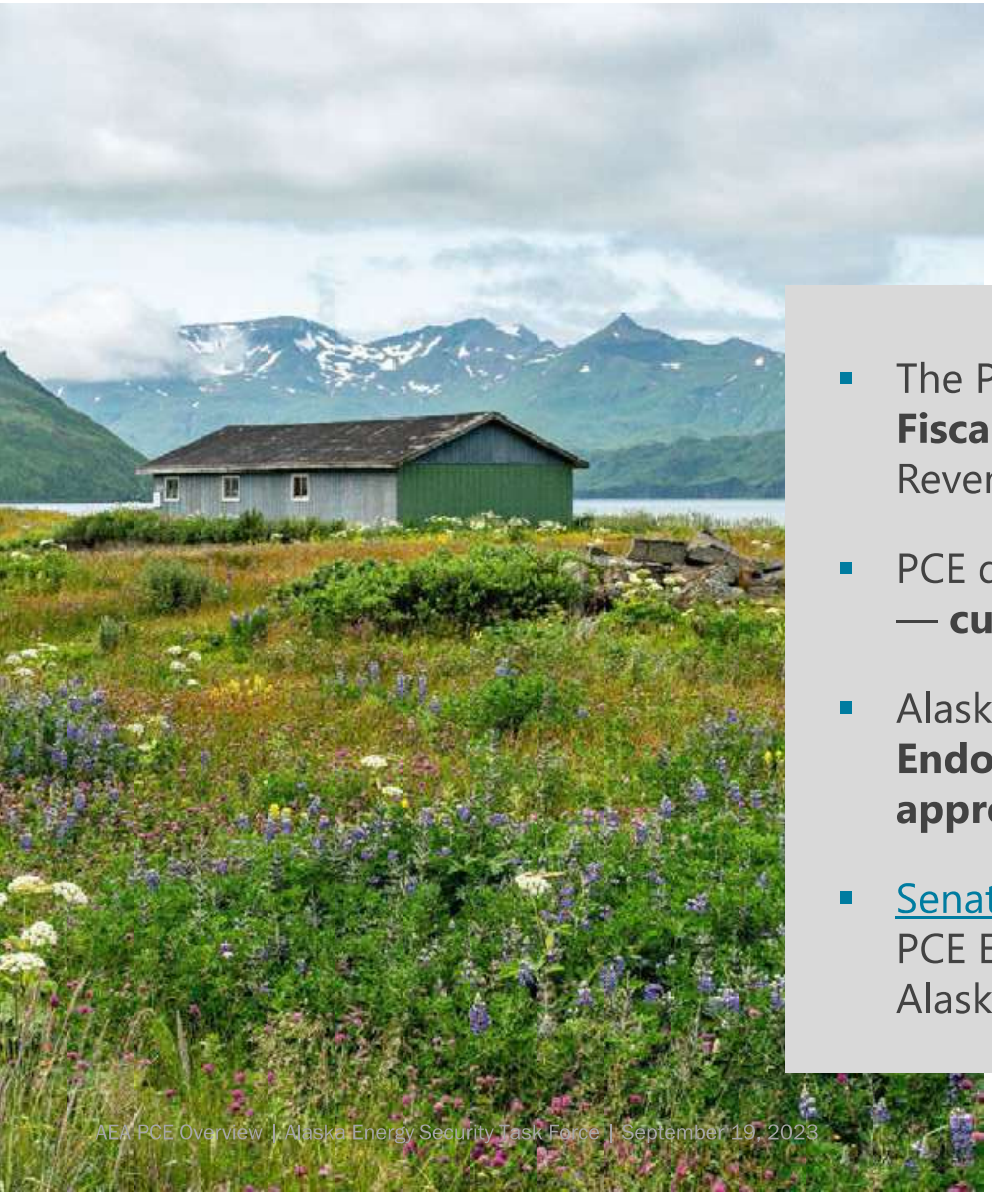
The cost of electricity for Alaska's rural residents is notably higher than for urban residents. PCE lowers the cost of electric service paid by rural residents. Ultimately ensuring the viability of rural utilities and the availability of reliable, centralized power.



750 kWh
RESIDENTIAL
Residential customers are eligible for PCE credit up to 750 kWhs per month.

70 kWh
PUBLIC FACILITIES
Community facilities can receive PCE credit for up to 70 kWhs per month multiplied by the number of residents in a community.

$27.4M
FUNDS DISTRIBUTED
In Fiscal Year 2022, AEA disbursed $27.4 million for payment of PCE to rural electric utilities for the benefit of our rural communities.



PCE Endowment Fund Overview

- The PCE Endowment Fund was **created and capitalized in Fiscal Year 2001**, and is managed by the Department of Revenue
- PCE disbursements are funded from the PCE Endowment Fund — **current market value $978.8 million on March 31, 2023**
- Alaska Statute 42.45.085 provides that **five percent of the PCE Endowment Fund three-year average market value may be appropriated** to the program
- Senate Bill 98 is pending before the Legislature to move the PCE Endowment Fund **from** the Department of Revenue **to** the Alaska Permanent Fund Corporation

PCE Endowment History (In Thousands)

		FY2018	FY2019	FY2020	FY2021	FY2022
Beginning Investment Fund Balance	$	1,023,566	1,073,378	1,072,825	1,078,157	1,149,165
Inflows:						
Annual investment earnings		76,602	74,142	48,303	150,299	(143,842)
Capital fund transfers in		—	—	—	—	
Total inflows		76,602	74,142	48,303	150,299	(143,842)
Outflows:						
Transfers to AEA for PCE payments		(25,595)	(29,719)	(27,000)	(28,237)	(23,613)
Transfers to Other Funds		—	(44,000)	(14,867)	(49,744)	(12,395)
Program administration – AEA		(624)	(444)	(575)	(737)	(737)
Administrative fee – Regulatory Commission		(113)	(102)	(108)	(123)	(133)
Management fee – Department of Revenue		(458)	(430)	(421)	(450)	(1,030)
Total outflows		(26,790)	(74,695)	(42,971)	(79,291)	(37,908)
Ending investment fund balance	$	1,073,378	1,072,825	1,078,157	1,149,165	967,416

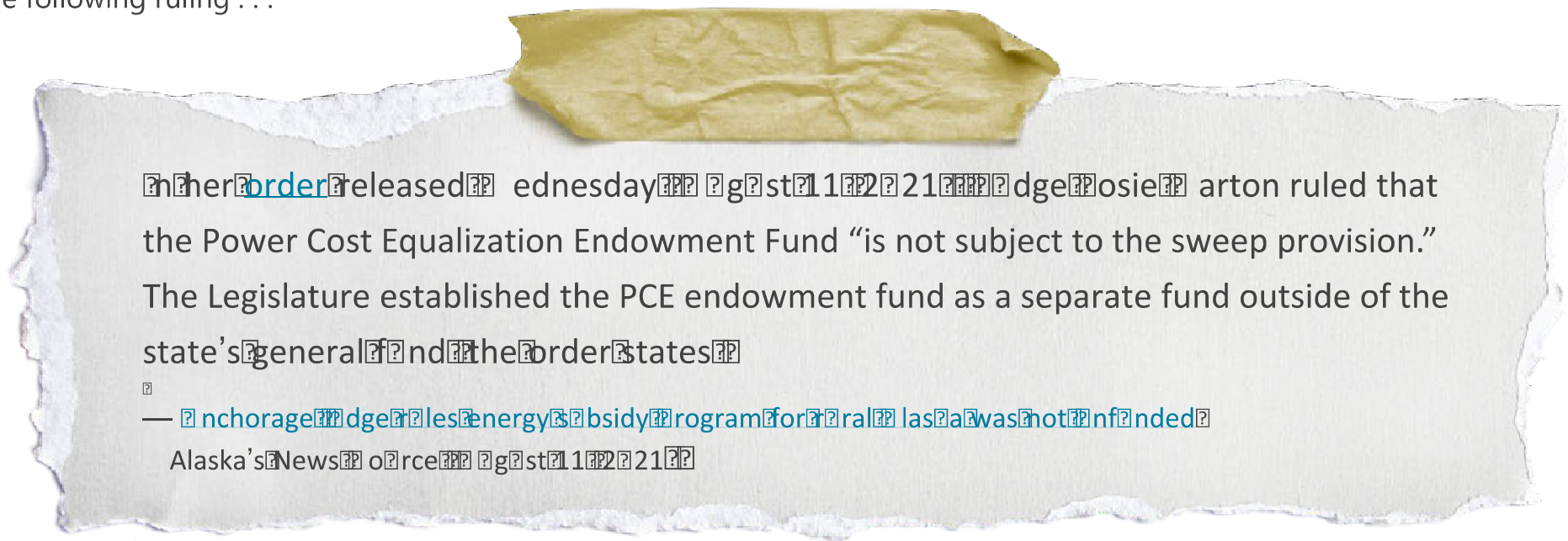
Source: Unaudited schedule included in AEA's financial statements. Fiscal Year 2022 amounts are not final.

PCE Endowment Earnings Calculation

Fiscal Year 2024 Appropriations (SLA2023)		
Calculation of Excess PCE Earnings Available for Appropriation		
Average monthly market value for the previous three closed fiscal years (AS 42.45.080(c))		$1,098,002,766
Fiscal Year 2022 Earnings (AS 42.45.080(c)(2))		($143,841,594)
FY2022 5% of Average Monthly Market Value (AS 42.45.085(a))		$54,900,138
Fiscal Year 2023 PCE Appropriations		
AEA — Rural Energy Assistance (AS 42.45.085(a)(3))	$381,800	
AEA — PCE (AS 42.45.085(a)(1) and (a)(3))	$48,049,800	
Revenue — Treasury (AS 42.45.085(a)(2))	$1,153,600	
Less: Total Fiscal Year 2023 PCE Appropriations		$49,585,200
Unobligated Fiscal Year 2022 Earnings		$0
70% of Unobligated Fiscal Year 2022 Earnings per AS 42.45.085(d) (max $55 million per AS 42.45.085(d)(2))		$0
Fiscal Year 2024 Appropriations per AS 42.45.085 (d)(2)		
Community Assistance Program (AS 42.45.085(d)(2)(A))	$0	
Renewable Energy Grant Fund (AS 42.45.085(d)(2)(B))	$0	
Rural Power Systems Upgrades (AS 42.45.085(d)(2)(B))	$0	
Less: Fiscal Year 2024 Appropriations		$0
		$0

Ruling on PCE — Not Subject to Sweep Provision

On June 28, 2021, the Alaska House of Representatives voted to approve the July 1, 2021, effective date for the Fiscal Year 2022 Budget. This action did not address the reverse sweep, which failed in the House and Senate. In order to continue funding the PCE program beyond July 1, 2021, a reverse sweep was required. A friendly lawsuit was filed over the issue on July 19, 2021, challenging the idea that the PCE Endowment Fund should be swept as part of the budget, which resulted in the following ruling . . .



nher order released ednesday g st 11 2 21 dge osie arton ruled that the Power Cost Equalization Endowment Fund "is not subject to the sweep provision." The Legislature established the PCE endowment fund as a separate fund outside of the state's general f nd the order states

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APPENDIX

PCE Endowment Fund (Alaska Statute 42.45.085)

Sec. 42.45.085. Use of the power cost equalization endowment fund.

(a) Five percent of the amount determined by the commissioner of revenue on July 1 of each year under AS 42.45.080(c)(1) may be appropriated for the following purposes:

(1) funding the power cost equalization and rural electric capitalization fund (AS 42.45.100);
(2) reimbursement to the Department of Revenue for the costs of establishing and managing the fund; and
(3) reimbursement of other costs of administration of the fund.

(b) Nothing in this section creates a dedicated fund.

(c) If the amount appropriated under (a) of this section is insufficient to achieve the purposes of (a)(1) - (3) of this section, the amount shall be prorated among the purposes listed in (a)(1) and (2) of this section.

(d) If the earnings of the fund for the previous closed fiscal year, as calculated under AS 42.45.080(c)(2), exceed the appropriation under (a) of this section for the current fiscal year, the legislature may appropriate 70 percent of the difference between the earnings of the fund for the previous closed fiscal year, as calculated under AS 42.45.080(c)(2), and the appropriation made under (a) of this section for the current fiscal year as follows:

(1) if the amount calculated under this subsection is less than $30,000,000, that amount to a community revenue sharing or community assistance fund; or
(2) if the amount calculated under this subsection is $30,000,000 or more,
    (A) $30,000,000 to a community revenue sharing or community assistance fund; and
    (B) the remaining amount, not to exceed $25,000,000, to the renewable energy grant fund established under AS 42.45.045, to the bulk fuel revolving loan fund established under AS 42.45.250, or for rural power system upgrades or to a combination of the funds or purposes listed in this subparagraph.

Alaska Energy Security Task Force
MEETING MINUTES
Tuesday, September 19, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on September 19, 2023, at 9:03 am.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Clay Koplin; Joe Burns for Commissioner John Boyle; Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Jenn Miller; Duff Mitchell; John Sims; Isaac Vanderburg; Daniel White; Anne Rittgers for Senator Bishop; Garrett Boyle (Ex Officio); Keith Kurber (Commissioner, Ex Officio); Representative George Rauscher (Ex Officio); and Erin Whitney (Ex Officio).

Also present were Andrew Jensen, Policy Advisor to Governor Dunleavy; Marc Luken, Michael Baker International (consultant); and Jennifer Bertolini, AEA.

A quorum is present to conduct business.

3. Prior Meeting Minutes – August 29, 2023

MOTION: Vice-Chair Thayer made a motion to approve the Minutes of August 29, 2023, as presented. Motion seconded by Unidentified Task Force Member.

A roll call vote was taken, and the motion to approve the Minutes of August 29, 2023, passed without objection.

4. Power Cost Equalization (PCE) Presentation - Tim Sandstrom, AEA

Vice Chair Thayer introduced this item. Tim Sandstrom, Chief Operations Officer with Alaska Energy Authority (AEA) who is responsible for the Power Cost Equalization Program presented. Mr. Sandstrom started by stating that the mission of AEA is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio by increasing resiliency, reliability, and redundancy. Therefore, AEA is involved in six basic areas of activity--Rail Belt Energy, Power Cost Equalization (PCE), Rural Energy; Renewable Energy and Energy Efficiency; Grants and Loans; and Energy Planning. Today we're going to talk about Power Cost Equalization or PCE.

The PCE program was established in 1985 as one of the components of the statewide energy plan to help "equalize" the high cost of electricity in rural communities with lower costs in more urban areas. Basically, the PCE Fund was established to balance the investment that was found

in the rail belt and to help reduce the cost of energy over rural Alaska. PCE eligibility is determined by the Regulatory Commission of Alaska (RCA) in accordance with Alaska statutes. Eligible customers include residential and community facilities such as water, sewer, public lighting, clinics, etc. Non-eligible customers include state and federal facilities and commercial customers. And any community with rates lower than the urban average.

The PCE program is 193 communities with 91 utilities and affects over 82,000 citizens of Alaska, reducing the cost of energy. Recently the power cost that's eligible for compensation has gone up from 500 kWh to 750 kWh, and we haven't seen 100% utilization of that. A lot of the utilization still covers around the 500 kW mark, although we did see some uptick in that. Community facilities are eligible up to 70 kilowatt hours times the number of people in the community. The last payout was about $27.4 million and this year, while the numbers aren't complete yet, we expect to payout between $40 to $42 million this year.

In 2001 the PCE Endowment Fund was created for AEA and is managed by the Alaska Permanent Fund Corporation. PCE disbursements are funded from the PCE Endowment fund, which, as of March 31, 2023, has a current market value of $978.8 million. Per Alaska statute, five percent of the endowment, over a three year average market value, can be appropriated to the program. For a breakdown of the fund disbursements, the first $25 million goes to community assistance. Then the overage goes to PCE program. If there are any extra funds after that, they go to fund rural powerhouse systems, bulk fuel, revolving loans or renewable energy fund. Per action by our state legislature, the PCE program funds are exempt from a state budget sweep. Mr. Sandstrom concluded his presentation by stating that AEA is here to provide energy solutions to meet the unique needs of Alaska's rural and urban communities. He opened the floor for any questions or discussion.

Mr. Mitchell thanked Tim for his great presentation. He asked Tim to elaborate for the record that this year's expenditures would be around $40 million. And according to the presentation slide on the endowment fund's status, the 5% pro-rated portion is at $54 million with a net of $49 million. So, for the record, it seems to me from your presentation that the PCE endowment fund is sound and is working like it's supposed to. Mr. Sandstrom responded that is an accurate assessment, yes.

Mr. Hanneman asked if the increase of disbursement from $27 million to $40 million is because of increased car consumption in the communities or because of increased barriers through the railbelt grid. Mr. Sandstrom responded that it's largely due to an increase in eligible kilowatt hours that can be reimbursed. Mr. Hanneman stated so it's not from consumption but from reimbursables. Thank you.

Member asked how often eligible recipients hit that 750 kilowatt hour mark each month. Mr. Sandstrom responded that he would have to research their records to provide an answer. He does know it's not as much as was anticipated. We were expecting more people to take full advantage of 750 kilowatt hours. Even if you consider railbelt consumption, per household is not as high as 750 kilowatt hours. Vice-Chair Thayer added that this is the first year of the 750

kilowatt hour increase, and we haven't closed out this year yet because they have up to three months to submit. So, we don't have the final numbers yet, but we'll have them soon.

Member asked why was usage increased from 500 to 750 kilowatt hours. Vice Chair Thayer responded that this change came from the state legislature. Years ago the amount was set at 750 kWh, the legislature lowered it to 500 kWh. And recently they increased it to 750 kWh again. So it was a policy call on behalf of the legislature.

Member stated that she assumes for previous years there is data available on how many folks met the 500 kWh amount. And that would include the community facilities too. Mr. Sandstrom responded that this information is available on the AEA website.

Ms. Whitney asked if there were any planned or proposed changes to the PCE by the state legislature in the future. Mr. Sandstrom responded there are none, to his knowledge.

Mr. Vanderburg asked what determines if a facility is considered a community facility, and are airports considered a community facility? Mr. Sandstrom responded that for community facilities, a community fills out a form with information about how the facility is used, how much is paid by other funding sources, etc. Then there's a formula used to determine if the facility is eligible or not for the PCE program. Concerning airports, they are not considered community facilities at this time.

Chair Lieutenant Governor Dahlstrom asked if airports have been considered before as a community facility. Mr. Sandstrom responded that there have been efforts to have more parts of communities considered community facilities. However, that's going to take legislative action to make that change. So, it's unknown what will happen in the future.

Ms. Miller stated that we've heard comments that if we want economies and businesses to thrive in rural Alaska, they need help with their cost of power. Has there been an evaluation of what the funding change would be if we were to allow commercial businesses to be eligible for this program? Mr. Sandstrom responded that it's a great question. He doesn't really know the answer to that. However, he thinks it would definitely raise the amount that PCE program would pay out. But he doesn't know to what extent that increase would be.

Mr. Koplin stated that for reference, Cordova's average residential usage is under 500 kilowatt hours. And for a lot of the airports, the State of Alaska pays the electric bill for them. He asked Tim to go back to slide number eight, PCE Endowment History, and transfers to other funds in the approximate amount of $44 million, $14 million, and $49 million. Can Tim describe what those other funds are? Mr. Sandstrom responded that he did not have that information in front of him and he would have to get back to Mr. Koplin with an answer.

Mr. Hanneman asked Tim to describe how eligible costs are determined very broadly. For example, costs incurred by a local utility are included. How are costs incurred by an independent power producer in the community and sold to the utility included in allowable

costs. Mr. Sandstrom responded that those allowable costs are determined by the RCA. He's not sure how the costs of an independent power producer would be calculated, as far as their sales agreement to the utility is concerned. That would be on an individual basis.

Mr. Hanneman stated that we heard testimony in prior meetings that some entities that had created new generation projects in the communities at apparently pretty low cost had decided that they should restructure and sell the power to the utility so that their margins could be included and therefore essentially increase the cost as the PCE still came into the community. And I was just wondering if there have been discussion around that type of structure. Mr. Sandstrom responded that he has not had those type of discussions.

Mr. Kurber wanted to explain, on slide eight, the administrative fee that flows to the Regulatory Commission, that's essentially the ISA that the AEA has with us. We have a staff person who substantially does the calculations and things that allows the AEA to cut the checks. So that's what that's about there.

Mr. Mitchell stated that most people know that the PCE base rate is determined by aggregation of the rail belt or Anchorage, Fairbanks and Juneau rates. That is a pretty big lever of determining how much is paid out in any one given year. Lowering the costs and keeping costs in check statewide, that Juneau, Fairbanks and Anchorage have a direct impact on the payouts of PCE. So I'm just throwing this out for the Task Force that it's incumbent upon us that, as we take the governor's mission to lower costs of energy, it stabilizes the PCE fund for longer duration and then perhaps into perpetuity by ensuring that we work together to lower the cost of energy. That being said, is there any sensitivity analysis or is there something that may be anticipated if rates in Anchorage go catastrophically higher or are increased as natural gas contracts expire and some of our rail belt utilities need to "raise rates higher" Mr. Sandstrom responded that he's not quite sure how to answer that question. There's definitely a direct correlation between the rail belt prices and the PCE levels. So I think it would be a part of the Task Force vision, take that whole idea into consideration when they're making decisions on what they're going to put forward.

Vice Chair Thayer added that when you look at the PCE calculation and the floor, the floor right now is approximately 20 cents. For every penny that drops below that 20 cents, it's $1.7 million more available into rural Alaska for PCE. So one can also say that if it goes up by a penny, then it's $1.7 million less available in rural Alaska. Because the three largest cities establish the floor, and then the cap is roughly one dollar per kilowatt. And so if that floor raises to 25 now the spread $0.75 that you can reimburse on, but if the floor is $0.15 now, that's $0.85 you can reverse on. And generally the floor has not changed from the 20 cents. It might go up half a cent or something. But between 19.5 and 21 cents is where it's generally been. One of the reasons for this stability is that Juneau has hydro, which is a very cheap power. So that's part of the equation.

Ms. Whitney followed up on Jenn Miller's question on commercial eligibility, what are the arguments for currently excluding commercial customers. Mr. Sandstrom responded that comes

down to whether or not they have other sources that pay part of their costs; do they serve all of the community rather than a subset of the community. Things like that.

Mr. Guy stated that he thinks we should get rid of PCE because it's not working. It's not good for the state and it's not good for rural Alaska for sure. We've been operating a PCE program for decades and it's not doing any good for the state. There has been a lot of out migration going on from rural Alaska now because of the high cost of energy. Best way to lower costs of rural Alaska would be to get a grid going everywhere like you have here in the rail belt--700, 800 miles from Homer to Fairbanks. You can do it to rural Alaska too.

Each individual village has its own operating cost already for very expensive diesel power. That's why we started looking at alternative forms of energy way back in the 1980's as part of that process. I was with Calista Corporation board of directors at that time. Decades later, we're still in the same situation because the state is not stepping up and doing its obligation for the whole state. Tony's taking care of the rail belts and trying to push micronuclear into rural Alaska. Well, we need to spend big in rural Alaska now to get it in parity with the rail belts. We can do micronuclear on the rail belts. We can put them here and there and it will lower costs. We have these discussions about PCE, and will they be there for everyone? Our businesses, our corporations that run these businesses out there. There is a high cost of doing business out there and energy cost is a major part of it. We need to do something else, not PCE. Even if we apply PCE to businesses, it will still be a very high cost. You look at an individual household like my own, my mom, she's paying over 50 plus cents a kilowatt hour with PCE. Here, I'm lucky.

We need to take a look at the big picture. We did the big projects in the rail belts. But the state has lots of money. Let's do it with the rural. Maybe later we can do the big projects with rural that have money issues. We won't be able to get out of this situation without getting affordable energy out to the rest of the state because that's where the resources are, that's where the potential jobs are. Chair Lieutenant Governor Dahlstrom asked Mr. Guy if he's had the opportunity to have those conversations with any of the members of the legislature, specifically the rural members who sit on House Finance. Mr. Guy responded when I go to Juneau. They have to fight for funding too. In his opinion, the recommendations from this committee would be for the legislature to dedicate funding for these huge projects that will really lower the cost of energy out there. Chair Lieutenant Governor Dahlstrom thanked Mr. Guy for his comments and insight.

Mr. Mitchell wanted to follow-up on Andrew's comments. One of the suggestions coming out of the Coastal Subcommittee is to create a fund with federal dollars and maybe some state match to do up to 3,000 miles of additional transmission line. Like I stated earlier, the territory of Puerto Rico has more high voltage and medium voltage line than Alaska put together. So Andrew's point is well taken that we are third world and second world in many areas and if we had such a fund by the federal government like they've done for Puerto Rico, we may be able to move that direction. So I just applaud Mr. Guy's efforts to try to equalize on market forces and to have the transmission paid for. It would be no different than the 1936 Rural Electrification Act that went through Missouri and Kansas and electrified villages and towns of 100 people to put

them on low cost power. So I just want to thank him for his comments, but I think there is some recommendations that can evolve on the task force that address and share his feelings with trying to get transmission built out not just in the rail belt, but in all regions of Alaska to move us forward. Thank you.

Chair Lieutenant Governor Dahlstrom thanked Mr. Mitchell for his comments. She thanked Mr. Sandstrom for his presentation and the good conversation from everyone. She asked Vice Chair Thayer to explain the procedure for the breakout sessions and how we're going to proceed from here.

5. Breakout Session Preparation - Curtis Thayer

a. Prioritization Exercise Overview

Vice-Chair Thayer introduced this item and Marc Luken with Michael Baker International presented. Marc stated to help Task Force Members with this step, a survey was sent out for members to complete and return. We had about 50% participation and we will re-send this survey after today and hope that Task Force members have a better idea of what we're looking for. So that as you take this survey again, you can then judge does this particular category help serve the prioritization process.

Marc stated that we will go over the questions to look at evaluation criteria to prioritize your tasks, each of the recommendations, each of the action items so that we have a better idea of what you desire as the priority actions going forward in the draft report that is due October 3rd . While we don't have final survey results, the raw data suggests that Task Force Members are in alignment with the goals of the plan which are affordability, reliability, and resiliency of our energy.

While we've got the raw data, the results ultimately aligned with what the task force identified as kind of the key goals of the plan, that is, affordability, reliability, energy, resilience. The questions we have are how many of these actions are related to the Coastal Region, Railbelt Region and Rural Region. And do some of these actions apply to more than one region. And we suggested some additional action categories to the discussion--legislative/regulatory; best available energy data; related to other actions; best agency champion; other state and local objectives; funding mechanism; administrative; and legal. Task Force members can add more categories as you get into your discussions.

Task Force members discussed the survey and how it is used. Some found it confusing and wondered if they were only to select their top three criteria for prioritization and how did it apply to the three regions. Mr. Luken stated that the purpose of the survey was to be a scoring mechanism of the different categories to help Task Force members determine their priorities. All categories will be equally weighted. If all the actions you identify fall into a category of affordability, reliability, and resilience, then all of your actions are a priority. And that can be perfectly fine, if that's what you want to advance. The intent here was to find a way to help

members delineate your actions into a prioritized list. Through these facilitated discussions, committee members can learn about the ramifications good or bad of the recommendations put forward.

Members discussed the value of in addition to affordability, reliability, and resilience, they add equal assets and leave no one behind. How this would lead to implementation of an action, it's likelihood of success or the cost benefit analysis. Are there additional environmental benefits or what's the technology readiness level. Do we weight these items differently than the top three. Or can there be a combined grading criteria. And further, rather than just say all actions are important, should we actually rank them one through whatever. If we say they're all important, they're all equally weighted, it doesn't really help us. Ranking them by importance would be helpful.

Members further discussed if re-taking the survey has any value, as those members that did take the survey support the goals of affordable, reliable, and resilient energy. It would be better to focus on the text in our proposed actions within the context of these top three priorities for the entire state. Concern was expressed that while the definition of reliability matches up with acceptable industry definition, reliance does not. It seems to have drifted away from definitions that were set out in the beginning of the task force. By having clear definitions of terms, it helps us with our mission.

Vice Chair Thayer stated that he understood the concerns expressed of how re-taking the survey might take away time from defining our actions and recommendations. However, Michael Baker staff can quickly re-work the survey to include the comments expressed in the discussion so task force members can re-take the survey today. Re-taking the survey will give the task force a foundation of how we made our recommendations and that there was agreement among the members of how to go forward with these recommendations. Mr. Luken stated that with the survey, task force members will have the opportunity to add any other criteria to consider in prioritizing the recommendations. Help us help you in setting the priorities. So, we'll readjust the survey, send it to task force members to review and complete with a recommendation to rank order them. Chair Lieutenant Governor Dahlstrom stated good discussion by everyone.

b. Report Template - Marc Luken

Mr. Luken showed an outline of how the report will be laid out. Each subcommittee will have its own section showing priorities, strategies, actions, and timeline. So as the subcommittees go into their breakout sessions, depending on where you are in the process, you'll either confirm or identify your strategies and actions and then move on to prioritizing them. All of this will funnel into the draft report.

Mr. Luken then went over the schedule for today. The regional subcommittees will meet first and then after lunch the subcommittees will meet by focus area such as State Energy Data, Statutes and Regulations Reform and so on. Each subcommittee has some tasks to complete, and the chairs of each committee will work through that.

Mr. Kurber asked if it would be possible for members without an assigned committee or some free time be able to sit in on the different regional sessions to gain an understanding of their perspective and their challenges. Especially since it's looking like we're going to see something have to come out of nothing. For example, where there isn't enough transmission, we get more transmission. Where there's not appropriate generation, we get more generation. I think that we've heard about the need from various members of all the communities.

And I think that for us, especially given the title of Promote Coordinated Governance of Energy Policy and Regulations, hearing from the other subcommittees is going to be crucial. We want to hear from you so we can get behind what are largely going to be statutory efforts, which aren't necessarily going to be a tinkering with current statutes as much as supporting initiatives that will require a whole of government approach from the governor's office to the legislators. Hence why some of the ex officio people are here. I am feeling the pressure of the calendar as well with the approaching deadlines. It would be great to be the fly on the wall and listen in on the different discussions.

Chair Lieutenant Governor Dahlstrom thought that this is a great idea, and she recommends that anyone with downtime sit in on another committee. All sessions are publicly available through the Teams link. There were no further comments or questions.

6. **Break**

7. **Subcommittees Concurrent Session 1**
    a. **Rural Generation, Distribution, and Storage**
    b. **Coastal Generation, Distribution, and Storage**
    c. **Railbelt Transmission, Generation, and Storage**

8. **Lunch**

9. **Subcommittees Concurrent Session 2**
    d. **State Energy Data**
    e. **Statutes and Regulations Reform**
    f. **Incentives and Subsidies**

10. **Break**

Lt. Governor Dalhstrom reconvened the meeting at 2:37 pm.

11. **Subcommittee Report Outs and Round Table Discussion**

    a. **Task Force Action Prioritization (by subcommittee)**

Chair Lieutenant Governor Dahlstrom requested that each of the subcommittees called on below provide an overview of their strategies, actions, and prioritization discussion.

Railbelt Transmission, Generation, and Storage Subcommittee, Co-Chaired by Mr. Tony Izzo and Ms. Jenn Miller

Ms. Miller stated that John Sims suggested that before we go through our action items, we step back and really look at what our goal is for the future for the Rail Belt. It was groundbreaking for us, and it may be as well for other subcommittees. Our long term goal is significant diversification of energy supply that is affordable, local, and reliable. So that's what we're shooting for. And then we also have a midterm goal that is public investment in infrastructure to enable the long term goal. And so that's around transmission storage, and that helps us bring in those new diverse generation assets and have that be the infrastructure. To have it be more of a shared cost rather than a per project cost. Then looking at the short term that's all around, just kind of dealing with our near term immediate needs and somewhat of a triage effect. And the short term goal is to minimize regret costs while meeting supply needs and really keeping the lights on. And we did expand our scope beyond just electricity generation or supply to heat as well. So, at a high level, that's the direction we're heading in.

And we've reviewed all of our action items and brainstormed new ones to meet those goals. And then the different subcommittee members are writing one pagers for each of our recommendations. We are meeting on Monday afternoon next week to review those as a team and to get the key concepts down. And then we'll be rolling those up into executive summaries around our key strategies of generation, storage, transmission demand. That's the direction we're heading in. Ms. Miller asked Tony Izzo if he had anything to add. Mr. Izzo didn't have anything to add.

State Energy Data Subcommittee, Chaired by Dr. Daniel White

Dr. White stated that at the September 19th meeting, Erin Whitney presented to the task force the data committee's work and the work of the technical advisory committee. There were a number of comments and questions that Erin received. So we used those as the basis of our discussion today. The first one was a question about what are the vehicles and timelines for the subcommittee's recommendations. That is, should the recommendations, such as a data department, be in statutes and regulations subcommittee or is there some other vehicle. We focused quite a bit on a discussion of the Geospatial Council as a model for establishing our data council that operates with a specific role and responsibility for energy data and how the data that will be useful to this task force. Is this something that fits in statute or is it better in regulation or some other vehicle. The second question was around a data master and what would that look like. There was a fair bit of discussion in the Data Committee about is this a role that should be assigned the same way as the Geospatial Information Officer at DNR or something else. And we did have a lot of input from Joe Burns from DNR. I appreciate his input on that specific issue.

One of the questions was about an intersection of AML's work and particularly their data management plan. We didn't have anybody from AML at the meeting, but they are at our subcommittee. I think they're meeting parallel, but we discussed what they're up to and how that might be incorporated into our work. And then finally there was a question about incorporating information about heat and transportation fuel again. And there were a number of comments about railbelt and other areas where we need to be able to understand the impact of heating energy and transportation energy on the grid and production and consumption of electrons, particularly as it relates to economic development. And I brought up a number of the comments that were made, in particular, Mr. Hanneman made, and Dr. Whitney made about the need for heating information, the need for potential for development of mines and how those would be energized.

We were introduced to the format of the reporting by Michael Baker staff, and we'll spend this next week getting all of our information from the Technical Advisory Committee into that format and submitted for the task force consideration. Chair Lieutenant Governor Dahlstrom asked when will the committee meet next. Dr. White responded that they hope to finish the work through circulation of these forms from Michael Baker. But they are prepared to meet in the next week, if they need to do so.

Statute and Regulations, Co-Chaired by Karl Hanneman and Robert Venables

Mr. Hanneman stated that our committee sought input from. AEA, Alaska Power Association (APA) and as well as all of our task force subcommittees. We value the input of the task force subcommittees at very high level. So we're actually trying to synthesize what are the statute and regulation actions that are needed to help support the objectives and strategies of the subcommittees. Working through that today, we found alignment and some overlap with input from our other sources. So, today we worked on combining those together to make a concise prioritized system coming up. So Michael Baker is going to make the first pass at that combination, give us another draft of action items to review. We'll do that by circulation, likely this week, and then decide if we need another meeting prior to our October 3rd meeting.

Incentives and Subsidies, Co-Chaired by Nils Andreassen and Isaac Vanderburg

Mr. Vanderburg stated that our goal is leveraging existing and new financial mechanisms for positive energy in Alaska. We were joined today by a significant contingent of the Railbelt Subcommittee as well as Andrew Guy. All of whom provided great comments and input. Having other subcommittee members in the room is quite helpful, as we all have some overlap and it's good to talk through those things in real time.

In terms of status of our group, we created eight strategies that have actions underneath them. I won't go through all of them. But the actions under the eight strategies include utilization of public/private investments, barriers to private sector investments, moving the economic mix of project development, hydrating, responding to evolving energy business models that consider clean energy and private investments. Maintaining residential subsidy focused on equity, while

reducing need across communities. Leveraging subsidies to offset energy costs of other users. Decreasing community transactional costs and evaluating and implementing state policy, tax, and other incentives. And so our group is fleshing out the details under each of these and is adding more language. We have a meeting scheduled for Monday of next week.

Rural Generation, Distribution, and Storage Committee, Co-Chaired by Andrew Guy and Clay Koplin.

Mr. Koplin stated that we organized all of our actions items under five overarching strategies, and I'll just go through them in the order of priority. One is increasing the availability of capital to rural areas and whether it's federal or state funding or public private partnerships, particularly around development opportunities in rural areas. Our second priority was related to investments in infrastructure, and we expanded that, recognizing it's hard to make big investments sometimes in small economies. That there are opportunities to look at other business investments, again private investments, or adjacent infrastructure investment opportunities, whether it's pipelines or roads to have maybe share the cost as infrastructure investments in transmission lines, particularly connecting communities. Also recognize that there's a lot of existing infrastructure that needs investments. Curtis pointed out like an $800 million dollar backlog in fuel tank farms. We recognize there may be opportunities to offset those costs rather than having to replace those by making other investments which can reduce or eliminate the need for large bulk tank farms. So recognize that opportunity as well.

Third priority is reducing operational costs and several levers there. Opportunities to, again, invest in logistics, transportation in particular, and economies of scale. If there's developments or other businesses or organizations in town that can share the cost of growing business in the communities is great. A diverse economy of scale, where more shipping and more traffic in and out of a community can defray the cost of electric energy. Four, increasing economies of scale. And this was more around the fact that there are several levers there. Growing sales within a community or connecting communities to each other, or to anchor tenants, to grow the overall sales of energy. And finance bigger or better projects or transmission investments around those communities. And finally the need for data. Especially in rural areas, data resources can be a little thin. So there was a little focus on gathering necessary data around projects or investments.

Rural communities, in particular, seem to have a gap. A lot of planning is being done at the community level in several rural communities. And planning is being done at the high level, like this process. But there may be opportunities for regional planning, especially in areas where you can develop an economy of scale around resource development, such as fishing or timber in rural coastal Alaska, or whether it's mining and other opportunities in the interior. These are opportunities that can create economy of scale around energy and transportation. Some regional planning studies may have already been done whether by the state, native corporations, or community economic development districts. So, another emphasis was regional planning where it makes sense.

Our current status is we broke down our actions into five strategies some with sub-strategies. We talked a little bit about gathering some overarching initiatives or action items that can advise where we should go from here, especially short term opportunities that would impact around Alaska. So that's kind of an overview if you'd like to add anything, Andrew.

Mr. Guy stated that the lack of infrastructure places rural Alaska in a very different world than the rest of Alaska. So, you have to really change your thinking first in order to address what can be done to improve energy, which is the major source of cost for everything out there. But all our recommendations would go toward alleviating or improving health, public safety, and socioeconomic conditions, because energy plays such a vital role in all of those factors. And that was our big point in terms of getting parity with the rest of Alaska on that $0.10 plus or minus two cent. And especially with reliable systems.

There are too many communities that don't have up to date equipment or they lack people to maintain and keep up the equipment because they might be too small. So everything that we were discussing and passing forth has actually found that those five major goals were geared toward affordability, reliability and alleviating all of those social issues that face rural Alaska.

Mr. Koplin followed up that another piece of the expected outcomes of all the strategies is to create business opportunities in rural communities and low cost and reliable power is certainly a lever for that. The other thing we discussed is the importance, especially in rural Alaska, of access to the local knowledge. And too often there can be two infrastructure projects happening in a community at the same time by a private business effort or an agency effort. And if the left and right hand don't realize those are happening, you lose opportunity again to share costs and benefits of projects. So the accessing local knowledge in rural Alaska is particularly critical for successful outcomes.

Coastal Generation Distribution and Storage, Co-Chaired by Duff Mitchell and Robert Venables.

Mr. Mitchell stated that we have kind of started from the other end of the telescope. We took 14 action items and started writing up executive summaries. And we started from that end of what we thought were important actions, and then we've rolled them into the strategies. And today we discussed how we're going to roll those up into the larger strategies. We're looking at four, but I want to discuss that with our other members. But we're looking at a federal policy, a state policy, market barrier reduction and market incentives. And those could be subject to change, as we have further input.
To date, we have drafted nine executive summaries out of the 14 action items. The other five are works in progress and they're going to have the format of task and purpose, which all of them are focusing on the lower cost of energy. And in our subcommittee, clearly we're looking at heat as well as transportation. So we'll see things with regard to beneficial electrification of the ferry system. We're talking quite a bit about transmission infrastructure, as well as how do we incorporate battery energy storage for local grid resilience. But interesting, these battery energy storage systems also tie into what the state needs to work on. I've had discussions with the DOT

Commissioner concerning future ferry electrification as well as shore power. So there's a lot of overlap in some of the action items we're taking.

One thing that came clear is that our action items aren't necessarily coastal centric. Some are, but many of them have overlapping and overarching considerations with other portions of the state or other subcommittees. So one of the tasks we did today was to see what the applicability is and where we need to cross pollinate or share our information with other committees. I was able to sit in on the Incentives and Subsidies Committee, and I think they feel the same way. That there was overlap with the rail belt and others. And I think that's just a natural progression that the task force process is going to take because nobody owns a good idea. We need to share it and help push that forward wherever it's beneficial. That's really my report. We're still working on finishing out these executive summaries. I know some people are saying one page executive summaries, but ours tend to be two or three pages. Maybe we need to shorten them down so that they fit. But we'll pull out the editing pen if we need to make sure that our Coastal Action items comport with the rest of the document as it's being formed up. Thank you.

Chair Lieutenant Governor Dahlstrom thanked everyone for their updates. I think it's obvious to everybody there's been a lot of thought and effort put into these committees and we're going to have a wonderful project to give to the governor when we're done. Just for the edification of the group too, we are going to extend the due date of our completed project to December 1. That means it's going to be in the governor's hands on December 1.

Mr. Sims asked Chair Lieutenant Governor Dahlstrom how the Governor will use this report. Will it be to create legislation or to drive regulation. A lot of the action items say create or develop. Then it helps him view his own committee's action items and prioritization. To bring forward recommendations that have the most impact. Or does he want every idea what makes the most sense for this task force on what we submit together? Chair Lieutenant Governor Dahlstrom responded that he would like the best ideas, not a whole bucket full of ideas. Vice Chair Thayer added that we keep in mind that there might be mechanisms or levers where we have three of the most popular, maybe one that drops one area. So I would say we want to keep all the recommendations together in an addendum or a separate section. We clearly have done the work of the task force and also have a public comment process.

Chair Lieutenant Governor Dahlstrom stated that as regulation or legislation, we could potentially see all of the above. The Governor is working with legislators. He has his own ideas on things, and we just need to fix the situation we have in the state with energy costing too much. Mr. Sims responded that it changes my mindset as far as how I tackle it as a subsidy member and whether or not I'm proposing multiple or whether I really want to focus on certain areas that would probably be the most impactful. Thank you.

Ms. Miller followed up on Mr. Sims' comment by stating that her committee discussed sharing all of our actions or recommendations. But then we like the idea of saying, if we had to pick two or three, these are our heavy hitters, and we can have the biggest impact. That way, it's just

high grades from the subcommittee. Chair Lieutenant Governor Dahlstrom asked that the committee be sure to include their reasons why these are the heavy hitters. The Governor is very interested in how you came to your decisions.

Mr. Hanneman stated that as the co-chair of the Statutes and Regulations Committee, I really take my direction from most of the other subcommittees. And so I took the opportunity to review all of the comments and the suggestions in the draft form as they exist. And this is not intended to be negative at all, but there is a lot of duplication. We know that. I only found one area that there was a potential conflict between the recommendations, and I just wanted to point that out so maybe something could be worked in the next draft, and that is with respect to the transmission unitization of the transmission and the rail belt, which I think is going to ultimately be one of the most important recommendations to be made. In the incentives and subsidies subcommittee, there is a recommendation to encourage private investment in transmission. And I think those two are at odds with each other. And I would just ask that maybe we could work together in the early stages here between those committees to resolve that, so that our focus message in the end has more opportunity to be clear. Chair Lieutenant Governor Dahlstrom responded that both Tony Izzo and Marc Luken are here and have heard your comments. Marc can catch the duplications across the subcommittees. Also, when we get that first draft, I think we're all going to have an opportunity to catch any of that.

Chair Lieutenant Governor Dahlstrom stated that Marc and his team are going to need time to get all of this put together, and we've given you a lot of information to put together. So we look forward to seeing the first draft of what you have. And I know that there's going to be some very constructive comments and additions and subtractions and things from that as we move forward. I want to thank everybody for all your participation. I know everybody's busy.

12. Next Meeting Date

a. Tuesday, October 3, 2023, 1:30 p.m. Alaska Energy Authority, 813 West Northern Lights Boulevard, Anchorage, Alaska.

Vice Chair Thayer discussed the milestone schedule and meeting dates for the next two months. The final report will be **due to the Governor on Friday, December 1**. Mr. Luken confirmed with the chairs the upcoming meetings of the various subcommittees over the next two weeks.

13. Adjourn

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 3:11 pm.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #9
TUESDAY, OCTOBER 3, 2023, 1:30 PM – 4:30 PM

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, October 3, 2023, 1:30 pm - 4:30 pm

Please note that the Alaska Energy Security Task Force will hold a meeting on Tuesday, October 3, 2023.

The Alaska Energy Security Task Force will convene at 1:30 pm to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 291 393 007 725
Passcode: 4zww83

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page.

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-465-3500.

Attachments, History, Details

Attachments

2023.10.03 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/25/2023 1:32:49 PM by jlbertolini
Modified 9/26/2023 10:44:52 AM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
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Publish Date:	9/26/2023
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Events/Deadlines:	

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, October 3, 2023
1:30 pm to 4:30 pm

Teams Meeting:

Click here to join the meeting
Meeting ID: 291 393 007 725
Passcode: 4zww83

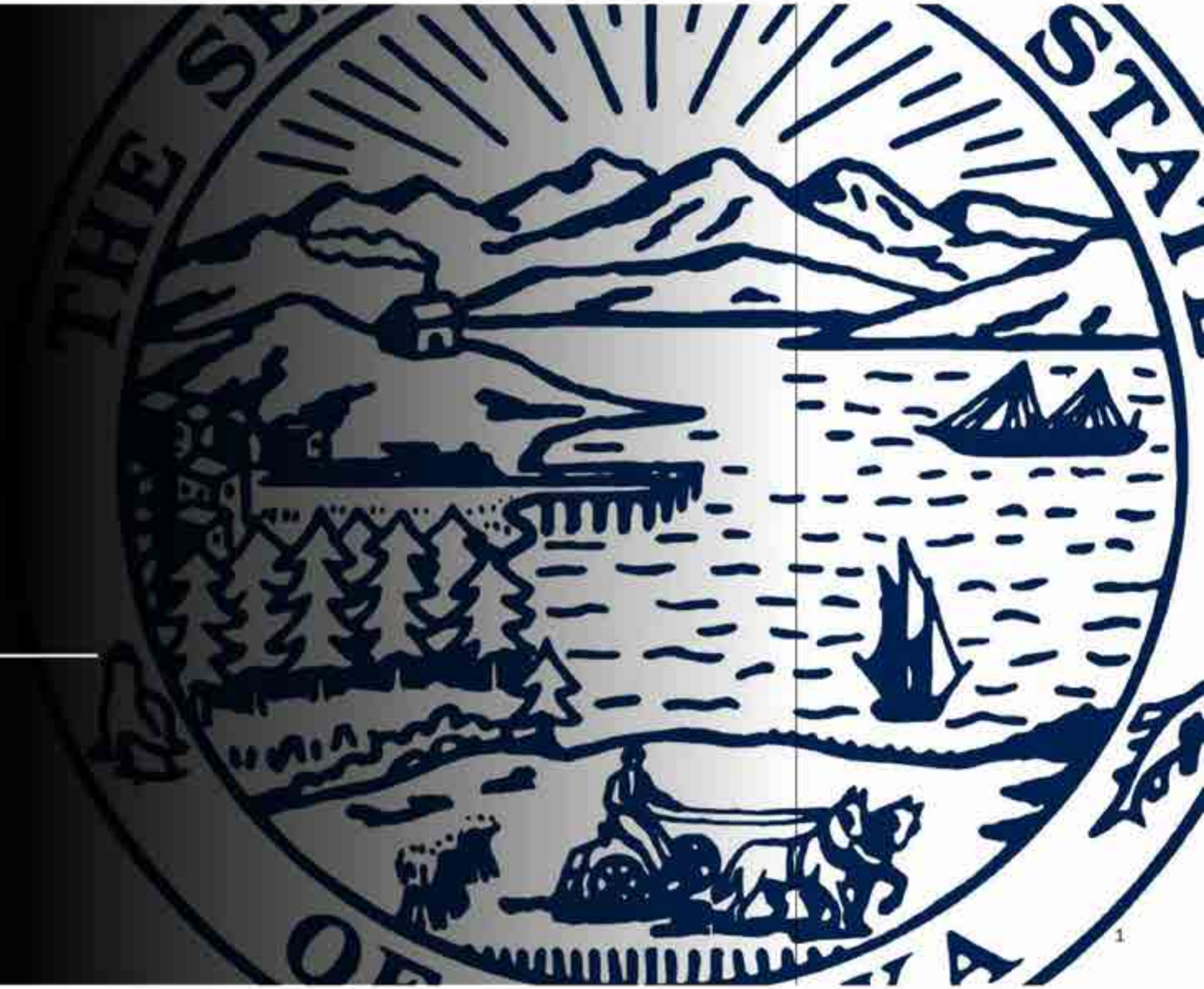
Presentation

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom) ***(1:30 pm)***
2. Roll Call
3. Prior Meeting Minutes – (September 19, 2023)
4. Survey Results (***1:45 pm – 2:00 pm***)
    a. Discuss prioritization exercise
5. Review Draft Report ***(2:00 pm – 3:45 pm)***
    a. Review Subcommittee Strategies and supporting Actions
    b. Break ***(10 Minutes)***
6. Draft Report Editing ***(4:00 pm – 4:15 pm)***
    a. Subcommittees calendar dates for report edits
7. Next Meeting Date/Closing Remarks
    a. Tuesday, October 10, 2023, 9:00 am via Teams
8. Adjourn

Alaska Energy Security Task Force Meeting

October 03, 2023



October 3, 2023 Agenda

AESTF Meeting

Welcome to the Alaska Energy Security Task Force (AESTF) Meeting. We're looking forward to collaborating on policies, strategies, and tactics to assist in the State of Alaska's goal of reducing energy costs.

Alaska Energy Security Task Force

1. **Introductions**
2. **Roll Call & Prior Meeting Minutes** September 19, 2023
3. **Announcement on Updates to Schedule**
4. **Survey Results – Evaluation & Prioritization Metrics:** (1:45pm – 2:00pm)
5. **Review Draft Report Section on Strategies & Actions** (2:oopm – 3:45pm)
6. **Draft Report Editing** Set Subcommittee Calendar Dates (4:00pm – 4:15pm)
7. **Next Steps/Closing Remarks**
8. **Adjourn**

Task Force Organization

15 Member Board

Chaired by Lt. Governor Dahlstrom

5 Ex-officio members from legislature, state & federal agencies



Task Force Proposed Work Schedule

Schedule	Date & Time
Task Force Meeting, Alaska Energy Authority Board Room	October 3, 2023, 1:30pm – 4:30pm
Public Testimony, Teams Meeting (Written comments to be sent to INFO account)	October 10, 2023, 2:00 p.m. – 4:00 p.m.
Public Testimony, Teams Meeting (Written comments to be sent to INFO account)	October 24, 2023, 2:00 p.m. – 4:00 p.m.
Task Force Meeting, Alaska Energy Authority Board Room (Review and vote on recommendations by subcommittees) (Lunch provided)	October 31, 2023, 9:00 a.m. - 4:00 p.m.
DRAFT Report provided by MBI to Task Force members by email for review	November 10, 2023
Review and Approve final report	November 17, 2023
MBI completes formatting, edits, and complete work on report.	November 17-30, 2023
Final Report given to the Governor and Task Force members.	December 1, 2023

Survey Results – Action Evaluation & Prioritization Metrics

Presented by Michael Baker International

Action Evaluation & Prioritization

- Standardizing a systematic but high-level review of how to evaluate actions across all subcommittees so Task Force can make recommendations on prioritization and next steps to implement high-priority actions.

- Is a tool to help make decisions – Ultimately Task Force identifies priority actions, not the tool.

- Methods of the tool are simple, but can be made more complex to suit the needs of the Task Force.

Action Evaluation & Prioritization Methods

Simple Method

Each criterion will have the same weight and be coded with the following values:

- 1 = action aligns with selected criterion
- 0 = neutral, not applicable, or does not align with selected criterion

More Complex Method

Each criterion or groups of criterion can be weighted and be coded with the following values:

- 3 = action **highly** aligns with selected criterion
- 2 = action **moderately** aligns with selected criterion
- 1 = action **possibly** aligns with selected criterion
- 0 = neutral, not applicable, or does not align with selected criterion

Action Evaluation & Prioritization Methods

Simple Method

Action	Criteria 1 (equal weight)	Criteria 2 (equal weight)	Criteria 3 (equal weight)	Total Value
Action 1	1 - aligns	1 - aligns	1 - aligns	3
Action 2	1 - aligns	1 - aligns	0 - NA	2

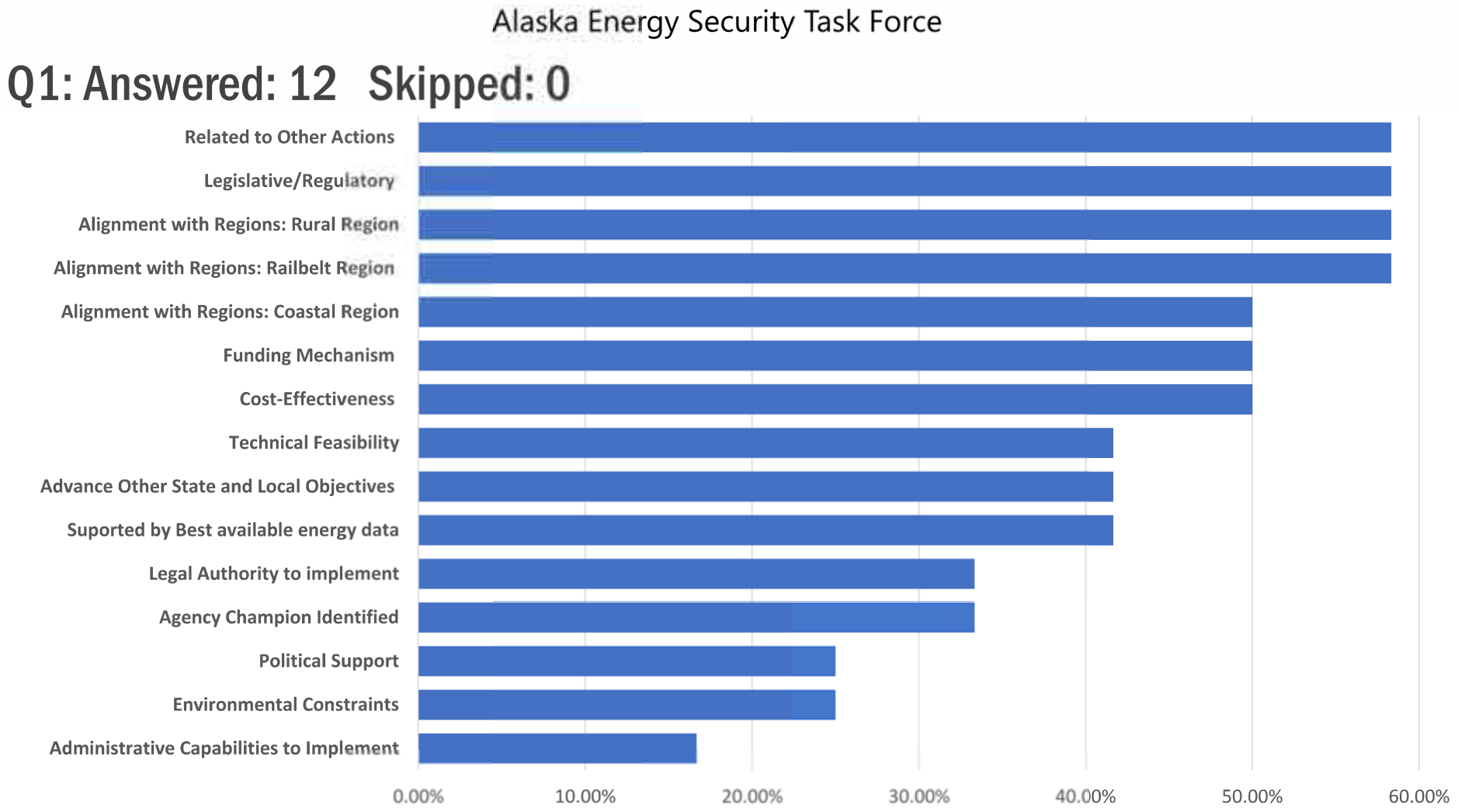
More Complex Method

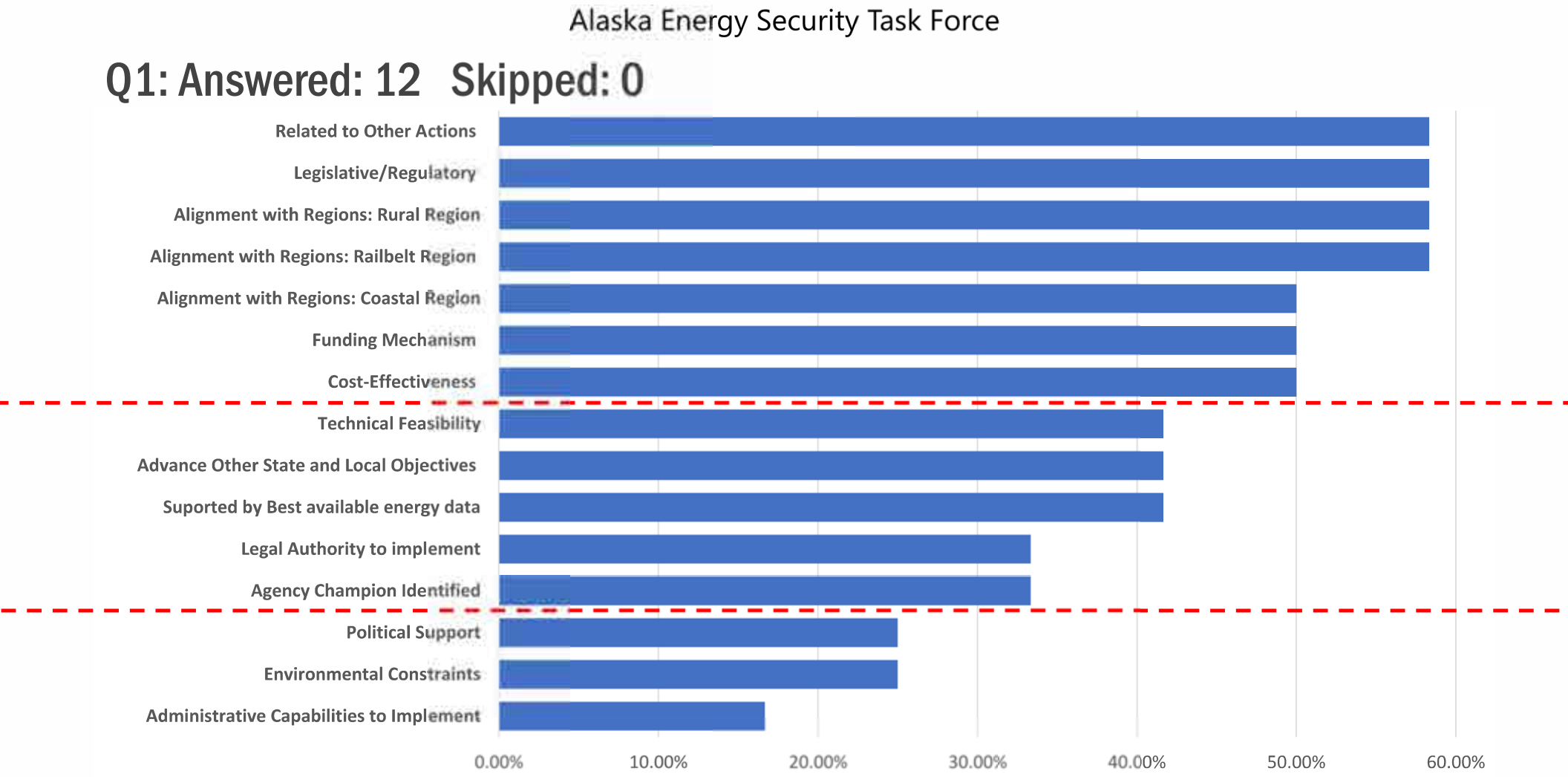
Action	Criteria 1 (60% weight)	Criteria 2 (30% Weight)	Criteria 3 (10% Weight)	Total
Action 1	3 – highly aligns	2 – moderately aligns	1 – possibly aligns	2.5
Action 2	2 – moderately aligns	1 – possibly aligns	0 - NA	1.5

Survey Results on Evaluation & Prioritization Metrics

Q1: Please select evaluation and prioritization criteria below that should be considered and included in a prioritization exercise at the next Task Force Meeting.

Note: **Affordability, Reliability, and Resilience** will be included as criteria for evaluation, based on consensus garnered during the previous survey.


Alaska Energy Security Task Force
Q1: Answered: 12 Skipped: 0
Related to Other Actions
Legislative/Regulatory
Alignment with Regions: Rural Region
Alignment with Regions: Railbelt Region
Alignment with Regions: Coastal Region
Funding Mechanism
Cost-Effectiveness
Technical Feasibility
Advance Other State and Local Objectives
Suported by Best available energy data
Legal Authority to implement
Agency Champion Identified
Political Support
Environmental Constraints
Administrative Capabilities to Implement
0.00%
10.00%
20.00%
30.00%
40.00%
50.00%
60.00%


Alaska Energy Security Task Force
Q1: Answered: 12 Skipped: 0
Related to Other Actions
Legislative/Regulatory
Alignment with Regions: Rural Region
Alignment with Regions: Railbelt Region
Alignment with Regions: Coastal Region
Funding Mechanism
Cost-Effectiveness
Technical Feasibility
Advance Other State and Local Objectives
Suported by Best available energy data
Legal Authority to implement
Agency Champion Identified
Political Support
Environmental Constraints
Administrative Capabilities to Implement
0.00%
10.00%
20.00%
30.00%
40.00%
50.00%
60.00%

Q1: Open Response

"I think all of these criteria can factor into investment and infrastructure development decisions"

"These criteria comport with the subcommittee focuses."

"Is there a way to capture the relative impact when comparing. Some actions might be easy and will make a helpful tweak, but others may be harder and have a very large impact. Maybe effort level (low, medium, high) impact level (low medium high)"

Q1: Open Response *(Continued)*

"Priority should be given to those actions that impact the greatest number of Alaskans."

"Why wasn't this survey offered "rank choice" since all should be considered while some are more import, none should be omitted. "

"There are too many screening criteria for the survey to be used in screening or developing priorities. The Governor provided one decisively clear and unequivocal criterion...lower the energy cost for Alaskans, which should be the sole prioritization screening criteria. Should it not be up to the Governor and his administration to decide the prioritization using the criteria/factors mentioned, and not

Survey Results

Q2: Are there any additional comments on the criteria or metrics that should be considered at this time (e.g., descriptions of criteria, new criteria, etc.)?

Q1: Answered: 0 Skipped: 12

Review Draft Report Section on Strategies & Actions

Presented by Michael Baker International



FOR ILLUSTRATIVE PURPOSES ONLY – DRAFT DELIBERATIVE

Alaska Energy Security Task Force

Statewide Energy Master Plan - Table of Contents

Section 1 - Introduction

Section 2- Planning Process

Section 3- Energy in Alaska (Energy Symposium Series)

Section 4 - Energy Priorities

- **Priority A – Railbelt Transmission, Generation, and Storage**
- **Priority B – Coastal Generation, Distribution, and Storage**
- **Priority C – Rural Generation, Distribution, and Storage**
- **Priority D – State Energy Data**
- **Priority E – Incentives and Subsidies**
- **Priority F – Statutes and Regulations**

Section 5 - Next Steps

Appendices:

Appendix I - Definitions

Appendix II – Action Tracking Sheet

Appendix III – Additional Action Detail Summary

Appendix IV - Energy Symposium Series

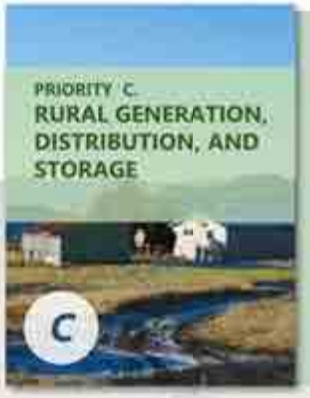
Appendix VI – State Energy Data Recommendations Report

Appendix VI - Meeting Material Documentation

Appendix VII - Public Comment Documentation

***Draft Sections Included in Today's Meeting Packet**

Please Refer to Handout of Report Sections.

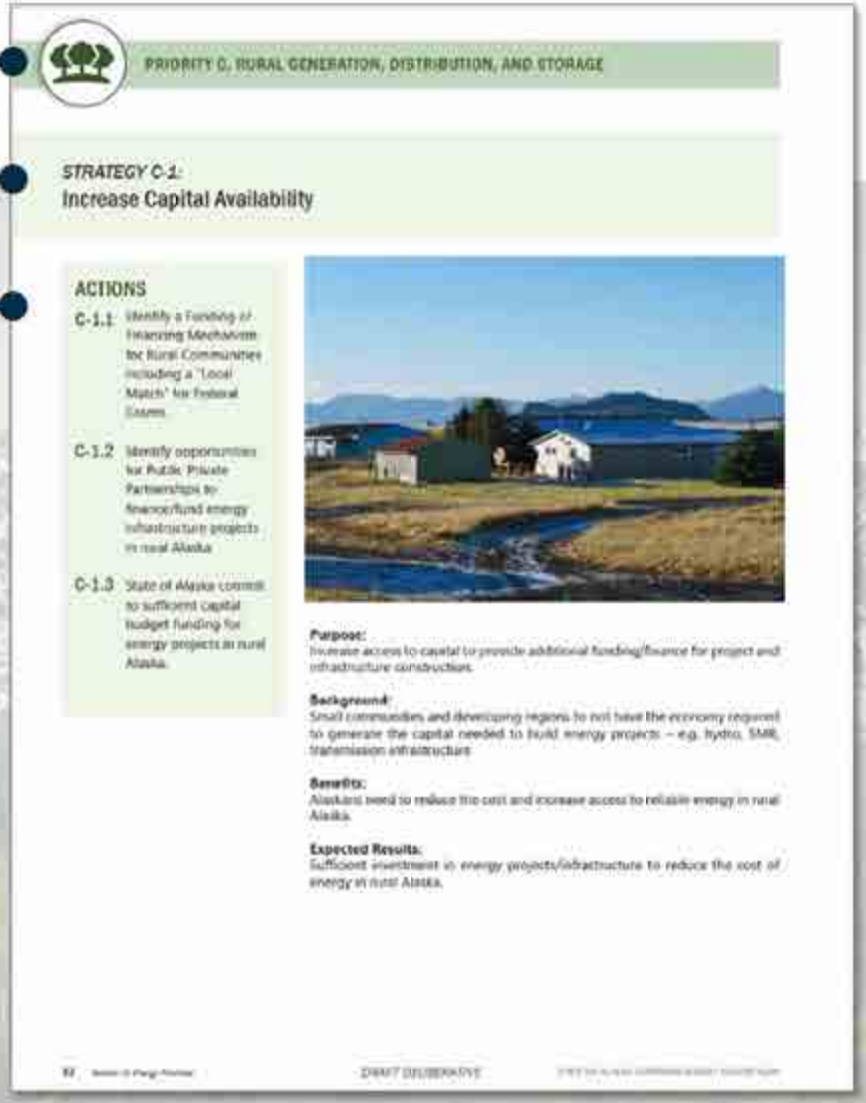


Sample Layout & Organization of Energy Master Plan

PRIORITY

STRATEGY

ACTIONS


PRIORITY C. RURAL GENERATION, DISTRIBUTION, AND STORAGE

STRATEGY C-1:
Increase Capital Availability

ACTIONS

C-1.1 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Loans

C-1.2 Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska

C-1.3 State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.

Purpose:
Increase access to capital to provide additional funding/finance for project and infrastructure construction.

Background:
Small communities and developing regions do not have the economy required to generate the capital needed to build energy projects – e.g. hydro, SMR, transmission infrastructure.

Benefits:
Alaskans need to reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:
Sufficient investment in energy projects/infractructure to reduce the cost of energy in rural Alaska.

DRAFT DELIBERATIVE

PRIORITY: Focus Area of Subcommittee

STRATEGY: Solution(s) to meet Alaska's energy needs now and in the future related to the priority/subcommittee focus area.

ACTIONS: Identifies specific changes in policies, programs, regulations, or funding to advance strategy.

TIMELINE FOR IMPLEMENTATION: Immediate, Short-, Med.-, and long-term.

0– 2 years, 2 - 5 years, 5 - 10 years; 10 years plus

Alaska Energy Security Task Force

Subcommittee Report Outs

- **Railbelt Transmission, Generation, and Storage:** *(Co-Chairs: Tony Izzo & Jenn Miller)*
- **Coastal Generation, Distribution, and Storage:** *(Co-Chairs: Duff Mitchell, & Robert Venables)*
- **Rural Generation, Distribution, and Storage:** *(Co-Chairs: Clay Koplin & Andrew Guy)*
- **State Energy Data:** *(Brittany Smart on behalf of Chair Dan White)*
- **Incentives and Subsidies:** *(Co-Chairs: Nils Andreassen & Isaac Vanderburg)*
- **Statutes and Regulations Reform:** *(Co-Chairs: Robert Venables & Karl Hanneman)*

Alaska Energy Security Task Force

Upcoming Subcommittee Meeting Times

- **Railbelt Transmission, Generation, and Storage:** *October 6, 2023,12:00 pm*
- **Coastal Generation, Distribution, and Storage:** *October 6, 2023,11:00 am*
- **Rural Generation, Distribution, and Storage:** *October 5, 2023,1:00 pm*
- **State Energy Data:** *TBD*
- **Incentives and Subsidies:** *October 9, 2023,8:00 am*
- **Statutes and Regulations Reform:** *October 17, 2023,10:30 pm*

Next Steps

- **Confirm/Schedule next meeting with your subcommittee(s) if there is a desire to meet sooner/more frequently.**

- **Upcoming AESTF Meeting Dates:**
  - **October 10, 2023, 2:00 p.m. – 4:00 p.m. - Public Testimony, Teams Meeting** (Written comments to be sent to INFO account)
  - **October 24, 2023, 2:00 p.m. – 4:00 p.m. - Public Testimony, Teams Meeting** (Written comments to be sent to INFO account)
  - **October 31, 2023, 9:00 a.m. - 4:00 p.m. - Task Force Meeting,** Alaska Energy Authority Board Room (Lunch provided)
    - Review and vote on recommendations by subcommittees

Task Force Proposed Work Schedule

Schedule	Date & Time
Task Force Meeting, Alaska Energy Authority Board Room	October 3, 2023, 1:30pm – 4:30pm
Public Testimony, Teams Meeting (Written comments to be sent to INFO account)	October 10, 2023, 2:00 p.m. – 4:00 p.m.
Public Testimony, Teams Meeting (Written comments to be sent to INFO account)	October 24, 2023, 2:00 p.m. – 4:00 p.m.
Task Force Meeting, Alaska Energy Authority Board Room (Review and vote on recommendations by subcommittees) (Lunch provided)	October 31, 2023, 9:00 a.m. - 4:00 p.m.
DRAFT Report provided by MBI to Task Force members by email for review	November 10, 2023
Review and Approve final report	November 17, 2023
MBI completes formatting, edits, and complete work on report.	November 17-30, 2023
Final Report given to the Governor and Task Force members.	December 1, 2023

Email and Website



Email

AEA-hosted info email account created to capture correspondence related to the Task Force.

info@akenergysecuritytaskforce.com



Website

AEA-hosted external webpage houses the Task Force's schedule, public notices, recordings, minutes, documents, and resources as they are created.

http://akenergysecuritytaskforce.com

Alaska Energy Security Task Force Meeting
October 3, 2023

Draft Sections of Statewide Energy Master Plan related to Priorities, Strategies and Actions

Handout Includes:

Section 4 - Energy Priorities

- Priority A – Railbelt Transmission, Generation, and Storage
- Priority B – Coastal Generation, Distribution, and Storage
- Priority C – Rural Generation, Distribution, and Storage
- Priority D – State Energy Data
- Priority E – Incentives and Subsidies
- Priority F – Statutes and Regulations

Appendix II – Action Tracking Sheet

Appendix III – Additional Action Detail Summary

Note: This is a draft, deliberative document for discussion purposes only. The preliminary action recommendations contained in this document have not been officially endorsed by the Alaska Energy Security Task Force at this time.

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STATE OF ALASKA
STATEWIDE ENERGY
MASTER PLAN
OCTOBER 2023

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- Priority C. Rural Generation, Distribution, and Storage
- Priority D. State Energy Data
- Priority E. Incentives and Subsidies
- Priority F. Statutes and Regulations

Section 5. Next Steps

Appendices

- Appendix I. Definitions
- Appendix II. Action Tracking Sheet *(Included in this Draft Package)*
- Appendix III. Additional Action Detail Summary Pages *(Included in this Draft Package)*
- Appendix IV. Energy Symposium Series
- Appendix V. Energy Data Report
- Appendix VI. Meeting Material Documentation
- Appendix VII. Public Comment Documentation


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SECTION IV.

ENERGY PRIORITIES





This section is divided into the following Energy Priorities:

Priority A. Railbelt Transmission, Generation, and Storage

Priority B. Coastal Generation, Distribution, and Storage

Priority C. Rural Generation, Distribution, and Storage

Priority D. State Energy Data

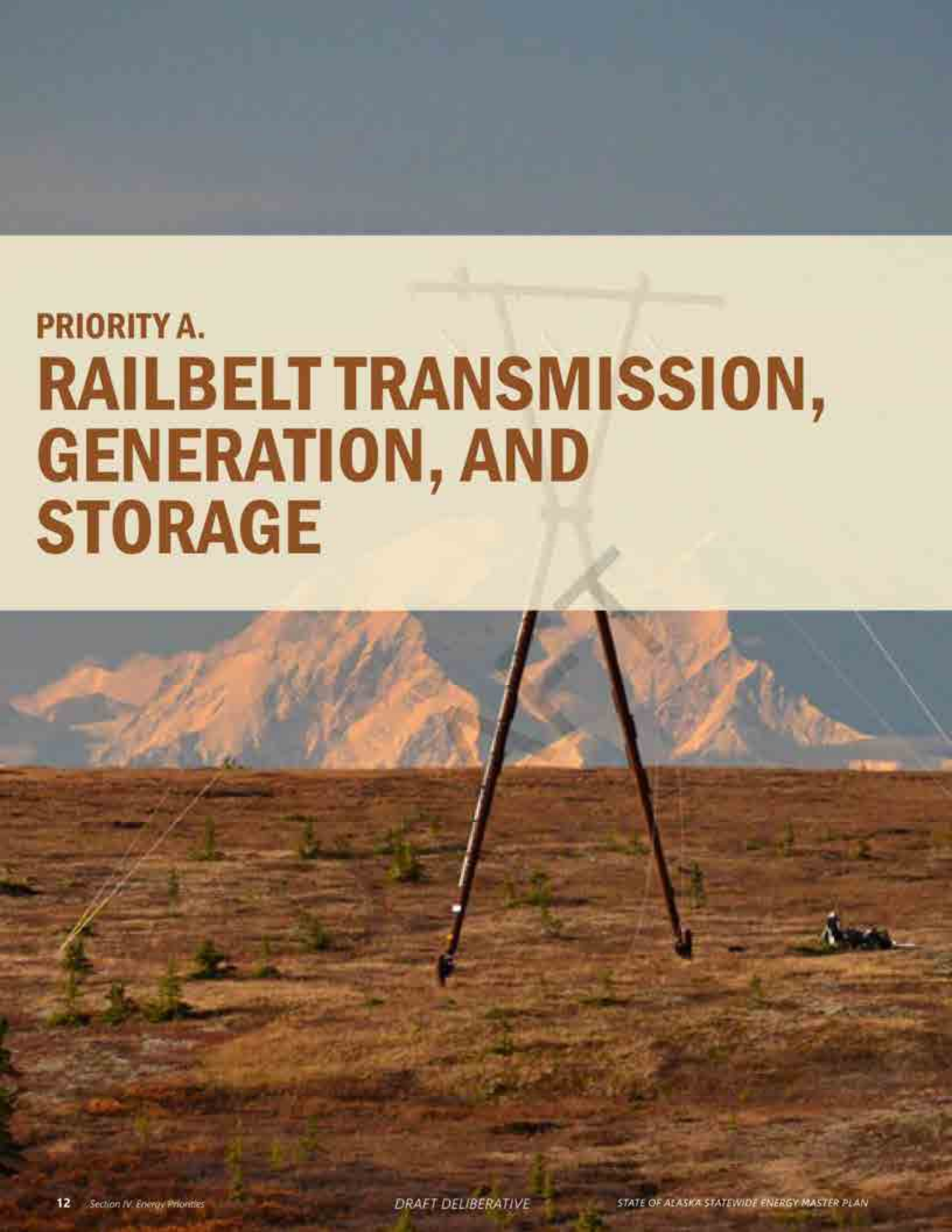
Priority E. Incentives and Subsidies

Priority F. Statutes and Regulations

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PRIORITY A.

RAILBELT TRANSMISSION, GENERATION, AND STORAGE





INTRODUCTION

The Railbelt Generation, Transmission, and Storage (RGTS) Priority of the Alaska Energy Security Task Force was created to develop an energy plan that will move the Railbelt towards energy independence while lowering the cost to its residents over the long-term. In order to complete this plan, it was important to understand the current state of our energy portfolio. Since Statehood, the Railbelt utilities and their customers have benefited from the significant natural gas finds in the Cook Inlet. Over time, this basin has supported approximately 80% of the power generation, and a majority of the population hubs' space and water heating needs.

In order to develop our recommended plan, the RGTS determined the most efficient approach would be to establish long-term, mid-term, and short-term goals that reflect our desired outcomes here along the Railbelt. Here are the recommended goals:

- Short-term: Minimize regret cost while providing reliable service.
- Mid-term: Invest in infrastructure improvements to advance our long-term goal of energy diversification.
- Long-term: Significantly diversify power generation with an emphasis on local, reliable, and affordable clean energy.

The RGTS was motivated to seek transformational approaches to reach these goals that might provide electrical energy to residents at a target price of $0.10/kwh in the future. The RGTS reviewed numerous generation and transmission configurations and strategies from publicly available data but did not complete independent or internal cost estimates in developing action items and our strategy. The following Railbelt strategies and recommended action items are meant to support these high level goals.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

B-1 Unify Transmission

B-2 Diversify Generation

B-3 Increase Demand

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STRATEGY A-1:
Unify Transmission

ACTIONS

A-1.1 Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.



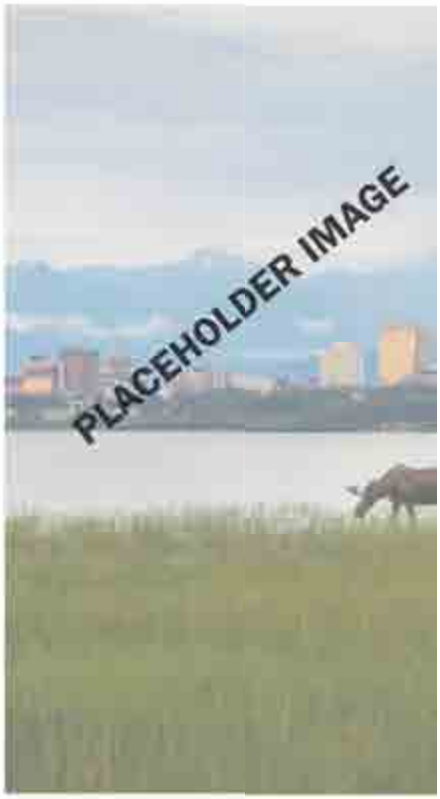
Purpose:
Accelerate upgrades to existing transmission from Bradley Lake to Fairbanks via Anchorage, and construct a second transmission line from Soldotna to Healy via Beluga enabling the long-term goals of improved resilience, reliability, and transfer capability between regions. This action would include unified ownership of the Railbelt transmission system and would minimize constraints on the system. Proceeds from the utility sales would help reduce debt owned by the utilities, eliminate wheeling charges, and create a postage stamp rate from Bradley to Fairbanks, thereby eliminating multiple tariffs in favor of one simplified tariff. Unified operation will lower system operating costs (rates), enable quicker interconnection of new generation sources, and reduce time to plan and construct new system components.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility

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and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

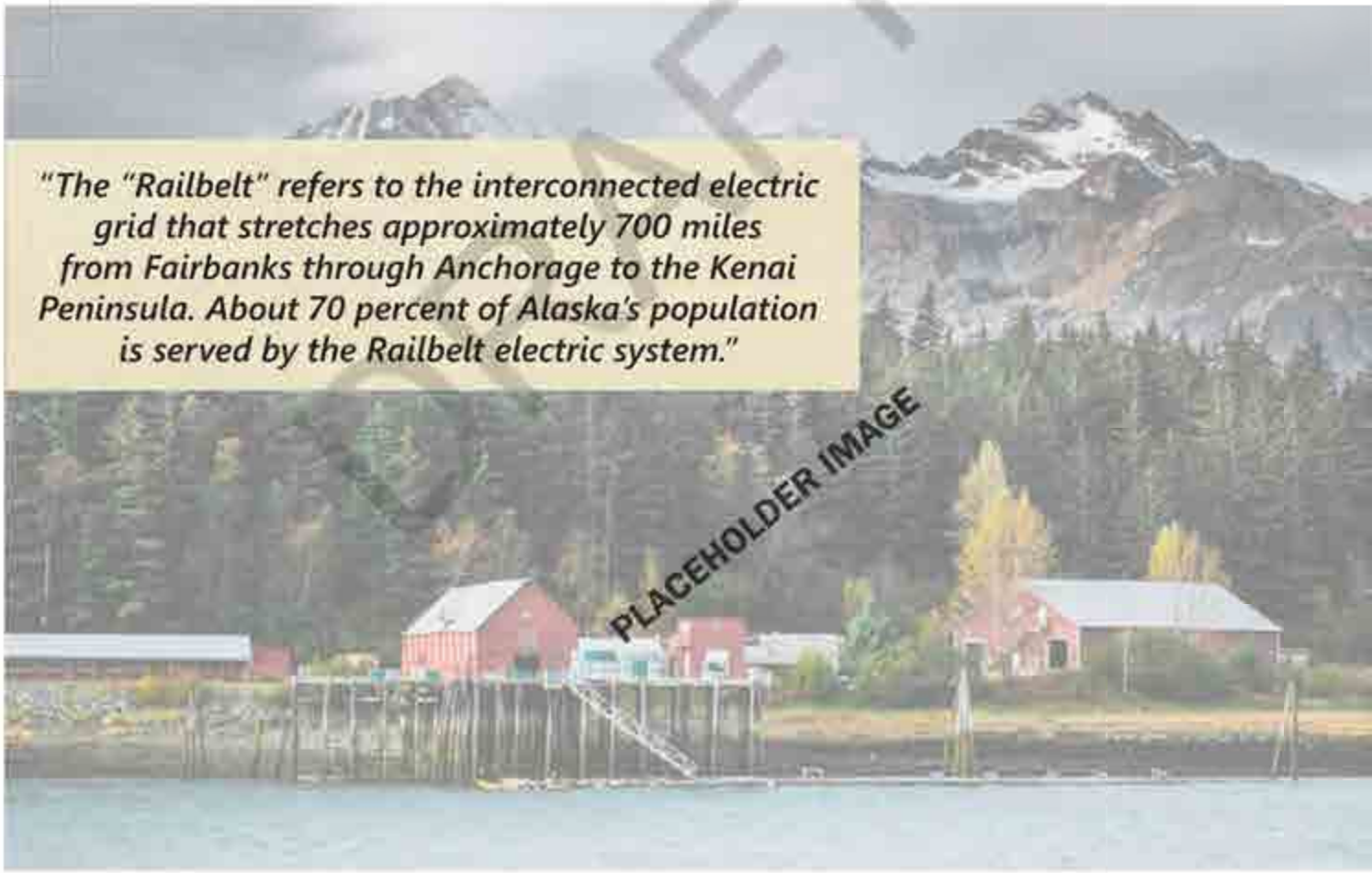


Benefits:

- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

Expected Results:

This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.



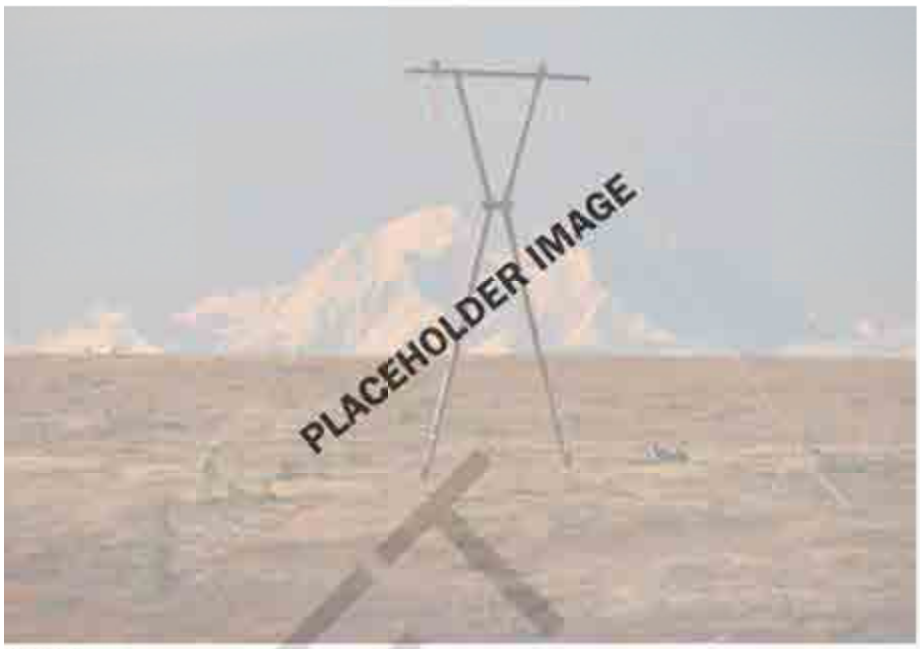
STRATEGY A-2:
Diversify Generation

ACTIONS

A-2.1 Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.

A-2.2 Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.

A-2.3 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision
- Dixon Diversion
- Susitna-Watana
- AKLNG



Location

Purpose:
Encourage and coordinate the diversification of Railbelt generation assets through projects and policy that provide opportunities to maximize energy cost savings.

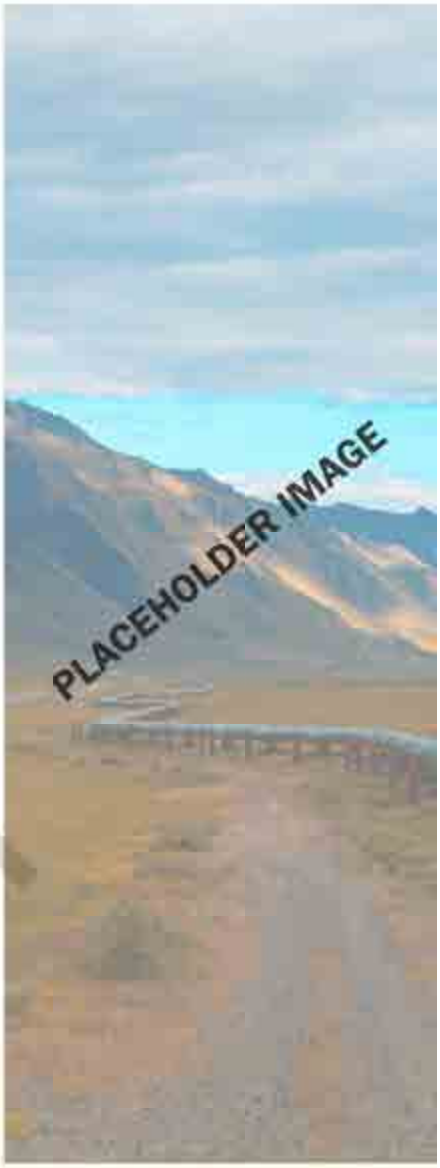
Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

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To enable this strategy the Railbelt Subcommittee supports the state adopting a Clean Energy Standard which would set electricity diversification goals. These goals should be supported with incentives rather than penalties to ensure affordable, reliable power is delivered to rate- payers. The Railbelt Subcommittee also recommends modifying state statutes to provide the Regulatory Commission of Alaska (RCA) the ability to value generation diversification (in addition to price) when reviewing and approving contracts.

The Railbelt Subcommittee did not complete comprehensive analysis or cost estimates for potential generation projects and ultimately all technologies should compete to bring the most affordable, diverse, reliable energy to the Railbelt. That said, there are projects which have previously been proposed or are currently being worked and the Subcommittee supports taking these projects through feasibility such that a "go/no-go" decision can be made. Alaska has several projects in various stages of development and permitting that could provide diversified renewable and clean power generation for Railbelt utilities including the Dixon Diversion project at Bradley Lake, and the potential mega-project at Susitna-Watana. Additionally, the Alaska LNG (AKLNG) project has the potential to open vast quantities of trapped North Slope natural gas for uses across the interior and south-central Alaska. The AKLNG is strategic in that it provides a local gas supply for heat and electricity base load for generations to come.



Benefits:
How can Alaskans encourage and promote diversification of power generation in the Railbelt and across Alaska to foster transition to reneable and clean energy generation sources to provide reliable, low cost energy for Alaskans.

Expected Results:
Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for Railbelt rate payers.

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STRATEGY A-3:
Increase Demand

ACTIONS

A-3.1 Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).



Purpose:
Significantly increase load to drive down energy rates.

Background:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

Benefits:
Incentivizing and attracting large industry customers to Alaska's Railbelt to increase electricity production demand, following a similar model to Iceland, could help lower the cost per- kWh for all Railbelt customers.

Expected Results:
The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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PLACEHOLDER IMAGE



PRIORITY B.

COASTAL GENERATION, DISTRIBUTION, AND STORAGE



INTRODUCTION

The Coastal Generation, Distribution, and Storage Priority includes strategies and actions that support the overall Alaska Energy Security Task Force goal of identifying opportunities to lower the cost of energy in Alaska for Alaskans. The Coastal Subcommittee settled on four high-level strategies supported by twelve specific action recommendations focused on lowering energy costs for Alaskans living in coastal areas of the state. Strategies recommend Alaska and Federal policy updates to allow streamlined project identification, planning, funding/financing and permitting. The Market Initiatives strategy seeks to maximize use of existing energy generation and transmission assets and promote new renewable energy assets to lower energy costs for Alaskans and their industries. Finally, as hydro-power is one of the primary sources of energy generation for many coastal Alaskan communities, the Alaska Hydropower strategy recommends enhancing Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- B-1 Alaska Policy Recommendations
- B-2 State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations
- B-3 Alaska Hydropower Generation Recommendations
- B-4 Alaska Market Initiatives

STRATEGY B-1:
Alaska Policy Recommendations

ACTIONS

B-1.1 Establish, require, assist, and Implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.

B-1.2 Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.

B-1.3 Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.



Purpose:
Enhance Alaska's departmental and regulatory policies to spur and sustain renewable energy and transmission development to cut energy costs and advance economic prosperity for Alaska.

Background:
Alaska policies, while unintended, can prevent, stall, or, in some cases, prohibit the permitting and necessary governmental authorizations to timely and optimally develop and advance renewable energy and transmission assets required to move Alaska forward from a developing state status to a first-world energy state that Alaskans deserve. While there is not one solution, the Administration can take many internal steps and actions to create a unity of effort among State agencies with disparate missions and objectives. An overarching Energy Plan that directionally provides State agencies the authority and motivation to help the Governor successfully implement that State Energy Plan and achieve recommended action is doable with a coordinated effort.

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Alaska can transcend policies that have been focused on the past or regulatory mission and should directionally (as opposed to aspirational) incorporate the Governor's directives to implement the State Energy Plan in concert with regulatory balance, protecting our environment while streamlining processes, procedures and producing results to lower the cost of energy for Alaskans. Regardless of whether the policy directive is called a "unity of purpose and effort" or an all-hands-on-deck policy, Alaskans are better served through introspection of how we can and should do better, with concentrated and collective efforts to do better in serving Alaskans achieve lower cost energy now and for future generations.

Benefits:
The proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans with administrative purpose and collective effort to find and exploit synergies to lower the energy cost for Alaskans in concert with Departmental missions and goals.

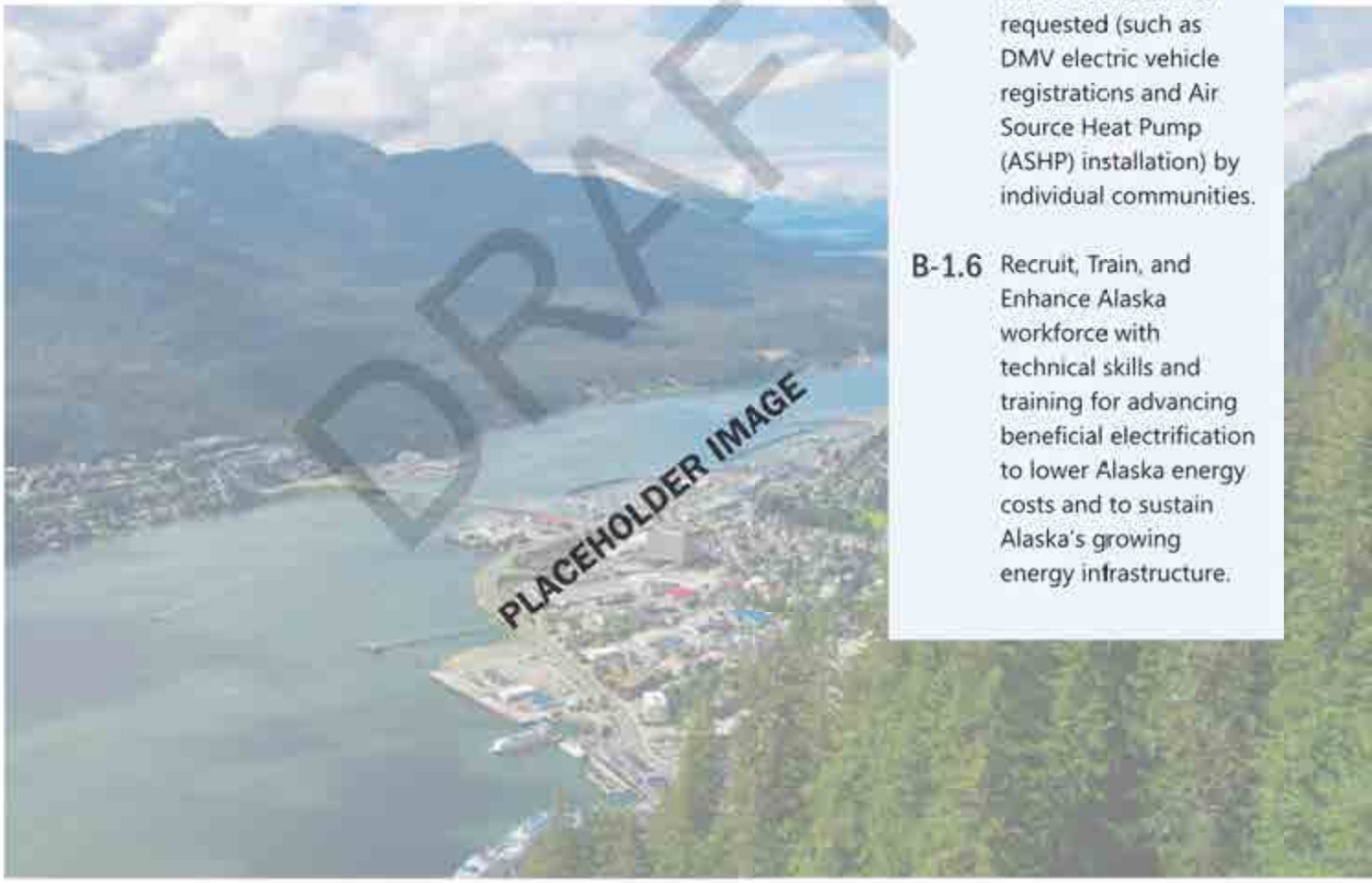
Expected results:
Strategically planned and matured by the Administration and AEA of the Task Force Alaska Policy Recommendations combined with efficient and well thought out implementation focused on light Integrated Resource Planning, reducing State of Alaska barriers and bottlenecks, optimizing federal funding for the strategic achievement of goals, tactical and practical implementation of can do, how we get to "yes" policies will reduce the cost of power for Alaskans today and leave an energy legacy for generations of Alaskans to follow.

ACTIONS (CONT.)

B-1.4 Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.

B-1.5 Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

B-1.6 Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.



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STRATEGY B-2:
State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations

ACTIONS

B-2.1 Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.

B-2.2 State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.



Purpose:
Refine federal policy to bolster Alaska's renewable energy and support tribes in securing affordable energy. Directionally (as opposed to aspirationally) advance Alaska's Energy Plan priorities to promote and develop renewable energy generation and transmission assets through negotiating and influencing federal agencies for proactive federal energy development policy modifications and revisions and to collaborate and assist Alaska's federally recognized tribes in obtaining lower cost energy in Alaska.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a

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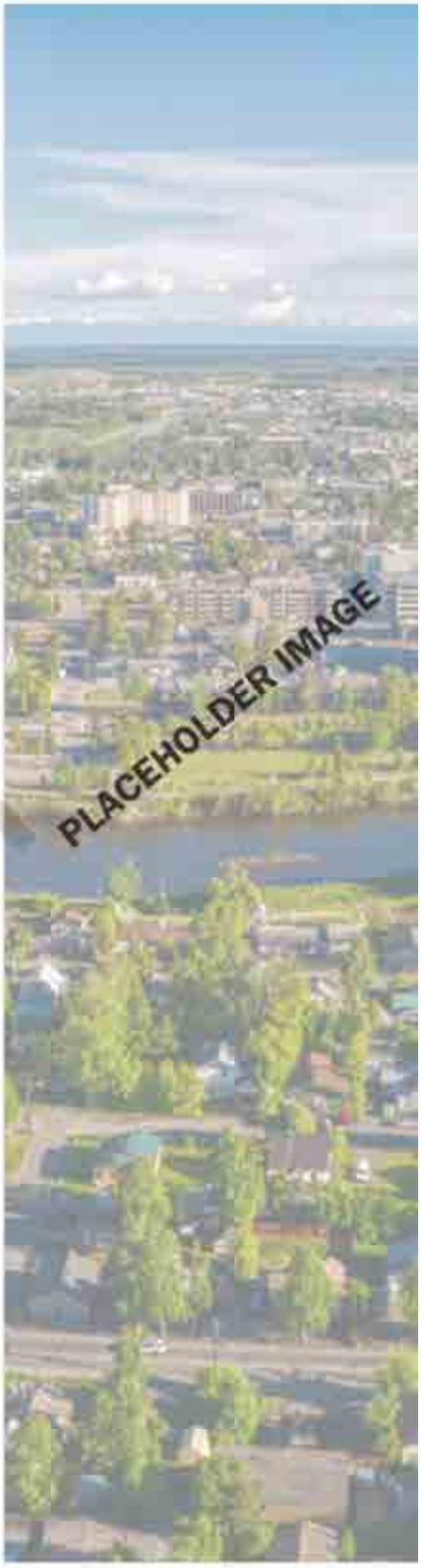
bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Coastal Alaska communities also want to lower energy, heating, and transportation costs. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources mutually beneficial to the State of Alaska's interests. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Additionally, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By coordinating and collaborating, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint party effort can enhance the creation, sharing, and use of energy across the State.

Benefits:
The development of state policies and goals to negotiate and carry out with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding the proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans lower cost energy.

The State of Alaska and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans in our Alaskan communities. By identifying and sharing information, plans, and initiatives and establishing a framework to advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska and Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

Expected Results:
The State of Alaska, with careful and planned implementation of these recommendations, can gain common ground with federal agencies and tribes and advance and promote Alaska's renewable energy development with cooperation and support from the federal government and Alaska's 229 federally recognized tribes to achieve national purposes while reducing the energy cost of Alaskans. The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska.



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STRATEGY B-3:
Alaska Hydropower Generation Recommendations

ACTIONS

B-3.1 Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.



Purpose:
Enhance Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security that Alaskans deserve and expect.

Background:
The foundation of Alaska's most cost-effective and affordable energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. There is no cheaper energy form in Alaska than old hydropower, and Alaska cannot achieve old hydropower without proactively supporting and investing in new hydropower. Hydropower is a tried and proven Alaska energy resource, and with proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once financing debt is paid, the hydropower project yields consistent, sustainable, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and economic prosperity well into the future.

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Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

In Alaska and across the US, the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as US hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined —leverage Alaska to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.



Benefits:
Hydropower in Alaska is not just an energy source; it is Alaska's energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure and related transmission, Alaska is not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and reaping energy dividends for future generations with sustainable, clean energy. Investing in hydropower assets is our Alaska commitment to Alaska's proven energy model for a brighter, more affordable, energy-secure future for Alaska.

Implementation Timeline:
The Alaska Generation Strategy for fostering hydropower has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.

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STRATEGY B-4:
Alaska Market Initiatives

ACTIONS

B-4.1 Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

B-4.2 Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

B-4.3 Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.

B-4.4 Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs.



Purpose:
Maximize utilization of existing energy generation and transmission and promote new renewable energy assets to lower energy costs for Alaskans and their industries through market initiatives and expansion.

Background:
Energy generation and transmission assets, like power plants and electricity distribution grids, have significant upfront costs. For these assets to be cost-effective and viable, they need to be built at a particular scale, benefiting from what is known as "economies of scale," the more significant the operation, the more cost-effective it becomes per unit of energy produced or transmitted. Market initiative and expansion of electricity is known as beneficial electrification. "Beneficial Electrification" refers to replacing direct fossil fuel use for heating and transportation with electricity to reduce overall emissions and energy costs while simultaneously delivering broader environmental and societal benefits. The primary aim is to shift end-use energy sources to cleaner, renewable electricity sources.

Energy Generation and Transmission assets require minimally sufficient economies of scale to enable minimum viable generation projects and transmission to be built or expanded. Expanding energy markets through market initiatives that serve multiple goals... creates sufficient economies of scale to lower energy costs through demand creation for critical energy

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generation and transmission assets, thereby increasing affordability, reliability, energy security, and grid resilience that reduce the cost of energy through displacement of higher cost fuel sources and by creating new energy demand. These market initiatives also create family-wage-sustaining jobs in Alaska.

Benefits:
The proposed market initiatives create multiple economic and societal benefits while providing Alaskans lower cost energy.

Implementation Timeline:
The Alaska Market Initiative Action Items have a range of planning, development, financing, implementation, and operation implementation timelines extending from the immediate to the long-term horizon for Alaska's Energy Plan.

Expected Results:
Strategically planned market initiative actions with tactical implementation focused on fully utilizing generation and transmission current and future assets will optimize State Alaska's Energy plan to lower Alaskans' energy costs (electric, heating, transportation).

ACTIONS (CONT.)

B-4.5 Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.



PRIORITY C.

RURAL GENERATION, DISTRIBUTION, AND STORAGE





INTRODUCTION

The vast majority of Alaska's rural communities have significantly higher cost of energy than more urbanized areas. This is primarily due to remote village locations having to rely on diesel powered generators supplying power for individual villages. The cost to purchase, transport and store diesel fuel drives these higher energy generation costs. The Rural Subcommittee identified five strategies target opportunities to help lower the cost of energy generation in rural Alaska. Increased access to capital and infrastructure investments by the state and federal government are two of these strategies. Lowering operational costs of existing energy generation also provide actions to pursue. The previous three strategies can be supported by increasing economies of scale, either by connecting communities or attracting industrial partners to increase demand, and better decision making concerning energy generation, storage, distribution based on access to better data is the final rural subcommittee strategy. Alaska's rural residents deserve access to clean, affordable, lower cost energy; these strategies are aimed to move the state in this direction.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- C-1 Increase Capital Availability
- C-2 Infrastructure Investment
- C-3 Lower Operational Costs
- C-4 Improve Economies of Scale
- C-5 Improve Data-Driven Decision Making

STRATEGY C-1:
Increase Capital Availability

ACTIONS

C-1.1 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-1.2 Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.

C-1.3 State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.



Purpose:
Increase access to capital to provide additional funding/finance for project and infrastructure construction.

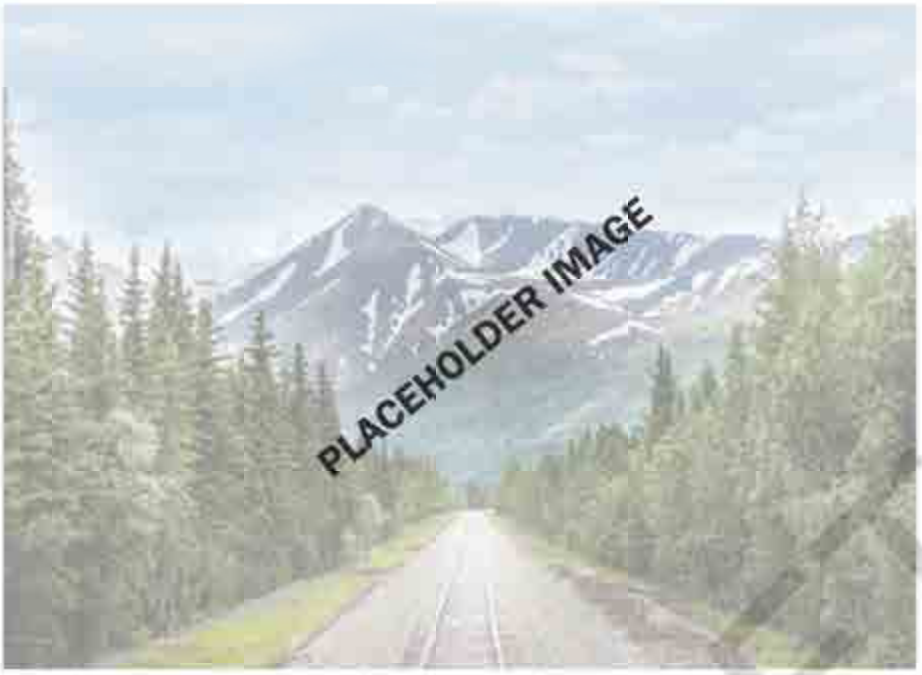
Background:
Small communities and developing regions to not have the economy required to generate the capital needed to build energy projects – e.g. hydro, SMR, transmission infrastructure

Benefits:
Alaskans need to reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:
Sufficient investment in energy projects/infrastructure to reduce the cost of energy in rural Alaska.

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STRATEGY C-2:
Infrastructure Investment



Purpose:
Support existing infrastructure and add new infrastructure to provide Alaskans with reliable energy at reduced cost.

Background:
Replace aging and inefficient infrastructure to improve reliability and affordability. Invest in new infrastructure related to the production and transmittal of power to rural Alaska in conjunction with transportation and broadband infrastructure.

Benefits:
Make regionally connected infrastructure investments that improve reliability and affordability in rural Alaska.

Expected Results:
Investment in connected regional infrastructure for the community needs that lead to the most affordable and reliable energy which would in turn improve public health, welfare, and socio-economic conditions in rural Alaska.

ACTIONS

C-2.1 Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.

C-2.2 Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.

C-2.3 Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.

C-2.4 IInvest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.

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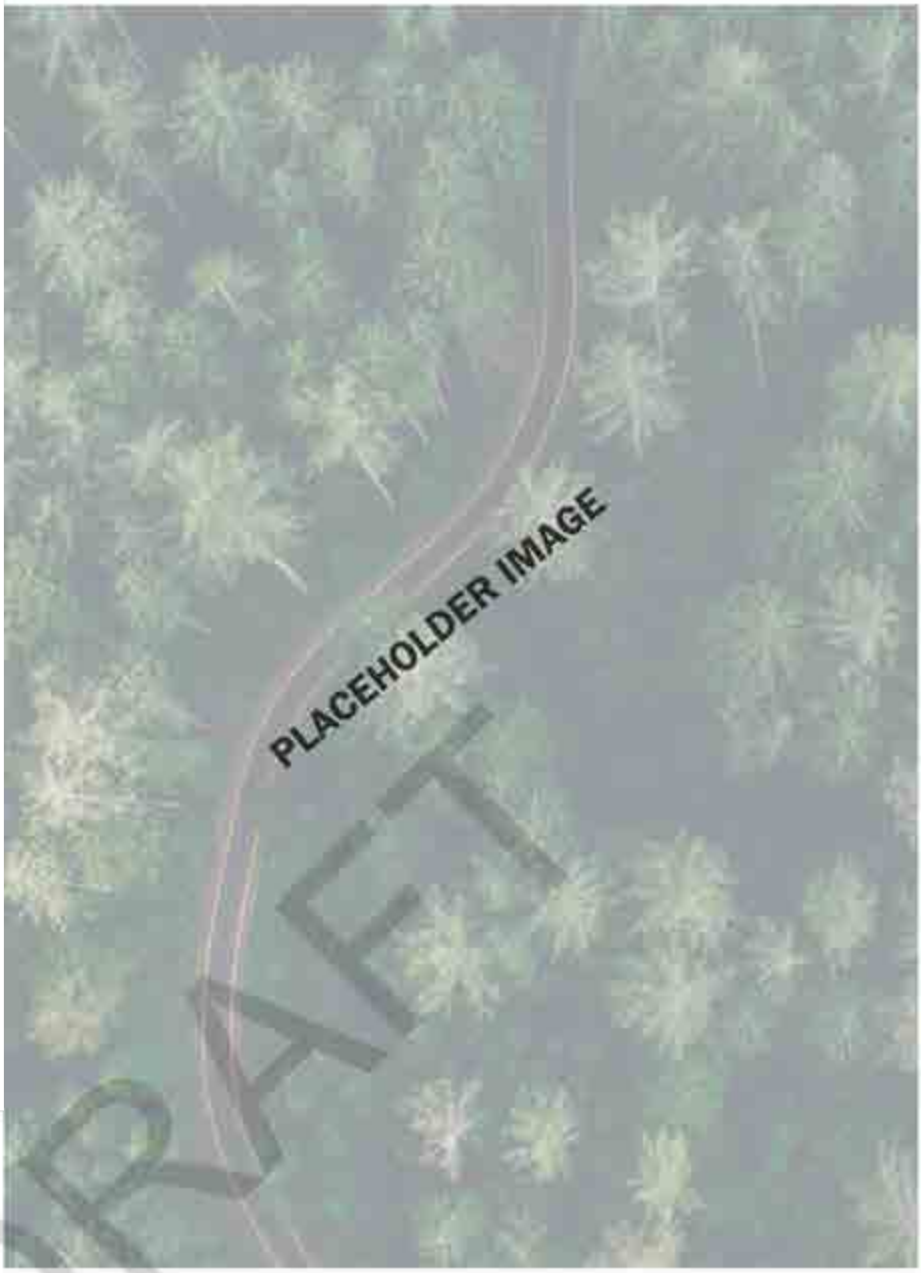
ACTIONS (CONT.)

C-2.5 Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

C-2.6 Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.

C-2.7 Invest in expanding the grid in rural areas.

C-2.8 Evaluate micronuclear and other emerging/ underutilized technologies throughout the State of Alaska.



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STRATEGY C-3:
Lower Operational Costs



Purpose:
Lower operational costs of power/electricity in rural Alaskan villages.

Background:
There is a need to lower operational costs to produce energy in rural Alaska. This can be done by increasing technical assistance in rural communities; lower maintenance costs; improve work force development opportunities for rural community residents; improve or develop transportation infrastructure beyond upgrading rural airports. Connecting rural communities to existing transmission/electric grids may be another option to lower operational costs.

Benefits:
Reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:

ACTIONS

C-3.1 Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production

C-3.2 Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.

C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.

C-3.4 Grid modernization and automation

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STRATEGY C-4:
Improve Economies of Scale

ACTIONS

C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.

C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.

C-4.3 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-4.4 Identify and complete a regional pilot project to demonstrate economies of scale.

C-4.5 Invest in rural beneficial electrification.



Purpose:
Reduce the cost of power and Improve reliability

Background:
By increasing the sale of power against fixed cost we can reduce the price per KWH.

Benefits:
Adequate access to reliable energy at lower cost to improve public health and welfare. Grow rural economies.

Expected Results:
Connect communities to each other and anchor tenants to improve the reliability and reduce the cost of energy which would in turn support public health and welfare and grow rural economies.

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STRATEGY C-5:
Improve Data-Driven Decision Making



Purpose:
Improve access to relevant data necessary to make informed value decisions related to energy generation, distribution, transimission and storage in rural Alaskan villages.

Background:
Legacy data collection processes have resulted in limited or incomplete data concerning Alaska's energy system, especially in rural Alaska. Current data analytic processes, provide an opportunity to improve baseline data access, processing, and archiving. There is no overarching data custodian within that state that collects, manages, and archives data necessary to plan, design and construct energy infrastructure in rural Alaska. This includes critical local knowledge provided by village residents.

Benefits:
Provide better economic outcomes, longterm cost/benefit analysis for rural Alaskan communities related to energy infrastructure.

Expected Results:

ACTIONS

C-5.1 Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.

C-5.2 Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects

C-5.3 Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions.

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PRIORITY D.

STATE ENERGY DATA



INTRODUCTION

There are literally terabytes of energy data available in the State of Alaska. Currently this data is not centrally located or managed. The Data Subcommittee created a Technical Advisory committee to help them identify and clarify four strategies intended to help the state better collect, manage, and analyze energy data. Four strategies came from this effort. The first recommended Establishing a Data Department within the Alaska Energy Authority to oversee management of Alaska's energy data. Second, Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access identifies the need for establishment of industry standard data governance protocols by an established data governance committee. The third strategy points to needed funding with the establishment of the above organizations, and the final strategy, Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation, focuses on validating and improving existing energy data, and collecting additional needed data to aid in future energy decision making.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- **D-1** Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary
- **D-2** Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access
- **D-3** Fund data capacity
- **D-4** Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation

STRATEGY D-1:
Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary

ACTIONS

D-1.1 Institute or update statutory requirements for AEA Data Department.

D-1.2 Fund, develop, and implement a technical and needs assessment.

D-1.3 Fund, develop, and implement a capital asset plan.

D-1.4 Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.

D-1.5 Appropriately staff the department based on the technical and needs assessment



Purpose:
To staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

Background:
While a substantial amount of valuable energy data exists in aggregate, they are often inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Existing data needs are thus being met by implementing unsustainable, short-term solutions such as adding additional responsibilities to existing staff, which often results in delays or needs going unmet.

The Alaska Energy Authority is the state's energy office and lead agency for statewide energy policy and program development.

Benefits:
This recommendation prioritizes, centralizes, and focuses the importance of energy data management in order to ensure the consistency and accessibility of energy data so it can better inform decision-making efforts on energy projects, program, and policy development. Housing a Data Department in AEA will ensure consistency and sustainability of state energy data management.

Expected Results:
The provision of consistent and accessible data further enabling data-informed decision-making on energy projects and policy across the state. Increased consistency of state data assets.

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STRATEGY D-2:

Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access



Purpose:
Ensure that collection, quality, storage, use of, and access to electric, heat, and transportation energy data in Alaska meets industry standards, current protocols, and best practices.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Security of, and ability to access, energy data are major concerns for public and private data users alike. The willingness to share, and the extent to which that data is shared, is significantly limited by concerns from such data providers regarding security, access, and usage.

Benefits:
Data-informed decision making is only as valid as the data on which the decision is based. The collection, quality, storage, use of, and access to energy data in Alaska should align with those industry best practices, standards, and current protocols so that all decisions are based on accurate and secure data.

Expected Results:
Energy data in Alaska meets and conforms with industry standards, protocols, and best practices. Increased participation of energy data stakeholders and end-users.

ACTIONS

D-2.1 Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.

D-2.2 Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.

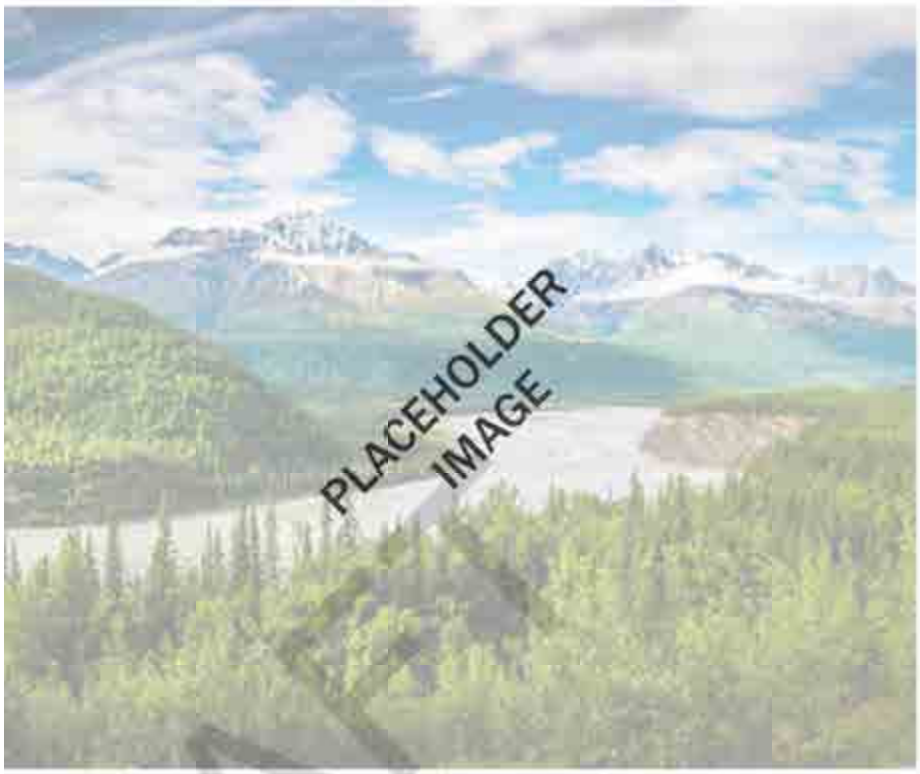
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STRATEGY D-3:
Fund data capacity

ACTIONS

D-3.1 Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.

D-3.2 Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis.



Purpose:
Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department

Background:
MMany of the ongoing data-related efforts across State agencies are borne by individuals whose duties and responsibilities are not primarily data-focused.

Benefits:
Establishing positions within State agencies whose primary duties and responsibilities are focused on data-related activities/initiatives, using statutes as necessary.

Expected Results:
Increased collaboration, reduced duplication of efforts, ease of data access, and better-informed decision making.

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STRATEGY D-4:
Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation



Purpose:
Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what form and character of data is and would be needed for data-informed decision making.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Thermal and transportation datasets are found to be lacking. The term "Energy Data" has historically been limited to electricity data, meaning there are significant gaps in thermal and transportation energy data.

Benefits:
Expand the definition of "Energy Data" and those existing, to-be-compiled, and to-be-created underlying datasets to include thermal and transportation data to better capture the dynamic and interrelated nature of energy use in Alaska.

Expected Results:
More all-encompassing and informed decision-making for energy projects and policies in Alaska, across electric, heat, and transportation sectors.

ACTIONS

D-4.1 Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.

D-4.2 Revitalize, fund, and maintain energy data platforms and services so as to ensure the long-term availability and accessibility of data.

D-4.3 Conduct a data audit of the Regulatory Commission of Alaska (RCA) to include recommendations.

D-4.4 Expand the Power Cost Equalization (PCE) report and the extent of such data reported.

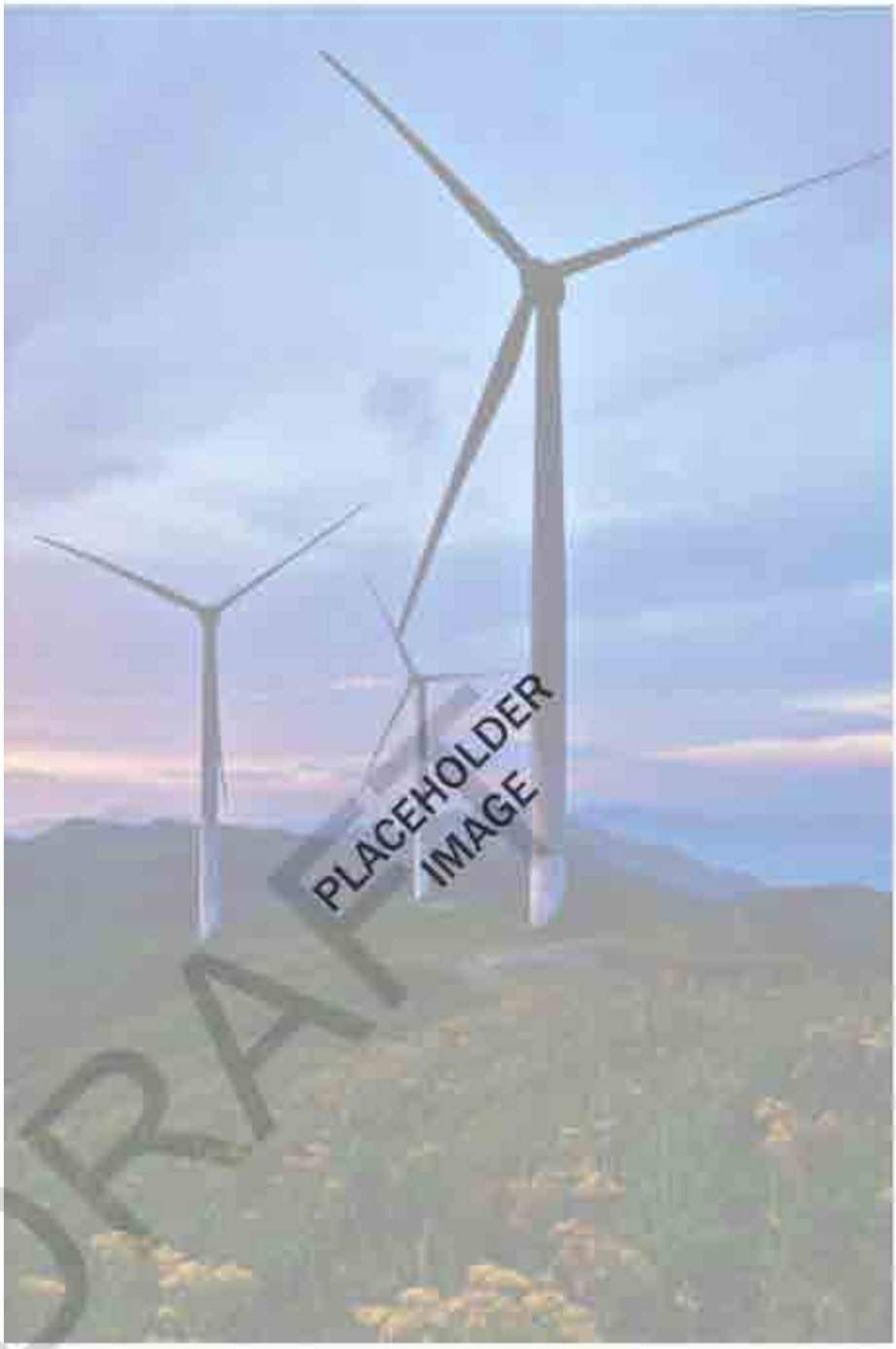
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ACTIONS (CONT.)

D-4.5 Expand the definition of "energy data" by adopting the TAC definition, ensuring the definition is inclusive of heat/thermal and transportation fuel data.

D-4.6 Understand how heating and transportation fuel is delivered and used.

D-4.7 Re-establish annual updates to the Alaska Energy Statistics report.



PLACEHOLDER CALL OUT BOX

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PRIORITY E.

INCENTIVES AND SUBSIDIES



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INTRODUCTION

The Incentives and Subsidies subcommittee settled on three themes and created seven strategies to support securing affordable energy in Alaska. The first theme relates to strategies and actions that incentivize private sector investment. These strategies include Decrease Barriers to Private Sector Investment, Improve Economies of Project Development, and Respond to and implement evolving Energy Business Models. The second theme is oriented to state and federal policy and law that could be modified to support and accelerate investment in energy generation, transmission, and storage in Alaska. These strategies include Strengthen State-Federal Coordination and Investment, Evaluate and implement State policy, tax, and other incentives, and Increase State programmatic investments. Finally, the Incentives subcommittee acknowledges the need to continue existing subsidies offered by the state while some of the previous strategies are implemented. The final theme and strategy includes, Maintaining Residential subsidy focused on equity, while reducing the need across communities.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- E-1 Strengthen state-federal coordination and investment
- E-2 Decrease barriers to private sector investments
- E-3 Maintain residential subsidy focused on equity, while reducing need across communities
- E-4 Improve the economics of project development
- E-5 Evaluate and implement State policy, tax, and other incentives
- E-6 Increase State programmatic investments
- E-7 Respond to and implement evolving energy business models

STRATEGY E-1:
Strengthen state-federal coordination and investment

ACTIONS

E-1.1 Develop a funding and implementation toolkit for state/federal energy projects.

E-1.2 Establish a clean energy and transmission line land use designation on state and federal lands.

E-1.3 Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.

E-1.4 Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.

E-1.5 Implement a state/federal private sector investment energy coordinator (POC).

E-1.6 Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.



Purpose:
The AESTF recommends the establishment of a state/federal working group that identifies and works toward improved access on federal lands, funding in place to accelerate an affordable energy transition, and the ability to leverage investment opportunities between state and federal programs.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities have significant barriers in the form of federal lands, which comprise more than 60% of the state. Federal land use policy comes with significant hurdles and a limited ability to effect widespread access or change. A coordinated and targeted effort by state and federal agencies that focuses on improving access and removing barriers is critical to lowering the cost of energy in Alaska, even as it increases the potential to meet federal clean energy goals.

Benefits:
The increased capacity of the state to negotiate and execute priorities with willing federal agencies for developing cost-effective clean energy, transmission lines on federal lands, with dedicated funding in place to bring Alaska parity with the rest of the nation, will lower energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals. This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

Expected Results:
This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

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STRATEGY E-2:
Decrease barriers to private sector investments



Purpose:
The AESTF recommends a strategic approach to policy and program development that stimulates and incentivizes private sector activity, including to make investments alongside private sector partners that result in coordinated and more efficient project delivery.

Background:
Federal and state investment is insufficient to address the scale necessary to effect widespread and meaningful transition toward lower-cost and –carbon energy. At the same time, removing barriers or reducing the burdens associated with private sector investments has the potential to increase Alaska's ability to establish partnerships, and leverage private capital in the public interest.

Benefits:
Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment. Offsetting upfront costs and increasing the utilization of low-interest public capital will strengthen project economics while including strong public benefit criteria. Finally, this process envisions increasing the overall economy of scale, which will contribute to reducing barriers.

Expected Results:

ACTIONS

E-2.1 Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.

E-2.2 Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs.

E-2.3 Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC).

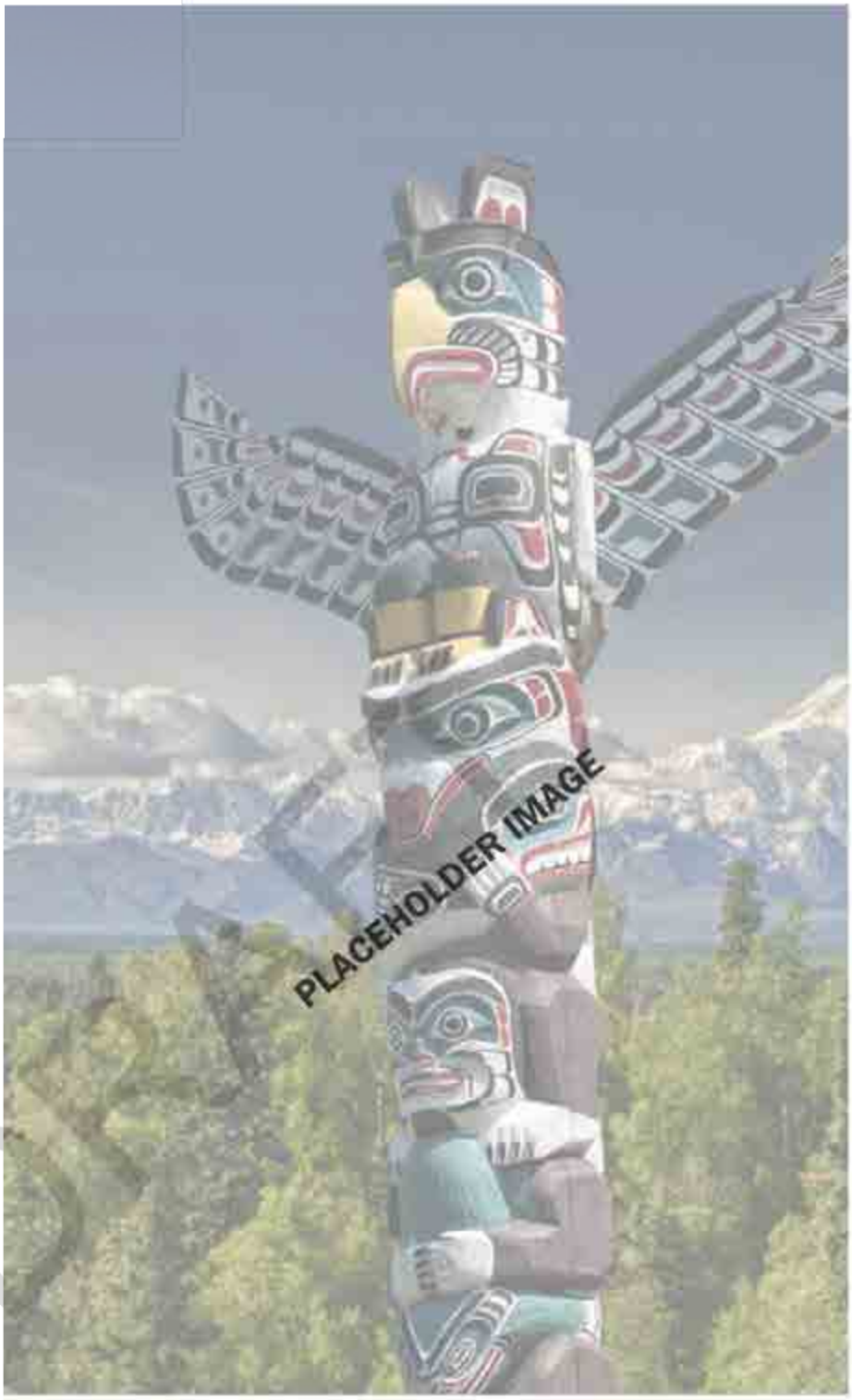
E-2.4 Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

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ACTIONS (CONT.)

E-2.1 Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.

E-2.6 Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.



STRATEGY E-3:
Maintain residential subsidy focused on equity, while reducing need across communities



Purpose:
The AESTF recommends the continued commitment by the State to ensuring residents have access to subsidy where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms for a fairer subsidy, 2) strategically deploys PCE funds to advance ow-cost energy solution, and 3) expands the ability of PCE to lower costs across sectors within communities.

Background:
The value of PCE cannot be overstated – it has proven to be a lifeline to Alaskans who bear the brunt of high costs. This equitable distribution of State funding, relative to and based on project investment in some parts of the state, has lowered costs in communities where otherwise more residents may have chosen outmigration. However, PCE has not equalized costs in any way, and it remains true that this high-cost burden falls on some Alaskans and not others. At the same time, the overall goals of the state can encompass reducing the need for this subsidy by actually lowering costs in communities.

Benefits:
Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans.

Expected Results:

ACTIONS

E-3.1 Ensure that PCE funds are available at the right scale over the correct time period.

E-3.2 Implement a strategic approach to lowering costs according to highest use communities.

E-3.3 Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

E-3.4 Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.

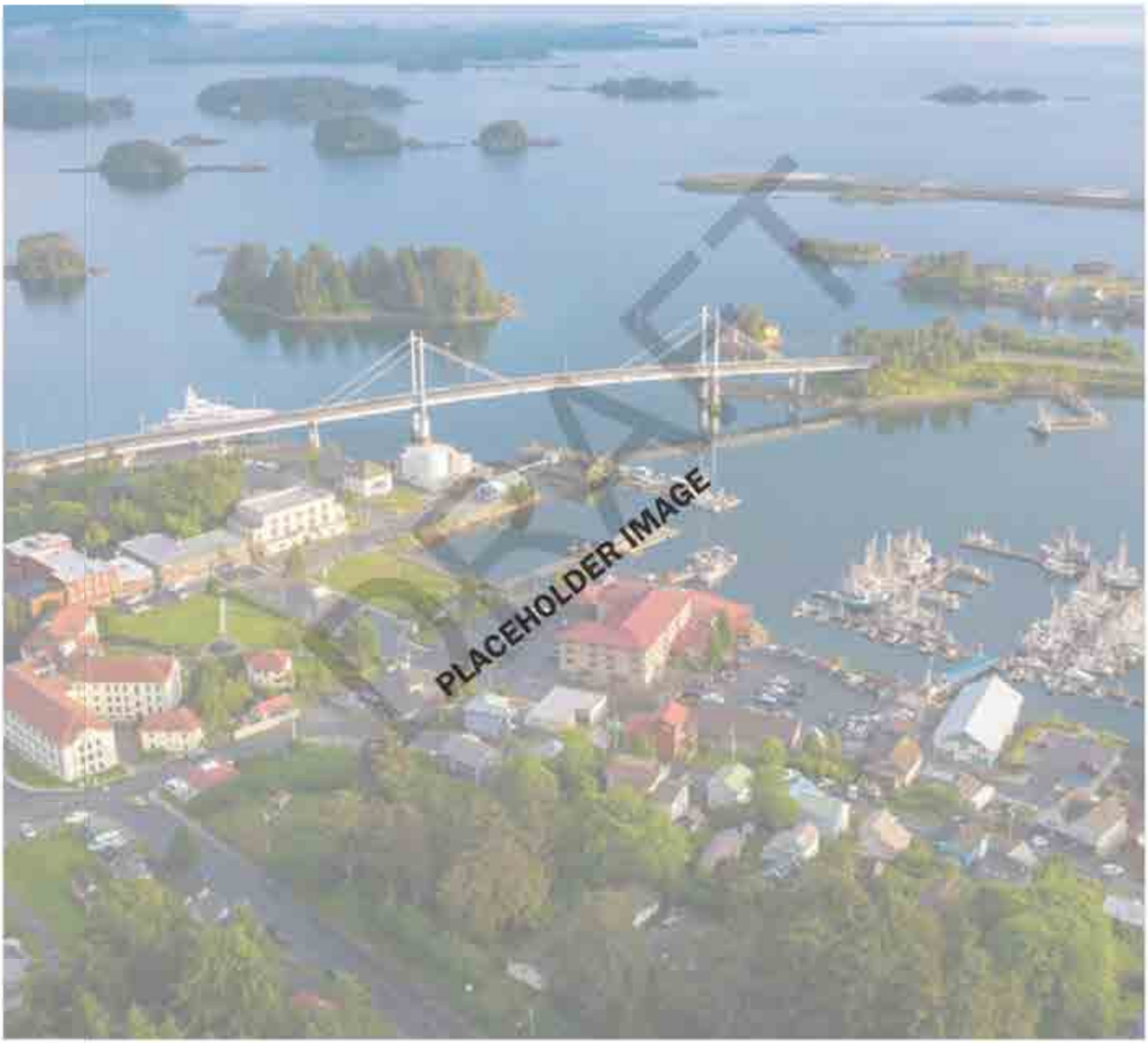
E-3.5 Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.

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ACTIONS (CONT.)

E-3.6 Ensure ability to offset debt that results in lower cost energy project development.

E-3.7 Implement community-based IPPs that sell power to utility for PCE reimbursement.



STRATEGY E-4:
Improve the economics of project development



Purpose:
The AESTF recommends a multi-pronged approach to reducing risk to utilities and project proponents, increasing the availability of financing mechanisms, and encouraging ancillary investments that will benefit the industry and economies of communities.

Background:
Alaska will always be a high-cost state, defined by the tyranny of geography, time, and distance. Access to markets, and at the tail-end of a global supply chain, there are clear competitive disadvantages within which utilities and project developers operate, even as ratepayers (or the State) bear the cost. There are ways, however, to lower the costs of project development, and state action can facilitate this.

Benefits:
Affordability rests on capex and opex, and both have avoidable and unavoidable layered costs. A strategic state approach can begin peeling away or mitigating avoidable costs to improve the economics of project development, and ultimately save ratepayers money.

Expected Results:

ACTIONS

E-4.1 Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.

E-4.2 Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.

E-4.3 Establish a green bank for financing of community scale energy efficiency projects.

E-4.4 Ensure adequate workforce training and skills development alongside job creation goals of State.

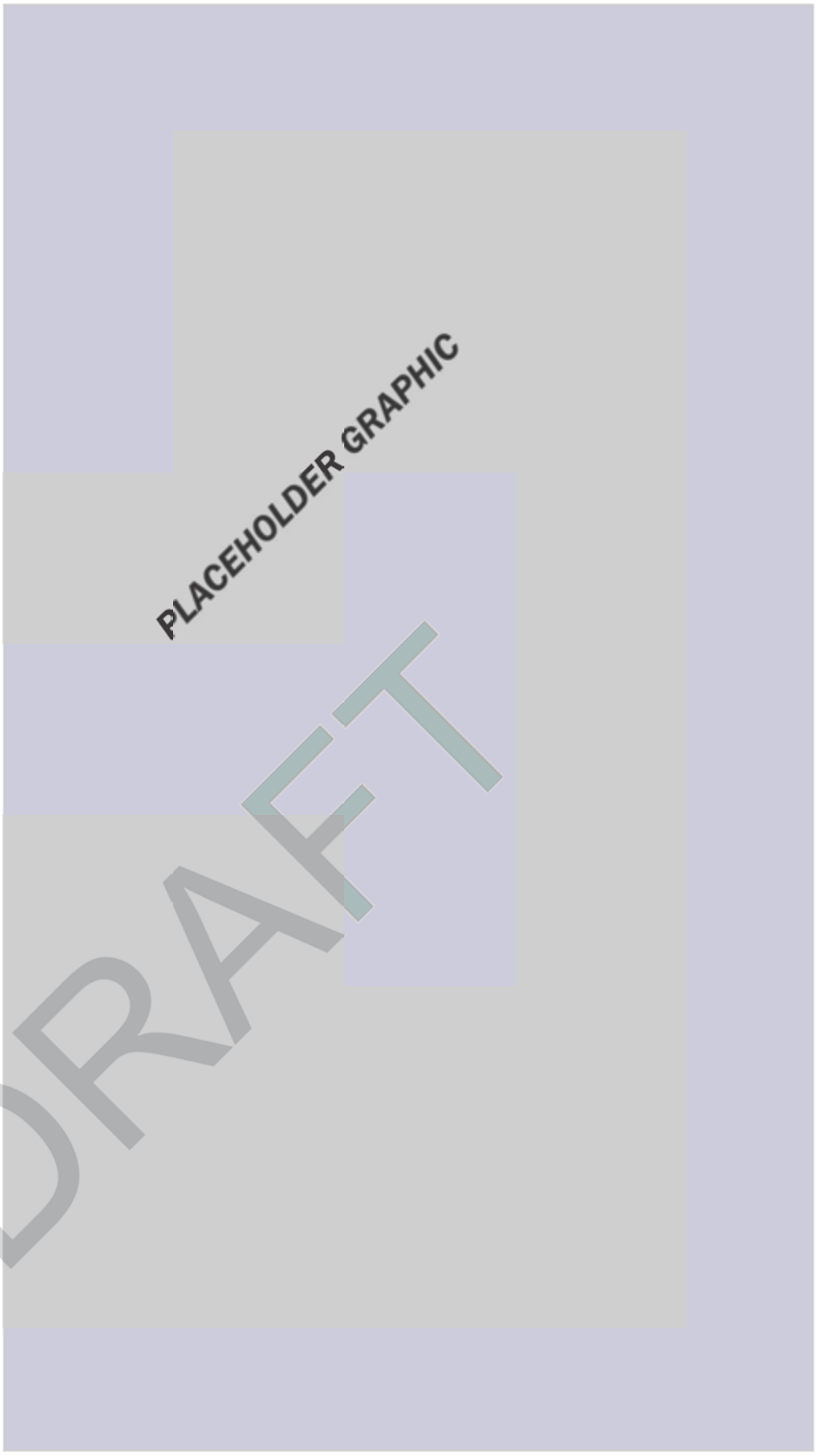
E-4.5 Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization

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ACTIONS (CONT.)

E-4.6 Implement pooling of RECs for system optimization and improving economy of scale.

E-4.7 Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.



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STRATEGY E-5:
Evaluate and implement State policy, tax, and other incentives



Purpose:
The AESTF recommends an audit of all State energy-related expenditures to assess impact, identify gaps, and maximize the benefits of future effort, even as it further identifies available and necessary funding to address other actions of the AESTF.

Background:
Ultimately, what the State has most control of is its own policy, regulatory, and tax systems. The State's capacity to contribute to lowering the cost of energy for Alaskans is immense, and intensity of effort is required to fully assess current activity and the potential need for new laws and practices that will incentivize change.

Benefits:
The majority of actions identified by the AESTF rest on the State's ability to adopt statutory or regulatory changes or make necessary investments.

Expected Results:

ACTIONS

E-5.1 Conduct an energy incentives program study to determine capacity of State to make investments.

E-5.2 Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.

E-5.3 Evaluate, track, and benchmark all State energy-related expenses for maximizing impact.

E-5.4 Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.

E-5.5 Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission.

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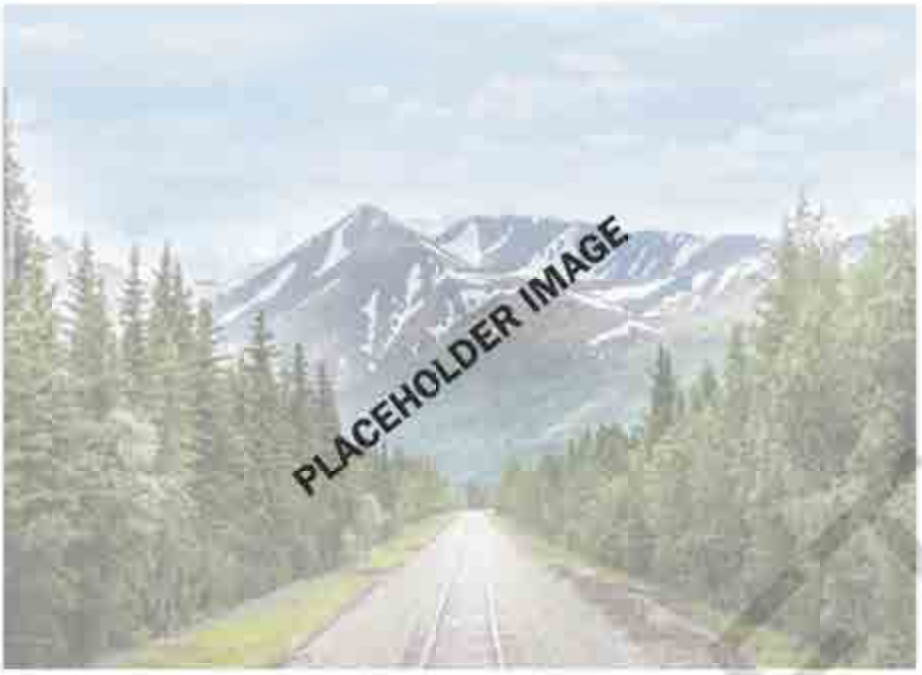
ACTIONS (CONT.)

E-5.6 Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.



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STRATEGY E-6:
Increase State programmatic investments



Purpose:
The AESTF recommends the evaluation of and changes to current programmatic investments such that 1) these programs have sufficient capacity and competency to act effectively in support of lowering energy costs in Alaska, and 2) that the braiding of programmatic intent results in streamlining action and reducing capex and opex costs.

Background:
Government programs may be developed to provide technical assistance or to serve as a resource to consumers, project proponents, and others. Program staff provide support and guidance as to how to utilize these tools. Programs may also try to provide direct services, such as improving energy efficiency, weatherization, community planning, or rate review and setting. Some programs are simply there to ensure compliance. Governments may spend significant resources on these programs. It is not clear that programs reduce the cost of energy, though they may have other benefits.

Benefits:
The ability of the state to achieve a moonshot goal requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end.

Expected Results:

ACTIONS

E-6.1 Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.

E-6.2 Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.

E-6.3 Increase availability of resources for weatherization, energy efficiency, and building retrofits

E-6.4 Ensure adequacy of staff resources at local and state level, including to provide technical assistance.

E-6.5 Evaluate State and local procurement policies that align with affordable and clean energy adoption.

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STRATEGY E-7:
Respond to and implement evolving energy business models

ACTIONS

E-7.1 Increase the use of energy technology demonstration and deployment programs.

E-7.2 Implement emerging tools like on-bill financing, net metering, etc.

E-7.3 Mirror FERC safe harbor rule allowing for backfeeding of up to 15% of circuit capacity.

E-7.4 Identify baseline and establish target for T&D capacity utilization of 90%.

E-7.5 Explore locational marginal pricing (LMP).

E-7.6 Implement utility rate incentives for time-of-use rates during periods of lower cost power.

E-7.7 Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.



Purpose:
The AESTF recommends the cost-benefit analysis of multiple tools that should lead to greater private sector investment and lower costs for ratepayers, and the development of an implementation strategy.

Background:
The pace and scale of change occurring globally and nationally has the potential to lower costs in Alaska, to the extent the state can incorporate new models of doing business. While not all tools may be as applicable here as elsewhere, it is worth investing time in increasing the suite of options that the state has at its disposal. In particular, these business models affect utility, ratepayer, and independent power producer relationships, even as they have the potential to lower costs for Alaskans.

Benefits:
Conventional tools have been used during a period of Alaska's energy system development that was responsive to certain conditions and available resources that are now evolving, even as high costs have plagued the majority of Alaska communities. As part of a strategic pathway toward lower cost energy, the state's investment in new business models and innovative tools that complement and build on current systems will be critical to Alaska's future.

Expected Results:

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PLACEHOLDER IMAGE
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PRIORITY F.

STATUTES AND REGULATIONS





INTRODUCTION

The Statutes and Regulations Subcommittee understands nearly all of the recommended actions from the other five subcommittees will require some form of statutory or regulatory modification or update. We are taking the approach of reviewing these recommended actions and consolidating those that are comparable or alike. We will then craft prioritized actions for the administration to progress forward in the coming legislative session as either new legislation or updates to existing draft legislation or recommended regulatory changes to the Alaska Administrative Code.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

F-1
F-2
F-3

PLACEHOLDER STRATEGIES TO BE DETERMINED AFTER REVIEWING OTHER COMMITTEE STRATEGIES

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STRATEGY F-1:
Placeholder Strategy To Be Determined

ACTIONS

F-1.1 Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.

F-1.2 Streamline permitting for energy projects

F-1.3 Establish state funding to help with local match for federal grant cost share

F-1.4 Continue to allow transmission and distribution lines to share DOT right-of-way.

F-1.5 Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.

F-1.6 Provide budgetary support for the Regulatory Commission of Alaska (RCA).



Purpose:

Background:

Benefits:

Expected Results:

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Policies Currently Under Consideration

APA Policy Position (For Consideration):

- Clarify statute on wildfire liability
- Prioritize state investment in electric infrastructure and leverage federal funding opportunities
- Support reasonable and economic carbon reduction strategies that consider costs to consumers
- Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023
- Alternative Uses for Coal Regulations

CEDS Action (For Consideration)

- Carbon and Sequestration Regulations
- Hydrogen Roadmap and Regulations
- Establish Alaska Hydrogen Hub

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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching di-versification goals.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.1	Establish, require, assist, and Implement community Integrated Re-source Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regu-lations for Alaska's diverse stakeholders to promote net metering re-newable energy investments.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulato-ry and land use administrative processes to accelerate approval to ad-vance strategic energy projects and transmission for regional energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal fund-ing and federal financing to build and expand Transmission and Distribu-tion lines in Alaska to bring Alaska on par with the US transmission sys-tems for Alaskan energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action C-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.1	Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to opti-mally advance renewable energy and transmission on federal lands.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
				✓	✓
	✓				✓
	✓				✓
	✓				✓
✓	✓	✓			✓
	✓				✓
✓	✓	✓		✓	✓
	✓			✓	✓
✓	✓	✓			✓

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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-3	Action B-3.1	Foster, Support, and Assist Hydropower development and their trans-mission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-4	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.
Priority C. Rural Generation, Distribution, and Storage	Strategy C-1	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities in-cluding a "Local Match" for Federal Grants.
Priority E. Incentives and Subsidies	Strategy C-3	Action C-3.1	Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activi-ties for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.
Priority E. Incentives and Subsidies	Strategy E-4	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
✓	✓	✓			✓
✓	✓				✓
	✓				✓
		✓			✓
		✓		✓	✓
				✓	✓
				✓	✓
				✓	✓

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APPENDIX II.
ACTION TRACKING SHEET

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Priority A. Railbelt Transmission, Generation, and Storage - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy	Number	Action Name (e.g., Policy, Regulation, Program, Improvement, Activity)	Action Description *(100 words or less)*	Implementation Timeframe *(Immediate, Short, Medium, Long-term)*	Lead Organization *(Primary Organization Responsible to Implement)*	Partners & Collaborators *(Supporting Secondary Organizations)*	Action Status *(New, On-going, Withdrawn)*
Strategy A-1: Unify Transmission	Action A-1.1	Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA for new non-for-profit regulated utility for the net book value.		Short (2 - 5 years)	AEA	Legislature; Dept of Revenue; Dept of Law; Railbelt Utilities	New
Strategy A-2: Diversify Generation	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals	To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviors, action and outcomes for our State. 1. Direct Payment to Utilities for Achieving Diversification Targets 2. Augmentation of the Renewable Energy Fund (REF): 3. Augmentation of the Power Project Fund (PPF)				
Strategy A-2: Diversify Generation	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.					
Strategy A-2: Diversify Generation	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG					
Strategy A-3: Increase Demand	Action A-3.1	Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-1: Alaska Policy Recommendations	Action B-1.1	Establish, require, assist, and Implement community Integrated Resource Plans (light)to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.	Identify future generation and demand for resource planning purposes to lower the energy cost for the communities and region. Establish Standardized Metrics Related to Power Generation Compared to Future Demand.	Immediate (0 - 2 years)	AEA	RCA; Utilities; DCCED; communities; tribal entities;	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.		Short (2 - 5 years)		Tribes and native corporations; schools; Utilities; DCCED; AEA; RCA; Legislature	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.	Identify burdensome regulatory requirements at State Departments, with focus on hydro-electric power and other renewable energy development. Collaborate with appropriate state and regulatory agencies to promote solutions to streamline approvals, decrease costs, and expedite schedules.	Immediate and short term	Office of Governor, AEA	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law,	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.	Identify funding/financing sources a the federal, state and local level to expand transmission lines across Alaska. Prioritize innovative construction and product types, such as submarine transmission and underground transmission.	Spectrum of timeframes based on local needs and initiatives	Governors Office, AEA	Congressional Delegation. Utilities; DCCED; AEA, AIDEA; local governments; tribal; state legislature; Governor's office	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.5	Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.					
Strategy B-1: Alaska Policy Recommendations	Action B-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.	Establish a workforce development program to educate, train, and retain skilled workers in electrification.	Immediate (0 - 2 years)	Dept. of Labor	DOR, DCCED, University of Alaska, Labor Unions, AVTEC, Tribal Training Programs - (Tlingit Tribal Central Council), Yuut Elitnaurviat	New
Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.1	Establish an Alaska/federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.	Coordinate and collaborate with federal land holding agencies to establish a renewable energy land use and Transmission use corridor Primacy on federal land allow Alaska renewable energy development on federal lands.	Immediate, short term ongoing	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT&PF; Dept of Law; Alaska Congressional Delegation, Denali Commission, Alaska Power Association	New
Strategy B-3: Alaska Hydropower Generation Recommendations	Action B-3.1	Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.	Build Execution ready Hydro Projects, Advance economically viable Hydro for energy security, spur economic growth and prosperity for Alaska.	Immediate-Execution Ready, Short (2 - 5 years) [licensed] Long-term (10 years plus) [unlicensed]	AEA	AIDEA, Federal funding, DCCED, DOL, DNR, ADF&G, state legislature	New
Strategy B-4: Alaska Market Initiatives	Action B-4.1	Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.	Plan to promote heat pumps as an alternative energy/heat source in Coastal Alaska. Identify successful case studies for further implementation in Alaska (there is data available on heat pumps, e.g. Heat Pumps Center).	Immediate	Local Leadership, AEA	DCCED; Legislature; Dept of Law; Utilities; AHFC; Community Development Organizations; Local Governments; Tribes	New
Strategy B-4: Alaska Market Initiatives	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships	Identify and execute shore power in Alaskan Ports and Harbors and make feasible. Identify funding sources, including Marine Passenger Fees and federal programs.	Immediate-Execution ready, short term (2-5 years)	AEA, Coastal Communities	Dept of Law; DCCED; DOT&PF	New
Strategy B-4: Alaska Market Initiatives	Action B-4.3	Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation and assist in reducing the cost of power in coastal communities.	Establish plan to convert ferry fleet to electric or electric hybrid vessels, using BC Ferries as a case study for implementation. Identify key ferry routes in Alaska, and evaluate for feasibility and implementation. Work with AKDOTPF strategy and plans. Use electric demand forecasts to assist coastal region utilities and communities generation and transmission resource planning.	Short (2 - 5 years)	DOT&PF	DCCED; Legislature; Dept of Law; Local utilities and IPPs	New
Strategy B-4: Alaska Market Initiatives	Action B-4.4	Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs	Note: Emerging Opportunity - Subcommittee will review in detail in September 2023.	Short (2 - 5 years)	Private Industry or Utilities	DCCED, DEC, AEA	New
Strategy B-4: Alaska Market Initiatives	Action B-4.5	Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure and stabilize grids. Integration of renewables. Acknowledge O&M of the systems.	Immediate. Change to Immediate and Short term	AEA, local communities	B&V; AEA; utilities; AIEDA; local communities, DOT&PF	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-1: Increase Capital Availability	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.	Identify local or state funding mechanisms to "bridge the gap" commonly found with federal grant funding - the local match component is often a prohibitive hurdle for rural communities to receive federal grant funding.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-1: Increase Capital Availability	Action C-1.2	Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.					
Strategy C-1: Increase Capital Availability	Action C-1.3	State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.1	Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.					
Strategy C-2: Infrastructure Investment	Action C-2.2	Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.					
Strategy C-2: Infrastructure Investment	Action C-2.3	Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.4	Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.					
Strategy C-2: Infrastructure Investment	Action C-2.5	Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.	Where feasible, identify opportunities to connect rural communities through transmission lines and shared energy to enhance redundancy and connectivity. Focus on cost-effective solutions for connectivity. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas. Upgrade rural energy infrastructure such as power houses and bulk fuel farms.	Medium (5 - 10 years)	AEA	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-2: Infrastructure Investment	Action C-2.6	Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.	Invest in resilient energy infrastructure with focus on most frequent/severe hazards, instead of focusing on repair after the damage or destruction occurs. Reference case studies and future opportunities with FEMA as a funding resource. Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-2: Infrastructure Investment	Action C-2.7	Invest in expanding the grid in rural areas.		Long-term (10 years plus)		P3 Partners, Utilities	Modified CEDs 2022 Plan Action
Strategy C-2: Infrastructure Investment	Action C-2.8	Evaluate micronuclear and other emerging/underutilized technologies throughout the State of Alaska.	Invest in expanding the grid in rural areas in cost effective ways to connect micro nuclear as it is adopted and built in the next 10+ years.				
Strategy C-3: Lower Operational Costs	Action C-3.1	Expand and Inventory technical assistance, training, and workforce development to identify gaps, and increase capability & capacity-building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production	Explore technical assistance such as: workforce training programs, financing mechanisms, grant support, and economic development.	Immediate (0 - 2 years)	DCCED	DOL; DOR ,P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.2	Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.	Identify new innovations in transportation that may support/improve supply chain logistics and reliability in rural AK - follow up with DOT&PF. Prioritize continuity of operations, and enhance redundancy where feasible.	Immediate (0 - 2 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.3	Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.	Identify opportunities to educate local communities about proposed or future energy projects. Focus on benefits, particularly related to affordability. Curate outreach to known controversial projects, such as hydro-power or mining. Identify past projects that have successfully navigated opposition mounted by local communities and environmental NGOs. Develop case studies and a suite of tools to engage with opposition. Recognize concerns from those who are opposed, and implement mitigation actions as appropriate. Engage early and often, incorporate visuals and avoid fear mongering.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.4	Grid modernization and automation					

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-4: Improve Economies of Scale	Action C-4.1	Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.	Identify development opportunities to be shared amongst multiple utilities. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Develop energy projects in coordination with other utilities, such water, sewer, heat, communications (broadband, fiber) or other infrastructure projects (transportation). Share costs associated amongst participants to enhance affordability, and thus pass off affordability to the users.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-4: Improve Economies of Scale	Action C-4.2	Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.	Identify existing and potential energy anchor tenants who are willing to share costs on energy projects and development. Examples include fishing, mining, industrial tenants. Explore opportunities where anchor tenants can partner with other business and communities for mutually beneficial projects, and enhance affordability.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-4: Improve Economies of Scale	Action C-4.3	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.					
Strategy C-4: Improve Economies of Scale	Action C-4.4	Identify and complete a regional pilot project to demonstrate economies of scale.					
Strategy C-4: Improve Economies of Scale	Action C-4.5	Invest in rural beneficial electrification.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.1	Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.	Explore opportunities to enhance remote sensing and technology for energy infrastructure in rural/remote locations.	Medium (5 - 10 years)			New
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.2	Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.3	Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.1	Institute or update statutory requirements for AEA Data Department.					
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.2	Fund, develop, and implement a technical and needs assessment		Immediate (0 - 2 years)			New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.3	Fund, develop, and implement a capital asset plan					New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.4	Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.5	Appropriately staff the department based on the technical and needs assessment					New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.1	Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.		Immediate (0 - 2 years)			New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.2	Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.					New
Strategy D-3: Fund data capacity	Action D-3.1	Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department		Short (2 - 5 years)			New
Strategy D-3: Fund data capacity	Action D-3.2	Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.1	Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.		Short (2 - 5 years)			New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.2	Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data					New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.3	Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations					New

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Priority D. State Energy Data - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.4	Expand the Power Cost Equalization (PCE) report and extent of such data reported					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.5	Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.6	Understand how heating and transportation fuel is delivered and used					

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Priority D. State Energy Data - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.7	Re-establish annual updates to the Alaska Energy Statistics report					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.1	Develop a funding and implementation toolkit for state/federal energy projects in Alaska	Funding and implementation toolkit for energy projects in Alaska will include: resources, guidelines, case studies, and a funding tracker of opportunities for Alaskan communities, ANCs, State Agencies, Utilities, etc.	Short (2 - 5 years)	AEA	DCCED; DOR; ACEP; State Legislature	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.	Establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans to allow small community renewable energy development and transmission line corridors on federal lands. Establish an Alaska-Federal Renewable Energy Working Group to develop, collaborate, and execute State-Federal policy that supports State energy goals and rights to advance renewable energy development and transmission lines on federal lands to lower the energy cost for Alaskans.	This action item has a blend of Immediate and short-term tasks for implementation.	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT Dept of Law;	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund	Alaska has second world transmission and generation assets. Requires federal support to bring Alaska into this century with same level of service and transmission line capacity aligned with national standards.	Medium (5 - 10 years)	State Legislature	DCCED; DOR; Dept of Law, AEA	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.4	Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.	Implement statewide energy project evaluation process that takes into account low cost, local, clean, and lifecycle. Alaska could use the levelized cost of energy for infrastructure projects.				
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.5	Implement a state/federal private sector investment energy coordinator (POC).					
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.6	Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.1	Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-2: Decrease barriers to private sector investments	Action E-2.2	Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.3	Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC)					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.4	Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.5	Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.6	Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.1	Ensure that PCE funds are available at the right scale over the correct time period.	Increase analysis of potential benefits of PCE, to reduce disincentives for lowering energy costs.	Short (2 - 5 years)			

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.2	Implement a strategic approach to lowering costs according to highest use communities.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.3	Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.4	Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.5	Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.					

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.6	Ensure ability to offset debt that results in lower cost energy project development.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.7	Implement community-based IPPs that sell power to utility for PCE reimbursement.					
Strategy E-4: Improve the economics of project development	Action E-4.1	Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.					
Strategy E-4: Improve the economics of project development	Action E-4.2	Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.	Transmission related fires can bankrupt utilities. Provide relief and risk exposure to Alaska utilities in return for FERC defined Open Access which would justify the public benefit for providing risk reduction and exposure to Alaska utilities.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	New
Strategy E-4: Improve the economics of project development	Action E-4.3	Establish a green bank for financing of community scale energy efficiency projects.	Establish a green bank to finance energy efficiency projects at the community scale in partnership with the private sector. Support initial capitalization by the State.	Short (2 - 5 years)	AHFC	AEA	From CEDs 2022 Plan (For Consideration)
Strategy E-4: Improve the economics of project development	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.	Obtain federal grants under the IIJA to conduct workforce development, reskilling, and training, including as part of broad industry collaboration.	Medium (5 - 10 years)			From CEDs 2022 Plan (For Consideration)

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-4: Improve the economics of project development	Action E-4.5	Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization.					
Strategy E-4: Improve the economics of project development	Action E-4.6	Implement pooling of RECs for system optimization and improving economy of scale.					
Strategy E-4: Improve the economics of project development	Action E-4.7	Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.1	Conduct an energy incentives program study to determine capacity of State to make investments.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.2	Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.	Conduct and implement a statewide strategic plan for energy development.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska, REAP, Alaska Power Association	In Progress
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.3	Evaluate all State energy-related expenses for maximizing impact.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.4	Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.					

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Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.5	Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.6	Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.1	Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting. Execute the State of Alaska's internal streamlining policy and interagency coordination to support and streamline internal state regulatory and land use requirements for Alaska projects, providing a unity of purpose and coordination to advance renewable energy projects to accelerate development, financing, permitting to lower the cost of energy for Alaskans.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Strategy E-6: Increase State Programmatic Investments	Action E-6.2	Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.3	Increase availability of resources for weatherization, energy efficiency, and building retrofits.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.4	Ensure adequacy of staff resources at local and state level, including to provide technical assistance.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.5	Evaluate State and local procurement policies that align with affordable and clean energy adoption.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.1	Increase use of energy technology demonstration and deployment programs.	Execute pilot and demonstration projects for energy technology that lowers energy costs and leads to commercialization, including through collaboration with entities such as AEA, Launch Alaska, and the National Laboratories.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska	From CEDs 2022 Plan (For Consideration)
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.2	Implement emerging tools like on-bill financing, net metering, etc.			AHFC		
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.3	Mirror FERC safe harbor rule allowing for back feeding of up to 15% of circuit capacity.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.4	Identify baseline and establish target for T&D capacity utilization of 90%.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.5	Explore locational marginal pricing (LMP).					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.6	Implement utility rate incentives for time-of-use rates during periods of lower cost power.					

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.7	Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Placeholder strategy to be determined.	Action F-1.1	Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.	Legislation should be passed (similar to Iowa House File 577) which allows for advanced ratemaking principles Under this legislation, significant projects/improvements are reviewed and approved in advance so all parties have clarity on costs, return on equity, and approval before proceeding (versus traditional pay and pray methodology)	Medium (5 - 10 years)	DCCED	AEA; Dept of Law; RCA; Legislature	New
Placeholder strategy to be determined.	Action F-1.2	Streamline permitting for energy projects	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Placeholder strategy to be determined.	Action F-1.3	Establish state funding to help with local match for federal grant cost share	Work with the utilities to understand the feasibility of meeting the local match requirements for various federal grants. Establish a fund to contribute to grant match requirements that may pose a challenge to potential grant recipients. In some cases, utilities may need to raise costs to come up with the local match amount, which negates some of the benefits of being awarded the grant.	Medium (5 - 10 years)	AEA	Legislature; DCCED; OMB	New
Placeholder strategy to be determined.	Action F-1.4	Continue to allow transmission and distribution lines to share DOT right-of-way	Note: Need to coordinate with DOT and partners to understand issue to define a recommendation.	Medium (5 - 10 years)			New
Placeholder strategy to be determined.	Action F-1.5	Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.	Investigate through energy commissioner organizations and inter-state governmental organizations.	Short (2 - 5 years)	ACEP	AEA	New

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Placeholder strategy to be determined.	Action F-1.6	Provide budgetary support for the Regulatory Commission of Alaska (RCA)					
	APA Policy Position (For Consideration)	Clarify statute on wildfire liability	Alaska's electric utilities work hard to maintain their rights-of-way for transmission and distribution lines but have no control over vegetation that grows outside their rights-of-way. This creates a scenario in which trees or other vegetation outside the right-of-way -- but tall enough to fall into the right-of-way -- can cause damage, such as a wildfire. The Alaska legislature can protect electric ratepayers by making clear in statute that electric utilities can only be held liable for damage, death or personal injury from contact between vegetation and the utility's facilities if the vegetation is located entirely within the boundaries of the utility's right-of-way. The state can help mitigate fire risk by continuing to provide funding for the mitigation of spruce beetle-killed trees, which are a significant problem in many parts of the state. Alaskans already pay some of the highest costs for electricity in the country. Making Alaska utilities, and ultimately their customers, responsible for damages caused by vegetation outside of utility control will drive those costs even higher. This could raise the prospect of financial difficulty for utilities themselves, as has happened in California.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Prioritize state investment in electric infrastructure and leverage federal funding opportunities	Electric infrastructure is the bedrock of the state's economy and the operation of the daily lives of Alaskans. The Alaska legislature must leverage every federal dollar available that benefits infrastructure with a strong emphasis on electric infrastructure – generation, transmission, and distribution. The legislature should direct the appropriate state agencies to work with electric utilities statewide to determine where funding can best serve Alaskans through investment in electric infrastructure, including renewable energy technologies and digital communications infrastructure. Concurrently, the legislature should call on Congress to focus on funding for electric infrastructure when passing spending bills and when funding federal agency operations. Many areas of the United States continue to benefit from long running federal power marketing administrations (PMAs) that have brought low-cost power to vast reaches of the country. Alaska has not been afforded such federal programs. Through robust state and federal investment in electric systems, Alaska would strengthen its economic health during and following the COVID-19 pandemic.	Short (2 - 5 years)		Legislature; Dept of Law; OMB	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Support reasonable and economic carbon reduction strategies that consider costs to consumers	Carbon reduction efforts, whether legislative or regulatory, must allow for a technology neutral approach to decreasing fossil fuel consumption. Integrating renewable generation is one method of lowering reliance on fossil fuels, in addition to demand side management, energy efficiency, dynamic demand, and beneficial electrification, among others. Collectively, they are proven pathways to achieving carbon reduction. Above all, safety, reliability, and affordability must be considered as carbon reduction efforts are undertaken. For many years, Alaska's electric utilities have developed renewable generation assets and integrated renewable generation into their systems while exploring additional, economically feasible renewable generation. This integration, while partially driven by a goal to decrease carbon emissions, is also reliant on what is technologically and financially feasible at the various-sized electric utilities around the state. It must always be taken into consideration when creating new laws and regulations that ratepayers ultimately bear the costs of any new generation assets. All legislative or regulatory efforts that aim to reduce carbon emissions and increase renewable energy should carefully account for the cost impacts on Alaska electric consumers.	Short (2 - 5 years)		DEC; DCCED; Dept of Law: AEA	APA Policy Positions (For Consideration)

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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	APA Policy Position (For Consideration)	Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023	The Power Cost Equalization (PCE) Endowment must be preserved and maintained to provide certainty for 200 Alaska communities. The PCE program is a vital, lifeline program that makes it feasible for rural Alaskans to have access to affordable electric power and for rural communities to have affordable electricity for streetlights, water and sewer facilities, and other essential infrastructure. The Alaska Power Association urges the Legislature to fund the PCE program from PCE Endowment earnings at 100 percent for FY 2023. Until there is a permanent solution to the high cost of energy in rural Alaska, the PCE program must continue providing economic assistance to customers in areas of our state where the cost of electricity per kilowatt-hour can be three to five times higher than the cost in more urban areas. The state should also explore ways to address the diminishment of PCE for communities that have invested heavily in renewable electricity generation. Some communities that have lowered their reliance on fossil fuels by bringing on clean electric generation have seen lower PCE rates while still facing high electric rates. The state should allow for flexibility within the PCE program to accommodate communities that increase renewable generation but still face high electric costs.	Short (2 - 5 years)	AEA	AEA; RCA; OMB: State Legislature	APA Policy Positions (For Consideration)
	APA Policy Position (For Consideration)	Alternative Uses for Coal Regulations	Explore alternative uses for coal, such as gasification and hydrogen production.	Long-term (10 years plus)		University of Alaska, Mining companies	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Carbon and Sequestration Regulations	Pursue carbon capture and sequestration to make existing resources cleaner.	Long-term (10 years plus)			From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Hydrogen Roadmap and Regulations	Develop and implement Hydrogen Roadmap for Alaska.	Long-term (10 years plus)	UAF	Governor's Office, AGDC, University of Alaska Center for Economic Development, ACEP	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Establish Alaska Hydrogen Hub	Support the establishment of an Alaska Hydrogen Hub and an Alaska Carbon Capture, Utilization and Storage (CCUS) Hub.	Short (2 - 5 years)	Governor's Office	AGDC:,Governor's Office, Congressional delegation	From CEDs 2022 Plan (For Consideration)

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APPENDIX III.

ADDITIONAL ACTION DETAIL SUMMARY PAGES

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STRATEGY A-1: UNIFY TRANSMISSION

ACTION A-1.1:

Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system. The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

Benefits:
- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

How Do We Get There?
- Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.
- Develop financing plan.
- Develop transmission, operation, and control reform (potentially the Iceland model) with a regulated version of management committee.
- Align ERO statute and regulations with transmission reform.
- Complete design, permitting, and right-of-way acquisitions.
- Execute construction and commissioning.

Implementation Timeline:
2023 – 2035

Expected Results:
This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.1:

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

In order to ensure Alaska's future energy mix is affordable, reliable and secure, it's critical that diversification targets are set and positively reinforced. To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee considered both a Renewable Portfolio Standard and a Clean Energy Standard. Ultimately a Clean Energy Standard was preferred as it allows the widest range of generation technologies to compete driving affordability and gives Alaska the most options to diversify. Secondly, a Renewable Portfolio Standard policy typically includes penalties when targets are not met. Given Alaska's co-op utility structure, these penalties would pass directly to co-op members and drive up electricity prices which is counterproductive to the AESTF objective of affordable energy. Penalties may also likely lead to utility staff spending time to request relief or negotiate penalties where issues are encountered with meeting diversification targets; tying up valuable utility staff time and distracting staff from deploying new generation projects. Based on this, the Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviours, action and outcomes for our State. The Railbelt Subcommittee recommends the following incentives be implemented with a Clean Energy Standard:

1. **Direct Payment to Utilities for Achieving Diversification Targets:** Ultimately, it is up to each individual utility to agree to terms with these different types of generation so that it can be included in their portfolio. To incentivize utilities to consider a variety of options, the State of Alaska can award each utility with a direct payment when diversification targets are reached. This direct payment rewards utilities for diversifying and will result in an immediate reduction of rates for consumers, aligning with the AESTF mission of affordable energy.

2. **Augmentation of the Renewable Energy Fund (REF):** To facilitate significant diversification of statewide electricity generation, with a partilcuar emphasis on the Railbelt, it is important to have many generation projects being developed as only a small fraction will succeed in being fully developed. Project development is inherently risky and carries the most uncertainty, particularly for generation technologies which have not been broadly deployed in Alaska. To encourage numerous and diverse generation project development, the State should augment the Renewable Energy Fund to provide matching funds for development expenses. The intent of this funding structure is that grant funds will be a small fraction of the total project cost but will be awarded at a time when the project is most vulnerable. This will increase the number of projects being developed and accelerate the diversification of the Railbelt electricity generation.

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ACTION A-2.1 (CONT.):
Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

3. **Augmentation of the Power Project Fund (PPF):** New generation projects can also face obstacles with securing competitive debt terms for projects in Alaska given it's remoteness and that for many technologies is seen as a nascent market. Debt interest rate and term (duration) significanty affect project economics and ultimately the energy price paid by consumers. Providing a reliable debt source for generation projects which diversify the Railbelt's power generation will increase the number of successful projects, reduce the energy cost to consumers and earn the state a modest return. Given the funding scale of these projects, it's important that this capital support from the state is structured as a loan and not a grant. This ensures responsible project spending while generating a return for the state.

Benefits:
Diversify statewide, with a particular emphasis on Railbelt Electricity Generation
- Conserve CI natural gas supply for heating and base load to integrate new generation sources
- Provide secure electricity supply through locally built generation projects
- Enable affordable energy across the state
- Increase energy reiliability where no one source dominates or threatens overall supply
- Economic development with local projects

How Do We Get There?
Institute a Clean Energy Standard with Incentives to facilitate reaching diversification goals
- Clearly state Railbelt generation diversification percentages and target dates
- Adopt the following incentive program to drive diversification:

1. **Direct Payment to Utilities for Meeting Diversification Targets:**
- All direct payments to a Utility from the State of Alaska are a direct pass through to energy consumers
- Establish a $/% diversification value and diversification percentages at which payouts are received
- Payout will be made if diversification percentage is achieved by target date
- Direct payment from the State will be used by the utility to directly lower member costs, effectively lowering the cost of electricity
- Ideally the incentive payment would be illustrated on member bill so public can see the benefit of utility diversification

2. **Augment the Renewable Energy Fund to:**
- Provide up to 50/50 matching funds for projects which diversify the community or regional generation mix.
- The projects must demonstrate how they're providing affordable energy that is reliable and local
- Matching funds will be used for project development costs only
- Allocate annual funding for this program such that funding is secure and can be efficiently deployed. Increase the reward cycle (e.g. 2x/yr) to enable new project ideas to move forward with development at a faster pace than the current annual REF award process.
- Increased operational funding for AEA to accomodate increased administrative workload, including but not limited to elements such as additional staff or consultants to assist in program and/or application streamlining.

3. **Augment the Power Project Fund to:**
- Provide loans, for all development phases, for projects greater than 10MW in size
- For projects greater than 10MW increase the approval thresholds for AEA Board and Legislative approval such that it is commensurate with utility scale projects
- Adequately capitalize the PPF program to support utility scale generation projects
- Provide operational funding staffing to efficiently and timely process increased volume of loan applications.

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ACTION A-2.1 (CONT.):

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Implementation Timeline:
Implement policy change in 2023/2024 legislative session

Expected Results:
- Diverse electricity generation projects being built over the next 10-15 years
- Accelerated diversification timeline
- Lower cost power from new generation projects, ultimately flowing down in the form of reduced rates for ratepayers across varying time domains.
- Economic development across those funded communities, including the Railbelt.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.2:

Modify existing statute(s) requiring the Regulatory Commission of Alaska (RCA) to consider long term diversification goals when approving additional/new Railbelt power generation.

Background:
The general powers and duties of the RCA are defined in Alaska Statute 42.05.141. Specifically, it is tasked with the power to "appear personally or by counsel and represent the interests and welfare of the state in all matters and proceedings involving a public utility[.]" The Railbelt Generation, Distribution, Transmission, and Storage Subcommittee (RGDTSS) has determined that the state should be working toward a long-term goal of diversifying power generation with an emphasis on local supply, reliability, and affordability. In support of this goal, the RGDTSS recommends the legislature amend AS 42.05.141 to broaden the RCA's scope of considerations and ensure it has the ability to consider projects related to power generation.

Benefits:
- The amended statute provides the RCA with more definition on what truly is in the best "interest and welfare of the state" beyond just setting reasonable rates and promoting conservation.
- Pushes the Railbelt utilities towards diversification of power generation.

How Do We Get There?
- Amend AS 42.05.141 (c) add new subpart (d) and renumber existing subpart (d) as follows:
  (c) In the establishment of electric service rates under this chapter the commission shall promote the conservation **and diversification** of resources used in the generation of electric energy.
  (d) When considering whether the establishment or approval of electric service rates under this chapter is in the public interest the commission shall
  (1) recognize the public benefits of allowing a utility to negotiate different pricing mechanisms with different suppliers and to maintain a diversified portfolio of resource contracts to protect customers from the risks of inadequate supply or excessive cost that may arise from a single pricing mechanism; and
  (2) consider whether a utility could meet its responsibility to the public in a timely manner and without undue risk to the public if the commission fails to approve a rate or a contract proposed by a utility.
  (e) When considering whether the approval of a rate or a gas supply contract proposed by a utility to provide a realable supply of gas for a reasonable price is in the public interest, the commission shall…[.]

Implementation Timeline:
Implement timeline is in the 2023/2024 Legislative Session.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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ACTION A-2.3:
Additional details on Dixon Diversion Project

Background:
The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project (Bradley Lake), which has been a low-cost source of electricity for the Railbelt and 550,000 Alaskans for more than 30 years. The 120-megawatt (MW) facility generates about 10 percent of the total annual power used by Railbelt electric utilities at some of the lowest-cost energy in the state. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The proposed Dixon Diversion Project would boost the energy potential of Bradley Lake, the largest hydroelectric plant in Alaska. The project would be located five miles southwest of Bradley Lake dam, approximately 27 miles northeast of Homer on the Kenai Peninsula, and divert water from Dixon Glacier, increasing the annual energy production of Bradley Lake by 50 percent — or the equivalent of 24,000-30,000 homes. Bradley Lake currently electrifies the equivalent of 54,000 homes.

Benefits:
- Increases Bradley Lake's energy production capacity by 50 percent by leveraging existing generation assets.
- Enhances Alaska's energy security by increasing renewable penetration and grid stability, improving resilience to fuel price fluctuations and supply side disruptions, and regulating other renewable energy.
- Fosters economic development through job creation.
- Promotes environmental sustainability.
- Power Sharing Agreements with Railbelt Utilities provide stable long-term returns through revenue stability and market risk mitigation.
- Produces a substantial amount of renewable energy that will reduce greenhouse gas emissions and combat climate change.
- Augment and diversify Environment, Social, and Governance investment portfolio holdings.
- All land is owned by the State of Alaska

How Do We Get There?
AEA is currently conducting feasibility studies to assess the potential of increasing hydroelectric power generation at Bradley Lake. These studies include engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, and geomorphophology). The Dixon Diversion Project would expand Bradley Lake by capturing outflow from the Dixon Glacier and conveying it to Bradley Lake for generation. The main project components include:
- Small diversion dam and intake below the Dixon Glacier,
- Gravity flow 4.7 mile tunnel to Bradley Lake, and
- Raise of Bradley dam to lake level by 14 feet.

Implementation Timeline:
2023 – 2025: Engineering and Environmental Studies
2026 – 2027: Federal Energy Regulatory Commission (FERC) License Amendment
2028 – 2032: Construction

Expected Results:
The increased storage would provide Bradley Lake with an additional 55,000 megawatt-hours of "battery storage."

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on Susitna-Watana

Background:
The Susitna-Watana project has been on hold since 2017. Considerable expenditures were made to develop and license the project in the 1980s and from 2010 to 2017. The project is a viable alternative to meet the State's goal of 80 percent sustainable power by 2040. Once the project is licensed the State has a 10-year window before construction must begin. This should afford sufficient time for the State to determine the most advantageous approach to build the project.

Alaska has a strong track record of developing successful hydroelectric projects that provide clean, reliable energy across the state. Hydroelectric power is Alaska's largest source of renewable energy, supplying about 27 percent of the state's electrical energy in an average water year. Dozens of hydro projects provide power to Alaskans, including the 120-megawatt Alaska Energy Authority-owned Bradley Lake project near Homer, which supplies 10 percent of the Railbelt's electrical energy. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

AEA has completed a feasibility level design and was approximately two-thirds of the way through the Federal Energy Regulatory Commission (FERC) Integrated Licensing Process when it was paused by the previous administration. To proceed, the FERC licensing process would need to be completed at a cost of $50-100 million. The anticipated construction cost is $5.6 billion ($2014). Financing type and level are not yet finalized, but AEA's financial consultant recommended Rural Utilities Service (USDA) and government obligation bonds or by the private sector, financial modeling indicated the lowest long term cost of energy compared with other fuel sources.

Benefits:
The proposed Susitna-Watana Hydroelectric Project is a large hydro project that would provide long-term stable power for generations of Alaskans. The project would result in approximately 70 percent of the power generated in the Railbelt originating from renewable sources, up from the current 15 percent — a nearly four-fold increase. As part of the project, transmission lines will be connected to the existing Railbelt transmission system providing a more secure transmission system, and an access road will be constructed. The Susitna-Watana Hydroelectric Project will help provide reliable power for future generations of Alaskans, diversify Alaska's energy portfolio, and accelerate the transition to renewable energy.

How Do We Get There?
1. Update the Project Management Plan with specific focus on the approach, budget, and schedule to complete licensing activities.

2. Update construction cost and project economics

3. Meet with FERC staff to determine the licensing approach and studies necessary for FERC to conduct their National Environmental Policy Act (NEPA) process and make a licensing decision.

4. Go/no go decision for final FERC licensing.

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ACTION A-2.3 (CONT.):
Additional details on Susitna-Watana

Implementation Timeline:
Update the Project Management Plan regarding approach, budget, and schedule, including updating construction cost and project economics before a decision is made to complete FERC license.

- Preparation, Planning, Collaboration, and Environmental Studies 2-3 years
- FERC Review & Determination 2 years
- Project Execution Phase && Construction Phase 9-11 years
- Operational Phase 100 years

Expected Results:
Based on the economic studies conducted a decade ago, the project remained a viable alternative with a levelized power cost of about 6.5 cents per kWh. Based on this information and the amount of power the project would generate annually, the project remains a viable alternative to meeting the Energy Security Tasks Forces goals. The State should undertake the tasks outlined above to successfully license the project. Once the project is licensed, the State has options to complete the project.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on AKLNG.

Background:
The Alaska Utilities Group June 28, 2023 Phase 1 Assessment Cook Inlet Gas Supply Project estimated that 2021 natural gas consumption from the Cook Inlet was comprised of approximately 49 BCF (67%) for heating requirements and 24 BCF (33%) for electrical generation. Forecasts for continued gas consumption for electrical generation are flat or decreasing by 5 BCF/yr. Assuming natural gas remains the space heating fuel of choice on the Railbelt, the largest distributor for natural gas for space heating on the Railbelt projects no decline in demand over the next 20 years. Without a change in this fuel source, natural gas will remain a necessary energy source on the Railbelt.

The Utilities Group Study determined that the median case gas supply shortage in the Cook Inlet is projected to be 8 BCF/yr beginning in 2028 and growing to 52 BCF/yr in 2040. In the short term, in order to meet the expected supply gas shortfall in 2027-2028, a decision to pursue LNG imports will likely need to be made in late 2023. In the long term, the study found that a gas pipeline from the North Slope could meet the projected demand most economically.

Benefits:
The 2023 contract price for natural gas from the Cook Inlet is approximately $8/Mcf. Imported gas is forecast to cost approximately $12/Mcf. Incremental supply potentially available from augmented Cook Inlet production is forecast to be generally at or above the imported gas cost. Gas prices from the proposed AK LNG project are estimated at $4.40/Mcf., while a smaller subsidized State-owned pipeline might deliver $9.10/Mcf.

Alaska is presently near the bottom compared to other states in terms of economic growth. Out migration from rural Alaska is rampant due to the lack of economic opportunities. Importing LNG into our resource rich state may be necessary in the short term but would be contrary to the goals of energy security over the long term.

The availability of a local and long term fuel source to support affordable and reliable baseload power generation throughout the Railbelt would provide stability for economic development and a platform around which further diversification of generation could confidently occur. Railbelt businesses and residents would enjoy predictability for their space heating requirements. Availability of natural gas from a pipeline could allow substantial new projects, such as the Donlin Gold Project in western Alaska, to help defray the cost of building gas pipeline infrastructure, and associated transmission and distribution, into western Alaska.

How Do We Get There?
Alaska needs to advance on two parallel tracks: (1) Advance the AKLNG project (permitting, design, financial), including Alaska using its financial strength as necessary to support the negotiation of commercial terms that could lead to a positive project decision; and (2) Resume planning on the in-state "bullet" pipeline so that a backup plan is in place to support Alaska's need for natural gas if the AKLNG project does not proceed.

Implementation Timeline:
Alaska must keep its options open for support of our economy over the next decades. While imports of LNG may occur in the short term, doing so over the long term or long past 2030 would be regrettable, would do little to boost our local economy.

Expected Results:
Unlocking Alaska's stranded natural gas and monetizing these assets will provide long term energy security, and positive economic benefit for all Alaskans, but should not be done so at the expense of diversifying the overall energy generation mix.

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ACTION A-3.1:

Significantly increase load to drive down energy rates.

Background/Benefits:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

How Do We Get There?
This strategy assumes that necessary transmission capacity and reliability upgrades are completed to handle increased loads. To facilitate and incentivize substantial load growth, three possible actions were identified, including (1) issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth), (2) providing tax credits or similar offsets for proposed large load customers to reach attractive power rates, and (3) identifying sites along the Railbelt which are already built to handle load growth.

(1) Upon sufficient analysis of rates achievable by large load additions to the Railbelt, an RFP could be issued by a coordinating Railbelt entity, utility, or the State guaranteeing a rate for power in exchange for the load addition to the grid. Such an approach would eliminate risk for a potential large industrial customer and also ensure load growth for the Railbelt. Long term rate stability would promote industry investment and aggregation of demand side resources.

(2) Alternatively, if a potential industrial customer could not add enough load to the grid to guarantee a satisfactorily low rate, the State could offset the difference with a tax credit or similar vehicle. Again, this approach would help eliminate risk for the new industrial customer and attract economic investment in the state. The tax credit amount would be informed by the estimated savings to utility co-op members due to the load growth associated with the new industrial customer.

(3) In concert with the above actions, it is important to identify areas on the Railbelt that are well-suited to large load growth in the short term, without necessarily waiting for transmission upgrades. Identification of these sites would help potential large industrial customers hone in on realistic locations and spur investment. In addition to specific sites, there may be larger geographic areas that can accommodate rapid growth of distributed loads, such as electric vehicles and heat pumps. These "load-friendly" areas could be further enhanced by management of of the distributed loads ("load as a resource") so they can strengthen, not strain, the grid.
growth.

One risk of these actions is potential cost overruns in the buildout of any required generation for increased loads, the contingencies and responsible parties for which would need to be considered carefully. However, this risk must be viewed in context because cost overruns from new infrastructure would likely be even more problematic without load growth.

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STRATEGY A-3: INCREASE DEMAND

ACTION A-3.1 (CONT.):

Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).

Implementation Timeline:

1. Identify areas within the Railbelt which are well-suited for load growth (minimal to no upgrades or new generation needed): 1-2 years

2. Establish incentivized industry/anchor tenant rates: 1-2 years.

3. Issue state-led RFP for new industry articulating $/kWh rate scale based on load growth amount or state tax incentives to offset energy cost for new industrial customers based on load growth savings to co-op members: 2-5 years

Expected Results:

The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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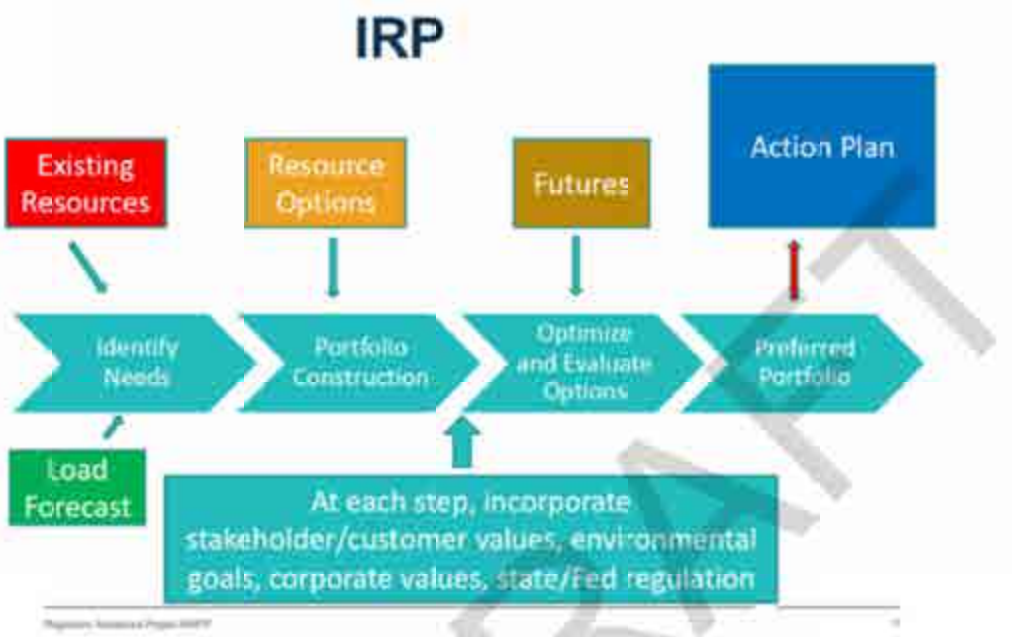
STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1:

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Background:

Integrated Resource Plans (IRP) and their associated forecasts of demand, generation, transmission, and distribution with public input are a tried and proven electrical industry methodology to coalesce State and community energy goals openly and transparently. Large utilities with regulatory oversight can engage in extensive plans that require deeply engaging studies. On the other hand, a lighter integrated resource planning analysis based on the collaboration of community energy needs is a cost-effective approach to local strategic and tactical energy planning required to move toward lower energy costs.



All communities engaged in future supply uncertainty, rising demand for heat pumps, conversion from fossil fuel use to lower-cost renewables, and electrified transportation benefit from intelligent and collaborative planning from utilities, communities, non-utility generators, and the public. The critical component in this process is public participation, as it provides an opportunity to educate the public, build support and constituencies required to advance renewable energy projects and transmission, and ultimately focus on lowering the energy cost for Alaskans.

According to the Pacific Northwest National Laboratory (PNNL), Over 35 US states require utilities to file IRPs or equivalent planning yearly or up to once every four years. These requirements are imposed either through regulation or legislation. The US Department of Energy (DOE), in its 2016 publication, "Sustainable Energy Solutions for Rural Alaska, provided a recommendation for Alaska Utility resource planning to identify a utility's least-cost path over time. These efforts are sometimes called "least-cost integrated resource plans" or simply "integrated resource planning" (IRP) when the scope of the resource decisions include demand-side considerations. The DOE publication explained that the IRPs typically include scenario planning and consideration of uncertainty. IRPs are also typically high-level plans frequently with time horizons of 20 years that look at a broad array of resource choices. However, they may include specific project-related and transmission analysis in the near term (i.e., 1-5 years).

STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1 (CONT.):

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Benefits:

The State of Alaska can optimize State resources (and parlay federal resources) by establishing, requiring, assistng and implementing and Integrated Resource Plan Light (IRPL) for every utility in Alaska that requires a periodic update to ensure that local and grassroots energy planning is occurring collaboratively at the local Alaskan level with utilities, tribes, non-utility operators, community leadership, NGO's and the Alaska public so that there is a unified focus and format to ensure that no community is left behind in Alaska's transition to lower cost and self-sustaining energy for current and future generations of the affected community.

How Do We Get There?

Establish an Alaska-based IRPL, easy-to-implement model and format. Upon acceptance of the RCA, request each regulated Alaska utility to guide on with minimally established requirements based on prudent IRP practices. This model and format can be initiated and supervised by the Alaska Energy Authority and collaborated with the Regulatory of Alaska and Attorney General Office, Regulatory Affairs & Public Advocacy Section (RAPA). Municipal utilities and other non-regulated electrical utilities in Alaska can also adopt Alaska's IRPL model.

While large Alaska utilities can use this model, the use of the IRPL would not detract from the RCA authority to impose a more robust IRP on Alaska's sophisticated electrical utilities, and the IRPL can serve as an interim or an update adjustment to a utilities existing and perhaps more robust IRP.

AEA and any state of Alaska generation and transmission funding can use the IRPL to determine the viability and economic justification of the public IRPL as a requirement to obtain state funding. RCA can be a repository for the public record and public dissemination of all Alaska utility load and generation forecasting so that other communities and interested parties can learn and adapt from other communities' planning efforts.

AEA and other state agencies can provide resources and technical assistance to assist Alaskan utilities and communities. AEA can require IRPL as a prerequisite for future assistance, aid, and funding as an incentive to collaboratively participate together to analyze the community energy needs, demands, and agreed-upon solutions to lower the energy cost for the affected community. An IRPL also certifies that a utility and a community are wisely and responsibly planning to conserve PCE burdens and preserving PCE trust funds by optimizing appropriate energy solutions on a community-by-community basis.AEA, the Denali Commission, and other state agencies can assist a community with implementing the solutions and results from a community IRPL.

Implementation Timeline:

This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:

This Action item, IRPL, with its implementation steps, offers a fundamental milestone required to methodically transition to premeditated energy planning in an open, objective, and transparent process that will lead, if properly implemented and conducted, to lower cost energy and energy security for Alaskans.

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ACTION B-1.2:

Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering investments to provide grid resiliency and energy security and lower the energy cost for Alaskans.

Background:
Net Metering is a billing arrangement for owners of renewable energy systems. Under Net Metering, excess electricity generated by an Alaskan customer's renewable energy system is sent back to the utility grid, offsetting the electricity the customer draws from the grid when their system isn't producing electricity. Net Metering of private energy systems plays an integral role in the ongoing transition to more sustainable and flexible power grids and lowers the costs of power for Alaskans.

Benefits:
An advanced Net Metering statutory and regulatory framework for Alaskans can optimize mutually beneficial benefits from an advanced net metering program to act as a linchpin for a sustainable, resilient, and economically advantageous energy future in the islanded grid and transmission interconnected Alaska communities to provide a diverse energy portfolio that invigorates and sustains private and public investment, provides energy security and grid resiliency benefits while lowering the energy costs for Alaskans.

How Do We Get There?
Investigate, evaluate, recommend, and update/modify changes to Alaska's net metering laws and regulations for Best Management Practices (BMP) based on other successful State net metering programs.

Encourage the Alaska Energy Authority (AEA), Alaska Housing and Finance Corporation (AHFC), Denali Commission, and other agencies to assist and finance community, tribal, business, and residential net metering investments in Alaska to improve grid stability and resilience and lower energy costs.

Policy Framework and Regulation:
Develop through the Governor's office, AEA, and Regulatory Commission of Alaska (RCA) a clear, supportive regulatory framework that invigorates and favors net Metering incorporating vigorous net metering models and best management practices (BMP). Provide resources, leadership, and agency assignments and oversight to ensure the resulting regulatory framework provides long-term clarity and certainty to private/public investors, community energy security, and utilities.

Infrastructure Development:
Invest and finance grid infrastructure for residential, business, community renewables, and grid distribution systems to handle increased distributed energy resources and increase energy security through AHFC, AEA, AIDEA, Tribal and federal funding to facilitate grid interconnectivity for renewable energy sources.

Develop and promote short and long-term energy storage solutions, such as battery systems, to address the intermittent nature of community and residential renewable sources like solar and wind.

Incentivization and Financial Support: Develop and offer a breadbasket of incentives such as tax credits, rebates, or grants for individuals and businesses that invest in renewable energy systems. Set up a competitive feed-in tariff for excess energy fed into the grid. Work to develop State Agency and federal programs to provide zero or low-interest loans or financial incentives for energy storage solutions. Develop and structure incentives to assist higher PCE cost communities and the PCE program.

Outreach and Stakeholder Collaboration:
Create platforms for dialogue between utility companies, private investors, and government agencies. Incentivize and encourage utilities to develop advanced net metering models that benefit from distributed generation rather than viewing it as a threat.

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ACTION B-1.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Engage with Native tribes and corporations to ensure their perspectives and needs are incorporated. Encourage and direct State of Alaska (SOA) agencies and utilities to partner with Alaska university programs and renewable energy Non-Governmental Organizations (NGO), boroughs, and city governments to integrate renewable energy net metering in development planning for localized energy security, emergency planning, and sustained energy operations with natural disasters.

Develop state code and design criteria using prudent utility practices for net Metering. Consider state procurement agreements for integration hardware and controls selection and purchase.

Technology and Innovation:
Promote research and development in renewable energy net metering regimes tailored to Alaskan conditions.
Support innovation in grid management tools and technologies using best management systems to efficiently and effectively handle distributed energy.

Collaborate with tech companies to integrate advanced consumer energy management systems, such as smart meters and home energy management systems, that assist utilities and overall grid management.

Monitoring and Feedback Mechanisms:
State of Alaska: Stand up or administer/assign a dedicated agency or body to monitor utility progress and impacts of the net metering program and make suggestions to recalibrate and use adaptive management to gain incremental effectiveness of net metering regimes. Continuously gather net metering and utility participant feedback and iterate on the program's design and incentives.

Publish annual reports for AEA, AIDEA, RCA, the Governor, the Legislature, and the public to highlight achievements, challenges, and next steps.

Implementation Timeline:
This action item has a blend of Immediate, short-term, mid-term, and long-term (follow-up, review, and recalibration as necessary) tasks for implementation.

Expected Results:
The net metering roadmap places Alaska at the pinnacle of energy innovation and leadership while empowering net metering participants and utilities to collaboratively advance the state of Net Metering in Alaska as a public interest good. This strategy and tactics empower Alaskans to amplify private and public investments, fortify grid stability, strengthen grid resilience, and slash energy expenses. Embracing this Action Item, Alaska is assisting in meeting Alaska's energy demands and security while ensuring Net Metering advances are addressed collaboratively, openly, transparently, sustainably, and economically, ensuring a sustainable and cost-effective energy future that reduces the energy cost for Alaskans.

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ACTION B-1.3:

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Background:
The State of Alaska has multiple departments with diverse missions and responsibilities. Developing energy projects in Alaska requires developer coordination with competing agencies with differing priorities and willingness to assist a project developer. This lack of unity of effort can lead to chaos and time delays in permitting and executing energy projects and transmission with differing state agencies. There is a need for a navigation coordinator and assistance for Alaska communities and Alaska renewable energy developers to coordinate among the differing State Agency requirements.

Benefits:
The development of State policies and oversight that produce a coordinated and affirmative mindset for developing cost-effective renewable energy and transmission lines in Alaska lowers energy costs for Alaskans while also assisting developers in their pursuit with federal agencies in meeting national clean energy goals through mutual cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska Energy Authority (AEA)-sponsored in-state working group/oversight body between the Governor's Office, AEA, and State agencies to find common ground and purpose to streamline renewable energy, transmission, and energy project interconnection permitting, regulations, and State of Alaska authorizations. The focus and mindset are to "promote" and develop sustainable energy projects and related transmission lines to accelerate permit processing and get to "yes" renewable energy development to lower costs and increase energy security for Alaskans.

Each State agency and department conducts a critical internal review to identify permitting and authorization bottlenecks that impede or slow down renewable energy development and then develop internal agency courses of action and corrections necessary to fulfill the overarching directive to lower the cost of power for Alaskans.

Each State agency assigns a Change Officer duty and responsibility for implementing and executing departmental administrative changes based on permitting review/audit and course of action analysis.

Develop an energy development interdepartmental liaison between Commissioners and delegated staff to coordinate and accelerate renewable energy project and transmission development.

Identify state laws or regulations that impede or block renewable energy and transmission development and make recommendations to change statutes and regulations for the Governor and legislative leadership to accelerate energy development, transmission, and interconnections to lower the cost of energy for Alaskans and Alaska industry.
Create directional versus aspirational intentions to deliver results for Alaska's citizens desiring the lowest long-term and sustainable energy costs.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.3 (CONT.):

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can advance and promote Alaska's renewable energy development with cooperation, support, and a unity of effort between State agencies to support and accelerate the growth of Alaska's renewable energy resources for the maximum benefit of Alaskans, reducing energy costs and providing the energy security that Alaskans are entitled to from their State government leadership.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources between and among state agencies to provide a unity of effort to execute the State energy plan and lower the energy cost for Alaskans.

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ACTION B-1.4:

Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution Lines in Alaska to bring Alaska on par with the US transmission system for Alaskan energy security and lower energy costs.

Background:
Despite its vastness, covering 17.5% of the US landmass, Alaska's transmission system is strikingly underdeveloped. With only 1,697 miles of high and low-voltage transmission lines, it represents less than 0.25% of the nation's total transmission infrastructure. To put this transmission deficiency In perspective, the contiguous US boasts over 700,000 circuitous miles of these lines. Furthermore, Puerto Rico, a US territory, has 2,478 miles , while Wyoming—a state with a population size comparable to Alaska—has 4,300 miles . This subpar transmission network hampers the integration of renewable energy sources and poses challenges for military installations in ensuring transmission contingencies to support critical national security missions.

Moreover, there's an urgent need for Congressional funding action. For example, despite having Congressional authorization for $384 million for the Southeast Alaska Intertie , which aims to connect Metlakatla through Skagway, the promised funds have not been authorized. Alaska's grid modernization is not just about powering homes and lowering costs; it's crucial for national security, economic growth, and future energy resilience that Alaskans deserve.

Regardless of any metric, stating that there is a transmission need in Alaska is an understatement.

Benefits:
Alaska must upgrade its outdated territorial grid system to a modern, 21st-century standard, incorporating N-1 contingencies. This transformation is crucial for integrating renewables and other new energy sources. Bringing Alaska on par with the rest of the nation with a first-world transmission grid will reduce energy costs and enhance energy security, laying a self-reliant solid energy foundation for Alaska's future.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

Develop and create a State of Alaska Power Transmission Fund under AEA to promote, secure and establish federal authorization and appropriations funding to develop an additional 3000 miles of transmission corridor for Alaska to move Alaska from pre-territorial grid system to a grid system that ignites development and integrates renewables, displaces more expensive diesel generation reducing energy costs.

Create a system that allows AIDEA, AEA, and Federal funding to develop, design, build, execute, and operate additional regional transmission sections and lengths under a unified plan.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska must exponentially increase its haphazard and subgrade transmission system if Alaska is to develop and maintain its economic viability. Federal funding for a State of Alaska Power Transmission Fund State of Alaska Power Transmission Fund will enable the State to develop other State Energy Plan action items. Creating a robust transmission network in the Railbelt and Coastal areas is essential for Alaska to prosper economically.

This structured execution list to develop a State of Alaska Power Transmission Fund offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans while providing the means and funding to transform the dire transmission situation as it exists within Alaska today.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5:

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Background:
Alaska community energy planning ensures a stable and sustainable energy future, providing the optimum lowest cost power over time. For community leaders, citizens, and utilities to effectively plan growth, demand, and evolving market conditions, specific metrics are required to guide decisions continuously and track progress. Further, Alaska already has many data sets available, although this information is not readily boiled down and packaged for usefulness for community decision-makers or is not widely known. There is a demand and need for community data and metrics to make wiser community energy decisions, to prepare and request grant funding, and to position communities for greater energy self-reliance, energy security, and ultimately to lower the cost of energy-heating, electricity, and transportation.

Some key indicators and metrics could assist local energy planning and decision-makers in no priority order.

1. Energy Consumption:
- Total energy consumed per sector (e.g., residential, commercial, industrial).
- Per capita energy consumption.
- Forecasted energy consumption due to market condition changes-shore power, industrial loads, beneficial electrification in heating and transportation sectors.

2. Energy Production:
- Total energy produced from various sources (e.g., solar, wind, fossil fuels).
- The capacity factor of energy-producing installations (how often they produce energy compared to their maximum potential).

3. Energy Efficiency:
- Energy saved due to efficiency measures.
- Forecasted energy efficiency savings due to energy efficiency measures

4. Energy Import/Export:
- Amount and type of energy and units imported/exported to or from an Alaska community or utility.
- Dependency percentages on external energy sources that can be improved with local or regional energy resources or transmission.
- Forecasted energy dependence reduction with the forecasted increase in local or regional renewable energy production to include impacts from beneficial electrification in heating and electric transportation.

5. Renewable Energy:
- Percentage of total energy derived from renewable sources.
- Installed capacity and generation from each renewable source (e.g., solar, wind).
- Forecasted installed capacity and generation from each renewable source.

6. Carbon Emissions:
- Total carbon emissions from energy production.
- Carbon intensity (carbon emissions per unit of energy produced).
- Forecasted Carbon Emission reductions from new carbon free energy sources or due from transformation from fossil fuels to renewable energy from beneficial electrification.

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ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

7. Economic Metrics:
- Cost of energy production per unit.
- Economic benefits of energy projects (jobs created, GDP impact).
- Forecased savings over life cycle of new generation and economic quantification of other benefits-emission reductons, fuel savings, etc.

8. Energy Resilience and Reliability:
- Duration and frequency of power outages.
- Energy storage capacity.
- Forecasted energy storage capacity needs and economic and ESG quantification of benefits.

9. Energy Transition Goals:
- Targets for renewable energy adoption.
- Reduction targets for carbon emissions.
- Forecasts for transition goals with data to support transition initiatives

10. Energy Sales, volume by customer sector and price Information
- Transparent and accurate information provides objective fuel alternative calculations for collaborative community decision-making.
- Forecasted sales based on beneficial electrification, shorepower, industrial load growth, and converting interruptible sales to conditional firm power.

11. Overhead of utility costs
- Overhead cost data for comparison between similarly sized utilities to determine and approve managerial efficiencies.

12. Infrastructure Health
- Age, condition, and capacity of energy infrastructure (e.g., power plants, transmission lines).
- Forecasted infrastructure replacement and upgrades with new technology that provides operational control benefits and improves grid security and resilience.

13. Electric Vehicle number and percentage of community vehicle stock
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

14. Electric Vehicle public level 2 and level 3 charging stations
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

15. Heat Pumps
- Total Number of Air Source Heat Pump units in a community or utility, annual installation growth, and percentage breakdown of building and housing units by fuel source.
- Forecasted loads in 1 to 5 years.

16. Shorepower Installations
- Total number of units, annual sales, and peak demand
- Forecasted loads in 1 to 5 years.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

There is a cost to producing, maintaining, and updating information. Therefore, a cost-benefit analysis would need to occur to determine the net value of each data metric. However, as data-driven decision makes progress and we mature Alaska community energy decision-making from black box data to transparent and open information scenario, data is required for planning, decision making and also enabling Alaska communities to be armed with data when competing against communities from other States in competitive federal infrastructure, energy, and emission reduction grants.

Lastly, this recommendation does not include the requirement or decision bar that Alaska or communities must have perfect data or complete data to make decisions. Too much unuseful data or requirement to have impossible-to-achieve data has historically plagued some communities and energy decisions, or opposition will use stall-by-study tactics to impede energy development and transmission build-out required to elevate Alaska on an energy security level with the rest of the country. In other words, let us not fall into the trap that the enemy of good is the requirement for perfect or complete information.

Benefits:
Alaska can help make wise local energy planning decisions, forecasting demand and supply and using data to apply for grants and assistance requiring data-driven applications. All of these actions enable community leaders with utilities and public input to plan for a community's energy needs while working toward the lowest energy cost.

How Do We Get There?
In general, "how we get there" is to support the recommendations from the Data Subcommittee of the AESTF with the insistence that the viewpoint, practical delivery, and service from data is customer-focused, being the Alaska community and decision-makers. Data should be "community customer-driven" and community-centric in its approach and philosophy of conducting and maintaining data to help and propel Alaskan communities using data in a practical and common sense approach to drive energy affordability, reliability, and resilience for Alaskans now and for the future.

Establish a Data Department within the Alaska Energy Authority (AEA) with regulatory authority to request and receive data from any electrical utility in Alaska that is issued a Regulatory Commission of Alaska (RCA) Certificate of Public Convenience and Necessity (CPCN).

Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access that is "customer focused" on delivering data to customers for practical and cost-effective decision-making that propels and not slows the development of energy projects, solutions, and transmission systems.

Fund data capacity on a cost/benefit and the biggest bang for the buck approach to maximize data benefits at the lowest cost.

Improve existing energy data and collect new, needed data. Consider that if a utility and/or community desires state support from PCE and grant applications, it volunteers to judiciously supply requested data as required to ensure maximum participation in the production and use of energy data for the benefit of all Alaskans.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation as suggested by the Data Subcommittee of the Alaska State Energy Task Force.

Expected Results:
The expected results from this roadmap are for the State funded AEA Data department, as suggested and articulated by the Data Subcommittee mission is to provide customer-relevant information, metrics, and data that assist Alaska communities and utilities in making practical and wise energy decisions that lower the cost of energy, provide energy security and increase resilience for Alaska communities and electrical utilities.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.6:

Recruit, Train, and Enhance Alaska workforce with technical training for advancing beneficial electrification to lower Alaska energy costs and sustain Alaska's growing energy infrastructure.

Background:
Alaska has entered an unprecedented demand for apprentices and skilled electrical trade workers that are critically necessary to build out and achieve the required generation, transmission, distribution, storage, and commercial/residential wiring essential for Alaska to migrate from higher-cost fuel sources to lower-cost fuel sources. Various agencies, labor organizations, and contractors operate many training and apprenticeship programs to meet the training needs of Alaskans without an inventory of forecasted demand. When there's a shortage of workers, it disrupts the balance of supply and demand. This scarcity means Alaskans must pay higher wages to attract the limited available labor. As companies spend more on recruitment and possibly higher wages, these increased costs inflate energy project costs and raise energy costs.

Additionally, in energy generation and transmission systems, where contracts are awarded to the lowest bidder, companies must increase their bid amounts to cover the higher labor expenses and contingency risks in obtaining qualified employees to perform the work. This phenomenon can lead to higher prices for Alaska generation and transmission, construction delays, and potential quality declines. Worker shortages have immediate impacts; they ripple through the entire Alaska economy, driving up energy and transmission costs and potentially slowing growth.

Benefits:
Alaska can achieve its labor and workforce training requirements through a unity of effort with multi-year "forward planning" to engage Alaskans to successfully enter critical job skills in the electrical trades to build out the infrastructure needed to assist Alaskans in lowering the cost of energy with a self-reliant and local Alaskan workforce. With its unique challenges and vast geographic expanse, Alaska requires an innovative approach to workforce development, particularly in critical sectors like electrical trades. Meeting the state's labor and workforce training needs necessitates a holistic, long-term strategy from secondary to post-secondary and trade schools.

How Do We Get There?
Conduct an objective Alaska inventory demand and forecasting for critical skilled jobs with a multi-year forecast and then develop a plan to recruit, train, and place Alaskans to meet Alaska's needs for these critical skill sets.

Calibrate and coordinate with Alaska Dept. of Labor, Intl. Brotherhood of Electrical Workers (IBEW), other organized labor, Alaska Vocational Technical Center (AVTEC), Associated General Contractor of Alaska (AGC) , Alaska Safety Alliance to optimize resources and coordinate together to maximize results to ensure that Alaska's labor market has the skilled workers necessary to achieve results on time and on budget.

Engage trades and secondary school systems in developing advanced secondary education, enabling a seamless transition from secondary education to successful building trades job placement.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
By harnessing Alaska's own resources and prioritizing its people, especially the coastal and rural communities, the state can build a self-reliant workforce ready for its unique challenges and opportunities that are essential in helping Alaskans lower the cost of energy, producing energy generation, transmission, and energy security for our communities and maintaining grid resilience.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1:

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Benefits:
The development of state policies and goals to negotiate and execute with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska-Federal Renewable Energy Working Group between the Governor's Office, Attorney General, Alaska Energy Authority, Alaska Department Commissioners, the USDA Forest Service and US Dept. of Interior (DOI) landholding agencies, and the US Department of Energy (DOE) and USDA Rural Utilities Services officials that promote energy development in Alaska to find common ground to develop renewable energy projects and related transmission lines to collaboratively and successfully open up Alaska federal lands for Alaska renewable energy development and transmission execution.

Utilize the creation of an Alaskan-Federal Renewable Energy working group to Develop, Draft, and Execute mutually approved agreements between the authority of the Governor and the Executive Orders of the President of the United States and initiate binding Congressional legislation and Alaska legislation as needed for asserting the State of Alaska consultive and input rights on the development of federal lands for the purpose of renewable energy development and transmission siting authorities. This collaboration aims to ensure Alaska's consultative rights in renewable energy projects on federal lands and to shape necessary legislation.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1 (CONT.):

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Seek, negotiate, and obtain through agreement or through initiated federal legislation State primacy on existing and potentially new renewable energy Power Site Classification Sites (PSC) found on federal lands in Alaska identified in established Bureau of Land Management Public Land Orders and aimed for greater access to these PSC for development.

https://archive.org/details/powersiteclassif02geol/mode/2up

Seek, negotiate, and obtain through agreement or through initiated federal legislation a Renewable Energy Land Use Designation (RELUD) and Transmission Line Land Use Designation(TLUD) that overlay and have priority over all other Land Use Designations in the Tongass and Chugach Forest Land Use Management Plans.

Negotiate with federal agencies and obtain State Primacy over RS 2477. A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State primacy and control all Alaska RS 2477 Rights of Way located on or near federal lands to facilitate access to and from renewable energy sources for development. Seek to have State primacy on all RS 2477 trails and roadways in Alaska located on federal lands to facilitate access to and from renewable energy sites for development.

https://www.blm.gov/sites/default/files/docs/2022-05/PDF_AK_State_of_Alaska_RS2477_BLM_AK_RAC_May_2022_James_H_Walker.pdf

Enlist support from the Alaska Congressional Delegation to introduce legislation to have Alaska and other affected States gain state primacy over RS 2477 Rights of Way located in their respective states.

A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State authority over Section 4407 easements in Southeast Alaska or near federal lands to facilitate access to and from renewable energy sources for development. These easements were created pursuant to a land exchange ratified by Congress in Section 4407 of a 2005 federal transportation funding bill.

https://dot.alaska.gov/sereg/projects/sitka_katlianbayroad/assets/Section_4407_Easement.pdf

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Alaska's renewable energy development with cooperation and support from the federal government to achieve national purposes while reducing the energy cost of Alaskans. The expected results will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources on federal lands to achieve lower costs and meet national goals for reducing emissions.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2:

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Background:
Coastal Alaska communities are keen on lowering their energy, heating, and transportation costs through collaboration of State, Tribal, and federal resources. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Furthermore, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By working together, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint effort can enhance the creation, sharing, and use of energy across the State. Additionally, recent legislative changes in the Inflation Reduction Act actively seek to fund energy developments with tribal entities, which could provide lower-cost energy benefits and local energy resilience in many areas of Alaska.

Federal agencies, specifically the US Department of Energy (DOE) and the US Department of Agriculture, Rural Utilities Services (USDA-RUS) have rural and tribal-centric programs that can advance the State of Alaska's goals to develop energy infrastructure and reduce energy costs for Alaskans.

Benefits:
The State of Alaska, specific federal agencies, and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans and Alaskan communities. By identifying and sharing information, plans, and initiatives and then establishing a framework to cohesively advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska, federal agencies, and Alaska Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

How Do We Get There?
Establish a working group of regional tribes interested in or working on energy solutions to lower the cost of energy with State of Alaska officials, Alaska Energy Authority (AEA), the Governor's Office, and the Denali Commission. The working group would identify areas of mutual assistance to advance locally sustainable energy developments and transmission projects by strategically and tactically optimizing federal and tribal funds to achieve mutual energy goals of lower-cost and self-sustaining energy systems.

Identify and attract federal tribal energy program participation, technical assistance, and financing to work with state agencies to streamline permitting, regulatory processing, and funding to advance projects and transmission to lower energy costs and provide community energy security.

The US government has specific energy assistance programs for tribal entities to partner with the State of Alaska, Communities, and public/private developers of generation and transmission that work together with a unity of purpose and effort to assist in lowering the cost of energy for Alaskans.

If deemed viable and valuable, create a Fed State Navigator role or duties assigned to an existing position to assist rural and tribal entities in navigating the State permitting processes to develop and construct local renewable energy and transmission projects using tribal and federal funding with State assistance.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2 (CONT.):

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
This Action item, with its implementation steps, offers a roadmap to gain common ground, synergies, and practical outcomes for Alaska communities with overlapping interests of federally recognized tribes to achieve the mutually beneficial goal of lowering the cost of energy for Alaskans.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1:

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Background:
The foundation of Alaska's most cost-effective energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once the hydropower project's initial debts are settled, they yield consistent, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and commerce today and well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

Both in Alaska and across the U.S., the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — position it to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.

Benefits:
Hydropower in Alaska is not just an energy source; it's our Alaska energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure, we're not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and also reaping benefits for future generations with sustainable, clean energy. Investing in hydropower is our Alaska commitment to Alaska's proven energy model, where hydropower assets exist for a brighter, more affordable, energy-secure future for Alaska.

How Do We Get There?
Evaluate and execute adaptive investment practices from the Bradley Lake and Four Dam Pool model and combine them with some of the prudent practices of BC Hydro to create a public-private State of Alaska corporation to develop, invest, own, and oversee operations of new hydropower facilities in Alaska.

Provide and fund AEA the authority to identify and invest in regional hydropower and hydropower transmission and distribution assets for the public benefit.

Encourage utilities to financially participate in ownership and long-term offtake arrangements to provide energy security and growth in service areas or to allow utilities to service new large industrial loads-mining and cruise industry shore power.

Combine federal tax incentives, grants, and loan programs to optimize lower-cost financing and equity costs to lower the cost of power now and over the life of the assets.

Establish a State of Alaska Power Fund to own and operate Alaska hydropower assets that can provide regional benefits. Establish State of Alaska administered and supervised investment mechanisms and equity ownership for utility, tribal, and local community investments, combining local equity with federal financing through existing or new federal programs.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1 (CONT.):

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Seek federal legislation to provide funding for a State of Alaska Power Fund to help Alaska provide energy security for Alaska military bases and installations for the benefit of Alaska support for Alaska-based military and Coast Guard operations for national security.

Identify, support, and fund to build local and regional hydropower to serve Alaska communities and multiple transmission interconnected communities at economies of scale, providing lower-cost power. Alaska Energy Authority (AEA) and Alaska Industrial Development and Export Authority (AIDEA) financially support through existing programs and investments any executable-ready hydropower project (permitted/licensed, designed, economically feasible) that will provide lower-cost electricity over the project's life.

Identify, seek, and support the construction of hydropower assets to export power to provide economies of scale for hydropower projects to lower the energy cost for Alaskans by selling export power to finance and economically enhance a hydropower project's economic viability.

Develop and support economically and with regulatory approval intertie connections and transmission corridors to strategically place transmission to interconnect current and future transmission to provide transmission corridors to known and undeveloped hydropower locations.

Establish a State/Federal Power board, through Congressional legislation, to cooperatively have the Federal government land owners actively assist the State of Alaska in developing hydropower assets on federal lands.

Review, refine, and amend Sec. 42.45.350. Licensing for water-power development projects and enacting state regulatory control over small hydropower development with Alaska interdepartmental coordination to support hydropower projects with abbreviated regulatory permitting.

Governors Office and AEA work with the Congressional delegation to craft legislation to ensure that FERC-exempt or state-licensed hydropower projects qualify for all eligible federal Production Tax Credits (PTC) and Investment Tax Credits (ITC).

The Governor's Office and AEA work with Alaska's Congressional delegation to craft and support legislation identifying hydropower as a renewable carbon-free energy source for all federal legislative, regulatory, taxation, incentive, and national security purposes.

AEA provides an option for Renewable Energy Credit (REC) participation through a statewide pool. This pooling approach aims to achieve economies of scale when selling RECs. By doing so, both state-owned and other hydropower projects can maximize the value of Alaska's hydropower RECs. The ultimate goal is to reduce the cost of electricity for Alaskans.

These action steps have statewide applicability for other regions of Alaska where critically important hydropower development assets exist.

Implementation Timeline:
This action item has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1:

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

Background:
Heat pumps are widely used in Northern Europe, with over 90% market penetration. They efficiently provide affordable heating even at temperatures as low as 13˚ F, lowering the costs in these arctic, subarctic, and temperate regions.

		2014	2015	2016	2017	2018	2019	2020	2021	2022
Table 3.5-1: Heat pump market shares development by country - space heating	Denmark	43.9%	54.3%	56.5%	69.2%	72.0%	75.8%	80.4%	82.6%	91.4%
	Estonia	77.5%	77.6%	80.7%	80.5%	79.9%	80.5%	82.5%	86.0%	86.7%
	Finland	88.1%	86.6%	87.4%	88.9%	90.5%	92.5%	93.5%	94.7%	96.5%
	Norway	95.4%	96.0%	96.9%	96.5%	96.7%	96.6%	96.3%	97.6%	98.0%
	Sweden	90.6%	90.8%	91.3%	91.4%	91.0%	90.9%	90.8%	92.1%	94.8%

Source EHPA-European Heat Pump Market and Statistics 2023

Several communities of Alaska are experiencing a significant transformation from more expensive fossil fuel heating sources to lower-cost heat pumps, saving Alaska households.

Benefits:
How can Alaskans and Alaskan communities capture the lessons learned from Northern Europe, Canada, and Maine in ensuring that Alaskans gain from these successes and promote the same opportunities to lower their energy costs and improve their quality of life by spending less of their income on home heating?

How Do We Get There?
Strategies and Tactical Steps for Advancing Heat Pump Adoption in Alaska:
a. Collaborate Internationally: Partner with the European Heat Pump Association https://www.ehpa.org/ and the International Energy Administration Heat Pump Centre https://heatpumpingtechnologies.org/about/heat-pump-centre/ to leverage models and programs that have successfully increased heat pump adoption. Collaborate with Provinces of Canada that have heat pump adoption programs

b. Collaborate with Maine State Housing Authority and Efficiency Maine to learn of their programs to adapt and adopt a tailored State of Alaska heat pump program with the following suggestions

c. Homeowner Financing: Offer zero or low-interest loans to homeowners through AHFC and related programs, enabling Alaskans to transition to cost-effective heat pump heating systems.

d. Business and Public Facility Financing: Provide zero or low-interest loans via AHFC and other state organizations for businesses, apartment complexes, schools, governmental buildings, and NGO facilities to adopt heat pumps. This effort aims to reduce heating expenses for these entities, ultimately benefiting Alaskans.

e. Community Heating Solutions: Allocate funds for community District Heating projects that utilize heat pumps, further decreasing energy expenses for Alaskan residents.

f. Have AHFC publish and adopt for use the Juneau Commission of Sustainability fuel price calculator to assist communities and individual households with their annual fuel savings and use the savings to assist in financing for heat pump purchase and installations https://juneau.org › wp-content › uploads › 2019 › 06 › jcos_fuel_price_calculator-.xlsx

g. Bulk Purchasing: Collaborate with top manufacturers and suppliers to buy heat pumps in bulk, ensuring Alaskans receive a discounted rate and, consequently, more affordable heating solutions.

h. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality heat pump installations across Alaskan communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1 (CONT.):

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

i. Public Education: Partner with Alaskan non-profits such as Alaska Heat Smart and tribal organizations with heat pump programs to educate the public about heat pump benefits. This includes offering building assessments for heat pump suitability and providing unbiased advice and recommendations.

j. Utility Billing Integration: Obtain RCA authorization allowing electrical utilities to introduce on-bill financing. This lets Alaskans conveniently pay off their heat pump loans directly through their utility bills, streamlining the repayment process for consumers and AHFC alike.

k. RPACE-Residential Property Assessed Clean Energy. Consider State adoption of a streamlined, easy-for-consumer RPACE program. USDOE best practice guidelines: https://www.energy.gov/sites/prod/files/2016/11/f34/best-practice-guidelines-RPACE.pdf

l. Federal Support: Pursue federal aid and funding to bolster State of Alaska initiatives and community projects. This support will drive the widespread adoption of heat pumps, ultimately reducing energy costs for Alaskans.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska that is tried and proven in other arctic, sub-arctic, and temperate locations. The expected results will lower Alaskan's heating costs and reduce the dependency on imported fuels, creating demand for the development of local energy resources to displace imported fuels.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of heat pumps in Alaska to lower the cost of heating in Alaska.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2:

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Background:
Alaska set the standard for cruise ship shore power in Juneau, a model now global. This system benefits cruise lines financially, extends their stay in Alaskan ports, and fortifies our coastal grids. All modern cruise ships, including those being built today, are shore-power compatible. Seward and Whittier, with their utilities, are now developing these facilities. Efficient shore power involves precise transmission infrastructure, substations, and quick-connect equipment for cruise ships requiring 3MW to 8MW each. For perspective, Juneau's Franklin dock, with full shore power utilization, recorded over 6,000 MWh in a single cruise season. Such infrastructure investments uplift not just the cruise sector they also bolster community resilience and present affordable energy alternatives, enhancing community energy reliability and assisting the State and communities to reduce the cost of power for Alaskans.

Benefits:
By spearheading shore power, Alaska boosts its grid reliability, attracts local energy investments, and showcases greener, emission-free ports—enhancing its global appeal. The Alaska shore power task and purpose propels job growth and infrastructure enhancement, supports industries, augments energy resilience, and slashes energy bills for its residents.

How Do We Get There?
Alaska Energy Authority (AEA) provides technical oversight and assistance to communities, Independent Power Producers (IPP's), and local utilities to develop a shore power electrification plan to provide shore power at all cruise dock facilities in Alaska.

AEA and Alaska Industrial Development and Export Authority (AIDEA) support public-private transmission, distribution, and generation investments to execute shore power in Alaska communities using state head tax funding distributed and accountable to AEA.

Dept of Commerce and Community Development (DCCED) AEA, and the Regulatory Commission of Alaska (RCA) encourage communities to develop shore power planning for future-proofing generation and distribution infrastructure to meet current and future demand, fully utilizing Alaska generation and transmission resources.

AEA/AIDEA Develop a technology term sheet and outline for communities using known and established Alaska and worldwide shore power engineering and infrastructure firms established with tried and proven late generation (automated quicker connect and disconnect times) shore power distribution, BESS, and shore-to-ship connection infrastructure. EPS-Anchorage, WABTEC Stemman Technik, and other late shore power generation systems.

State of Alaska engage with Alaska's congressional delegation to modify federal transportation statutes and programs to include and support cruise marine vessel port funding on par with freight ports.

State of Alaska, AEA Establish and encourage cruise line industry participation and support in statewide shore power planning.

AEA/AIDEA Support by encouraging and funding power generation projects that support firm power generation for cruise line shore power during cruise season and supply winter load power in the off-season to bolster local energy resilience and security.

Identify legislative and regulatory modifications to support shore power installations in coastal communities to support economic development.

State, DCCED, and private companies combine Alaska tourism marketing programs to incorporate Alaska's strategy to shore power Alaskan ports to assist in marketing Alaska as a clean port state destination.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

AEA provides engineering systems to assist with pre-engineer systems to the extent possible to reduce purchase costs, gain consistency in systems, and incorporate local Battery Energy Storage Systems to enable local utilities to ramp up and provide quick connect and disconnect times using proven late-generation technologies used in fast connecting ports worldwide.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska has the potential to take a leadership role in shore power development by executing a carefully planned strategy. By focusing on shore power, Alaska can expand the demand for renewable energy. This increased demand can then stimulate further growth and construction of the state's renewable energy sources. The ultimate goal is for Alaska to be recognized globally as a leader in shore power implementation. Successful results have multiple benefits: higher revenues for utilities, encouraging investment in the energy generation and distribution infrastructure, enhancement of the State's energy resilience, reliability, and capacity, and decreasing energy costs for the residents of Alaska.

Additionally, dock electrification resources could provide electrical delivery from ship to shore emergency power to communities in the event of natural disasters providing an energy security back up for distressed communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.3:

Beneficially electrify the Alaska Ferry Fleet to lower cost of transportation, and emmissions and assist in reducing the cost of power in coastal communities.

Background:
Alaska Department of Transportation & Public Facilities (DOT&PF) and Southeast Conference (SEC) are partnering to conduct a Low Emission Ferry Research project. Alternative fuel powered, low-emission, and electric ferries could be a game-changer for Alaska's Marine Highway System, as DOT&PF starts to replace AMHS's aging fleet in upcoming years. Fuel efficient ferries could increase the range and capacity of the fleet, potentially increasing service to communities and reducing AMHS operating costs.

Benefits:
How can Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System (BESS) to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Refine shoreside energy storage system sizing for expected future vessel schedules.
- Prepare site plans for each port where a shore-side charging BESS is beneficial to meet current and future charging demands. Consider:
  - Permitting difficulties;
  - Floating vs. Shoreside.
- Investigate the capacity of available hydro power and impacts to the community where it is expected to be the primary source for powering electric ferries. Evaluate the impact to local power costs from periods of constricted supply when diesel power plants must be utilized to supplement or replace hydro power.
- Develop benefit calculation for avoided greenhouse gas emissions due to use of electric ferry routes powered by greenhouse gas neutral-generation electricity.
- During Low/No Emission port and BESS design, consider incorporating electric motor vehicle (National Electric Vehicle Infrastructure Program – NEVI) charging stations.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

- 3-5 years to secure funding from IIJA and other sources for specific ferry replacement projects.
- 5-10 years to complete design and construction of IIJA-financed vessels.

Expected Results:

- Lower carbon emissions compared to conventional diesel-mechanical engines.
- Increased electric utility revenues from purchase of electricity by BESS.
- Purchase of electricity at less than peak-rates for lower cost energy to AMHS ferries.
- BESS supported microgrids in AMHS communities.
- More reliable ferry service to AMHS communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.4:

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

Background:
Alaskan entities and government agencies built many legacy Alaska hydropower projects in Coastal Alaska to serve industrial loads. Many of the legacy hydropower assets of Juneau were developed, constructed, and operated by mining interests to power mills and lower the cost of mining. This tried and proven model of building hydropower to subscribe the generation output to large mines and other industrial loads provides economies of scale to finance large hydropower and transmission investments by creating economies of scale. The hydropower development history of Alaska and the colocation of industrial loads offer valuable lessons learned for Alaska as Alaska leans forward to increasing its energy security, and resilience and achieving lower-cost energy. These legacy hydroelectric facilities built in the past now provide the lowest-cost wholesale power in Alaska, proving the long-term investment model through providing long-term energy dividends in some cases for over 100 years.

The large customer concept whereby a hydropower project serves the Alaska industrial base, be it a military installation, a mine, a fish processing plant, or future industries like data service centers or even transferring a power consumptive industry (ferries, cruise ships, trains-such as electrifying the Alaska railroad) from diesel to electric provides the opportunity to colocate industrial loads near hydropower generation that can provide firm and conditionally firm power to establish lynchpin industry and employment in Coastal and Alaskan communities situated with hydropower resources. This concept is a tried and proven Alaska energy model based on historical development.

Today, the added benefit of producing clean power to meet Environmental, Social, and Governance (ESG) further compels the attraction of industry to use Alaska hydropower. ESG refers to the three central factors in measuring an investment's sustainability and societal impact on a company or business. These criteria are increasingly becoming crucial to investment decisions, as many investors recognize the long-term importance of sustainable operations for business success. In the context of investing, Socially conscious investors evaluate and screen investments for sustainability and ethical considerations using ESG metrics. Companies with strong ESG profiles may be deemed more future-ready and less risky in facing regulatory or reputational challenges. Colocating industrial loads with clean hydropower can competitively assist the State and investing companies in reducing regulatory and reputational risks.

Additionally, hydropower offers another product form that can generate revenues to lower costs of energy: cold water. The cold outtake water from a hydroelectric facility is valuable for circulating cooling water for data servers that require chilled rooms to operate efficiently. Colocating future data server operations at or near hydropower locations is a recent phenomenon that offers lower-cost energy to operate the data servers and reduces server chilling costs necessary to operate data server centers at peak efficiency.

Indeed, large industrial loads such as mines, data server centers, fish processing and freezing operations, and other large energy-consumptive industries provide the requisite economies of scale to finance and build hydropower opportunities in Alaska but also invigorate clean industrial development that not only creates and sustains family wage jobs but also provides the trajectory to lower energy costs through economies of scale.

Benefits:
Strategically collocating large industries, such as mines, fish processing plants, military bases, and data centers, near hydropower facilities is a game-changer for Alaska. It offers a dual benefit: fostering economic growth and ensuring cost-effective, sustainable energy for Alaskans. By leveraging the enduring 100-year lifecycle of hydropower, which has the lowest cost over time, Alaska can capitalize on its historic model of harnessing hydropower to drive industrial growth. This symbiotic relationship boosts Alaska's economic prosperity, creating jobs and opportunities and guarantees the most affordable power for its residents.

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ACTION B-4.4 (CONT.):

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

How Do We Get There?

1. Unified Policy Development :
   - Policy-making entities: Governor's Office, Department of Commerce and Community Economic Development (DCCED), Alaska Industrial Development and Export Authority (AIDEA), and Alaska Energy Authority (AEA) can collaborate to devise a policy promoting the recruitment and facilitation of industrial load development in Alaska to mate with future hydroelectric development. This collaboration of policy can leverage the historically successful Alaskan energy model to achieve multiple and synergistic Alaska benefits: local economic prosperity, energy security, job creation, and long-term reductions in energy costs.
2. Promotion of Long-term Hydropower Resources:
   - DCCED, AIDEA, AEA, and RCA should advocate and actively recruit for developing enduring hydropower resources, emphasizing their anchoring by industrial loads. Through strategic industrial colocation, hydropower, and related transmission, Alaska can harness the compounded benefits and ensure lower-cost energy for its residents throughout the century-long lifecycle of hydropower assets.
3. Legislative Action for Industry Attraction:
   - The Alaska legislature should enact laws and regulations incentivizing industries to align with Alaska's hydropower potential. Legislative action would underscore the vast economic advantages and clean energy outcomes resulting from maximizing the use of existing hydropower and fostering the creation of new hydropower projects within the State to advance the stated multiple and synergistic Alaska benefits that this initiative inspires.
4. Assistance and cooperative support for local initiatives and developments
   - DCCED, AIDEA, AEA, and RCA assist local communities and hydropower developers in local initiatives and development of optimizing hydropower assets and industrial loads to provide synergistic Alaska benefits, including lowering the energy cost for Alaskans.

Governors office, DCCED, AIDEA, and AEA, develop a policy that supports the recruitment and attraction of industrial load development in Alaska using this proven Alaska energy model for multiple beneficial purposes: prosperity, energy security, job creation, and long-term lower energy costs.

DCCED, AIDEA, AEA, and RCA support the development of long-term hydropower resources anchored by industrial loads and colocation/transmission of hydropower to achieve the synergistic benefits and obtain lower-cost energy for Alaskans over the 100-year life cycle of hydropower assets.

Alaska legislature enacts legislation to attract industry and support the colocation of Alaska industrial development to subscribe to new hydropower generation economically, recognizing the substantial economic prosperity and clean energy emissions benefits of fully subscribing to current hydropower and developing and constructing new hydropower in Alaska.

Implementation Timeline:

This action item has a blend of Immediate to long-term tasks for implementation.

Expected Results:

This proposed roadmap enables Alaska to tactically accelerate the positive development of new hydropower assets by strategically positioning and transmitting clean hydropower energy to industrial loads. The economies of scale of industrial sales assist hydropower in meeting economic viability while paying down the debt to offer the lowest cost power over time. This tried and proven Alaska hydropower/industrial load model can repeat itself as Alaska looks to develop the next tranche of hydropower assets to meet Alaska's energy needs to propel economic prosperity and achieve lower-cost energy for Alaska's current and future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.5:

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

Background:
BESS/ESS technology has advanced to the point that indicates significant potential savings for communities that are dependent on diesel power generation for electrical needs. Some new supercapacitor systems boast 97% efficiency and estimate up to 75% savings in diesel fuel consumption to provide equivalent power using BESS/ESS. US DOD is looking at exploiting this technology in Alaska. Other utilities have deployed other BESS technologies and energy storage works, promising to stabilize Alaska grid networks and microgrids.

There are several BESS demonstration projects currently being tested in Alaska. BESS technology provides a potential opportunity to significantly lower the cost of power generation in some rural and coastal Alaskan communities.

Background on Battery Energy Storage System (BESS):
1. Functionality: Simply, BESS stores electrical energy for use at a later time. BESS is especially important for integrating intermittent forms of renewable energy and immediately supplying large quantities of energy in seconds or minutes (supplying power to cruise ships) while stabilizing grid operations.

2. Components: A BESS typically includes the following:

Batteries: These are the actual storage units and can be of various types, such as lithium-ion, lead-acid, flow batteries, etc.

Power Electronics: This includes inverters and converters, which help transform electricity from AC to DC (and vice versa) and control the flow of electricity.

Control Systems: These manage the BESS's operations, ensuring it charges and discharges at the correct times and maintains optimal performance.

Thermal Management Systems: Maintaining a stable temperature is crucial for battery longevity and safety.

3. Types of Batteries: The most common type used in modern BESS installations is the lithium-ion battery due to its high energy density, long cycle life, and decreasing costs. However, other types, like flow and solid-state batteries, are being researched and deployed for specific applications.

Advantages of Battery Energy Storage Systems (BESS):

1. Grid Stability and Reliability: BESS can absorb or release power quickly, helping to stabilize grids, especially when there's intermittent renewable generation like solar or wind, and is especially useful in turning on and off large periodic loads like cruise ships.

2. Peak Shaving: Batteries can be charged during off-peak hours when demand (and often cost) is low and then discharged during peak demand times. BESS helps utilities and consumers reduce costs and can prevent the need for firing up expensive and potentially polluting "peaker" power plants or forego electric sales waiting for ramp-up times from other sources.

3. Integration of Renewables: Batteries make it easier to integrate renewable energy sources by storing excess energy when it's available and releasing it when needed.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security , increase grid resilience, and lower energy costs.

4. Microgrids & Energy Independence: In areas with unreliable grid connections or no connection at all, BESS can form the backbone of Coastal community grids that can operate independently and withstand outages.

5. Reduced Transmission and Distribution Investment: By placing BESS at strategic locations, utilities can delay or avoid expensive upgrades to transmission and distribution infrastructure.

6. Load Leveling: By storing energy during periods of low demand and releasing it during high demand, BESS can help level out the demand curve, ensuring a consistent power supply and reducing stress on the grid.

7. Backup & Emergency Power: BESS can serve as an emergency power source during outages, ensuring continuity in critical facilities like hospitals.

8. Support for Electric Vehicle (EV) Charging: As EV adoption grows, BESS can ensure that rapid charging stations get the power they need without causing strain on the local grid.

9. Economic Benefits: With the suitable RCA regulatory structures in place, BESS operations can pay for themselves by providing various grid services, from frequency regulation to capacity services.

10. Environmental Benefits: BESS can significantly reduce greenhouse gas emissions by enabling more renewable energy integration and reducing the need for fossil fuel-based peaker plants.

Benefits:
How can Alaskans and Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids, while lowering energy costs and improving their quality of life by spending less of their income on home energy costs and promoting local economic development?

How Do We Get There?
Strategies and Tactical Steps for Advancing BESS/ESS Adoption in Alaska:

a. Gather data from modeling and from existing BESS/ESS demonstration projects in Alaska to determine actual diesel fuel savings, and power reliability to meet demand, maintenance, and operation costs.

b. Gather proven performance data from BESS projects to prove out cost-saving claims.

c. Funding: Support local community efforts to access to Energy Improvement in Alaska to include rural or Remote Areas grants through the US Dept of Energy, Office of Clean Energy Demonstrations (OCED).

d. PPP: Encourage rural/coastal communities to pursue innovative financing vehicles to attract public-private-partnerships (PPP) and investment.

e. Public Facility Financing: Offer zero or low-interest loans to communities through AHFC and related programs for power generation to purchase and install BESS/ESS systems to improve reliability and lower energy costs.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

f. Bulk Purchasing: Encourage local communities in regions to pursue discounted contracts with BESS/ESS providers for multiple unit purchases.

g. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality BESS/ESS operation and maintenance across Alaskan communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska's Energy Revolution with BESS/ESS

- **Strategic Approach:** Alaska can effectively deploy BESS/ESS, a proven energy solution in similar climates.
- **Multiple Gains:** This leads to reduced power costs, decreased fossil fuel use, full utilization of energy resources by saving energy surpluses when available, and lower Greenhouse Gas (GHG) emissions.
- **Power Stability:** Enhances energy reliability throughout Alaska in both interconnected and stranded grid systems.
- **Coastal Advantages:** Enables coastal areas to support cruise ships and port growth.

In essence: With careful planning, Alaska can capitalize on BESS/ESS for cleaner, cheaper, and more resilient power, benefiting railbelt, rural, and coastal communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of BESS/ESS in Alaska to lower the cost of heating in Alaska and improve local energy security and grid resilience, helping communities achieve task force goals of Affordability, Reliability, and Resilience.

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ACTION C-2.5:

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Background:
Due to the remote nature of many Alaskan communities, many rural Alaskan communities must generate their own power for electricity and heat. Rural power generation in many cases is from diesel fueled generators. This vastly increases the cost of power in rural Alaska. Infrastructure investments that may help lower the cost for some rural Alaskan villages are building transmission lines from the Railbelt utility system to local villages, between local villages, or between local villages and private or public sector anchor tenants to grow economies of scale. This would allow villages connected to other power grids to enjoy power costs comparable to Railbelt residents.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, construct, and maintain transmission infrastructure tied to the Railbelt or other grids to ensure remote/rural Alaskan communities enjoy similar cost of power as Railbelt residents.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Identify the appropriate organization(s) that will oversee the development and construction of the grid. Task 1 is to ensure that all impacted parties are onboard, and that the organization has appropriate authority.
- Coordination and cooperation between energy sources and requirements of an integrated grid.
- Consolidate the variety of interconnection proposals that have been performed to date and select those most technically feasible.
- Estimate greenhouse gas reductions, fuel savings, and other direct savings.
- Assemble the team to recommend approaches to accomplish technically feasible alternatives i.e., segmented versus consolidated grid system.
- Investigate alternative financing options, including direct state investment, allocation of PCE funds, federal & state grants, subsidized loans, and P3 opportunities.
- Identify priorities that bring maximum and immediate return. The savings that can be applied to the balance of the project.
- Evaluate opportunities to co-develop energy infrastructure with transportation and other infrastructure developments

Implementation Timeline:

- Within 1 year have the organization identified and established.
- Within 2 years:
  - Have a technically feasible alternative identified.
  - Implement design and engineering.
  - Identify the most likely funding sources and environmental requirements.
- By year 3:
  - Obtain necessary permits.
  - Develop schedule for construction activities (define scope).
  - Procure qualified contractors.
- By year 5:
  - Authorize construction.
  - Establish operating guidelines and responsibilities.

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STRATEGY C-2: INFRASTRUCTURE INVESTMENT

ACTION C-2.5 (CONT.):

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Expected Results:

- Fuel cost savings from reduced diesel dependency.
- Greenhouse gas reductions.
- Reliability and resiliency benefits.
- Spur local economic development and employment.
- Expanded opportunities for distributed renewable resources.
- Reduced dependency on PCE (could funds be reallocated i.e., M&O).
- Measure and demonstrate the project as a template for other regions

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ACTION C-3.4:
Grid modernization and automation

Background:
Due to the remote nature of many Alaskan communities, there is potential for loss of power (electric/heat) without awareness outside of the community. Power loss may also reduce or prevent the ability to communicate outside of the community, threatening public health and life safety during temperature or climate extremes. Power plant automation, remote sensing equipment or use of growing drone technology, data management and artificial intelligence, and other emerging technologies provide the ability to automatically or remotely to avoid power system failures or outages, and alert power providers with notice of a failure to focus and accelerate recovery and restoration efforts.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate plant automation, remote sensing technology, unmanned aerial systems, data-driven preventative maintenance programs and other grid modernization enhancements to ensure remote/rural Alaskan communities are able to avoid or recover from power failures as expeditiously as possible, while improving reliability and reducing operating costs.

How Do We Get There?
- Enhance communications infrastructure and reliability. For example, ensure all new power conductors incorporate a fiber optic data and communications line.
- Enhance manually operated power plants with automation and remote monitoring and control operations including necessary communications infrastructure upgrades i.e. fiber optic and other platforms. Prioritize critical functions including remote black start, emergency stop, economic dispatch, video monitoring, and fuel system monitoring capabilities.
- Incorporate automation, remote monitoring and control, computer based data collection and storage predictive and preventative maintenance platforms, and communications upgrades into all new or replacement power plant projects.

Implementation Timeline:
- Within 1 year identify pilot communities and develop a modernization framework for those communities. Identify currently automated rural communities and capture lessons learned and best practices for guidance and knowledge-sharing to advise and streamline pilot deployments.
- Year 2 – Perform feasibility assessments, identify and select pilot communities or energy systems for modernization. Aggregate funding sources that can be allocated to selected projects to be undertaken by the producers and project partners. Identify adjacent opportunities for infrastructure enhancements to share the costs and benefits of grid modernization (automation of community water and sewer treatment facilities, for example).
- Years 3-5 deploy grid modernization enhancements to pilot community/communities and document and refine the process to serve as a template for additional communities. Each implementation should be continuous from inception to completion.

Expected Results:
- Improved grid reliability.
- Faster response and restoration times for outages.
- Improved operating efficiencies.
- Improved operations and maintenance of rural system to reduce preventable or catastrophic failures.
- Improved communications platforms that can be co-purposed to meet other community needs
- Provide opportunities to cost-share for other community infrastructure modernization initiatives.

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STRATEGY F-1: PLACEHOLDER STRATEGY TO BE DETERMINED

ACTION F-1.6:

Provide budgetary support for the Regulatory Commission of Alaska (RCA).

Background:
The RCA is responsible for regulation of public utilities and pipeline carriers in Alaska. Most of the statutes and regulations that govern RCA authority were developed during a period of time when the electrical generation and transmission utilities in Alaska generally operated islanded systems primarily built around baseload generation. However, as Alaska has grown and the technology for generation, transmission, and storage has advanced, the responsibilities of the RCA have grown more complex.

The Alaska Energy Security Task Force (AESTF) did not conduct a review sufficient to be able to recommend a comprehensive overhaul of the statutes or regulations that govern the RCA. Anectodely, it is understood that there are some improvements that could be made to facilitate more efficient utility regulation. It is also understood that the RCA is evaluating its own process and regulations to identify potential efficiencies.

However, the AESTF did find that within all expected scenarios, the RCA must be provided sufficient budgetary support to be able to attract and retain the highly skilled technical, legal, and administrative staff necessary to help adjudicate the complex and rapidly increasing pace of decisions that are necessary in today's to support Alaska's continued access to affordable, reliable, and resilient energy.

Benefits:
Provide enhanced regulatory support to better facilitate proposed recommendations of the AESTF.

How Do We Get There?
Executive branch collaborate with RCA to incorporate staff budgetary recommendations into 2024 operating budget.

Implementation Timeline:
2024 Alaska operating budget.

Expected Results:
Reduced casefile processing time by a highly skilled RCA will support Alaska's transition to a more integrated and technologically advanced energy utility landscape.

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Alaska Energy Security Task Force
MEETING MINUTES
Tuesday, October 3, 2023
Anchorage, Alaska

1. **Welcome and Introductions**

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on October 3, 2023, at 1:32 p.m.

2. **Roll Call**

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Clay Koplin; Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Jenn Miller; Duff Mitchell; John Sims; Isaac Vanderburg; Robert Venables; Brittney Smart on behalf of Dr. Daniel White; Anne Rittgers for Senator Bishop; Garrett Boyle (Ex Officio); Crag for Representative Rauscher.
Also present were Andrew Jensen, Policy Advisor to Governor Dunleavy; Michael Yaffee and Marc Luken, Michael Baker International (consultant); and Jennifer Bertolini, AEA.
A quorum was present to conduct business.

3. **Prior Meeting Minutes – September 19, 2023**

MOTION: Vice-Chair Thayer made a motion to approve the Minutes of September 19, 2023, as presented. Motion seconded by John Sims Task Force Member. There were no objections. Motion passed unanimously.

4. **Survey Results**

Chair Lieutenant Governor Nancy Dahlstrom asked Vice-Chair Thayer to introduce the survey results and then we will start our reviews from the different groups. Vice-Chair Thayer reminded task force members that before the last meeting Michael Baker had sent out a survey to task force members with questions designed to help members determine prioritization for their committee. After conversations with the task force, Michael Baker staff redefined the survey to help narrow down what the task force was looking for. Therefore, everyone got a new survey. It has now been concluded, and Vice-Chair Thayer turned the meeting over to Michael Yaffee with Michael Baker to walk through the revised survey results.

Mr. Yaffee stated that they intend to incorporate the survey results into the plan as a section called Next Steps. We want to identify five to seven high level, high priority actions for immediate implementation. And this survey is a tool that looks across all actions, all subcommittees to understand how we are evaluating the actions to reach those five to seven high-level priorities. Ultimately, though, task force members will decide what is listed in the plan and what will be identified as the next steps.

There are several different ways we can use the survey results as a tool to help us set prioritization. Some of these methods have been discussed at the subcommittee level, but not necessarily at the task force level. Mr. Yaffee went over the methods that can be used to weight

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the criteria. There is a simple method and a more complex method. Mr. Yaffee gave an example to illustrate the difference between the two methods.

We don't necessarily have to have an answer at the end of this meeting. This is all easily done in a spreadsheet, and we could do a sensitivity analysis, if the task force wishes, to use the results of the survey to start coding values. This is just meant to be a helpful tool that's quick and easy. The survey question that was posed was select evaluation, prioritization criteria below that should be considered for inclusion. And we noted affordability, reliability and resilience will be automatically included. So we withheld them from the survey.

Mr. Yaffee presented a PowerPoint slide with the survey results. He stated that overall, we had 12 responses, and, as can be seen, there was some natural grouping. Fifty percent of respondents agreed with these top criteria: related to other actions; legislative and regulatory--that's if an action is suggested for implementation within the first year after the plan is adopted; and then alignment across the different regions; funding mechanism; and cost effectiveness.

Then once you get below 50% response rate, we have the second grouping of technical feasibility; advance other state and local objectives; supported by best available energy data; legal authority to implement; and agency championing identified. Then the last grouping of if there is political support; environmental constraints and then administrative capability to implement.

We did capture a few open responses and questions:

- *I think these criteria can factor into investment infrastructure development decisions.*
- *These criteria comport with the subcommittee focuses.*
- *Is there a way to capture the relative impact when comparing. Some actions might be easy and will make a helpful tweak, but others may be harder and have a large impact. Maybe effort level, low, medium, high impact level.* If we use the more complex method, that may address this comment.
- *Priority should be given to those actions that impact the greatest number of Alaskans.* That could be looking at the regional analysis, there is greater weighting towards those. That is something we can test if there is a desire.
- *Why wasn't this survey offered "rank choice" since all should be considered. While some are more import, and none should be omitted.* That gets back to if we want to assign weights to some criteria versus others.
- *There are too many screening criteria for the survey to be used in screening or developing priorities. The Governor provided one decisively clear criterion…lower the energy cost for Alaskans, which should be the sole prioritization screening criteria. Should it not be up to the Governor and administration to decide the prioritization using the criteria factors mentioned.* Just to speak to that, I think it's meant to just inform the recommendations at the end of the report. It's up to the task force members on what those recommendations say.

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There was no response to the question, "are there other criteria that should be considered?" So we feel comfortable that we have captured all the criteria that we could possibly use to analyze this.

a. Discuss Prioritization Exercise

Mr. Yaffee asked if there were any questions from the task force members.

Mr. Izzo stated looking at the regional areas, they all stop at 60%. Is it just relevant that they all were above 50%? It's hard to imagine that they were all exactly the same or maybe they were. Mr. Yaffee responded that in terms of the responses, the coastal region actually received a little less. And that's just an indication of there may not have been full participation. The intent of this question, alignment with regions, was so that you could quickly scan and see actions that may have a greater impact across multiple regions versus ones that are just focused on a particular region. Those might be considered a higher priority. But again, the intent is, this is a tool to help task force members arrive at a final decision. Mr. Izzo stated that context helps. Thank you.

Mr. Yaffee asked task force members if they had a preference between the two different methods.
So having said that, is there a preference towards between the two different methods as we use these criteria and start working with the subcommittee to populate what the values would be to determine what actions should be prioritized.

Vice-Chair Thayer stated that prioritizing at least the first few is important. Not necessarily all of them, because we'll be here all day. But I think there are clearly within the subcommittees some that really stand out. And so I don't want to say that we want to do the top three. It could be the top two, it could be the top four. But I think giving flexibility and working with the subcommittee members would be helpful in understanding where they can move the needle.

Mr. Hanneman supports what Curt was saying. I believe that we need to ask each subcommittee to give us an elevator pitch, which is the two points, maybe three, that is the highest priority from their perspective. I think that'll be more useful because of their knowledge of the subject than trying to categorize it by this numeric method. Because I don't think we know enough about how to apply the criteria under the numeric method to each of the different proposed actions.
I'm not against trying and see what we get out of it. I think we should spend more time trying to align our objectives and our recommendations between the subcommittees and working on the duplication that exists and spend more time in the text of the recommendations, which I think is really important. And then asking each subcommittee to prioritize in some way.

Mr. Yaffee responded that Mr. Hanneman's comments make sense. If it's okay with the task force, one of the takeaways from this is we can ask each subcommittee what their top priorities are, then code them with this very basic, simple method just to go through that exercise. And

then from a big picture level, the task force can look at the top priorities across the subcommittees to determine what priorities align with these criteria and to answer the question of what has highest priority for the task force?

Task Force member stated he is looking beyond the work product. I'm thinking without specifics on how it's structured will we have a tool afterwards that we can apply. If we have three or four high level criteria, how does a new project or an opportunity line up with that? And it kind of gets back to setting a strategic vision that as we make investments and work to modernize and secure a grid, that it's affordable, reliable, sustainable and that we try to serve all the citizens of the state.

Mr. Thayer responded that however we do the ranking, there are going to be things that are going to occur in the near future and long-term future that will change the dynamics of it. I'll just say that AEA and others have participated in several grant opportunities. And, in some cases, we are an email away of finding out if it's a game changer. So even though it's a task force priority further down the list, but if money is associated with it and there's a way to get it done, all of a sudden it might move up to the top of the list. So I think everyone needs to understand the need for flexibility.

Mr. Yaffee added that's where the importance of innovation and emerging technologies comes in because these opportunities can pop up along the way and having a way to fit those into a plan or rationalize those is going to be important.

Mr. Mitchell stated that he agrees with Curtis' wisdom and comments. I mean we're looking at things in three dimension of time. What is good today is going to change a little bit in a year from now with dynamics of funding, federal actions, other things and there's a lot of levers with a lot of these actions that we're planning that could materially impact the prioritization.

And so an exercise of here and now, while important, I think is really critical that we also have the flexibility, the opportunity. We didn't get to this energy state in 30 days and we're not going to fix the energy state in 30 days. But I think the vision was that we have an energy plan, which imbibes a longer view. So I'm just tail hooking on your comment that I think that's wise, that regardless of the prioritization exercise that we use now, we need to reserve the ability to be able to pull things up or down as the situation changes. Thanks.

Mr. Yaffee thanked members for their discussion, as that helps us move forward.

5. Review Draft Report

Vice-Chair Thayer introduced this item. The draft report has been emailed to task force members and is available on the Task Force website and other venues. We are up to approximately 60 recommendations. He asked Michael Yaffee to walk task force members through the draft report.

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Mr. Yaffee directed task force members' attention to the PowerPoint presentation. Vice-Chair Thayer reminded task force members that any pictures used in this initial draft report are placeholders. There may be some that are out of place or in a wrong region. That will be revised as we fine tune the report.

Mr. Yaffee added that this is a working draft. We do have a preliminary table of contents. This is a familiar slide with the design vignettes. What you have before you today is Section 4 - Energy Priorities with priorities listed by subcommittee and contains their strategies and actions.

With the next iteration of this draft report, we hope to populate the other sections. So the Introduction will help go over the goals of the plan. The Planning Process is going to be an overview of all the public meetings and the documentation related to that. Energy in Alaska is a snapshot of the current state of energy in Alaska, largely informed by the energy symposiums that occurred. And then Next Steps is going to be focused on the prioritization and high level recommendations for next steps from the Task Force. And a more detailed Table of Contents.

At the end of the report, we will have appendices. There will be an appendix for definitions and then we also included two appendices in this kind of deliverable. They're still draft, but Appendix 2 is the action tracking sheet that you're used to seeing in terms of what we've presented in the past. That tracking sheet has been updated and now aligns with the kind of the new nomenclature numbers that have been presented in the report.
And then Appendix 3 is the additional action detail summary. So some committees have advanced the write-ups for many of these actions, where some of these actions have a lot of details in terms of next steps implementation and full background. It's almost implementation level details. Any actions that might be high priority that identify the next steps, we might take that level of detail for the next steps description. But beyond that, I think it's information that's useful but still needs be in the appendix. And we'll go through that when we get to the report itself.

Mr. Yaffee referred task force members to the meeting handout, which is Section 4 Energy Priorities. This should look familiar from what we've discussed in the past. He will do a quick overview of each priority and will invite the co-chairs of each priority subcommittee to highlight anything for each focus. As a reminder, there has been a lot of activity on the part of the subcommittees to rework their information and strategies since the task force last met.

So, the draft in front of you is more of a snapshot in time of where the actions currently stand. It's going to be a living document and there's going to be edits as we go forward, even during public comment period. So there may be placeholders on pages as we wait for additional information or input. We invite feedback--especially on photos. If you have photos, please forward those to us.

Mr. Yaffee then directed members to the PDF of the report and proceeded to walk them through the priority sections. This is how the report will appear online. The table of contents will have links to the title page for quick navigation through the report. Each section will have an area

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highlighting the public process and subcommittee meetings that occurred. There will be an appendix dedicated to the public meeting material and public comments. The layout is priority area/subcommittee. Then subcommittees organize the action items into strategies. One thing we are considering for the final plan layout is if there is additional summary for an action, we can actively link that here. So, you can jump to the appendix for the one page write up or additional write up related to that action. Just to make the plan fully interactive.

We are keeping a consistent layout for each strategy to make is easy to scan through. For each strategy, we have purpose, background, benefits, implementation, timeline, and expected results. And for the tracking sheet we're developing, each action will have high-level details related to timeline and potential partners. That's also included in the appendix.

Mr. Yaffee continued to scroll through the draft plan with task force members. He did comment that the Statutes and Regulations Subcommittee met that morning. One of their strategies is to look at other subcommittees actions to see what might need assistance in terms of updates to statutes and regulations. To help advance this discussion, Michael Baker staff created, along with Duff Mitchell from Coastal Subcommittee, a matrix, which may be helpful across all subcommittees. This matrix helps answer the question of actions identified in other subcommittees or priority areas that may relate to multiple subcommittees. Through this exercise, we found a lot of overlap between Coastal and Statutes and Regulations. The matrix presented in the draft report is a snapshot of today. This matrix should definitely be an agenda item in future subcommittee meetings, and we can be populating the matrix with further information identified in these meetings.

Mr. Yaffee directed task force members' attention to Appendix 2 - Acton Tracking Sheet. This should look familiar to task force members although we referred to them as worksheets in the subcommittee meetings. The tracking sheet includes actions, priority updates and has similar numbering as the rest of the report for ease in navigation. Mr. Yaffee pointed out some high level gaps, because new actions have been added and some restructuring at subcommittee level is needed. This is something to go back in to backfill and identify some of this information before the final plan.

He then moved on to Appendix 3 - Additional Action Detail Summary. This appendix is an action by action summary from some of the committees. Actions are listed along the side of the page in the body of the report. If someone is interested in more detailed information, they click the link and they'll be taken to the appropriate page in Appendix 3. The summary will provide more information on the background, benefits, how did we get there, implementation steps, implementation timeline and expected results. Not all subcommittees developed this level of detail, and that's okay. We want the task force and subcommittees' energy to focus on the high priority actions.

Having said that, Mr. Yaffee views this as more optional because it speaks more to the implementation at the end. But kudos to all the subcommittees that have prepared this because I think it sets you up for success for the next stage of this process.

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His question for task force members is where to put this information about implementation. We put it in an appendix of the plan for now. But is it more appropriate to include these detailed summaries in the Next Steps section, as they speak more to implementation of the action.

Mr. Yaffee scanned through the rest of the detailed summaries from the subcommittees. He then paused and asked if members had any high-level questions on the organization, framework, layout about the draft work plan or any feedback or questions.

And if not, I was going to go through the plan from the beginning and ask co-chairs of the committees highlight anything that they wish to concerning the work and actions that they've done with their subcommittee. In addition, we would open the floor for any discussions that need to occur across multiple subcommittees or the task force on any one action that they want to highlight.

Mr. Hanneman commented that he wasn't able to make the Statutes and Regulations Subcommittee meeting this morning because he was on an airplane. But he was able to read the full PDF version of the draft plan. May takeaway is that we have a big job ahead of us to figure out how to structure this. I don't see that structure yet in the table contents. We thought it was going to be maybe in the energy priorities, but that's ballooned to where it's unreadable.

It's great work by the subcommittees and Michael Baker's staff have done a great job of pulling all this together in a form and trying to propose a structure. And I think all the subcommittees have done incredible amount of work of writing up and pulling this together, putting the details together, but it's much too much.

Not that we can't include it in some way, like you're talking about. But we have to figure out how to present the key findings to move Alaska forward.

As co-chair of the Statutes and Regulations, I wrestle with this. I had thought that we were going to extract from the other sections what statute and reg actions we needed to take. But I'm also concerned about duplication. At this point, I'm not even sure that the statute and regs grouping is even a necessary element. Maybe it needs to be left within the subcommittee sections.

There are some things that we did come up with that are not part of the different subcommittees and they need to be brought forward. So, leave statutes and regs within individual subcommittee sections, then our section is about here are some statutes and regulations in addition to what's in each subcommittee section. Rather than trying to duplicate it.

Maybe we need a Section 4.5 or something of the real priorities, an executive summary or the actionable items that the task force as a whole has endorsed to present. Something that's a

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quick read for somebody. It's incumbent upon us to make a structure that does that and we're not there yet.

Vice-Chair Thayer commented that we have to consolidate everything before you come up with the executive summary. So I think everything's being put in and then we need to determine what stays in the body of the plan and what goes, whether in an appendix and deleted altogether. That's what the goal is in the upcoming meetings. To help us figure out what is included in the executive summary. What is the takeaway that's at the front of this plan.

We have two meetings with public comments that's going to help craft this and then we'll have another all-day meeting on October 31 to help us finalize this plan. Then we have two draft version review meetings with Michael Baker and then we'll meet before we finalize the plan for the Governor. So I think the executive summary is probably about two or three weeks away once we get everything consolidated to where we can extract the high-level recommendations.

Unidentified member commented that Section 4 shouldn't be called Energy Priorities because we have 60 priorities. That seems high. Vice-Chair Thayer responded that's why we're in draft mode. The subcommittees have done the yeoman's work. Michael Baker is trying to capture everything we've done on paper. Now we just need to make it into the reader's digest version for a good part of this report.

Mr. Mitchell stated that he was going to follow-up Karl's comment, because he, too, was looking for an executive summary. But Curtis addressed it very well. In his experience, if a document doesn't have a bottom line up front, it usually gets put onto the shelf. In the first four pages, if you see that there's action items or something, you're intrigued enough to continue reading it. As Curtis has encapsulated, the executive summary is coming later, and this is a work in progress.

Mr. Mitchell then suggested moving the Energy in Alaska section, which is the symposium series, later in the document only because it's not the bottom line up front. This section is education discussion, it's situation awareness and it's ideas. While that's all really good, but if I'm a mayor in a community, I'm going to look at the introduction, I'm going to look at the executive summary and then I'm going to want to see the priorities. And I'm less concerned on the planning process, how we created the report, and less concerned on the energy in Alaska.

From the reader's point of view, I'm just offering we make the report have some more snap and more energy as we try to do something with taking it from this level into the implementation stage.

Mr. Yaffee responded that I think we're all in alignment in terms of the report itself, as we intend for it to be an executive level report. You're just not seeing the areas where we have that executive summary. And maybe we just need to breathe words into these titles to clarify. For example, the introduction could be the executive summary. And we certainly can move around

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these sections. That's very easy to do. And to Karl's point, if calling this Energy Priorities is confusing in terms of what really has high priority, we can certainly word smith that.

In terms of next steps, I think that's where we want to detail what has high priority and then that would be mirrored in the executive summary and then everything else. All those details are going to be appendices to this plan.

Unidentified member stated that I don't want to repeat what's already been said because I kind of did the same thing. I took all those priorities and just kind of pulled them all together, pointing to an executive summary. And I think, Michael Baker, you started to do that when you had that one sheet where you took similar initiatives across all the subcommittees and started building onto one sheet that starts to look like one of those handful of things.

One thing I don't think we've discussed a lot is what is the role of policy in our energy future? And this is something I've seen grappled with in other arenas where, for example, the power policy to me is an overarching roadmap and it works well when you have kind of stable conditions and markets and everything. But it doesn't work so well sometimes for emerging technologies or innovations where you start layering policies on new technologies or opportunities that haven't even had a chance to really develop use cases or to fully mature.

And so, as an example, to kind of illustrate that, power cost equalization program isn't a policy. It's a tactical approach. And it implies a policy that we want to have all Alaskans have access to affordable energy. So I think I've heard legislators say over and over and over, well, we're not subject matter experts. You and the utility industry are, or you and the gas and oil industry are, or you over here are. So if policy tries to reach too far down and maybe starts picking winners and losers, I think that can be counterproductive.

And I'm just thinking in terms of where we've been as a state and what we can do differently going forward. And to me, a policy looks like we want to provide affordable, accessible and reliable energy to Alaskans, and it can stop there.

Then that takes some of the politics out of, well, this region's initiative or this particular pet project or this particular pet technology. We're just going to pour our horses into that. So I hope I'm articulating this well. But I think one of the things that we could communicate forward to the legislature and governor's office even, is policies should provide a guidance and a roadmap, like a strategic vision. And then I'm hoping that the executive summary is going to say, here's some overarching tactical and strategic approaches that can help us get there. And then we have a roadmap and a toolkit that we know, and we can start getting infrastructure built.

Ms. Miller stated hearing Karl's, Clay's and others comments, I agree. When we first started meeting as a task force, we talked about are we going to have an overarching goal? What are we heading towards? And it certainly helped within our rail belt subcommittee to set what our mid- and long-term goals were so we can structure actions around them.

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I think for me, I'm looking forward to reading the whole report and seeing where there's a lot of common themes. Because at the end of the day, I think what we really coalesced around was having a future that's a diverse, affordable and reliable local energy source. And so I want to look for these common themes from the subcommittees as I read the report. But I think it could be we come back to that question of do we have an overarching statement or goal for the state on what we want the future to look like.

And once we've had a chance to read this, it'll become obvious to us what those themes are--whether it's one or two goals. That would be helpful because I think if we don't have something, a vision statement or something to summarize where we're heading, we won't be as effective. I remember we had a goal of 50% renewable energy by 2025. Now I think we have a more informed view of what that could look like. We include clean energy, but having some sort of summary statement that people will remember and use as a North Star. So I look forward to reading the report. I know it takes a lot just to get to this step. Hopefully we can roll it up into something punchy and actionable. Thanks.

Seeing no further comments in the room, Vice-Chair Thayer asked if anyone online wanted to make any comments. Seeing and hearing none, he moved on to the next agenda item, which is subcommittee report outs.

a. Review Subcommittee Strategies and supporting Actions

Mr. Yaffee stated that if there's a preference for the order of the subcommittees, to let him know. Otherwise, he will follow the list in the plan.

Railbelt Transmission, Generation, and Storage - Co-Chairs Tony Izzo & Jenn Miller

Ms. Miller started by saying first off, I just want to recognize the Rail Belt Subcommittee. There have been tens, if not hundred emails back and forth over the last couple of weeks. And again, I say that in a really positive light. We are lucky to have our subcommittee with that level of engagement and expertise. And so the team has just been in a ton of work to develop the action summaries and then the roll up summaries and put a lot of thought and effort and so just want to recognize the subcommittee for all their work.

We are meeting this Friday from noon to four here at the Alaska Energy Authority. And so the intent is we've been working really heavy on our action summaries, and we wanted to meet again this Friday to read this report today, tomorrow, Thursday, and then come together on Friday and say, okay, what are our high level comments so that we can get our section how we would like it to be presented, and then we can kind of focus on the crossover and those overarching goals. The committee has put in a ton of work and thank you everyone very much.

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Mr. Izzo added that he completely agrees with Jenn's comments. Additional thanks to AEA and Michael Baker for all the support and the tolerance for the fact that my Word app just ceased working. So I was sending back drafts with more cutting and pasting than I've probably done in ten years combined. But I think it speaks to the enthusiasm and the engagement of the group.

For information's sake to the group. Early on we had a presentation, I think it was maybe to the entire task force, from Brian Hickey on the various efforts undergone and underway by the railbelt utilities.

As a result of that, in August, Brian convened a group of technical people, representatives from the four co-ops Homer Electric, Chugach Electric, MEA, and Golden Valley, AEA representative or representatives and others. I think there were like 18 people. They engaged a facilitator and came up with their own recommended work product. So that's being sent out. It's late in our process. I intentionally did not participate, as I wanted to keep my task force perspective.

As I've had a chance to glance through our draft report, I see a lot of redundant things in here and maybe some additional items that we'll consider on Friday. Luckily, it's our last meeting. That's it. Thank you.

Coastal Generation, Distribution, and Storage - Co-Chairs Clay Kaplin and Andrew Guy

Mr. Mitchell stated that for the coastal generation, distribution and I think there's some transmission stuff spiced in there because there is transmission needs in southeast Alaska and coastal regions--we've taken in a lot of input.

We had John Binkley with Ward Cove. We had Renewable Juneau, a renewable energy NGO, which introduced Heat Smart, an air source heat pump. And we had the Juneau Commission on Sustainability. Representatives participated in some of our earlier meetings to include good input with Keith Kurber and we also took input from Michael Baker and AEA observers because there's no wrong answers and all input is good input. So we tried to be inclusive.

Then we focused on a Russian nested doll concept of action items that could be rolled up into strategy. So you can go up and down in that Russian nested doll, whether it's strategic to tactical to action items or action items up to tactics and then strategy.

So we've tried to not only come up with really good suggestions and recommendations that apply to our coastal region, but to also look at where the applicability is statewide or in other specific areas. Initially, we wanted to at least identify where those overlaps were. Because I don't think anyone has a lock on a good idea. If it's a really great action or strategy coming out of rail belt, for example, and it has applicability in coastal, then I think we need to add that on. We've developed these silos in each of the subcommittees and now we're rolling them up, so to say.

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I want to say thanks to Michael Baker staff. I mean, herding cats and dealing with this and all the paperwork back and forth and the editing. I really have two co-chairs. I have Robert as a technical co-chair, but I also have Clay as a member and both of them actively participated, were very involved and helped develop our section. So I think there was a good team effort to get us to where we are at this point.

I also recognize we that we've got a lot of work to do as far as polishing. I think we have good foundations. Now it's time to polish it up. Appreciate the time and effort everyone's put into our subcommittee. Thank you.

Mr. Venables added that Duff did a good recap. Duff mentioned the word polishing. I agree that there's some word smithing that still needs to be done. But I think the task force can help weigh in on that, when we are at that point. I think that's a good overview. Thanks.

Rural Generation, Distribution, and Storage - Co-Chairs Clay Koplin and Andrew Guy

Mr. Yaffee asked Clay or Andrew for an update from the Rural Subcommittee.

Mr. Koplin stated that I feel like we captured what we wanted to, and this is a fairly finished work product. So, maybe I'll jump ahead to some ways that this might feed up into the whole task force. So, for example, this is just from the summary sheets, increased capital availability. That's something that certainly cuts across the whole task force is funding mechanisms. And there again, one of a handful of approaches might be the state of Alaska or the task force recommends that we encourage funding mechanisms that include public/private partnerships, collaborating with federal government and so on. But basically an overall statement that says seek multiple sources of funding for projects to spread the cost and the benefits of them.

So, looking ahead, I think most of these improve economy of scale. The fourth one, in particular, that maps to every region in the state. And there's the sales side or the revenue side of expanding sales to better cover the cost of fixed infrastructure. But then there's also an innovation piece of it. To drive smaller economies of scale through developing small scale wind turbines that can get down to 10 cents a kilowatt hour or small scale localized gas production to feed into markets and so forth.

So I just thought I'd make a couple of comments about how some of these might start mapping up into overall executive summary. And then also just recognize and appreciate the participation from folks from Alaska Municipal League, certainly the Denali Commission, Andrew Jensen from the Governor's office, and Alaska Native Corporations in the rural subcommittee meetings. They helped feed into the discussions and the goals.

Mr. Guy added that with situation being what it is in rural Alaska, anything that we do will be an improvement. If we can mirror in rural Alaska what you have in the rail belt and other urban

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areas, they're proven technologies, they're proven innovation, they're proven economy of scale, they're proven lower cost, everything like that. All of those.

If we can replicate that in rural Alaska, everything will help. But we need to have fortitude to start the process. And that's where I think the main question will be whether or not this committee will have the fortitude to begin with a pilot project, say, that can be proved in one area of rural Alaska and could be used as a template to replicate in other areas of the state. That's what I wanted to add. Thank you.

Mr. Koplin added that Andrew reminded him of another point about economic impacts. From his experience, a development can have impacts outside of the project area. For example, a regional hydro project in Alaska. There's going to be a lot of support in construction economy that happens in Anchorage and the rail belt that is an example of an adjacent economic impact.

Another example is if you're developing resources that are being shipped or value added processing or something on the rail belt back to local economy and around the marine highway system, around the seafood industry in Cordova that the economic impacts are many times. You have outside corporations that are making profits. They have a value stream that's outside the state. But then that fish gets shipped through Anchorage, a lot of it gets shipped on marine highway system. That creates economies in Anchorage for the marine highway system and so forth.

So that kind of holistic look about taking the bigger view of what are the broader impacts for the whole state on regional investments is important.

Mr. Yaffee shared an observation on what Mr. Koplin said earlier related to the discussion on the overall organizational framework of the report and the Executive Summary. If we start looking at these strategy statements, in a way, they become your policy goals. So in the Executive Summary, we can present each of these sections, whether we call them priority areas or not, but under them we'll present the strategies. And then have a couple of sentences or a paragraph describing the policy direction of that strategy, and then these would be the actions to help implement that. And that could be one way to present that in the Executive Summary. As Duff says, have everything kind of roll up like the nested Russian doll approach.

Mr. Koplin responded that he agrees with Michael's comment. Those strategies help advise the policy. And it doesn't have to just be one policy. There can be different policies. And I was just reminding myself that we're talking about generation and distribution and storage.

For storage, specifically, a policy might say we want to promote long duration storage. There's all kinds of storage and benefits, and rather than drilling down to a level, just a policy that we want to have adequate storage to make sure that we're being economic and keeping the lights on. But that was my thoughts.

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Mr. Yaffee wanted to follow-up on a comment made by Duff earlier about the names of the different sections. We are looking to the subcommittees to provided that feedback. For example, Duff mentioned that transmission wasn't mentioned in their section name, when there is some transmission involved. So, we want to be sensitive to that and make sure everyone knows we are open to make those changes.

State Energy Data - Chair Dan White

Mr. Yaffee asked Brittney Smart for an update on behalf of Dan White from University of Alaska, Fairbanks.

Ms. Smart stated that one of the first approaches that we took with the State Energy Data and the Technical Advisory Committee (TAC) that supported that effort is that you can't measure what you don't track. With that said, tracking is just the first step.

We have a lot of data out there, and one of the challenges is making sure that it's accessible and it's in a usable format. And that serves as the primary basis on the recommendations that you see before you. You've previously seen a couple of iterations of these recommendations. So I will focus on the key highlights.

I do want to note in regards to the prioritization in the TAC report that was submitted to the State Energy Data Subcommittee, which was accepted, there is a full suite of additional recommendations. I notice that while this report is included in the appendices, it is not included in your draft today. So the work of prioritization in terms of recommendations was done, at least in that subcommittee. It has not necessarily been through the rubric that was discussed today. So I just want to make sure that that aspect is clear.

But the four key recommendations you see before you, the strategies have been prioritized by the committee. So there's two key changes that I wanted to highlight as part of this. The first one is adding in specific language as it regards to statutes. So there's just a couple of points. Number one was just with the establishment of a Data Energy Department within AEA. There was just a recommendation that should statutes need to be amended in order to ensure that activity gets done, that that recommendation gets moved forward. That doesn't necessarily mean that statute changes have to occur, but if that is necessary in order to ensure that action gets taken and gets funded, then we would recommend doing that.

Half of this next comment is to you, Michael. The other big edit that was provided between previous drafts and this one was ensuring that energy data was very clearly expanded to include thermal and transportation. And Michael, just one thing that I noted that did not translate from the TAC and State Energy Data Report to this new format is that we actually spent specific time and effort into coming up with a definition of what energy data is. And I think it would be important to include that as part of this plan.

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Whether it's this chapter, whether it's a summary, but the definition is information about how electricity, heat and transportation fuels are sourced, generated, stored, distributed, used and governed, and the impact on the built, natural, and socioeconomic environments.

So, just a general recommendation from the committee. That's just one thing that I noticed that got lost in translation. However, the edits throughout this chapter did specifically expand energy data to include very explicitly thermal and transportation. And with that, I'm happy to answer any questions you may have.

Mr. Yaffee responded that we're happy to make that change. We'll put it in the introduction here. And obviously, if there's any other edits to the introduction, we can do that. But then also, I just want to note that we will also include it in Appendix One. We're creating an appendix of just definitions related to this. So we'll try and capture that in multiple areas so it's clear.

Mr. Hanneman asked did the Data Subcommittee get your specific statute recommendation into this draft, or is it not yet incorporated. Ms. Smart responded that we didn't specifically say what or where. So, no. But we did specifically add language to say that should statute changes be required to do so. We recommend that that take place. Vice-Chair Thayer added that AEA statutes are all in one location. So, it's really easy to identify them because we have a list.

Vice-Chair Thayer asked if there were any questions or comments from folks online. Hearing none, he asked Michael to move one.

Incentives and subsidies - Co-chairs Nils Andreassen and Isaac Vanderburg

Mr. Yaffee asked the co-chairs for an update.

Mr. Andreassen stated that we've had some productive discussions with our Incentives and Subsidies Subcommittee members. And great to see more recent participation across the group. I think the main takeaway right now is we've still got some work to do. What you're looking at is kind of a first draft, but we've had some good input just in the last 24 hours on ways to improve this.

I'm really excited to look back at what everybody else has done and to see how these match up. So we'll take some next steps to inform our work based on what everybody else has done. We've talked about an upcoming meeting this Friday to continue revisions. But overall, we've taken a strategy and actions report, still haven't done our approach and haven't done further action development. But I think we're looking good for what we're doing. Isaac, is there anything you would add? Mr. Vanderburg stated he had nothing to add.

Mr. Yaffee commented that this current version of the plan doesn't include the newest revisions that the subcommittee was considering just because they missed the pencils down window. So there is active discussion going on at that subcommittee, and there are changes in progress.

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Vice-Chair Thayer asked if there were any questions or comments from task force members in the room. Seeing none, he asked if any task force members online had any questions. Seeing and hearing none, he moved on to the next item.

Statutes and Regulations Reform - Co-chairs Robert Venables and Karl Hanneman

Mr. Yaffee stated that this subcommittee met this morning. He asked Mr. Venables for an update.

Mr. Venables stated our subcommittee has met. We're really in a mode of collecting from a number of sources, primarily from the other subcommittees. And we're going to ask for those subcommittees in their transmittal to add a little more information or maybe join us at our meetings the next two Tuesdays on the 10th and 17th at 10:30 a.m..

We want to flesh out those recommendations just a little bit more and with an eye to just having enough framework to develop a path forward. Whether it's a legislative path that a statutory change with the legislature, or whether it's regulatory, administrative that the RCA would entertain, or perhaps it's a twofold designation. So understanding that path forward, that input that comes from the other subcommittees and then best attempt to prioritize. If we don't get enough subcommittee experts participating, we will kick the prioritization up to the task force because they'll need some good input from those that are grappling with those issues and have that expertise. As we try to boil this down to four or five key recommendations or at least prioritize the list.

We've also captured input from the Alaska Power Association and gleaned from the comprehensive economic development strategy of some of the tasks that they had identified that were applicable to statutory/regulatory reform. So we've got that included. And you'll see that we're still waiting on an overview of what some of the other states best practices or lessons learned are.

Michael Baker's building that car while they're driving it to the meeting on the 10th or the 17th. You'll see a couple of examples in the spreadsheet where they've already placed similar applicable tasks that have been adopted or steps that have been taken by other statess. We're going to get a little more information in the next couple of meetings.

And Karl might want to speak. He and I talked about some of the redundancy. I think it's just a function of the process, but I think there's still some instances where some of the subcommittee documents still have the statutes and regulatory reform items in there. It's probably cleaner to pull those out of those subcommittees and just put it all into this framework here. But we're still working at it. We've got a couple more meetings to go, and we invite any of you that are interested to join us on the 10th or the 17th at 10:30 A.m.

Mr. Yaffee added that the next meeting of the Task Force is October 10 at 2:00 p.m. and is currently posted on the AEA web site. At the subcommittee meeting there was the discussion to

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hold a meeting tentatively scheduled for October 10 at 10:30 a.m.. I'm not sure if that's been publicly posted yet. Mr. Venables asked to post both meetings, the 10th and the 17th, at 10:30 a.m. on the web site.

Mr. Yaffee stated that there is a lot happening with the subcommittees meeting on 5th and 6th. So, we're encouraging some cross pollination on this if committee members are available. We will have the dates posted for upcoming meetings on a later presentation slide. The other thing I just wanted to circle back to was, Karl, you mentioned for this particular section, almost the need to have kind of a section after that. I just wanted to see if you have any additional thoughts.

One of the things you brought up is when we transition from this section, it goes to the next steps section of the report. And a lot of those next steps might be statutory and regulatory in nature. So there is overlap between this section and the next steps section that we can think through. But I just wanted to give you the floor in case there was anything else you wanted to speak to.

Mr. Hanneman commented that he has been reflecting on this matrix that you prepared and wondering if, for simplicity, we could accept the fact that there's duplication and applicability in many of these topics across the different subcommittees and just identify that by the check marks in the matrix and not try to extract out of the different subcommittee sections everything related to statute and regulations but leave it as it is. Then we focus on the prioritization effort that we need to do anyway. Because a list of all the statute and regulation recommendations that come out of this is going to just get round filed. It is good to have a list and the background is good to have and necessary. So we'll discuss that at our subcommittee meeting next week. But I think maybe we can work with this matrix approach that you presented.

Mr. Yaffee opened to floor for any comments or questions from members concerning what Karl just said.

Mr. Koplin commented that he has been thinking along the same lines as Karl. I think we had talked earlier about subcommittees trying to bring up one or two things and yet they've done comprehensive work that's going to be captured in the appendices. So just looking ahead over the next few weeks, I'm wondering how we structure and develop that executive summary. Whether with Michael Baker kind of lists where we builds a straw dog that the subcommittee can start with. It pulls those cross cutting themes into some overarching themes. And then my other thought is specific to policy and statutes and whatnot. It sounds like what we talked about earlier is maybe pushing some kind of high level policy guidance forward as a whole subcommittee and then maybe keep the detailed work that the subcommittee did there as an appendix. But I guess my overarching thought is I'm just trying to mentally structure how we're going to actually develop that executive summary over the next few weeks.

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Mr. Izzo supports Karl's comments and observations. I think we've heard this come up a few times during the meeting today and I think it's a good sign because it means we've all gone through this and we're starting to think about, well, how does this align.

I know one particular case where you've got different subcommittees that are trying to address the same thing but taking different approaches. I'm aware this report is going out for public comment. And I think that's fine. But we are going to have to rationalize those things as a group and come up with a final recommendation. Is it this one or that one? And then secondly, and more importantly, would be rather than four pages in, as Duff mentioned, on the first or second page I would look for here's what we want to be and here's what we need to triage and some priorities. That would be my hope for what comes out in an executive summary.

Vice-Chair Thayer asked if any members online had any questions or comments. Hearing none, we'll go back to Karl.

Mr. Hanneman stated that with that goal of executive summary in mind, I think, well, policy is important, and we want to set some high level policy. We've got to go farther than that. We've got to present some actionable items that we can help communicate and get traction on.

Mr. Mitchell stated that he is reiterating and preaching to the choir. I think, bottom line, up front, priorities and or what is our big item that's going to get the most rate out of legislators. It's going to help us get our actions and help us transition from all this planning, great work we've done into actual implementation and getting momentum and gravity behind where the Governor wants to take this. So I think that's just echoing those useful comments. Thank you.

Vice-Chair Thayer asked if there were any other questions or comments from task force members. Hearing none, he moved on to the next agenda item. Task Force members decided to keep going through the agenda.

b. Break - no break was taken.

6. Draft Report Editing

Vice-Chair Thayer asked if the editing needs to be discussed here or will take place through the scheduled subcommittee meetings. Mr. Luken responded that we have subcommittee meetings scheduled to start the editing process after members have had a chance to review the draft plan.

a. Subcommittee calendar dates for report edits.

Task Force Proposed Work Schedule

Vice-Chair Thayer added for the group, the next two full task force meetings will be by Teams and it's for public testimony. We will do public testimony from 2:00 to 4:00 p.m. on October 10th and October 24th here in this room.

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Everybody is invited to call in. The Lieutenant Governor, possibly Clay, and I will conduct that meeting. Oral public comment on our work product will be limited to three minutes per person or organization and will be transcribed. We are also accepting written comments. So, both the oral and written comments will be combined and sent out to task force members to review.

And keep in mind that public comment might influence some of our tasks because the task force, the subcommittees are still finalizing and making recommendations. So this is a work in process to meet our deadline. We can't just stop, wait and then restart. We want to work it together.

And then the goal is on October 31st, we have an all-day meeting here in this room starting at 9:00 a.m. to 4:00 p.m. The goal of that meeting is to review and vote on the recommendations by the subcommittees. So we have everything approved and move forward. Then we would turn it over to Michael Baker, who will send the report back to us via email on November 10th. It will also be publicly available. Then, a week later on Friday, November 17th, we will have one final look at the report. It could be a Teams meeting.

We will look at the executive summary along with everything there. And then the plan goes back to Michael Baker for any editing or formatting fixes. The final plan would be due on December 1 to the Governor.

So it kind of gives us time to walk through the public process, walk through the voting, and then have an opportunity to look at the product when completed, just to make sure it is the product in the formatting that we discussed on the 31st.

Mr. Luken added that as the subcommittees meet to put the final words to paper in their portions of the report, that there would be time set aside to actually come up with what are our priorities. So whether we use prioritization tool or some other means, but that our encouragement to each Subcommittee is that you find those actions that you want to put forward as recommendations for the task force to consider as the actions that you're going to send forward to the Governor.

Ms. Miller asked if for the October 31st meeting, can we set aside time to have a focused conversation on the executive summary? Vice-Chair Thayer responded yes.

Mr. Hanneman asked Curtis if we might ask each of the six subcommittees to present a list of four or five of their top priorities so we can start circulating and discussing those so that it doesn't all come down to the crunch at the end. Because if we want for the executive summary to come up with the top five or seven or something, we're going to have to pick from that. And not all of subcommittee's recommendations will make the cut. But we have to start discussing which ones we think as a group should. But the best way to start is to have the subcommittees bring that forward and earlier, I think the better.

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Vice-Chair Thayer responded that he doesn't disagree with the suggestion. As the subcommittees wrap up their work and recommendations, we will make sure that gets out to everybody on the task force and make it publicly available as well.

Mr. Koplin commented about the overall report. So, I know we're on subcommittees, but in the structure we have an introduction to the report planning process and then energy in Alaska. One of the things I've really liked about this process is capturing a lot of the historical energy and regional studies that have been done and populating those onto the task force website where they're accessible.

And as I look at data or repository going forward, that's a great thing to have access to. But just from past experience, a lot of times this process is a snapshot and what you really lose from those past reports is the context. And it can be really hard to pull those out, if you don't actually talk to some of the people that are involved with writing them. So I think back to 2007 and 2008, the context was exploding energy costs, especially in rural Alaska, as diesel fuel prices spiked, and the economy collapsed. And you saw things like the state writing energy assistant checks and things that you might look at out of context and say, what the heck was the state doing?

But that's one of the things that we have a context for where we're at right now in terms of we're facing looming natural gas supply shortages, where we have unprecedented federal funding available. There's are these things that provide the context for what we're doing. I think that would be great to somehow capture that kind of energy in Alaska. The background, which is actual context of this report. So when you kind of refer back to it, it just creates that context.

Mr. Mitchell had a question about the schedule. I'm looking to see on this work schedule here is if there's any feedback loop and calibration from either the governor's office or from the chair, because we could be coming up with all kinds of recommendations and maybe the 10th in priority recommendation from the task force may be actually a much higher priority from those that have appointed us to serve on the task force. I know our job is to make recommendations, but I just offer that if there's a feedback loop because I would appreciate that guidance in the prioritization of where we're at and maybe I'd just like to have some color on that.

Chair Lieutenant Governor Nancy Dahlstrom responded that there is a feedback loop. When we are completed, I think that we'll be looking good all around. So don't worry about that when we've got it covered.

Vice-Chair Thayer added that it's safe to say that the Governor is informed of what we're doing. He is keeping tabs. I've gotten a text or two that he might even be at one of our phone calls. So, yeah, definitely there is a feedback loop that I think Nancy, our lieutenant governor, will be our official conduit for that.

7. Next Meeting Date/Closing Remarks

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a. Tuesday, October 10, 2023, 2:00 p.m. via Teams.

Vice-Chair Thayer went around the room and online for closing remarks from task force members.

Mr. Sims had no comments today.

Ms. Miller had no additional comments. Thanks.
Unidentified Member 1 stated because someone asked me earlier today what do they feel about this overall process, and I would still say that I feel like the work product in progress to date has actually exceeded my expectations for a list this big on such a short timeline. And I think that's a reflection on the people. Everything from the energy symposium series to the work that the subcommittees and committees have done is commendable.

Chair Lieutenant Governor Nancy Dahlstrom thanked everyone for the time and effort that's been put in. And it's nice when you have an end date of a project that's this size, isn't it? Because psychologically, it helps us to get there. But I do understand, and I respect that you all spent a lot of time and effort to do this correctly. So thank you.

Vice-Chair Thayer stated that on my behalf, I would like to thank everybody and the time and effort. Because when we started this and looked at the task before us, and some of the road bumps we had, to where we landed today, we are in a great place. And it couldn't have been done without everybody. Especially when we committed early to doing these half day and full day meetings. And the subcommittees have now taken on full and half day meetings. And so with that, I just can't thank everybody enough for the work that they put in. And I think at one point I asked Michael Baker, how many hours have we put into this based on just the noticed meetings? I think it's safe to say right now, we're over 170 hours when you look at collectively all the meetings we've had, and a few people have been at almost all of them, because I recognize names. Karl's been on calls after calls and from different subcommittees, and it's all been great work. So I want to thank everybody for that.

Mr. Izzo stated that he echoes those comments and sincere thanks to the Governor and the task force leadership. Lieutenant Governor Nancy Dahlstrom, co-chairs Clay and Curtis. I've been involved with these kinds of efforts--although nothing at this level--for over 20 years in Alaska. And I'm feeling very optimistic about where this is going.

Unidentified member 2 had no further comments.

Mr. Mitchell stated just remember, everybody, that all plans work until the bullets fly. So we got a little bit of work to do, and I think we're on a really good pathway. And I think the comments from the chair and the co-chairs speak to where we're at. Thank you.

Vice-Chair Thayer asked if anyone else online wanted to make a comment. Hearing none, task force remarks was closed.

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8. Adjourn

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 3:12 pm.

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ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #10, PUBLIC TESTIMONY MEETING
TUESDAY, OCTOBER 10, 2023, 2:00 PM – 4:00 PM

STATUS: Active

Alaska Energy Security Task Force Statewide Energy Plan Public Testimony

Alaska Energy Security Task Force Statewide Energy Report
Public Testimony
October 10, 2023 and October 24, 2023
2:00 p.m. - 4:00 p.m.

Notice is hereby given that the Alaska Energy Security Task Force will hold a public meeting on October 10, 2023, 2:00 p.m. – 4:00 p.m., and on October 24, 2023, 2:00 p.m. - 4:00 p.m.

On October 10, 2023, The Alaska Energy Security Task Force will convene at 2:00 pm to solicit public testimony on the DRAFT Alaska Energy Security Task Force Report and continue in session until 4:00 p.m.

On October 24, 2023, the Alaska Energy Security Task Force will again convene at 2:00 p.m. to solicit public testimony on the DRAFT Alaska Energy Security Task Force Report and continue in session until 4:00 p.m.

The Task Force Public Testimony Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 West Northern Lights Blvd.
Anchorage, AK 99503

To participate, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 288 316 961 77
Passcode: 7J9hun

Download Teams | Join on the web

Or call in (audio only)

+1 907-313-5807,,576325260# United States, Anchorage

Phone Conference ID: 576 325 260#

Find a local number | Reset PIN

Learn More | Meeting options

Written comments may also be sent to info@akenergysecuritytaskforce.com .

The DRAFT Report is available below, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modification to participate should contact 907-771-3074 to make arrangements.

Attachments, History, Details

Attachments

Alaska_Statewide_Energy_Master_Plan_Draft _100223 (1).pdf

Revision History

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Details

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, October 10, 2023
2:00 pm to 4:00 pm

Teams Meeting:

Click here to join the meeting
Meeting ID: 288 316 961 77
Passcode: 7J9hun

Agenda

1. Welcome and Introductions
2. Roll Call
3. Public Comments
    a. Limited to 3 minutes per person
    b. Written comments can also be submitted to info@akenergysecuritytaskforce.com until 4 pm on Oct. 24, 2023
4. Next Meeting Date – Tuesday, October 24, 2023, 2:00 pm via Teams
5. Adjourn

Alaska Energy Security Task Force Meeting
October 3, 2023

Draft Sections of Statewide Energy Master Plan related to Priorities, Strategies and Actions

Handout Includes:

Section 4 - Energy Priorities

- Priority A – Railbelt Transmission, Generation, and Storage
- Priority B – Coastal Generation, Distribution, and Storage
- Priority C – Rural Generation, Distribution, and Storage
- Priority D – State Energy Data
- Priority E – Incentives and Subsidies
- Priority F – Statutes and Regulations

Appendix II – Action Tracking Sheet

Appendix III – Additional Action Detail Summary

Note: This is a draft, deliberative document for discussion purposes only. The preliminary action recommendations contained in this document have not been officially endorsed by the Alaska Energy Security Task Force at this time.

DRAFT

STATE OF ALASKA
STATEWIDE ENERGY
MASTER PLAN
OCTOBER 2023

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SECTION IV.

ENERGY PRIORITIES





This section is divided into the following Energy Priorities:

Priority A. Railbelt Transmission, Generation, and Storage

Priority B. Coastal Generation, Distribution, and Storage

Priority C. Rural Generation, Distribution, and Storage

Priority D. State Energy Data

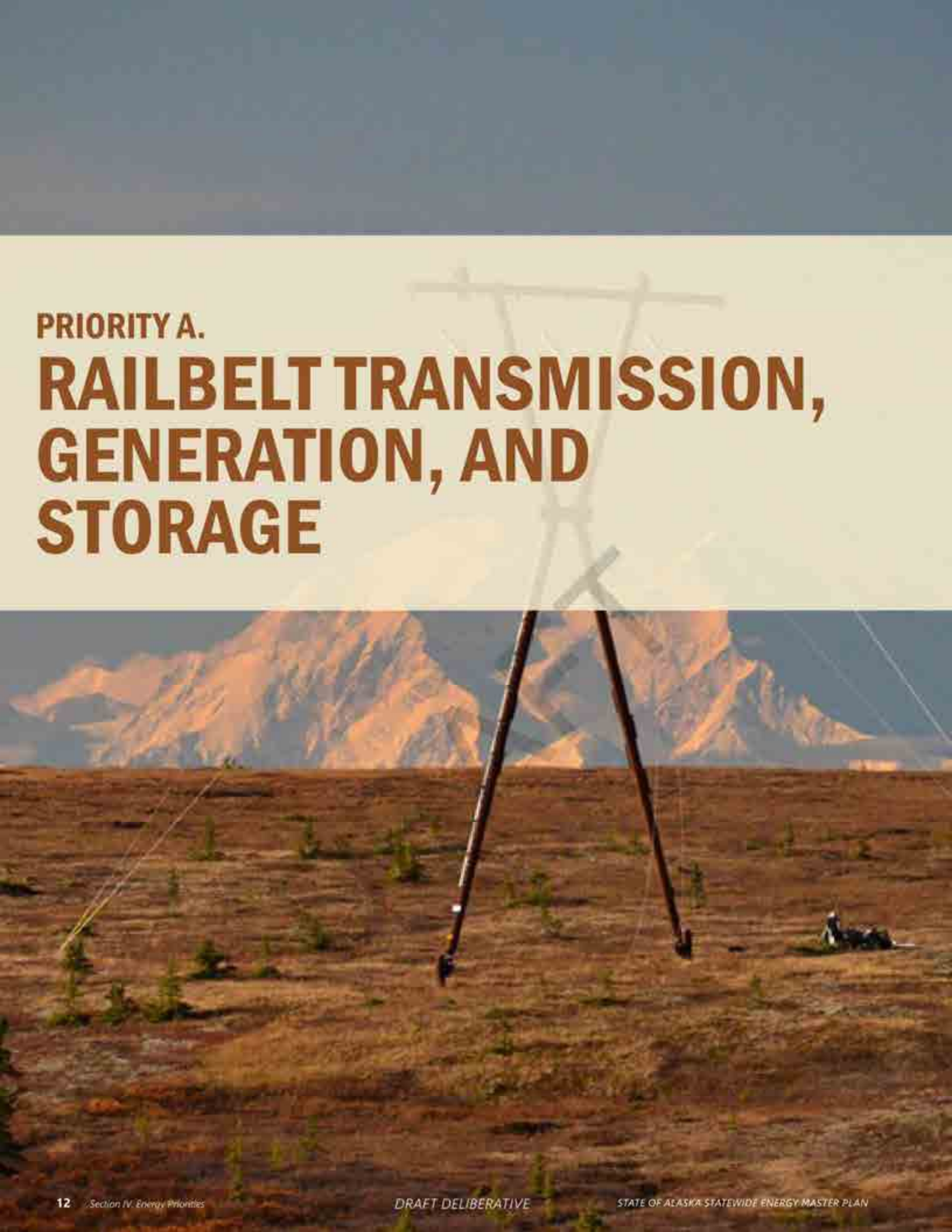
Priority E. Incentives and Subsidies

Priority F. Statutes and Regulations

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PRIORITY A.

RAILBELT TRANSMISSION, GENERATION, AND STORAGE





INTRODUCTION

The Railbelt Generation, Transmission, and Storage (RGTS) Priority of the Alaska Energy Security Task Force was created to develop an energy plan that will move the Railbelt towards energy independence while lowering the cost to its residents over the long-term. In order to complete this plan, it was important to understand the current state of our energy portfolio. Since Statehood, the Railbelt utilities and their customers have benefited from the significant natural gas finds in the Cook Inlet. Over time, this basin has supported approximately 80% of the power generation, and a majority of the population hubs' space and water heating needs.

In order to develop our recommended plan, the RGTS determined the most efficient approach would be to establish long-term, mid-term, and short-term goals that reflect our desired outcomes here along the Railbelt. Here are the recommended goals:

- Short-term: Minimize regret cost while providing reliable service.
- Mid-term: Invest in infrastructure improvements to advance our long-term goal of energy diversification.
- Long-term: Significantly diversify power generation with an emphasis on local, reliable, and affordable clean energy.

The RGTS was motivated to seek transformational approaches to reach these goals that might provide electrical energy to residents at a target price of $0.10/kwh in the future. The RGTS reviewed numerous generation and transmission configurations and strategies from publicly available data but did not complete independent or internal cost estimates in developing action items and our strategy. The following Railbelt strategies and recommended action items are meant to support these high level goals.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

B-1 Unify Transmission

B-2 Diversify Generation

B-3 Increase Demand

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STRATEGY A-1:
Unify Transmission

ACTIONS

A-1.1 Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.



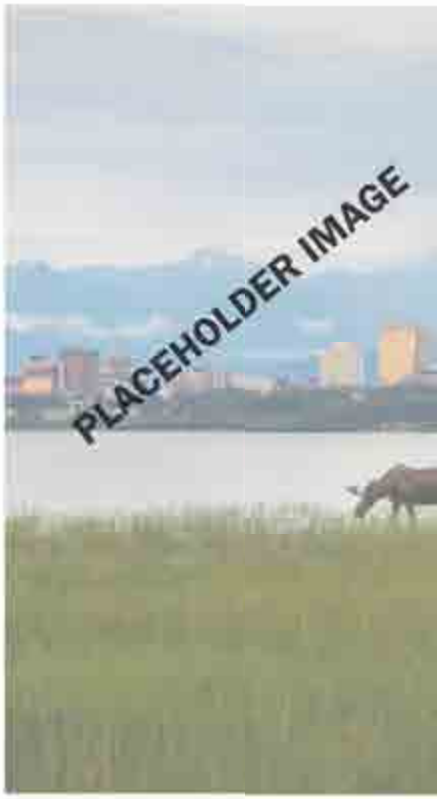
Purpose:
Accelerate upgrades to existing transmission from Bradley Lake to Fairbanks via Anchorage, and construct a second transmission line from Soldotna to Healy via Beluga enabling the long-term goals of improved resilience, reliability, and transfer capability between regions. This action would include unified ownership of the Railbelt transmission system and would minimize constraints on the system. Proceeds from the utility sales would help reduce debt owned by the utilities, eliminate wheeling charges, and create a postage stamp rate from Bradley to Fairbanks, thereby eliminating multiple tariffs in favor of one simplified tariff. Unified operation will lower system operating costs (rates), enable quicker interconnection of new generation sources, and reduce time to plan and construct new system components.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility

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and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

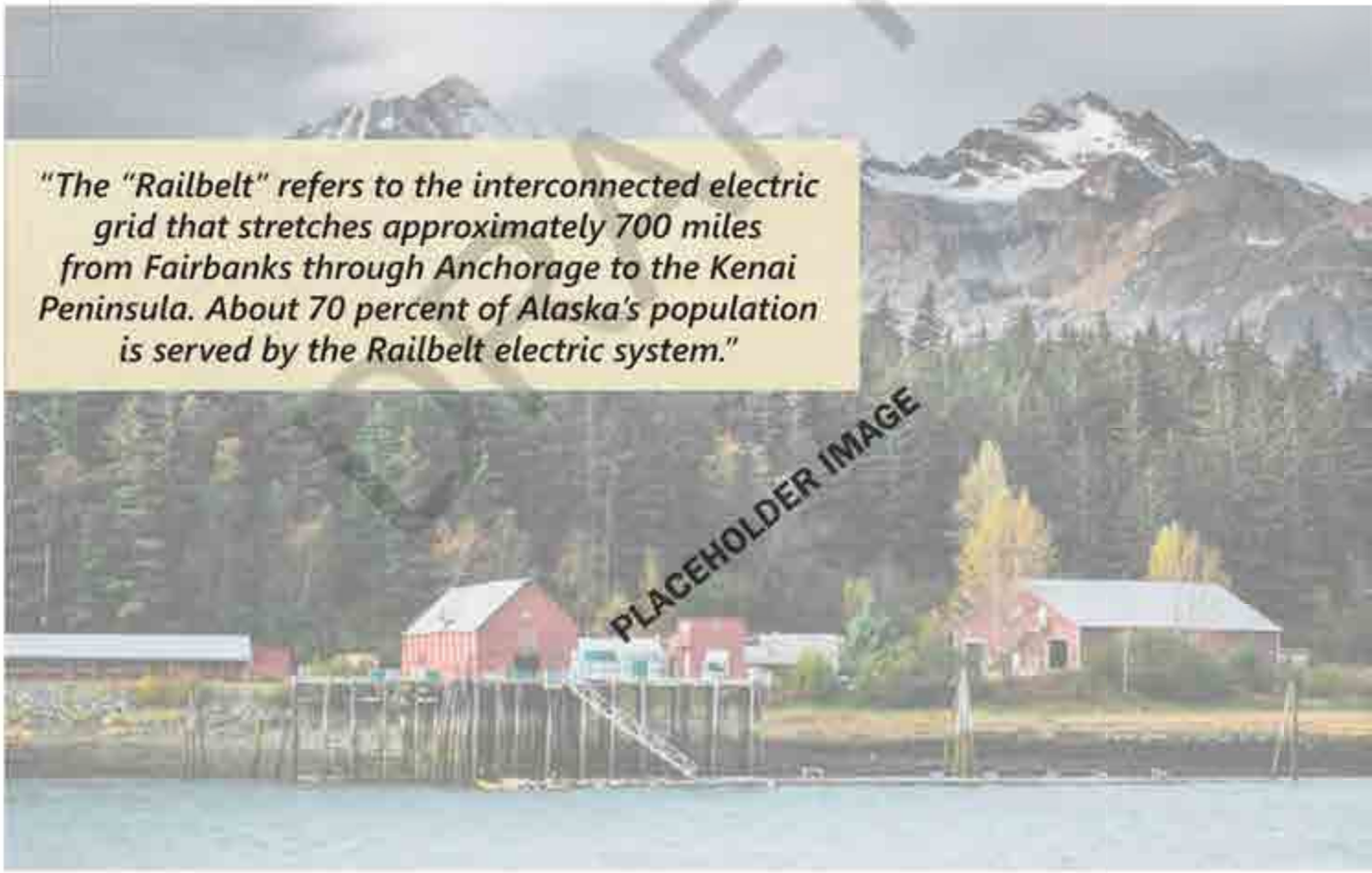


Benefits:

- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

Expected Results:

This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.



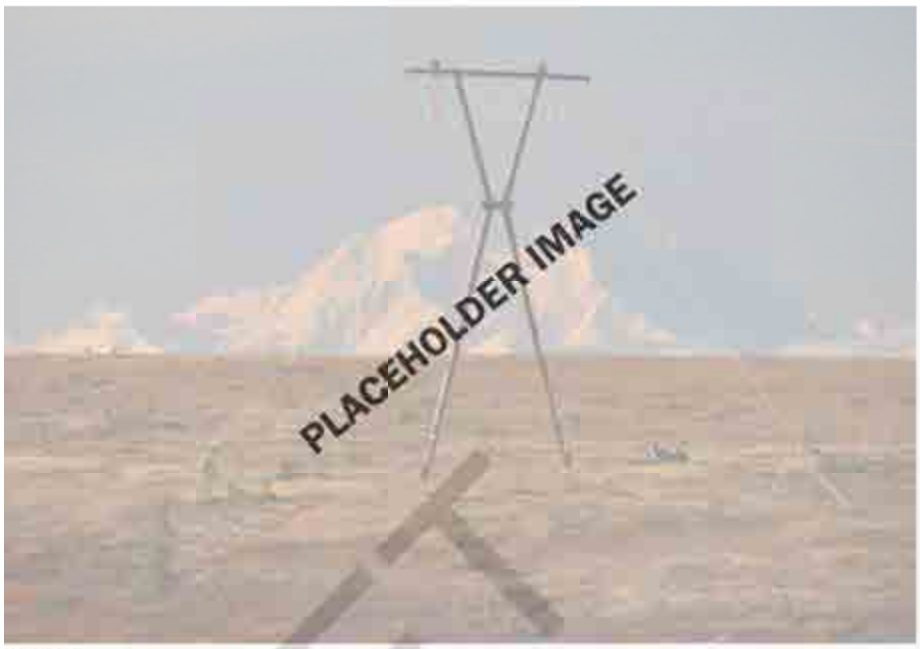
STRATEGY A-2:
Diversify Generation

ACTIONS

A-2.1 Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.

A-2.2 Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.

A-2.3 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision
- Dixon Diversion
- Susitna-Watana
- AKLNG



Location

Purpose:
Encourage and coordinate the diversification of Railbelt generation assets through projects and policy that provide opportunities to maximize energy cost savings.

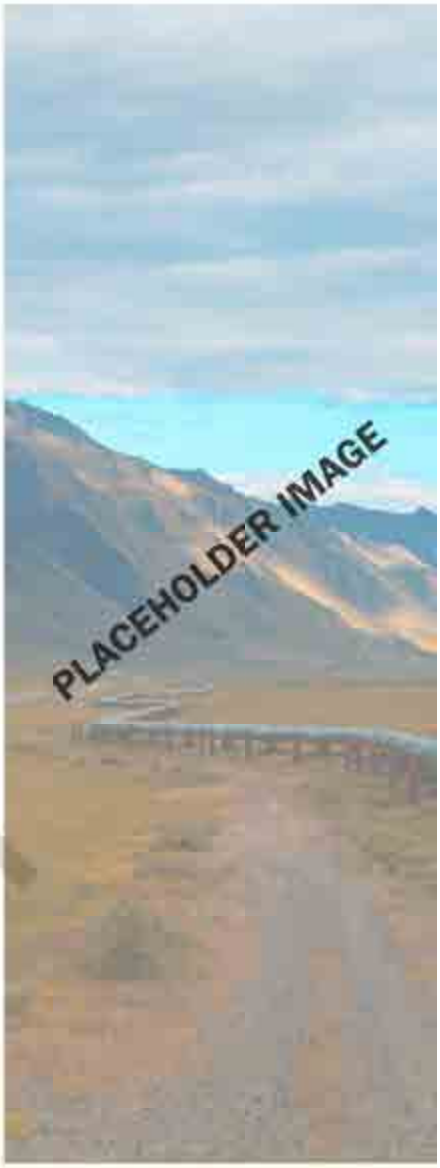
Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

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To enable this strategy the Railbelt Subcommittee supports the state adopting a Clean Energy Standard which would set electricity diversification goals. These goals should be supported with incentives rather than penalties to ensure affordable, reliable power is delivered to rate- payers. The Railbelt Subcommittee also recommends modifying state statutes to provide the Regulatory Commission of Alaska (RCA) the ability to value generation diversification (in addition to price) when reviewing and approving contracts.

The Railbelt Subcommittee did not complete comprehensive analysis or cost estimates for potential generation projects and ultimately all technologies should compete to bring the most affordable, diverse, reliable energy to the Railbelt. That said, there are projects which have previously been proposed or are currently being worked and the Subcommittee supports taking these projects through feasibility such that a "go/no-go" decision can be made. Alaska has several projects in various stages of development and permitting that could provide diversified renewable and clean power generation for Railbelt utilities including the Dixon Diversion project at Bradley Lake, and the potential mega-project at Susitna-Watana. Additionally, the Alaska LNG (AKLNG) project has the potential to open vast quantities of trapped North Slope natural gas for uses across the interior and south-central Alaska. The AKLNG is strategic in that it provides a local gas supply for heat and electricity base load for generations to come.



Benefits:
How can Alaskans encourage and promote diversification of power generation in the Railbelt and across Alaska to foster transition to reneable and clean energy generation sources to provide reliable, low cost energy for Alaskans.

Expected Results:
Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for Railbelt rate payers.

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STRATEGY A-3:
Increase Demand

ACTIONS

A-3.1 Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).



Purpose:
Significantly increase load to drive down energy rates.

Background:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

Benefits:
Incentivizing and attracting large industry customers to Alaska's Railbelt to increase electricity production demand, following a similar model to Iceland, could help lower the cost per- kWh for all Railbelt customers.

Expected Results:
The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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PLACEHOLDER IMAGE



PRIORITY B.

COASTAL GENERATION, DISTRIBUTION, AND STORAGE



INTRODUCTION

The Coastal Generation, Distribution, and Storage Priority includes strategies and actions that support the overall Alaska Energy Security Task Force goal of identifying opportunities to lower the cost of energy in Alaska for Alaskans. The Coastal Subcommittee settled on four high-level strategies supported by twelve specific action recommendations focused on lowering energy costs for Alaskans living in coastal areas of the state. Strategies recommend Alaska and Federal policy updates to allow streamlined project identification, planning, funding/financing and permitting. The Market Initiatives strategy seeks to maximize use of existing energy generation and transmission assets and promote new renewable energy assets to lower energy costs for Alaskans and their industries. Finally, as hydro-power is one of the primary sources of energy generation for many coastal Alaskan communities, the Alaska Hydropower strategy recommends enhancing Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- B-1 Alaska Policy Recommendations
- B-2 State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations
- B-3 Alaska Hydropower Generation Recommendations
- B-4 Alaska Market Initiatives

STRATEGY B-1:
Alaska Policy Recommendations

ACTIONS

B-1.1 Establish, require, assist, and Implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.

B-1.2 Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.

B-1.3 Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.



Purpose:
Enhance Alaska's departmental and regulatory policies to spur and sustain renewable energy and transmission development to cut energy costs and advance economic prosperity for Alaska.

Background:
Alaska policies, while unintended, can prevent, stall, or, in some cases, prohibit the permitting and necessary governmental authorizations to timely and optimally develop and advance renewable energy and transmission assets required to move Alaska forward from a developing state status to a first-world energy state that Alaskans deserve. While there is not one solution, the Administration can take many internal steps and actions to create a unity of effort among State agencies with disparate missions and objectives. An overarching Energy Plan that directionally provides State agencies the authority and motivation to help the Governor successfully implement that State Energy Plan and achieve recommended action is doable with a coordinated effort.

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Alaska can transcend policies that have been focused on the past or regulatory mission and should directionally (as opposed to aspirational) incorporate the Governor's directives to implement the State Energy Plan in concert with regulatory balance, protecting our environment while streamlining processes, procedures and producing results to lower the cost of energy for Alaskans. Regardless of whether the policy directive is called a "unity of purpose and effort" or an all-hands-on-deck policy, Alaskans are better served through introspection of how we can and should do better, with concentrated and collective efforts to do better in serving Alaskans achieve lower cost energy now and for future generations.

Benefits:
The proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans with administrative purpose and collective effort to find and exploit synergies to lower the energy cost for Alaskans in concert with Departmental missions and goals.

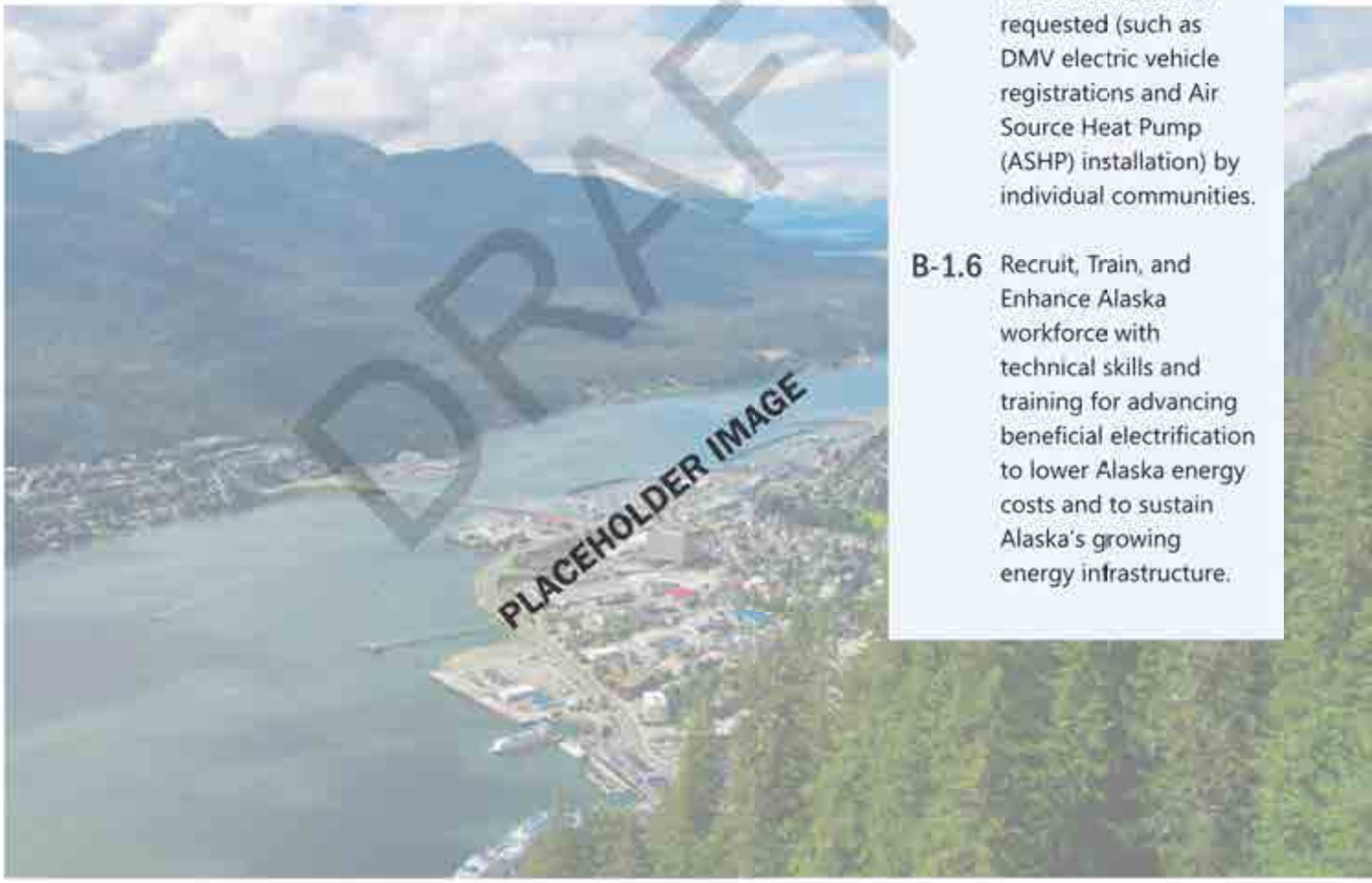
Expected results:
Strategically planned and matured by the Administration and AEA of the Task Force Alaska Policy Recommendations combined with efficient and well thought out implementation focused on light Integrated Resource Planning, reducing State of Alaska barriers and bottlenecks, optimizing federal funding for the strategic achievement of goals, tactical and practical implementation of can do, how we get to "yes" policies will reduce the cost of power for Alaskans today and leave an energy legacy for generations of Alaskans to follow.

ACTIONS (CONT.)

B-1.4 Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.

B-1.5 Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

B-1.6 Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.



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STRATEGY B-2:
State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations

ACTIONS

B-2.1 Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.

B-2.2 State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.



Purpose:
Refine federal policy to bolster Alaska's renewable energy and support tribes in securing affordable energy. Directionally (as opposed to aspirationally) advance Alaska's Energy Plan priorities to promote and develop renewable energy generation and transmission assets through negotiating and influencing federal agencies for proactive federal energy development policy modifications and revisions and to collaborate and assist Alaska's federally recognized tribes in obtaining lower cost energy in Alaska.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a

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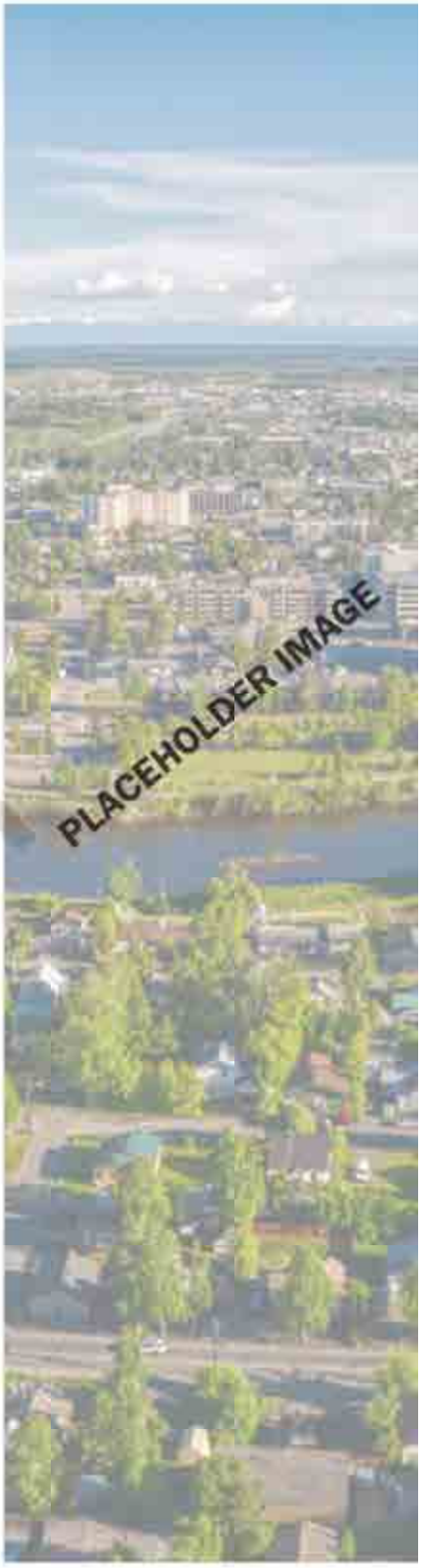
bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Coastal Alaska communities also want to lower energy, heating, and transportation costs. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources mutually beneficial to the State of Alaska's interests. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Additionally, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By coordinating and collaborating, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint party effort can enhance the creation, sharing, and use of energy across the State.

Benefits:
The development of state policies and goals to negotiate and carry out with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding the proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans lower cost energy.

The State of Alaska and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans in our Alaskan communities. By identifying and sharing information, plans, and initiatives and establishing a framework to advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska and Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

Expected Results:
The State of Alaska, with careful and planned implementation of these recommendations, can gain common ground with federal agencies and tribes and advance and promote Alaska's renewable energy development with cooperation and support from the federal government and Alaska's 229 federally recognized tribes to achieve national purposes while reducing the energy cost of Alaskans. The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska.



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STRATEGY B-3:
Alaska Hydropower Generation Recommendations

ACTIONS

B-3.1 Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.



Purpose:
Enhance Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security that Alaskans deserve and expect.

Background:
The foundation of Alaska's most cost-effective and affordable energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. There is no cheaper energy form in Alaska than old hydropower, and Alaska cannot achieve old hydropower without proactively supporting and investing in new hydropower. Hydropower is a tried and proven Alaska energy resource, and with proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once financing debt is paid, the hydropower project yields consistent, sustainable, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and economic prosperity well into the future.

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Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

In Alaska and across the US, the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as US hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined —leverage Alaska to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.



Benefits:
Hydropower in Alaska is not just an energy source; it is Alaska's energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure and related transmission, Alaska is not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and reaping energy dividends for future generations with sustainable, clean energy. Investing in hydropower assets is our Alaska commitment to Alaska's proven energy model for a brighter, more affordable, energy-secure future for Alaska.

Implementation Timeline:
The Alaska Generation Strategy for fostering hydropower has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.

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STRATEGY B-4:
Alaska Market Initiatives

ACTIONS

B-4.1 Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

B-4.2 Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

B-4.3 Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.

B-4.4 Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs.



Purpose:
Maximize utilization of existing energy generation and transmission and promote new renewable energy assets to lower energy costs for Alaskans and their industries through market initiatives and expansion.

Background:
Energy generation and transmission assets, like power plants and electricity distribution grids, have significant upfront costs. For these assets to be cost-effective and viable, they need to be built at a particular scale, benefiting from what is known as "economies of scale," the more significant the operation, the more cost-effective it becomes per unit of energy produced or transmitted. Market initiative and expansion of electricity is known as beneficial electrification. "Beneficial Electrification" refers to replacing direct fossil fuel use for heating and transportation with electricity to reduce overall emissions and energy costs while simultaneously delivering broader environmental and societal benefits. The primary aim is to shift end-use energy sources to cleaner, renewable electricity sources.

Energy Generation and Transmission assets require minimally sufficient economies of scale to enable minimum viable generation projects and transmission to be built or expanded. Expanding energy markets through market initiatives that serve multiple goals... creates sufficient economies of scale to lower energy costs through demand creation for critical energy

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generation and transmission assets, thereby increasing affordability, reliability, energy security, and grid resilience that reduce the cost of energy through displacement of higher cost fuel sources and by creating new energy demand. These market initiatives also create family-wage-sustaining jobs in Alaska.

Benefits:
The proposed market initiatives create multiple economic and societal benefits while providing Alaskans lower cost energy.

Implementation Timeline:
The Alaska Market Initiative Action Items have a range of planning, development, financing, implementation, and operation implementation timelines extending from the immediate to the long-term horizon for Alaska's Energy Plan.

Expected Results:
Strategically planned market initiative actions with tactical implementation focused on fully utilizing generation and transmission current and future assets will optimize State Alaska's Energy plan to lower Alaskans' energy costs (electric, heating, transportation).

ACTIONS (CONT.)

B-4.5 Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.



PRIORITY C.

RURAL GENERATION, DISTRIBUTION, AND STORAGE





INTRODUCTION

The vast majority of Alaska's rural communities have significantly higher cost of energy than more urbanized areas. This is primarily due to remote village locations having to rely on diesel powered generators supplying power for individual villages. The cost to purchase, transport and store diesel fuel drives these higher energy generation costs. The Rural Subcommittee identified five strategies target opportunities to help lower the cost of energy generation in rural Alaska. Increased access to capital and infrastructure investments by the state and federal government are two of these strategies. Lowering operational costs of existing energy generation also provide actions to pursue. The previous three strategies can be supported by increasing economies of scale, either by connecting communities or attracting industrial partners to increase demand, and better decision making concerning energy generation, storage, distribution based on access to better data is the final rural subcommittee strategy. Alaska's rural residents deserve access to clean, affordable, lower cost energy; these strategies are aimed to move the state in this direction.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- C-1 Increase Capital Availability
- C-2 Infrastructure Investment
- C-3 Lower Operational Costs
- C-4 Improve Economies of Scale
- C-5 Improve Data-Driven Decision Making

STRATEGY C-1:
Increase Capital Availability

ACTIONS

C-1.1 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-1.2 Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.

C-1.3 State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.



Purpose:
Increase access to capital to provide additional funding/finance for project and infrastructure construction.

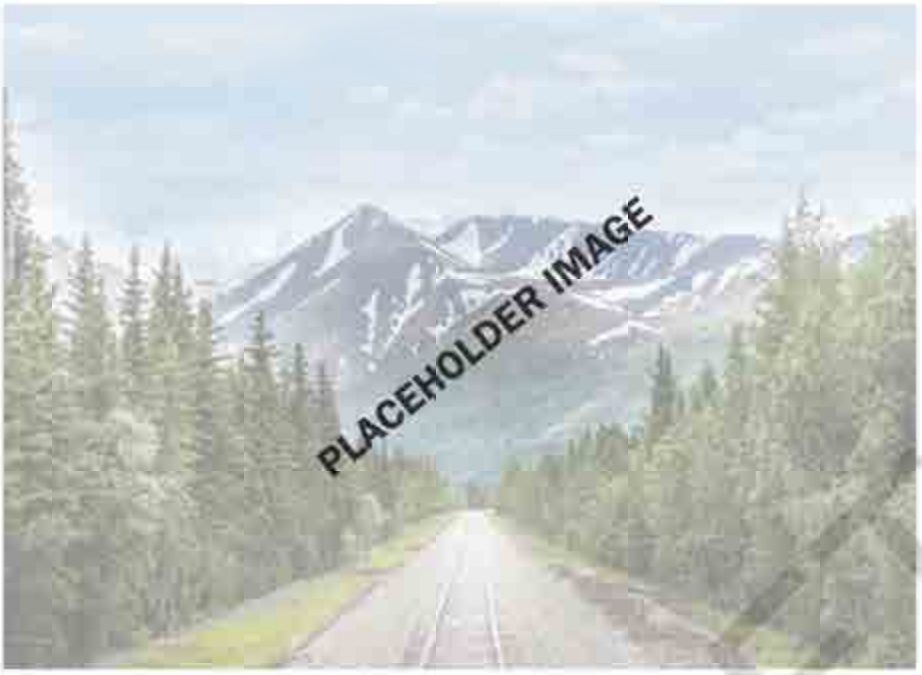
Background:
Small communities and developing regions to not have the economy required to generate the capital needed to build energy projects – e.g. hydro, SMR, transmission infrastructure

Benefits:
Alaskans need to reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:
Sufficient investment in energy projects/infrastructure to reduce the cost of energy in rural Alaska.

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STRATEGY C-2:
Infrastructure Investment



Purpose:
Support existing infrastructure and add new infrastructure to provide Alaskans with reliable energy at reduced cost.

Background:
Replace aging and inefficient infrastructure to improve reliability and affordability. Invest in new infrastructure related to the production and transmittal of power to rural Alaska in conjunction with transportation and broadband infrastructure.

Benefits:
Make regionally connected infrastructure investments that improve reliability and affordability in rural Alaska.

Expected Results:
Investment in connected regional infrastructure for the community needs that lead to the most affordable and reliable energy which would in turn improve public health, welfare, and socio-economic conditions in rural Alaska.

ACTIONS

C-2.1 Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.

C-2.2 Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.

C-2.3 Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.

C-2.4 IInvest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.

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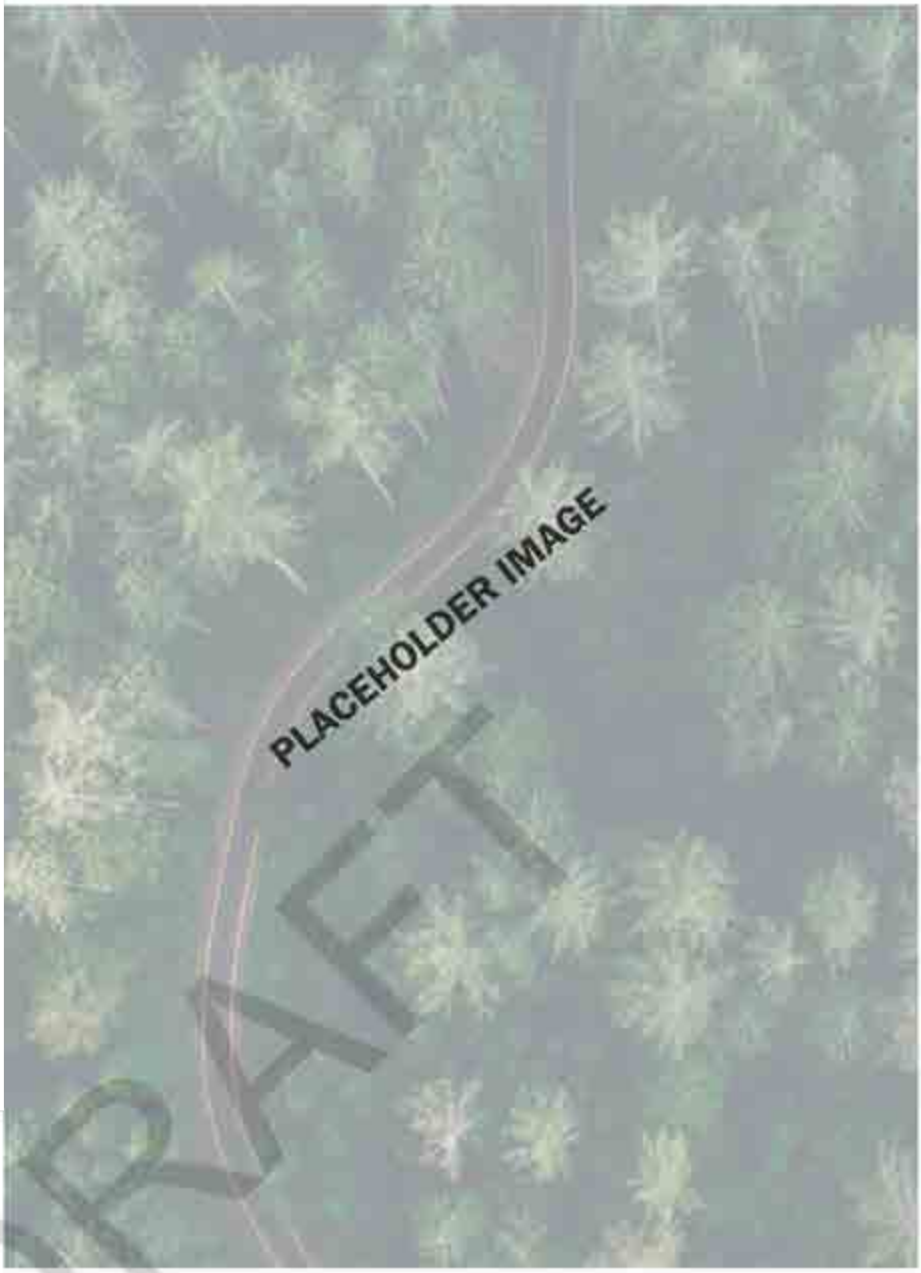
ACTIONS (CONT.)

C-2.5 Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

C-2.6 Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.

C-2.7 Invest in expanding the grid in rural areas.

C-2.8 Evaluate micronuclear and other emerging/ underutilized technologies throughout the State of Alaska.



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STRATEGY C-3:
Lower Operational Costs



Purpose:
Lower operational costs of power/electricity in rural Alaskan villages.

Background:
There is a need to lower operational costs to produce energy in rural Alaska. This can be done by increasing technical assistance in rural communities; lower maintenance costs; improve work force development opportunities for rural community residents; improve or develop transportation infrastructure beyond upgrading rural airports. Connecting rural communities to existing transmission/electric grids may be another option to lower operational costs.

Benefits:
Reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:

ACTIONS

C-3.1 Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production

C-3.2 Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.

C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.

C-3.4 Grid modernization and automation

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STRATEGY C-4:
Improve Economies of Scale

ACTIONS

C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.

C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.

C-4.3 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-4.4 Identify and complete a regional pilot project to demonstrate economies of scale.

C-4.5 Invest in rural beneficial electrification.



Purpose:
Reduce the cost of power and Improve reliability

Background:
By increasing the sale of power against fixed cost we can reduce the price per KWH.

Benefits:
Adequate access to reliable energy at lower cost to improve public health and welfare. Grow rural economies.

Expected Results:
Connect communities to each other and anchor tenants to improve the reliability and reduce the cost of energy which would in turn support public health and welfare and grow rural economies.

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STRATEGY C-5:
Improve Data-Driven Decision Making



Purpose:
Improve access to relevant data necessary to make informed value decisions related to energy generation, distribution, transimission and storage in rural Alaskan villages.

Background:
Legacy data collection processes have resulted in limited or incomplete data concerning Alaska's energy system, especially in rural Alaska. Current data analytic processes, provide an opportunity to improve baseline data access, processing, and archiving. There is no overarching data custodian within that state that collects, manages, and archives data necessary to plan, design and construct energy infrastructure in rural Alaska. This includes critical local knowledge provided by village residents.

Benefits:
Provide better economic outcomes, longterm cost/benefit analysis for rural Alaskan communities related to energy infrastructure.

Expected Results:

ACTIONS

C-5.1 Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.

C-5.2 Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects

C-5.3 Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions.

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PRIORITY D.

STATE ENERGY DATA



INTRODUCTION

There are literally terabytes of energy data available in the State of Alaska. Currently this data is not centrally located or managed. The Data Subcommittee created a Technical Advisory committee to help them identify and clarify four strategies intended to help the state better collect, manage, and analyze energy data. Four strategies came from this effort. The first recommended Establishing a Data Department within the Alaska Energy Authority to oversee management of Alaska's energy data. Second, Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access identifies the need for establishment of industry standard data governance protocols by an established data governance committee. The third strategy points to needed funding with the establishment of the above organizations, and the final strategy, Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation, focuses on validating and improving existing energy data, and collecting additional needed data to aid in future energy decision making.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- **D-1** Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary
- **D-2** Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access
- **D-3** Fund data capacity
- **D-4** Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation

STRATEGY D-1:
Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary

ACTIONS

D-1.1 Institute or update statutory requirements for AEA Data Department.

D-1.2 Fund, develop, and implement a technical and needs assessment.

D-1.3 Fund, develop, and implement a capital asset plan.

D-1.4 Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.

D-1.5 Appropriately staff the department based on the technical and needs assessment



Purpose:
To staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

Background:
While a substantial amount of valuable energy data exists in aggregate, they are often inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Existing data needs are thus being met by implementing unsustainable, short-term solutions such as adding additional responsibilities to existing staff, which often results in delays or needs going unmet.

The Alaska Energy Authority is the state's energy office and lead agency for statewide energy policy and program development.

Benefits:
This recommendation prioritizes, centralizes, and focuses the importance of energy data management in order to ensure the consistency and accessibility of energy data so it can better inform decision-making efforts on energy projects, program, and policy development. Housing a Data Department in AEA will ensure consistency and sustainability of state energy data management.

Expected Results:
The provision of consistent and accessible data further enabling data-informed decision-making on energy projects and policy across the state. Increased consistency of state data assets.

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STRATEGY D-2:

Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access



Purpose:
Ensure that collection, quality, storage, use of, and access to electric, heat, and transportation energy data in Alaska meets industry standards, current protocols, and best practices.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Security of, and ability to access, energy data are major concerns for public and private data users alike. The willingness to share, and the extent to which that data is shared, is significantly limited by concerns from such data providers regarding security, access, and usage.

Benefits:
Data-informed decision making is only as valid as the data on which the decision is based. The collection, quality, storage, use of, and access to energy data in Alaska should align with those industry best practices, standards, and current protocols so that all decisions are based on accurate and secure data.

Expected Results:
Energy data in Alaska meets and conforms with industry standards, protocols, and best practices. Increased participation of energy data stakeholders and end-users.

ACTIONS

D-2.1 Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.

D-2.2 Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.

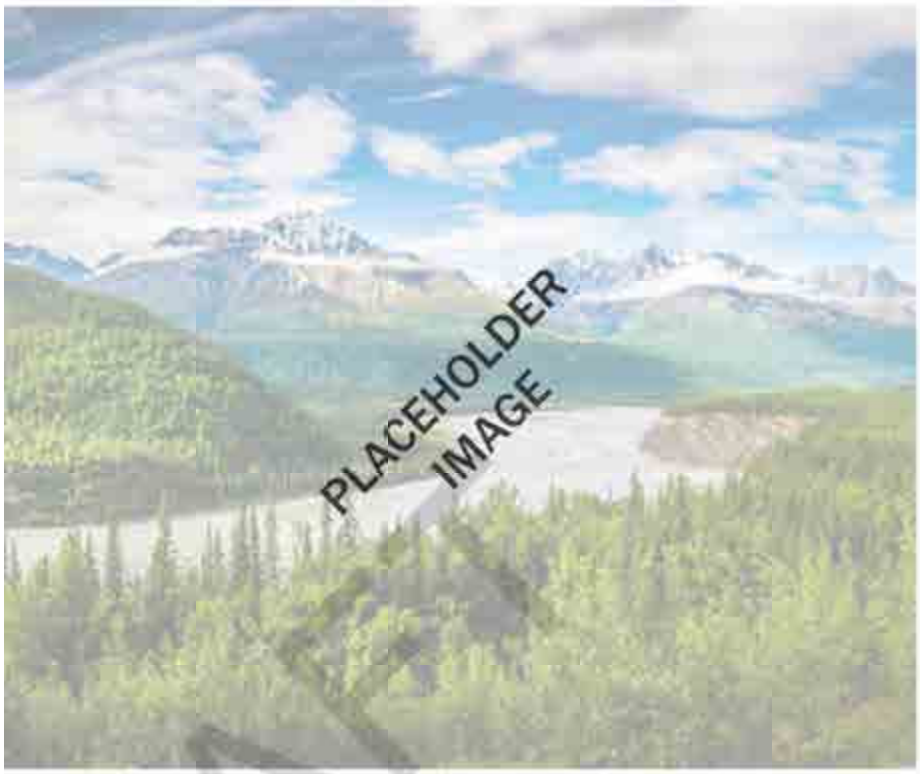
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STRATEGY D-3:
Fund data capacity

ACTIONS

D-3.1 Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.

D-3.2 Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis.



Purpose:
Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department

Background:
MMany of the ongoing data-related efforts across State agencies are borne by individuals whose duties and responsibilities are not primarily data-focused.

Benefits:
Establishing positions within State agencies whose primary duties and responsibilities are focused on data-related activities/initiatives, using statutes as necessary.

Expected Results:
Increased collaboration, reduced duplication of efforts, ease of data access, and better-informed decision making.

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STRATEGY D-4:
Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation



Purpose:
Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what form and character of data is and would be needed for data-informed decision making.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Thermal and transportation datasets are found to be lacking. The term "Energy Data" has historically been limited to electricity data, meaning there are significant gaps in thermal and transportation energy data.

Benefits:
Expand the definition of "Energy Data" and those existing, to-be-compiled, and to-be-created underlying datasets to include thermal and transportation data to better capture the dynamic and interrelated nature of energy use in Alaska.

Expected Results:
More all-encompassing and informed decision-making for energy projects and policies in Alaska, across electric, heat, and transportation sectors.

ACTIONS

D-4.1 Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.

D-4.2 Revitalize, fund, and maintain energy data platforms and services so as to ensure the long-term availability and accessibility of data.

D-4.3 Conduct a data audit of the Regulatory Commission of Alaska (RCA) to include recommendations.

D-4.4 Expand the Power Cost Equalization (PCE) report and the extent of such data reported.

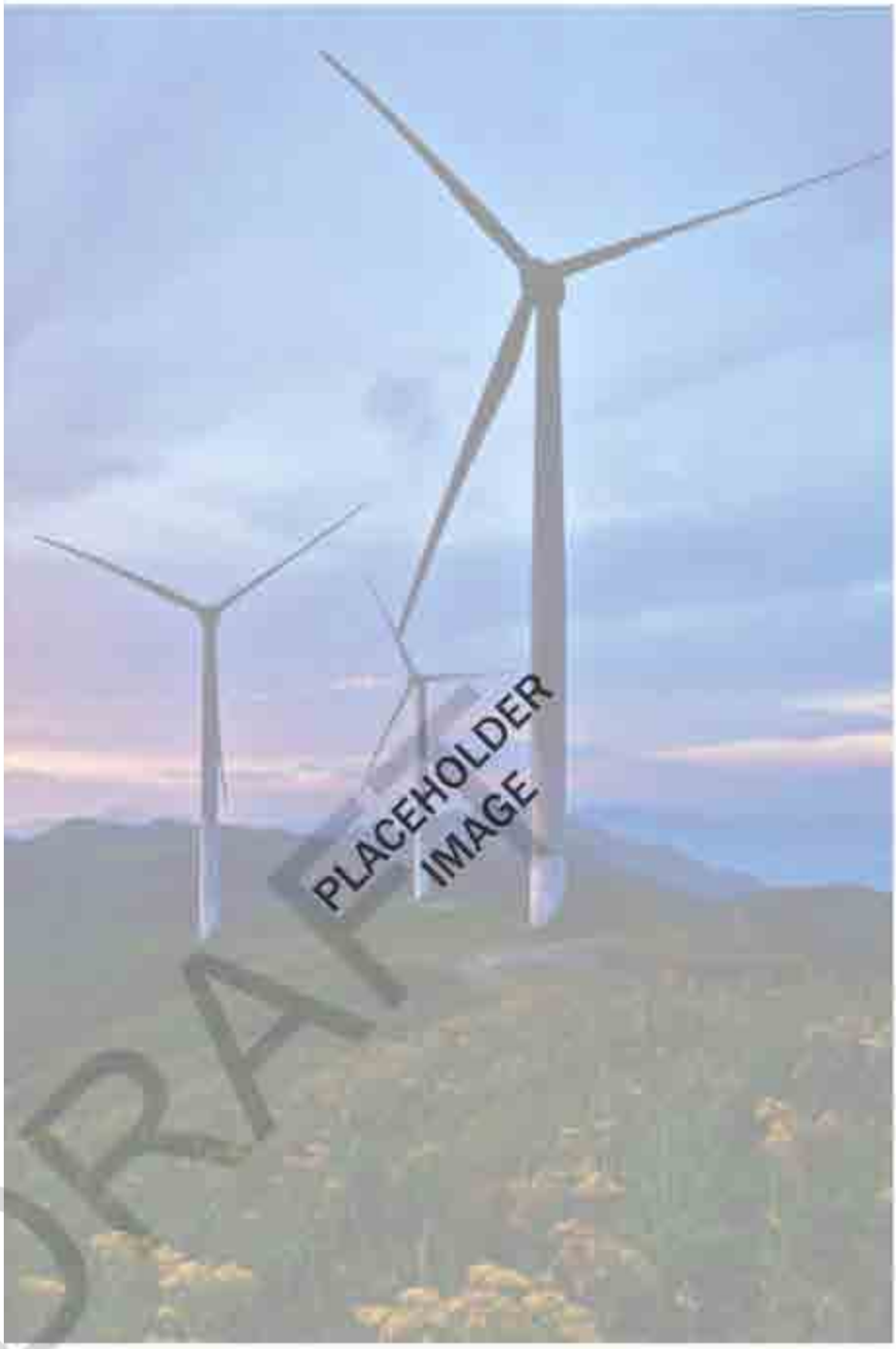
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ACTIONS (CONT.)

D-4.5 Expand the definition of "energy data" by adopting the TAC definition, ensuring the definition is inclusive of heat/thermal and transportation fuel data.

D-4.6 Understand how heating and transportation fuel is delivered and used.

D-4.7 Re-establish annual updates to the Alaska Energy Statistics report.



PLACEHOLDER CALL OUT BOX

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IMAGE

PRIORITY E.

INCENTIVES AND SUBSIDIES



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INTRODUCTION

The Incentives and Subsidies subcommittee settled on three themes and created seven strategies to support securing affordable energy in Alaska. The first theme relates to strategies and actions that incentivize private sector investment. These strategies include Decrease Barriers to Private Sector Investment, Improve Economies of Project Development, and Respond to and implement evolving Energy Business Models. The second theme is oriented to state and federal policy and law that could be modified to support and accelerate investment in energy generation, transmission, and storage in Alaska. These strategies include Strengthen State-Federal Coordination and Investment, Evaluate and implement State policy, tax, and other incentives, and Increase State programmatic investments. Finally, the Incentives subcommittee acknowledges the need to continue existing subsidies offered by the state while some of the previous strategies are implemented. The final theme and strategy includes, Maintaining Residential subsidy focused on equity, while reducing the need across communities.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- E-1 Strengthen state-federal coordination and investment
- E-2 Decrease barriers to private sector investments
- E-3 Maintain residential subsidy focused on equity, while reducing need across communities
- E-4 Improve the economics of project development
- E-5 Evaluate and implement State policy, tax, and other incentives
- E-6 Increase State programmatic investments
- E-7 Respond to and implement evolving energy business models

STRATEGY E-1:
Strengthen state-federal coordination and investment

ACTIONS

E-1.1 Develop a funding and implementation toolkit for state/federal energy projects.

E-1.2 Establish a clean energy and transmission line land use designation on state and federal lands.

E-1.3 Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.

E-1.4 Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.

E-1.5 Implement a state/federal private sector investment energy coordinator (POC).

E-1.6 Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.



Purpose:
The AESTF recommends the establishment of a state/federal working group that identifies and works toward improved access on federal lands, funding in place to accelerate an affordable energy transition, and the ability to leverage investment opportunities between state and federal programs.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities have significant barriers in the form of federal lands, which comprise more than 60% of the state. Federal land use policy comes with significant hurdles and a limited ability to effect widespread access or change. A coordinated and targeted effort by state and federal agencies that focuses on improving access and removing barriers is critical to lowering the cost of energy in Alaska, even as it increases the potential to meet federal clean energy goals.

Benefits:
The increased capacity of the state to negotiate and execute priorities with willing federal agencies for developing cost-effective clean energy, transmission lines on federal lands, with dedicated funding in place to bring Alaska parity with the rest of the nation, will lower energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals. This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

Expected Results:
This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

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STRATEGY E-2:
Decrease barriers to private sector investments



Purpose:
The AESTF recommends a strategic approach to policy and program development that stimulates and incentivizes private sector activity, including to make investments alongside private sector partners that result in coordinated and more efficient project delivery.

Background:
Federal and state investment is insufficient to address the scale necessary to effect widespread and meaningful transition toward lower-cost and –carbon energy. At the same time, removing barriers or reducing the burdens associated with private sector investments has the potential to increase Alaska's ability to establish partnerships, and leverage private capital in the public interest.

Benefits:
Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment. Offsetting upfront costs and increasing the utilization of low-interest public capital will strengthen project economics while including strong public benefit criteria. Finally, this process envisions increasing the overall economy of scale, which will contribute to reducing barriers.

Expected Results:

ACTIONS

E-2.1 Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.

E-2.2 Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs.

E-2.3 Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC).

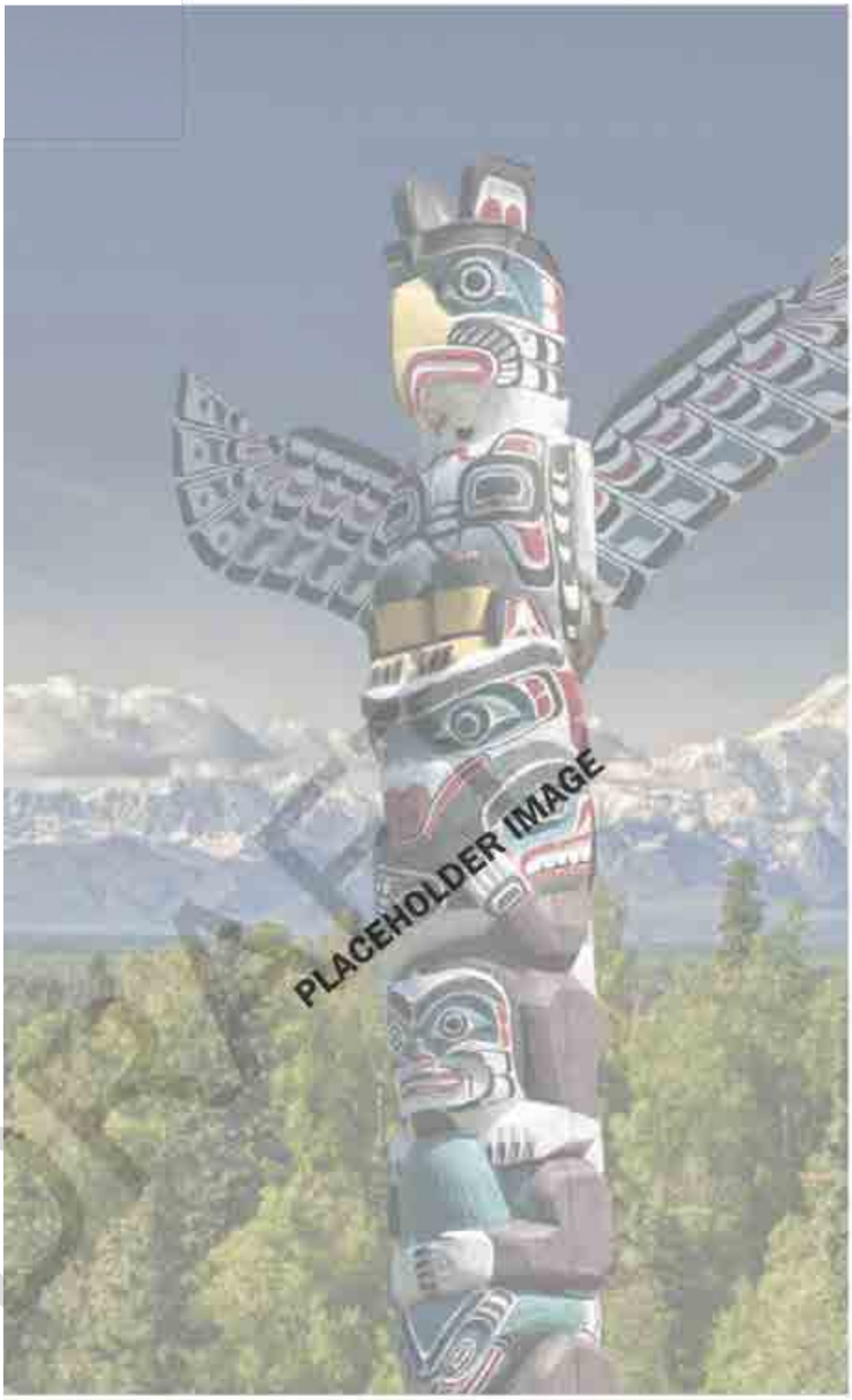
E-2.4 Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

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ACTIONS (CONT.)

E-2.1 Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.

E-2.6 Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.



STRATEGY E-3:
Maintain residential subsidy focused on equity, while reducing need across communities



Purpose:
The AESTF recommends the continued commitment by the State to ensuring residents have access to subsidy where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms for a fairer subsidy, 2) strategically deploys PCE funds to advance ow-cost energy solution, and 3) expands the ability of PCE to lower costs across sectors within communities.

Background:
The value of PCE cannot be overstated – it has proven to be a lifeline to Alaskans who bear the brunt of high costs. This equitable distribution of State funding, relative to and based on project investment in some parts of the state, has lowered costs in communities where otherwise more residents may have chosen outmigration. However, PCE has not equalized costs in any way, and it remains true that this high-cost burden falls on some Alaskans and not others. At the same time, the overall goals of the state can encompass reducing the need for this subsidy by actually lowering costs in communities.

Benefits:
Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans.

Expected Results:

ACTIONS

E-3.1 Ensure that PCE funds are available at the right scale over the correct time period.

E-3.2 Implement a strategic approach to lowering costs according to highest use communities.

E-3.3 Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

E-3.4 Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.

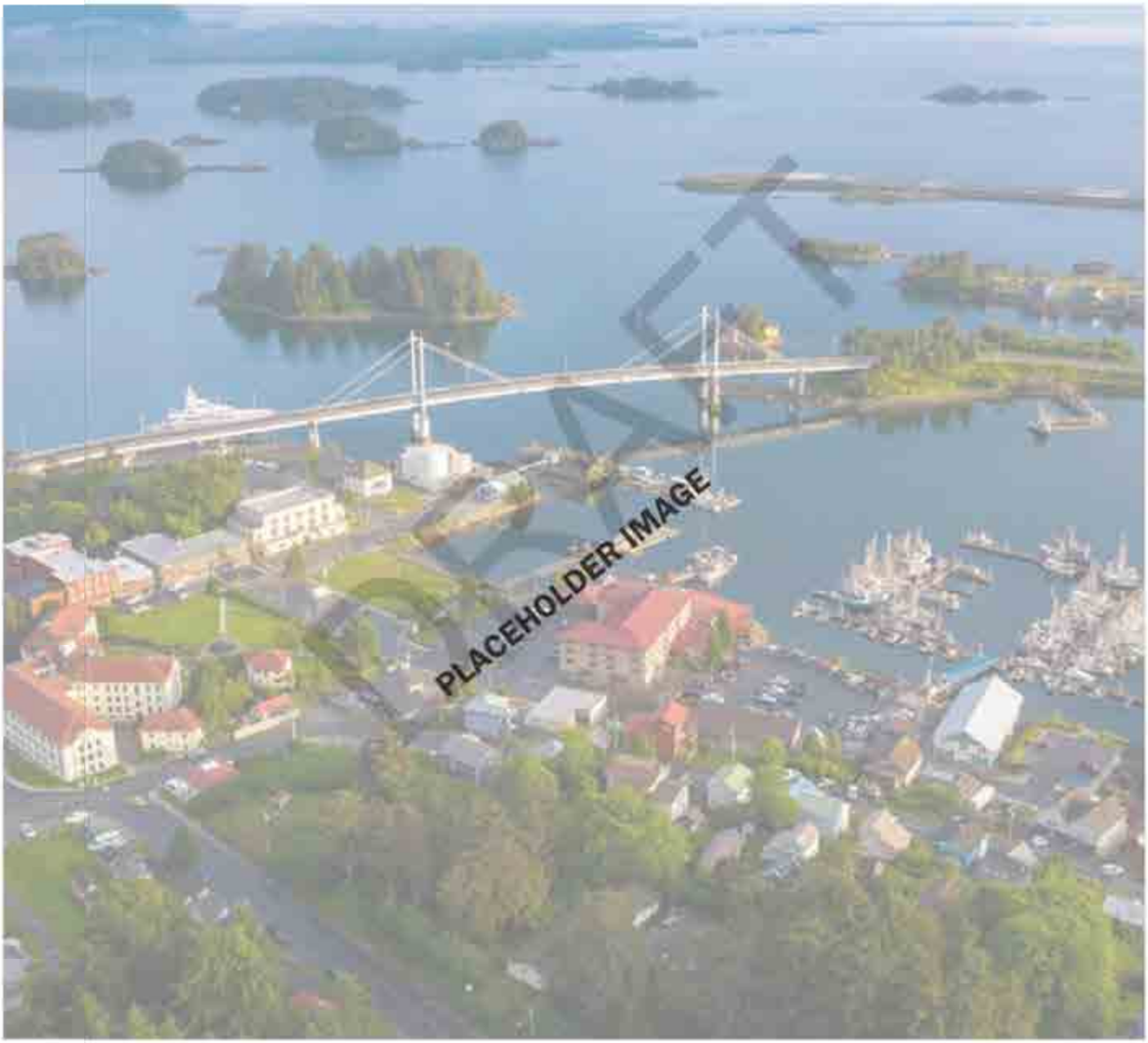
E-3.5 Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.

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ACTIONS (CONT.)

E-3.6 Ensure ability to offset debt that results in lower cost energy project development.

E-3.7 Implement community-based IPPs that sell power to utility for PCE reimbursement.



STRATEGY E-4:
Improve the economics of project development



Purpose:
The AESTF recommends a multi-pronged approach to reducing risk to utilities and project proponents, increasing the availability of financing mechanisms, and encouraging ancillary investments that will benefit the industry and economies of communities.

Background:
Alaska will always be a high-cost state, defined by the tyranny of geography, time, and distance. Access to markets, and at the tail-end of a global supply chain, there are clear competitive disadvantages within which utilities and project developers operate, even as ratepayers (or the State) bear the cost. There are ways, however, to lower the costs of project development, and state action can facilitate this.

Benefits:
Affordability rests on capex and opex, and both have avoidable and unavoidable layered costs. A strategic state approach can begin peeling away or mitigating avoidable costs to improve the economics of project development, and ultimately save ratepayers money.

Expected Results:

ACTIONS

E-4.1 Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.

E-4.2 Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.

E-4.3 Establish a green bank for financing of community scale energy efficiency projects.

E-4.4 Ensure adequate workforce training and skills development alongside job creation goals of State.

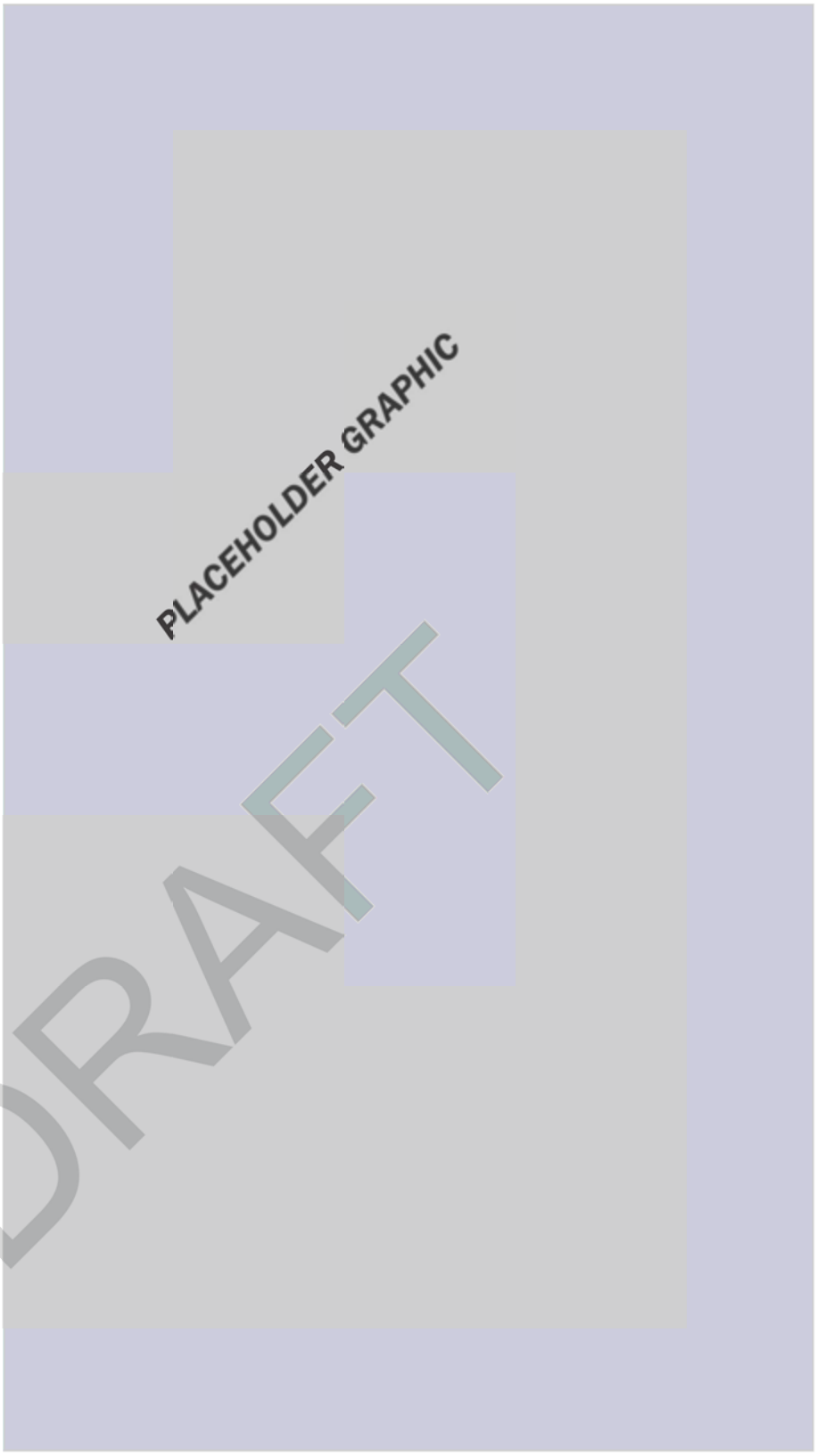
E-4.5 Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization

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ACTIONS (CONT.)

E-4.6 Implement pooling of RECs for system optimization and improving economy of scale.

E-4.7 Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.



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STRATEGY E-5:
Evaluate and implement State policy, tax, and other incentives



Purpose:
The AESTF recommends an audit of all State energy-related expenditures to assess impact, identify gaps, and maximize the benefits of future effort, even as it further identifies available and necessary funding to address other actions of the AESTF.

Background:
Ultimately, what the State has most control of is its own policy, regulatory, and tax systems. The State's capacity to contribute to lowering the cost of energy for Alaskans is immense, and intensity of effort is required to fully assess current activity and the potential need for new laws and practices that will incentivize change.

Benefits:
The majority of actions identified by the AESTF rest on the State's ability to adopt statutory or regulatory changes or make necessary investments.

Expected Results:

ACTIONS

E-5.1 Conduct an energy incentives program study to determine capacity of State to make investments.

E-5.2 Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.

E-5.3 Evaluate, track, and benchmark all State energy-related expenses for maximizing impact.

E-5.4 Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.

E-5.5 Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission.

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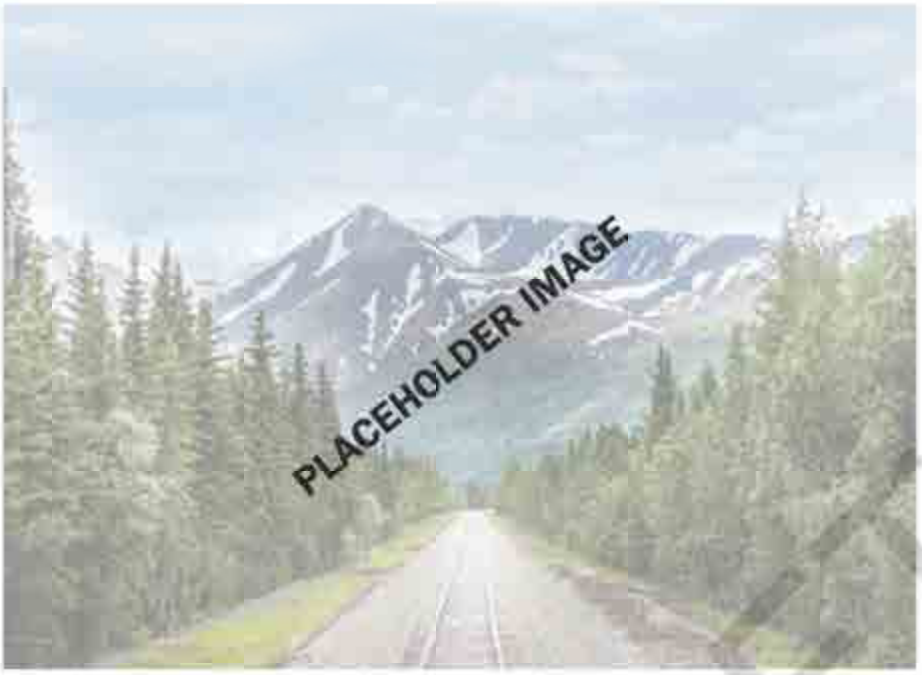
ACTIONS (CONT.)

E-5.6 Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.



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STRATEGY E-6:
Increase State programmatic investments



Purpose:
The AESTF recommends the evaluation of and changes to current programmatic investments such that 1) these programs have sufficient capacity and competency to act effectively in support of lowering energy costs in Alaska, and 2) that the braiding of programmatic intent results in streamlining action and reducing capex and opex costs.

Background:
Government programs may be developed to provide technical assistance or to serve as a resource to consumers, project proponents, and others. Program staff provide support and guidance as to how to utilize these tools. Programs may also try to provide direct services, such as improving energy efficiency, weatherization, community planning, or rate review and setting. Some programs are simply there to ensure compliance. Governments may spend significant resources on these programs. It is not clear that programs reduce the cost of energy, though they may have other benefits.

Benefits:
The ability of the state to achieve a moonshot goal requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end.

Expected Results:

ACTIONS

E-6.1 Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.

E-6.2 Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.

E-6.3 Increase availability of resources for weatherization, energy efficiency, and building retrofits

E-6.4 Ensure adequacy of staff resources at local and state level, including to provide technical assistance.

E-6.5 Evaluate State and local procurement policies that align with affordable and clean energy adoption.

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STRATEGY E-7:
Respond to and implement evolving energy business models

ACTIONS

E-7.1 Increase the use of energy technology demonstration and deployment programs.

E-7.2 Implement emerging tools like on-bill financing, net metering, etc.

E-7.3 Mirror FERC safe harbor rule allowing for backfeeding of up to 15% of circuit capacity.

E-7.4 Identify baseline and establish target for T&D capacity utilization of 90%.

E-7.5 Explore locational marginal pricing (LMP).

E-7.6 Implement utility rate incentives for time-of-use rates during periods of lower cost power.

E-7.7 Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.



Purpose:
The AESTF recommends the cost-benefit analysis of multiple tools that should lead to greater private sector investment and lower costs for ratepayers, and the development of an implementation strategy.

Background:
The pace and scale of change occurring globally and nationally has the potential to lower costs in Alaska, to the extent the state can incorporate new models of doing business. While not all tools may be as applicable here as elsewhere, it is worth investing time in increasing the suite of options that the state has at its disposal. In particular, these business models affect utility, ratepayer, and independent power producer relationships, even as they have the potential to lower costs for Alaskans.

Benefits:
Conventional tools have been used during a period of Alaska's energy system development that was responsive to certain conditions and available resources that are now evolving, even as high costs have plagued the majority of Alaska communities. As part of a strategic pathway toward lower cost energy, the state's investment in new business models and innovative tools that complement and build on current systems will be critical to Alaska's future.

Expected Results:

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PLACEHOLDER IMAGE
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PRIORITY F.

STATUTES AND REGULATIONS





INTRODUCTION

The Statutes and Regulations Subcommittee understands nearly all of the recommended actions from the other five subcommittees will require some form of statutory or regulatory modification or update. We are taking the approach of reviewing these recommended actions and consolidating those that are comparable or alike. We will then craft prioritized actions for the administration to progress forward in the coming legislative session as either new legislation or updates to existing draft legislation or recommended regulatory changes to the Alaska Administrative Code.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

F-1
F-2
F-3

PLACEHOLDER STRATEGIES TO BE DETERMINED AFTER REVIEWING OTHER COMMITTEE STRATEGIES

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STRATEGY F-1:
Placeholder Strategy To Be Determined

ACTIONS

F-1.1 Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.

F-1.2 Streamline permitting for energy projects

F-1.3 Establish state funding to help with local match for federal grant cost share

F-1.4 Continue to allow transmission and distribution lines to share DOT right-of-way.

F-1.5 Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.

F-1.6 Provide budgetary support for the Regulatory Commission of Alaska (RCA).



Purpose:

Background:

Benefits:

Expected Results:

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Policies Currently Under Consideration

APA Policy Position (For Consideration):

- Clarify statute on wildfire liability
- Prioritize state investment in electric infrastructure and leverage federal funding opportunities
- Support reasonable and economic carbon reduction strategies that consider costs to consumers
- Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023
- Alternative Uses for Coal Regulations

CEDS Action (For Consideration)

- Carbon and Sequestration Regulations
- Hydrogen Roadmap and Regulations
- Establish Alaska Hydrogen Hub

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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching di-versification goals.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.1	Establish, require, assist, and Implement community Integrated Re-source Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regu-lations for Alaska's diverse stakeholders to promote net metering re-newable energy investments.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulato-ry and land use administrative processes to accelerate approval to ad-vance strategic energy projects and transmission for regional energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal fund-ing and federal financing to build and expand Transmission and Distribu-tion lines in Alaska to bring Alaska on par with the US transmission sys-tems for Alaskan energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action C-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.1	Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to opti-mally advance renewable energy and transmission on federal lands.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
				✓	✓
	✓				✓
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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-3	Action B-3.1	Foster, Support, and Assist Hydropower development and their trans-mission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-4	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.
Priority C. Rural Generation, Distribution, and Storage	Strategy C-1	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities in-cluding a "Local Match" for Federal Grants.
Priority E. Incentives and Subsidies	Strategy C-3	Action C-3.1	Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activi-ties for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.
Priority E. Incentives and Subsidies	Strategy E-4	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
✓	✓	✓			✓
✓	✓				✓
	✓				✓
		✓			✓
		✓		✓	✓
				✓	✓
				✓	✓
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APPENDIX II.
ACTION TRACKING SHEET

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Priority A. Railbelt Transmission, Generation, and Storage - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy A-1: Unify Transmission	Action A-1.1	Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA for new non-for-profit regulated utility for the net book value.		Short (2 - 5 years)	AEA	Legislature; Dept of Revenue; Dept of Law; Railbelt Utilities	New
Strategy A-2: Diversify Generation	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals	To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviors, action and outcomes for our State. 1. Direct Payment to Utilities for Achieving Diversification Targets 2. Augmentation of the Renewable Energy Fund (REF): 3. Augmentation of the Power Project Fund (PPF)				
Strategy A-2: Diversify Generation	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.					
Strategy A-2: Diversify Generation	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG					
Strategy A-3: Increase Demand	Action A-3.1	Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-1: Alaska Policy Recommendations	Action B-1.1	Establish, require, assist, and Implement community Integrated Resource Plans (light)to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.	Identify future generation and demand for resource planning purposes to lower the energy cost for the communities and region. Establish Standardized Metrics Related to Power Generation Compared to Future Demand.	Immediate (0 - 2 years)	AEA	RCA; Utilities; DCCED; communities; tribal entities;	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.		Short (2 - 5 years)		Tribes and native corporations; schools; Utilities; DCCED; AEA; RCA; Legislature	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.	Identify burdensome regulatory requirements at State Departments, with focus on hydro-electric power and other renewable energy development. Collaborate with appropriate state and regulatory agencies to promote solutions to streamline approvals, decrease costs, and expedite schedules.	Immediate and short term	Office of Governor, AEA	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law,	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.	Identify funding/financing sources a the federal, state and local level to expand transmission lines across Alaska. Prioritize innovative construction and product types, such as submarine transmission and underground transmission.	Spectrum of timeframes based on local needs and initiatives	Governors Office, AEA	Congressional Delegation. Utilities; DCCED; AEA, AIDEA; local governments; tribal; state legislature; Governor's office	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.5	Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.					
Strategy B-1: Alaska Policy Recommendations	Action B-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.	Establish a workforce development program to educate, train, and retain skilled workers in electrification.	Immediate (0 - 2 years)	Dept. of Labor	DOR, DCCED, University of Alaska, Labor Unions, AVTEC, Tribal Training Programs - (Tlingit Tribal Central Council), Yuut Elitnaurviat	New
Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.1	Establish an Alaska/federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.	Coordinate and collaborate with federal land holding agencies to establish a renewable energy land use and Transmission use corridor Primacy on federal land allow Alaska renewable energy development on federal lands.	Immediate, short term ongoing	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT&PF; Dept of Law; Alaska Congressional Delegation, Denali Commission, Alaska Power Association	New
Strategy B-3: Alaska Hydropower Generation Recommendations	Action B-3.1	Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.	Build Execution ready Hydro Projects, Advance economically viable Hydro for energy security, spur economic growth and prosperity for Alaska.	Immediate-Execution Ready, Short (2 - 5 years) [licensed] Long-term (10 years plus) [unlicensed]	AEA	AIDEA, Federal funding, DCCED, DOL, DNR, ADF&G, state legislature	New
Strategy B-4: Alaska Market Initiatives	Action B-4.1	Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.	Plan to promote heat pumps as an alternative energy/heat source in Coastal Alaska. Identify successful case studies for further implementation in Alaska (there is data available on heat pumps, e.g. Heat Pumps Center).	Immediate	Local Leadership, AEA	DCCED; Legislature; Dept of Law; Utilities; AHFC; Community Development Organizations; Local Governments; Tribes	New
Strategy B-4: Alaska Market Initiatives	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships	Identify and execute shore power in Alaskan Ports and Harbors and make feasible. Identify funding sources, including Marine Passenger Fees and federal programs.	Immediate-Execution ready, short term (2-5 years)	AEA, Coastal Communities	Dept of Law; DCCED; DOT&PF	New
Strategy B-4: Alaska Market Initiatives	Action B-4.3	Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation and assist in reducing the cost of power in coastal communities.	Establish plan to convert ferry fleet to electric or electric hybrid vessels, using BC Ferries as a case study for implementation. Identify key ferry routes in Alaska, and evaluate for feasibility and implementation. Work with AKDOTPF strategy and plans. Use electric demand forecasts to assist coastal region utilities and communities generation and transmission resource planning.	Short (2 - 5 years)	DOT&PF	DCCED; Legislature; Dept of Law; Local utilities and IPPs	New
Strategy B-4: Alaska Market Initiatives	Action B-4.4	Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs	Note: Emerging Opportunity - Subcommittee will review in detail in September 2023.	Short (2 - 5 years)	Private Industry or Utilities	DCCED, DEC, AEA	New
Strategy B-4: Alaska Market Initiatives	Action B-4.5	Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure and stabilize grids. Integration of renewables. Acknowledge O&M of the systems.	Immediate. Change to Immediate and Short term	AEA, local communities	B&V; AEA; utilities; AIEDA; local communities, DOT&PF	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-1: Increase Capital Availability	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.	Identify local or state funding mechanisms to "bridge the gap" commonly found with federal grant funding - the local match component is often a prohibitive hurdle for rural communities to receive federal grant funding.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-1: Increase Capital Availability	Action C-1.2	Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.					
Strategy C-1: Increase Capital Availability	Action C-1.3	State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.1	Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.					
Strategy C-2: Infrastructure Investment	Action C-2.2	Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.					
Strategy C-2: Infrastructure Investment	Action C-2.3	Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.4	Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.					
Strategy C-2: Infrastructure Investment	Action C-2.5	Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.	Where feasible, identify opportunities to connect rural communities through transmission lines and shared energy to enhance redundancy and connectivity. Focus on cost-effective solutions for connectivity. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas. Upgrade rural energy infrastructure such as power houses and bulk fuel farms.	Medium (5 - 10 years)	AEA	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-2: Infrastructure Investment	Action C-2.6	Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.	Invest in resilient energy infrastructure with focus on most frequent/severe hazards, instead of focusing on repair after the damage or destruction occurs. Reference case studies and future opportunities with FEMA as a funding resource. Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-2: Infrastructure Investment	Action C-2.7	Invest in expanding the grid in rural areas.		Long-term (10 years plus)		P3 Partners, Utilities	Modified CEDs 2022 Plan Action
Strategy C-2: Infrastructure Investment	Action C-2.8	Evaluate micronuclear and other emerging/underutilized technologies throughout the State of Alaska.	Invest in expanding the grid in rural areas in cost effective ways to connect micro nuclear as it is adopted and built in the next 10+ years.				
Strategy C-3: Lower Operational Costs	Action C-3.1	Expand and Inventory technical assistance, training, and workforce development to identify gaps, and increase capability & capacity-building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production	Explore technical assistance such as: workforce training programs, financing mechanisms, grant support, and economic development.	Immediate (0 - 2 years)	DCCED	DOL; DOR ,P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.2	Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.	Identify new innovations in transportation that may support/improve supply chain logistics and reliability in rural AK - follow up with DOT&PF. Prioritize continuity of operations, and enhance redundancy where feasible.	Immediate (0 - 2 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.3	Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.	Identify opportunities to educate local communities about proposed or future energy projects. Focus on benefits, particularly related to affordability. Curate outreach to known controversial projects, such as hydro-power or mining. Identify past projects that have successfully navigated opposition mounted by local communities and environmental NGOs. Develop case studies and a suite of tools to engage with opposition. Recognize concerns from those who are opposed, and implement mitigation actions as appropriate. Engage early and often, incorporate visuals and avoid fear mongering.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.4	Grid modernization and automation					

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-4: Improve Economies of Scale	Action C-4.1	Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.	Identify development opportunities to be shared amongst multiple utilities. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Develop energy projects in coordination with other utilities, such water, sewer, heat, communications (broadband, fiber) or other infrastructure projects (transportation). Share costs associated amongst participants to enhance affordability, and thus pass off affordability to the users.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-4: Improve Economies of Scale	Action C-4.2	Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.	Identify existing and potential energy anchor tenants who are willing to share costs on energy projects and development. Examples include fishing, mining, industrial tenants. Explore opportunities where anchor tenants can partner with other business and communities for mutually beneficial projects, and enhance affordability.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-4: Improve Economies of Scale	Action C-4.3	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.					
Strategy C-4: Improve Economies of Scale	Action C-4.4	Identify and complete a regional pilot project to demonstrate economies of scale.					
Strategy C-4: Improve Economies of Scale	Action C-4.5	Invest in rural beneficial electrification.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.1	Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.	Explore opportunities to enhance remote sensing and technology for energy infrastructure in rural/remote locations.	Medium (5 - 10 years)			New
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.2	Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.3	Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.1	Institute or update statutory requirements for AEA Data Department.					
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.2	Fund, develop, and implement a technical and needs assessment		Immediate (0 - 2 years)			New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.3	Fund, develop, and implement a capital asset plan					New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.4	Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.5	Appropriately staff the department based on the technical and needs assessment					New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.1	Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.		Immediate (0 - 2 years)			New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.2	Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.					New
Strategy D-3: Fund data capacity	Action D-3.1	Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department		Short (2 - 5 years)			New
Strategy D-3: Fund data capacity	Action D-3.2	Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.1	Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.		Short (2 - 5 years)			New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.2	Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data					New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.3	Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.4	Expand the Power Cost Equalization (PCE) report and extent of such data reported					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.5	Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.6	Understand how heating and transportation fuel is delivered and used					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.7	Re-establish annual updates to the Alaska Energy Statistics report					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.1	Develop a funding and implementation toolkit for state/federal energy projects in Alaska	Funding and implementation toolkit for energy projects in Alaska will include: resources, guidelines, case studies, and a funding tracker of opportunities for Alaskan communities, ANCs, State Agencies, Utilities, etc.	Short (2 - 5 years)	AEA	DCCED; DOR; ACEP; State Legislature	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.	Establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans to allow small community renewable energy development and transmission line corridors on federal lands. Establish an Alaska-Federal Renewable Energy Working Group to develop, collaborate, and execute State-Federal policy that supports State energy goals and rights to advance renewable energy development and transmission lines on federal lands to lower the energy cost for Alaskans.	This action item has a blend of Immediate and short-term tasks for implementation.	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT Dept of Law;	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund	Alaska has second world transmission and generation assets. Requires federal support to bring Alaska into this century with same level of service and transmission line capacity aligned with national standards.	Medium (5 - 10 years)	State Legislature	DCCED; DOR; Dept of Law, AEA	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.4	Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.	Implement statewide energy project evaluation process that takes into account low cost, local, clean, and lifecycle. Alaska could use the levelized cost of energy for infrastructure projects.				
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.5	Implement a state/federal private sector investment energy coordinator (POC).					
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.6	Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.1	Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-2: Decrease barriers to private sector investments	Action E-2.2	Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.3	Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC)					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.4	Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.5	Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.6	Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.1	Ensure that PCE funds are available at the right scale over the correct time period.	Increase analysis of potential benefits of PCE, to reduce disincentives for lowering energy costs.	Short (2 - 5 years)			

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.2	Implement a strategic approach to lowering costs according to highest use communities.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.3	Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.4	Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.5	Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.					

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.6	Ensure ability to offset debt that results in lower cost energy project development.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.7	Implement community-based IPPs that sell power to utility for PCE reimbursement.					
Strategy E-4: Improve the economics of project development	Action E-4.1	Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.					
Strategy E-4: Improve the economics of project development	Action E-4.2	Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.	Transmission related fires can bankrupt utilities. Provide relief and risk exposure to Alaska utilities in return for FERC defined Open Access which would justify the public benefit for providing risk reduction and exposure to Alaska utilities.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	New
Strategy E-4: Improve the economics of project development	Action E-4.3	Establish a green bank for financing of community scale energy efficiency projects.	Establish a green bank to finance energy efficiency projects at the community scale in partnership with the private sector. Support initial capitalization by the State.	Short (2 - 5 years)	AHFC	AEA	From CEDs 2022 Plan (For Consideration)
Strategy E-4: Improve the economics of project development	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.	Obtain federal grants under the IIJA to conduct workforce development, reskilling, and training, including as part of broad industry collaboration.	Medium (5 - 10 years)			From CEDs 2022 Plan (For Consideration)

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-4: Improve the economics of project development	Action E-4.5	Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization.					
Strategy E-4: Improve the economics of project development	Action E-4.6	Implement pooling of RECs for system optimization and improving economy of scale.					
Strategy E-4: Improve the economics of project development	Action E-4.7	Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.1	Conduct an energy incentives program study to determine capacity of State to make investments.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.2	Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.	Conduct and implement a statewide strategic plan for energy development.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska, REAP, Alaska Power Association	In Progress
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.3	Evaluate all State energy-related expenses for maximizing impact.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.4	Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.					

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Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.5	Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.6	Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.1	Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting. Execute the State of Alaska's internal streamlining policy and interagency coordination to support and streamline internal state regulatory and land use requirements for Alaska projects, providing a unity of purpose and coordination to advance renewable energy projects to accelerate development, financing, permitting to lower the cost of energy for Alaskans.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Strategy E-6: Increase State Programmatic Investments	Action E-6.2	Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.3	Increase availability of resources for weatherization, energy efficiency, and building retrofits.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.4	Ensure adequacy of staff resources at local and state level, including to provide technical assistance.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.5	Evaluate State and local procurement policies that align with affordable and clean energy adoption.					

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.1	Increase use of energy technology demonstration and deployment programs.	Execute pilot and demonstration projects for energy technology that lowers energy costs and leads to commercialization, including through collaboration with entities such as AEA, Launch Alaska, and the National Laboratories.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska	From CEDs 2022 Plan (For Consideration)
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.2	Implement emerging tools like on-bill financing, net metering, etc.			AHFC		
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.3	Mirror FERC safe harbor rule allowing for back feeding of up to 15% of circuit capacity.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.4	Identify baseline and establish target for T&D capacity utilization of 90%.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.5	Explore locational marginal pricing (LMP).					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.6	Implement utility rate incentives for time-of-use rates during periods of lower cost power.					

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.7	Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Placeholder strategy to be determined.	Action F-1.1	Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.	Legislation should be passed (similar to Iowa House File 577) which allows for advanced ratemaking principles Under this legislation, significant projects/improvements are reviewed and approved in advance so all parties have clarity on costs, return on equity, and approval before proceeding (versus traditional pay and pray methodology)	Medium (5 - 10 years)	DCCED	AEA; Dept of Law; RCA; Legislature	New
Placeholder strategy to be determined.	Action F-1.2	Streamline permitting for energy projects	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Placeholder strategy to be determined.	Action F-1.3	Establish state funding to help with local match for federal grant cost share	Work with the utilities to understand the feasibility of meeting the local match requirements for various federal grants. Establish a fund to contribute to grant match requirements that may pose a challenge to potential grant recipients. In some cases, utilities may need to raise costs to come up with the local match amount, which negates some of the benefits of being awarded the grant.	Medium (5 - 10 years)	AEA	Legislature; DCCED; OMB	New
Placeholder strategy to be determined.	Action F-1.4	Continue to allow transmission and distribution lines to share DOT right-of-way	Note: Need to coordinate with DOT and partners to understand issue to define a recommendation.	Medium (5 - 10 years)			New
Placeholder strategy to be determined.	Action F-1.5	Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.	Investigate through energy commissioner organizations and inter-state governmental organizations.	Short (2 - 5 years)	ACEP	AEA	New

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Placeholder strategy to be determined.	Action F-1.6	Provide budgetary support for the Regulatory Commission of Alaska (RCA)					
	APA Policy Position (For Consideration)	Clarify statute on wildfire liability	Alaska's electric utilities work hard to maintain their rights-of-way for transmission and distribution lines but have no control over vegetation that grows outside their rights-of-way. This creates a scenario in which trees or other vegetation outside the right-of-way -- but tall enough to fall into the right-of-way -- can cause damage, such as a wildfire. The Alaska legislature can protect electric ratepayers by making clear in statute that electric utilities can only be held liable for damage, death or personal injury from contact between vegetation and the utility's facilities if the vegetation is located entirely within the boundaries of the utility's right-of-way. The state can help mitigate fire risk by continuing to provide funding for the mitigation of spruce beetle-killed trees, which are a significant problem in many parts of the state. Alaskans already pay some of the highest costs for electricity in the country. Making Alaska utilities, and ultimately their customers, responsible for damages caused by vegetation outside of utility control will drive those costs even higher. This could raise the prospect of financial difficulty for utilities themselves, as has happened in California.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Prioritize state investment in electric infrastructure and leverage federal funding opportunities	Electric infrastructure is the bedrock of the state's economy and the operation of the daily lives of Alaskans. The Alaska legislature must leverage every federal dollar available that benefits infrastructure with a strong emphasis on electric infrastructure – generation, transmission, and distribution. The legislature should direct the appropriate state agencies to work with electric utilities statewide to determine where funding can best serve Alaskans through investment in electric infrastructure, including renewable energy technologies and digital communications infrastructure. Concurrently, the legislature should call on Congress to focus on funding for electric infrastructure when passing spending bills and when funding federal agency operations. Many areas of the United States continue to benefit from long running federal power marketing administrations (PMAs) that have brought low-cost power to vast reaches of the country. Alaska has not been afforded such federal programs. Through robust state and federal investment in electric systems, Alaska would strengthen its economic health during and following the COVID-19 pandemic.	Short (2 - 5 years)		Legislature; Dept of Law; OMB	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Support reasonable and economic carbon reduction strategies that consider costs to consumers	Carbon reduction efforts, whether legislative or regulatory, must allow for a technology neutral approach to decreasing fossil fuel consumption. Integrating renewable generation is one method of lowering reliance on fossil fuels, in addition to demand side management, energy efficiency, dynamic demand, and beneficial electrification, among others. Collectively, they are proven pathways to achieving carbon reduction. Above all, safety, reliability, and affordability must be considered as carbon reduction efforts are undertaken. For many years, Alaska's electric utilities have developed renewable generation assets and integrated renewable generation into their systems while exploring additional, economically feasible renewable generation. This integration, while partially driven by a goal to decrease carbon emissions, is also reliant on what is technologically and financially feasible at the various-sized electric utilities around the state. It must always be taken into consideration when creating new laws and regulations that ratepayers ultimately bear the costs of any new generation assets. All legislative or regulatory efforts that aim to reduce carbon emissions and increase renewable energy should carefully account for the cost impacts on Alaska electric consumers.	Short (2 - 5 years)		DEC; DCCED; Dept of Law: AEA	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023	The Power Cost Equalization (PCE) Endowment must be preserved and maintained to provide certainty for 200 Alaska communities. The PCE program is a vital, lifeline program that makes it feasible for rural Alaskans to have access to affordable electric power and for rural communities to have affordable electricity for streetlights, water and sewer facilities, and other essential infrastructure. The Alaska Power Association urges the Legislature to fund the PCE program from PCE Endowment earnings at 100 percent for FY 2023. Until there is a permanent solution to the high cost of energy in rural Alaska, the PCE program must continue providing economic assistance to customers in areas of our state where the cost of electricity per kilowatt-hour can be three to five times higher than the cost in more urban areas. The state should also explore ways to address the diminishment of PCE for communities that have invested heavily in renewable electricity generation. Some communities that have lowered their reliance on fossil fuels by bringing on clean electric generation have seen lower PCE rates while still facing high electric rates. The state should allow for flexibility within the PCE program to accommodate communities that increase renewable generation but still face high electric costs.	Short (2 - 5 years)	AEA	AEA; RCA; OMB: State Legislature	APA Policy Positions (For Consideration)
	APA Policy Position (For Consideration)	Alternative Uses for Coal Regulations	Explore alternative uses for coal, such as gasification and hydrogen production.	Long-term (10 years plus)		University of Alaska, Mining companies	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Carbon and Sequestration Regulations	Pursue carbon capture and sequestration to make existing resources cleaner.	Long-term (10 years plus)			From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Hydrogen Roadmap and Regulations	Develop and implement Hydrogen Roadmap for Alaska.	Long-term (10 years plus)	UAF	Governor's Office, AGDC, University of Alaska Center for Economic Development, ACEP	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Establish Alaska Hydrogen Hub	Support the establishment of an Alaska Hydrogen Hub and an Alaska Carbon Capture, Utilization and Storage (CCUS) Hub.	Short (2 - 5 years)	Governor's Office	AGDC:,Governor's Office, Congressional delegation	From CEDs 2022 Plan (For Consideration)

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APPENDIX III.

ADDITIONAL ACTION DETAIL SUMMARY PAGES

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STRATEGY A-1: UNIFY TRANSMISSION

ACTION A-1.1:

Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system. The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

Benefits:
- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

How Do We Get There?
- Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.
- Develop financing plan.
- Develop transmission, operation, and control reform (potentially the Iceland model) with a regulated version of management committee.
- Align ERO statute and regulations with transmission reform.
- Complete design, permitting, and right-of-way acquisitions.
- Execute construction and commissioning.

Implementation Timeline:
2023 – 2035

Expected Results:
This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.1:

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

In order to ensure Alaska's future energy mix is affordable, reliable and secure, it's critical that diversification targets are set and positively reinforced. To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee considered both a Renewable Portfolio Standard and a Clean Energy Standard. Ultimately a Clean Energy Standard was preferred as it allows the widest range of generation technologies to compete driving affordability and gives Alaska the most options to diversify. Secondly, a Renewable Portfolio Standard policy typically includes penalties when targets are not met. Given Alaska's co-op utility structure, these penalties would pass directly to co-op members and drive up electricity prices which is counterproductive to the AESTF objective of affordable energy. Penalties may also likely lead to utility staff spending time to request relief or negotiate penalties where issues are encountered with meeting diversification targets; tying up valuable utility staff time and distracting staff from deploying new generation projects. Based on this, the Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviours, action and outcomes for our State. The Railbelt Subcommittee recommends the following incentives be implemented with a Clean Energy Standard:

1. **Direct Payment to Utilities for Achieving Diversification Targets:** Ultimately, it is up to each individual utility to agree to terms with these different types of generation so that it can be included in their portfolio. To incentivize utilities to consider a variety of options, the State of Alaska can award each utility with a direct payment when diversification targets are reached. This direct payment rewards utilities for diversifying and will result in an immediate reduction of rates for consumers, aligning with the AESTF mission of affordable energy.

2. **Augmentation of the Renewable Energy Fund (REF):** To facilitate significant diversification of statewide electricity generation, with a partilcuar emphasis on the Railbelt, it is important to have many generation projects being developed as only a small fraction will succeed in being fully developed. Project development is inherently risky and carries the most uncertainty, particularly for generation technologies which have not been broadly deployed in Alaska. To encourage numerous and diverse generation project development, the State should augment the Renewable Energy Fund to provide matching funds for development expenses. The intent of this funding structure is that grant funds will be a small fraction of the total project cost but will be awarded at a time when the project is most vulnerable. This will increase the number of projects being developed and accelerate the diversification of the Railbelt electricity generation.

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ACTION A-2.1 (CONT.):
Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

3. **Augmentation of the Power Project Fund (PPF):** New generation projects can also face obstacles with securing competitive debt terms for projects in Alaska given it's remoteness and that for many technologies is seen as a nascent market. Debt interest rate and term (duration) significanty affect project economics and ultimately the energy price paid by consumers. Providing a reliable debt source for generation projects which diversify the Railbelt's power generation will increase the number of successful projects, reduce the energy cost to consumers and earn the state a modest return. Given the funding scale of these projects, it's important that this capital support from the state is structured as a loan and not a grant. This ensures responsible project spending while generating a return for the state.

Benefits:
Diversify statewide, with a particular emphasis on Railbelt Electricity Generation
- Conserve CI natural gas supply for heating and base load to integrate new generation sources
- Provide secure electricity supply through locally built generation projects
- Enable affordable energy across the state
- Increase energy reiliability where no one source dominates or threatens overall supply
- Economic development with local projects

How Do We Get There?
Institute a Clean Energy Standard with Incentives to facilitate reaching diversification goals
- Clearly state Railbelt generation diversification percentages and target dates
- Adopt the following incentive program to drive diversification:

1. **Direct Payment to Utilities for Meeting Diversification Targets:**
- All direct payments to a Utility from the State of Alaska are a direct pass through to energy consumers
- Establish a $/% diversification value and diversification percentages at which payouts are received
- Payout will be made if diversification percentage is achieved by target date
- Direct payment from the State will be used by the utility to directly lower member costs, effectively lowering the cost of electricity
- Ideally the incentive payment would be illustrated on member bill so public can see the benefit of utility diversification

2. **Augment the Renewable Energy Fund to:**
- Provide up to 50/50 matching funds for projects which diversify the community or regional generation mix.
- The projects must demonstrate how they're providing affordable energy that is reliable and local
- Matching funds will be used for project development costs only
- Allocate annual funding for this program such that funding is secure and can be efficiently deployed. Increase the reward cycle (e.g. 2x/yr) to enable new project ideas to move forward with development at a faster pace than the current annual REF award process.
- Increased operational funding for AEA to accomodate increased administrative workload, including but not limited to elements such as additional staff or consultants to assist in program and/or application streamlining.

3. **Augment the Power Project Fund to:**
- Provide loans, for all development phases, for projects greater than 10MW in size
- For projects greater than 10MW increase the approval thresholds for AEA Board and Legislative approval such that it is commensurate with utility scale projects
- Adequately capitalize the PPF program to support utility scale generation projects
- Provide operational funding staffing to efficiently and timely process increased volume of loan applications.

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ACTION A-2.1 (CONT.):

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Implementation Timeline:
Implement policy change in 2023/2024 legislative session

Expected Results:
- Diverse electricity generation projects being built over the next 10-15 years
- Accelerated diversification timeline
- Lower cost power from new generation projects, ultimately flowing down in the form of reduced rates for ratepayers across varying time domains.
- Economic development across those funded communities, including the Railbelt.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.2:

Modify existing statute(s) requiring the Regulatory Commission of Alaska (RCA) to consider long term diversification goals when approving additional/new Railbelt power generation.

Background:
The general powers and duties of the RCA are defined in Alaska Statute 42.05.141. Specifically, it is tasked with the power to "appear personally or by counsel and represent the interests and welfare of the state in all matters and proceedings involving a public utility[.]" The Railbelt Generation, Distribution, Transmission, and Storage Subcommittee (RGDTSS) has determined that the state should be working toward a long-term goal of diversifying power generation with an emphasis on local supply, reliability, and affordability. In support of this goal, the RGDTSS recommends the legislature amend AS 42.05.141 to broaden the RCA's scope of considerations and ensure it has the ability to consider projects related to power generation.

Benefits:
- The amended statute provides the RCA with more definition on what truly is in the best "interest and welfare of the state" beyond just setting reasonable rates and promoting conservation.
- Pushes the Railbelt utilities towards diversification of power generation.

How Do We Get There?
- Amend AS 42.05.141 (c) add new subpart (d) and renumber existing subpart (d) as follows:
  (c) In the establishment of electric service rates under this chapter the commission shall promote the conservation **and diversification** of resources used in the generation of electric energy.
  (d) When considering whether the establishment or approval of electric service rates under this chapter is in the public interest the commission shall
  (1) recognize the public benefits of allowing a utility to negotiate different pricing mechanisms with different suppliers and to maintain a diversified portfolio of resource contracts to protect customers from the risks of inadequate supply or excessive cost that may arise from a single pricing mechanism; and
  (2) consider whether a utility could meet its responsibility to the public in a timely manner and without undue risk to the public if the commission fails to approve a rate or a contract proposed by a utility.
  (e) When considering whether the approval of a rate or a gas supply contract proposed by a utility to provide a realable supply of gas for a reasonable price is in the public interest, the commission shall…[.]

Implementation Timeline:
Implement timeline is in the 2023/2024 Legislative Session.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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ACTION A-2.3:
Additional details on Dixon Diversion Project

Background:
The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project (Bradley Lake), which has been a low-cost source of electricity for the Railbelt and 550,000 Alaskans for more than 30 years. The 120-megawatt (MW) facility generates about 10 percent of the total annual power used by Railbelt electric utilities at some of the lowest-cost energy in the state. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The proposed Dixon Diversion Project would boost the energy potential of Bradley Lake, the largest hydroelectric plant in Alaska. The project would be located five miles southwest of Bradley Lake dam, approximately 27 miles northeast of Homer on the Kenai Peninsula, and divert water from Dixon Glacier, increasing the annual energy production of Bradley Lake by 50 percent — or the equivalent of 24,000-30,000 homes. Bradley Lake currently electrifies the equivalent of 54,000 homes.

Benefits:
- Increases Bradley Lake's energy production capacity by 50 percent by leveraging existing generation assets.
- Enhances Alaska's energy security by increasing renewable penetration and grid stability, improving resilience to fuel price fluctuations and supply side disruptions, and regulating other renewable energy.
- Fosters economic development through job creation.
- Promotes environmental sustainability.
- Power Sharing Agreements with Railbelt Utilities provide stable long-term returns through revenue stability and market risk mitigation.
- Produces a substantial amount of renewable energy that will reduce greenhouse gas emissions and combat climate change.
- Augment and diversify Environment, Social, and Governance investment portfolio holdings.
- All land is owned by the State of Alaska

How Do We Get There?
AEA is currently conducting feasibility studies to assess the potential of increasing hydroelectric power generation at Bradley Lake. These studies include engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, and geomorphophology). The Dixon Diversion Project would expand Bradley Lake by capturing outflow from the Dixon Glacier and conveying it to Bradley Lake for generation. The main project components include:
- Small diversion dam and intake below the Dixon Glacier,
- Gravity flow 4.7 mile tunnel to Bradley Lake, and
- Raise of Bradley dam to lake level by 14 feet.

Implementation Timeline:
2023 – 2025: Engineering and Environmental Studies
2026 – 2027: Federal Energy Regulatory Commission (FERC) License Amendment
2028 – 2032: Construction

Expected Results:
The increased storage would provide Bradley Lake with an additional 55,000 megawatt-hours of "battery storage."

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on Susitna-Watana

Background:
The Susitna-Watana project has been on hold since 2017. Considerable expenditures were made to develop and license the project in the 1980s and from 2010 to 2017. The project is a viable alternative to meet the State's goal of 80 percent sustainable power by 2040. Once the project is licensed the State has a 10-year window before construction must begin. This should afford sufficient time for the State to determine the most advantageous approach to build the project.

Alaska has a strong track record of developing successful hydroelectric projects that provide clean, reliable energy across the state. Hydroelectric power is Alaska's largest source of renewable energy, supplying about 27 percent of the state's electrical energy in an average water year. Dozens of hydro projects provide power to Alaskans, including the 120-megawatt Alaska Energy Authority-owned Bradley Lake project near Homer, which supplies 10 percent of the Railbelt's electrical energy. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

AEA has completed a feasibility level design and was approximately two-thirds of the way through the Federal Energy Regulatory Commission (FERC) Integrated Licensing Process when it was paused by the previous administration. To proceed, the FERC licensing process would need to be completed at a cost of $50-100 million. The anticipated construction cost is $5.6 billion ($2014). Financing type and level are not yet finalized, but AEA's financial consultant recommended Rural Utilities Service (USDA) and government obligation bonds or by the private sector, financial modeling indicated the lowest long term cost of energy compared with other fuel sources.

Benefits:
The proposed Susitna-Watana Hydroelectric Project is a large hydro project that would provide long-term stable power for generations of Alaskans. The project would result in approximately 70 percent of the power generated in the Railbelt originating from renewable sources, up from the current 15 percent — a nearly four-fold increase. As part of the project, transmission lines will be connected to the existing Railbelt transmission system providing a more secure transmission system, and an access road will be constructed. The Susitna-Watana Hydroelectric Project will help provide reliable power for future generations of Alaskans, diversify Alaska's energy portfolio, and accelerate the transition to renewable energy.

How Do We Get There?
1. Update the Project Management Plan with specific focus on the approach, budget, and schedule to complete licensing activities.

2. Update construction cost and project economics

3. Meet with FERC staff to determine the licensing approach and studies necessary for FERC to conduct their National Environmental Policy Act (NEPA) process and make a licensing decision.

4. Go/no go decision for final FERC licensing.

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ACTION A-2.3 (CONT.):
Additional details on Susitna-Watana

Implementation Timeline:
Update the Project Management Plan regarding approach, budget, and schedule, including updating construction cost and project economics before a decision is made to complete FERC license.

- Preparation, Planning, Collaboration, and Environmental Studies 2-3 years
- FERC Review & Determination 2 years
- Project Execution Phase && Construction Phase 9-11 years
- Operational Phase 100 years

Expected Results:
Based on the economic studies conducted a decade ago, the project remained a viable alternative with a levelized power cost of about 6.5 cents per kWh. Based on this information and the amount of power the project would generate annually, the project remains a viable alternative to meeting the Energy Security Tasks Forces goals. The State should undertake the tasks outlined above to successfully license the project. Once the project is licensed, the State has options to complete the project.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on AKLNG.

Background:
The Alaska Utilities Group June 28, 2023 Phase 1 Assessment Cook Inlet Gas Supply Project estimated that 2021 natural gas consumption from the Cook Inlet was comprised of approximately 49 BCF (67%) for heating requirements and 24 BCF (33%) for electrical generation. Forecasts for continued gas consumption for electrical generation are flat or decreasing by 5 BCF/yr. Assuming natural gas remains the space heating fuel of choice on the Railbelt, the largest distributor for natural gas for space heating on the Railbelt projects no decline in demand over the next 20 years. Without a change in this fuel source, natural gas will remain a necessary energy source on the Railbelt.

The Utilities Group Study determined that the median case gas supply shortage in the Cook Inlet is projected to be 8 BCF/yr beginning in 2028 and growing to 52 BCF/yr in 2040. In the short term, in order to meet the expected supply gas shortfall in 2027-2028, a decision to pursue LNG imports will likely need to be made in late 2023. In the long term, the study found that a gas pipeline from the North Slope could meet the projected demand most economically.

Benefits:
The 2023 contract price for natural gas from the Cook Inlet is approximately $8/Mcf. Imported gas is forecast to cost approximately $12/Mcf. Incremental supply potentially available from augmented Cook Inlet production is forecast to be generally at or above the imported gas cost. Gas prices from the proposed AK LNG project are estimated at $4.40/Mcf., while a smaller subsidized State-owned pipeline might deliver $9.10/Mcf.

Alaska is presently near the bottom compared to other states in terms of economic growth. Out migration from rural Alaska is rampant due to the lack of economic opportunities. Importing LNG into our resource rich state may be necessary in the short term but would be contrary to the goals of energy security over the long term.

The availability of a local and long term fuel source to support affordable and reliable baseload power generation throughout the Railbelt would provide stability for economic development and a platform around which further diversification of generation could confidently occur. Railbelt businesses and residents would enjoy predictability for their space heating requirements. Availability of natural gas from a pipeline could allow substantial new projects, such as the Donlin Gold Project in western Alaska, to help defray the cost of building gas pipeline infrastructure, and associated transmission and distribution, into western Alaska.

How Do We Get There?
Alaska needs to advance on two parallel tracks: (1) Advance the AKLNG project (permitting, design, financial), including Alaska using its financial strength as necessary to support the negotiation of commercial terms that could lead to a positive project decision; and (2) Resume planning on the in-state "bullet" pipeline so that a backup plan is in place to support Alaska's need for natural gas if the AKLNG project does not proceed.

Implementation Timeline:
Alaska must keep its options open for support of our economy over the next decades. While imports of LNG may occur in the short term, doing so over the long term or long past 2030 would be regrettable, would do little to boost our local economy.

Expected Results:
Unlocking Alaska's stranded natural gas and monetizing these assets will provide long term energy security, and positive economic benefit for all Alaskans, but should not be done so at the expense of diversifying the overall energy generation mix.

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ACTION A-3.1:

Significantly increase load to drive down energy rates.

Background/Benefits:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

How Do We Get There?
This strategy assumes that necessary transmission capacity and reliability upgrades are completed to handle increased loads. To facilitate and incentivize substantial load growth, three possible actions were identified, including (1) issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth), (2) providing tax credits or similar offsets for proposed large load customers to reach attractive power rates, and (3) identifying sites along the Railbelt which are already built to handle load growth.

(1) Upon sufficient analysis of rates achievable by large load additions to the Railbelt, an RFP could be issued by a coordinating Railbelt entity, utility, or the State guaranteeing a rate for power in exchange for the load addition to the grid. Such an approach would eliminate risk for a potential large industrial customer and also ensure load growth for the Railbelt. Long term rate stability would promote industry investment and aggregation of demand side resources.

(2) Alternatively, if a potential industrial customer could not add enough load to the grid to guarantee a satisfactorily low rate, the State could offset the difference with a tax credit or similar vehicle. Again, this approach would help eliminate risk for the new industrial customer and attract economic investment in the state. The tax credit amount would be informed by the estimated savings to utility co-op members due to the load growth associated with the new industrial customer.

(3) In concert with the above actions, it is important to identify areas on the Railbelt that are well-suited to large load growth in the short term, without necessarily waiting for transmission upgrades. Identification of these sites would help potential large industrial customers hone in on realistic locations and spur investment. In addition to specific sites, there may be larger geographic areas that can accommodate rapid growth of distributed loads, such as electric vehicles and heat pumps. These "load-friendly" areas could be further enhanced by management of of the distributed loads ("load as a resource") so they can strengthen, not strain, the grid.
growth.

One risk of these actions is potential cost overruns in the buildout of any required generation for increased loads, the contingencies and responsible parties for which would need to be considered carefully. However, this risk must be viewed in context because cost overruns from new infrastructure would likely be even more problematic without load growth.

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STRATEGY A-3: INCREASE DEMAND

ACTION A-3.1 (CONT.):

Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).

Implementation Timeline:

1. Identify areas within the Railbelt which are well-suited for load growth (minimal to no upgrades or new generation needed): 1-2 years

2. Establish incentivized industry/anchor tenant rates: 1-2 years.

3. Issue state-led RFP for new industry articulating $/kWh rate scale based on load growth amount or state tax incentives to offset energy cost for new industrial customers based on load growth savings to co-op members: 2-5 years

Expected Results:

The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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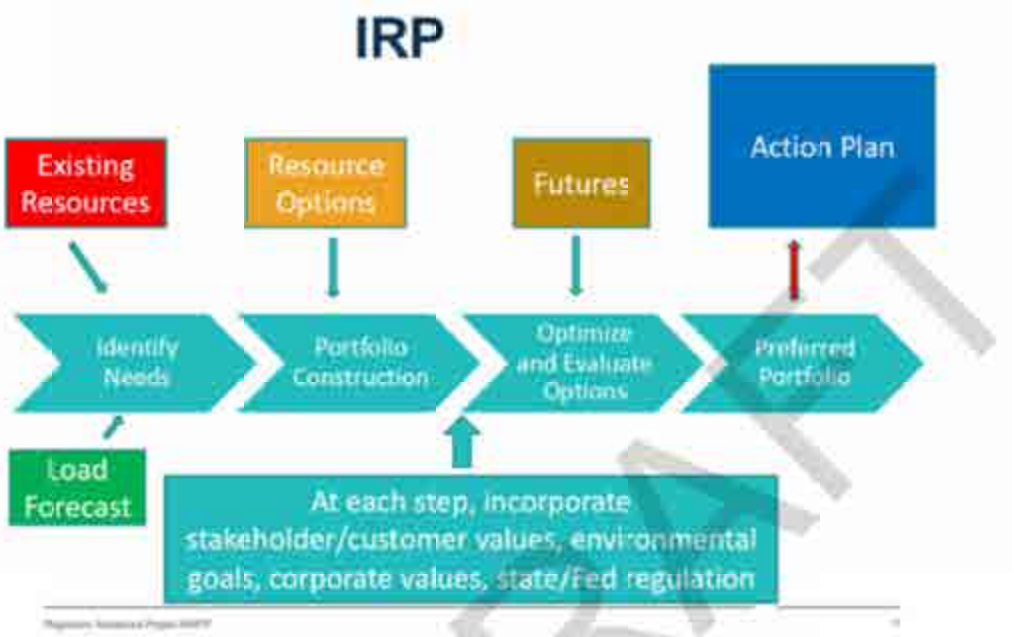
STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1:

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Background:

Integrated Resource Plans (IRP) and their associated forecasts of demand, generation, transmission, and distribution with public input are a tried and proven electrical industry methodology to coalesce State and community energy goals openly and transparently. Large utilities with regulatory oversight can engage in extensive plans that require deeply engaging studies. On the other hand, a lighter integrated resource planning analysis based on the collaboration of community energy needs is a cost-effective approach to local strategic and tactical energy planning required to move toward lower energy costs.



All communities engaged in future supply uncertainty, rising demand for heat pumps, conversion from fossil fuel use to lower-cost renewables, and electrified transportation benefit from intelligent and collaborative planning from utilities, communities, non-utility generators, and the public. The critical component in this process is public participation, as it provides an opportunity to educate the public, build support and constituencies required to advance renewable energy projects and transmission, and ultimately focus on lowering the energy cost for Alaskans.

According to the Pacific Northwest National Laboratory (PNNL), Over 35 US states require utilities to file IRPs or equivalent planning yearly or up to once every four years. These requirements are imposed either through regulation or legislation. The US Department of Energy (DOE), in its 2016 publication, "Sustainable Energy Solutions for Rural Alaska, provided a recommendation for Alaska Utility resource planning to identify a utility's least-cost path over time. These efforts are sometimes called "least-cost integrated resource plans" or simply "integrated resource planning" (IRP) when the scope of the resource decisions include demand-side considerations. The DOE publication explained that the IRPs typically include scenario planning and consideration of uncertainty. IRPs are also typically high-level plans frequently with time horizons of 20 years that look at a broad array of resource choices. However, they may include specific project-related and transmission analysis in the near term (i.e., 1-5 years).

STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1 (CONT.):

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Benefits:

The State of Alaska can optimize State resources (and parlay federal resources) by establishing, requiring, assistng and implementing and Integrated Resource Plan Light (IRPL) for every utility in Alaska that requires a periodic update to ensure that local and grassroots energy planning is occurring collaboratively at the local Alaskan level with utilities, tribes, non-utility operators, community leadership, NGO's and the Alaska public so that there is a unified focus and format to ensure that no community is left behind in Alaska's transition to lower cost and self-sustaining energy for current and future generations of the affected community.

How Do We Get There?

Establish an Alaska-based IRPL, easy-to-implement model and format. Upon acceptance of the RCA, request each regulated Alaska utility to guide on with minimally established requirements based on prudent IRP practices. This model and format can be initiated and supervised by the Alaska Energy Authority and collaborated with the Regulatory of Alaska and Attorney General Office, Regulatory Affairs & Public Advocacy Section (RAPA). Municipal utilities and other non-regulated electrical utilities in Alaska can also adopt Alaska's IRPL model.

While large Alaska utilities can use this model, the use of the IRPL would not detract from the RCA authority to impose a more robust IRP on Alaska's sophisticated electrical utilities, and the IRPL can serve as an interim or an update adjustment to a utilities existing and perhaps more robust IRP.

AEA and any state of Alaska generation and transmission funding can use the IRPL to determine the viability and economic justification of the public IRPL as a requirement to obtain state funding. RCA can be a repository for the public record and public dissemination of all Alaska utility load and generation forecasting so that other communities and interested parties can learn and adapt from other communities' planning efforts.

AEA and other state agencies can provide resources and technical assistance to assist Alaskan utilities and communities. AEA can require IRPL as a prerequisite for future assistance, aid, and funding as an incentive to collaboratively participate together to analyze the community energy needs, demands, and agreed-upon solutions to lower the energy cost for the affected community. An IRPL also certifies that a utility and a community are wisely and responsibly planning to conserve PCE burdens and preserving PCE trust funds by optimizing appropriate energy solutions on a community-by-community basis.AEA, the Denali Commission, and other state agencies can assist a community with implementing the solutions and results from a community IRPL.

Implementation Timeline:

This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:

This Action item, IRPL, with its implementation steps, offers a fundamental milestone required to methodically transition to premeditated energy planning in an open, objective, and transparent process that will lead, if properly implemented and conducted, to lower cost energy and energy security for Alaskans.

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ACTION B-1.2:

Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering investments to provide grid resiliency and energy security and lower the energy cost for Alaskans.

Background:
Net Metering is a billing arrangement for owners of renewable energy systems. Under Net Metering, excess electricity generated by an Alaskan customer's renewable energy system is sent back to the utility grid, offsetting the electricity the customer draws from the grid when their system isn't producing electricity. Net Metering of private energy systems plays an integral role in the ongoing transition to more sustainable and flexible power grids and lowers the costs of power for Alaskans.

Benefits:
An advanced Net Metering statutory and regulatory framework for Alaskans can optimize mutually beneficial benefits from an advanced net metering program to act as a linchpin for a sustainable, resilient, and economically advantageous energy future in the islanded grid and transmission interconnected Alaska communities to provide a diverse energy portfolio that invigorates and sustains private and public investment, provides energy security and grid resiliency benefits while lowering the energy costs for Alaskans.

How Do We Get There?
Investigate, evaluate, recommend, and update/modify changes to Alaska's net metering laws and regulations for Best Management Practices (BMP) based on other successful State net metering programs.

Encourage the Alaska Energy Authority (AEA), Alaska Housing and Finance Corporation (AHFC), Denali Commission, and other agencies to assist and finance community, tribal, business, and residential net metering investments in Alaska to improve grid stability and resilience and lower energy costs.

Policy Framework and Regulation:
Develop through the Governor's office, AEA, and Regulatory Commission of Alaska (RCA) a clear, supportive regulatory framework that invigorates and favors net Metering incorporating vigorous net metering models and best management practices (BMP). Provide resources, leadership, and agency assignments and oversight to ensure the resulting regulatory framework provides long-term clarity and certainty to private/public investors, community energy security, and utilities.

Infrastructure Development:
Invest and finance grid infrastructure for residential, business, community renewables, and grid distribution systems to handle increased distributed energy resources and increase energy security through AHFC, AEA, AIDEA, Tribal and federal funding to facilitate grid interconnectivity for renewable energy sources.

Develop and promote short and long-term energy storage solutions, such as battery systems, to address the intermittent nature of community and residential renewable sources like solar and wind.

Incentivization and Financial Support: Develop and offer a breadbasket of incentives such as tax credits, rebates, or grants for individuals and businesses that invest in renewable energy systems. Set up a competitive feed-in tariff for excess energy fed into the grid. Work to develop State Agency and federal programs to provide zero or low-interest loans or financial incentives for energy storage solutions. Develop and structure incentives to assist higher PCE cost communities and the PCE program.

Outreach and Stakeholder Collaboration:
Create platforms for dialogue between utility companies, private investors, and government agencies. Incentivize and encourage utilities to develop advanced net metering models that benefit from distributed generation rather than viewing it as a threat.

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ACTION B-1.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Engage with Native tribes and corporations to ensure their perspectives and needs are incorporated. Encourage and direct State of Alaska (SOA) agencies and utilities to partner with Alaska university programs and renewable energy Non-Governmental Organizations (NGO), boroughs, and city governments to integrate renewable energy net metering in development planning for localized energy security, emergency planning, and sustained energy operations with natural disasters.

Develop state code and design criteria using prudent utility practices for net Metering. Consider state procurement agreements for integration hardware and controls selection and purchase.

Technology and Innovation:
Promote research and development in renewable energy net metering regimes tailored to Alaskan conditions.
Support innovation in grid management tools and technologies using best management systems to efficiently and effectively handle distributed energy.

Collaborate with tech companies to integrate advanced consumer energy management systems, such as smart meters and home energy management systems, that assist utilities and overall grid management.

Monitoring and Feedback Mechanisms:
State of Alaska: Stand up or administer/assign a dedicated agency or body to monitor utility progress and impacts of the net metering program and make suggestions to recalibrate and use adaptive management to gain incremental effectiveness of net metering regimes. Continuously gather net metering and utility participant feedback and iterate on the program's design and incentives.

Publish annual reports for AEA, AIDEA, RCA, the Governor, the Legislature, and the public to highlight achievements, challenges, and next steps.

Implementation Timeline:
This action item has a blend of Immediate, short-term, mid-term, and long-term (follow-up, review, and recalibration as necessary) tasks for implementation.

Expected Results:
The net metering roadmap places Alaska at the pinnacle of energy innovation and leadership while empowering net metering participants and utilities to collaboratively advance the state of Net Metering in Alaska as a public interest good. This strategy and tactics empower Alaskans to amplify private and public investments, fortify grid stability, strengthen grid resilience, and slash energy expenses. Embracing this Action Item, Alaska is assisting in meeting Alaska's energy demands and security while ensuring Net Metering advances are addressed collaboratively, openly, transparently, sustainably, and economically, ensuring a sustainable and cost-effective energy future that reduces the energy cost for Alaskans.

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ACTION B-1.3:

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Background:
The State of Alaska has multiple departments with diverse missions and responsibilities. Developing energy projects in Alaska requires developer coordination with competing agencies with differing priorities and willingness to assist a project developer. This lack of unity of effort can lead to chaos and time delays in permitting and executing energy projects and transmission with differing state agencies. There is a need for a navigation coordinator and assistance for Alaska communities and Alaska renewable energy developers to coordinate among the differing State Agency requirements.

Benefits:
The development of State policies and oversight that produce a coordinated and affirmative mindset for developing cost-effective renewable energy and transmission lines in Alaska lowers energy costs for Alaskans while also assisting developers in their pursuit with federal agencies in meeting national clean energy goals through mutual cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska Energy Authority (AEA)-sponsored in-state working group/oversight body between the Governor's Office, AEA, and State agencies to find common ground and purpose to streamline renewable energy, transmission, and energy project interconnection permitting, regulations, and State of Alaska authorizations. The focus and mindset are to "promote" and develop sustainable energy projects and related transmission lines to accelerate permit processing and get to "yes" renewable energy development to lower costs and increase energy security for Alaskans.

Each State agency and department conducts a critical internal review to identify permitting and authorization bottlenecks that impede or slow down renewable energy development and then develop internal agency courses of action and corrections necessary to fulfill the overarching directive to lower the cost of power for Alaskans.

Each State agency assigns a Change Officer duty and responsibility for implementing and executing departmental administrative changes based on permitting review/audit and course of action analysis.

Develop an energy development interdepartmental liaison between Commissioners and delegated staff to coordinate and accelerate renewable energy project and transmission development.

Identify state laws or regulations that impede or block renewable energy and transmission development and make recommendations to change statutes and regulations for the Governor and legislative leadership to accelerate energy development, transmission, and interconnections to lower the cost of energy for Alaskans and Alaska industry.
Create directional versus aspirational intentions to deliver results for Alaska's citizens desiring the lowest long-term and sustainable energy costs.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.3 (CONT.):

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can advance and promote Alaska's renewable energy development with cooperation, support, and a unity of effort between State agencies to support and accelerate the growth of Alaska's renewable energy resources for the maximum benefit of Alaskans, reducing energy costs and providing the energy security that Alaskans are entitled to from their State government leadership.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources between and among state agencies to provide a unity of effort to execute the State energy plan and lower the energy cost for Alaskans.

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ACTION B-1.4:

Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution Lines in Alaska to bring Alaska on par with the US transmission system for Alaskan energy security and lower energy costs.

Background:
Despite its vastness, covering 17.5% of the US landmass, Alaska's transmission system is strikingly underdeveloped. With only 1,697 miles of high and low-voltage transmission lines, it represents less than 0.25% of the nation's total transmission infrastructure. To put this transmission deficiency In perspective, the contiguous US boasts over 700,000 circuitous miles of these lines. Furthermore, Puerto Rico, a US territory, has 2,478 miles , while Wyoming—a state with a population size comparable to Alaska—has 4,300 miles . This subpar transmission network hampers the integration of renewable energy sources and poses challenges for military installations in ensuring transmission contingencies to support critical national security missions.

Moreover, there's an urgent need for Congressional funding action. For example, despite having Congressional authorization for $384 million for the Southeast Alaska Intertie , which aims to connect Metlakatla through Skagway, the promised funds have not been authorized. Alaska's grid modernization is not just about powering homes and lowering costs; it's crucial for national security, economic growth, and future energy resilience that Alaskans deserve.

Regardless of any metric, stating that there is a transmission need in Alaska is an understatement.

Benefits:
Alaska must upgrade its outdated territorial grid system to a modern, 21st-century standard, incorporating N-1 contingencies. This transformation is crucial for integrating renewables and other new energy sources. Bringing Alaska on par with the rest of the nation with a first-world transmission grid will reduce energy costs and enhance energy security, laying a self-reliant solid energy foundation for Alaska's future.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

Develop and create a State of Alaska Power Transmission Fund under AEA to promote, secure and establish federal authorization and appropriations funding to develop an additional 3000 miles of transmission corridor for Alaska to move Alaska from pre-territorial grid system to a grid system that ignites development and integrates renewables, displaces more expensive diesel generation reducing energy costs.

Create a system that allows AIDEA, AEA, and Federal funding to develop, design, build, execute, and operate additional regional transmission sections and lengths under a unified plan.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska must exponentially increase its haphazard and subgrade transmission system if Alaska is to develop and maintain its economic viability. Federal funding for a State of Alaska Power Transmission Fund State of Alaska Power Transmission Fund will enable the State to develop other State Energy Plan action items. Creating a robust transmission network in the Railbelt and Coastal areas is essential for Alaska to prosper economically.

This structured execution list to develop a State of Alaska Power Transmission Fund offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans while providing the means and funding to transform the dire transmission situation as it exists within Alaska today.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5:

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Background:
Alaska community energy planning ensures a stable and sustainable energy future, providing the optimum lowest cost power over time. For community leaders, citizens, and utilities to effectively plan growth, demand, and evolving market conditions, specific metrics are required to guide decisions continuously and track progress. Further, Alaska already has many data sets available, although this information is not readily boiled down and packaged for usefulness for community decision-makers or is not widely known. There is a demand and need for community data and metrics to make wiser community energy decisions, to prepare and request grant funding, and to position communities for greater energy self-reliance, energy security, and ultimately to lower the cost of energy-heating, electricity, and transportation.

Some key indicators and metrics could assist local energy planning and decision-makers in no priority order.

1. Energy Consumption:
- Total energy consumed per sector (e.g., residential, commercial, industrial).
- Per capita energy consumption.
- Forecasted energy consumption due to market condition changes-shore power, industrial loads, beneficial electrification in heating and transportation sectors.

2. Energy Production:
- Total energy produced from various sources (e.g., solar, wind, fossil fuels).
- The capacity factor of energy-producing installations (how often they produce energy compared to their maximum potential).

3. Energy Efficiency:
- Energy saved due to efficiency measures.
- Forecasted energy efficiency savings due to energy efficiency measures

4. Energy Import/Export:
- Amount and type of energy and units imported/exported to or from an Alaska community or utility.
- Dependency percentages on external energy sources that can be improved with local or regional energy resources or transmission.
- Forecasted energy dependence reduction with the forecasted increase in local or regional renewable energy production to include impacts from beneficial electrification in heating and electric transportation.

5. Renewable Energy:
- Percentage of total energy derived from renewable sources.
- Installed capacity and generation from each renewable source (e.g., solar, wind).
- Forecasted installed capacity and generation from each renewable source.

6. Carbon Emissions:
- Total carbon emissions from energy production.
- Carbon intensity (carbon emissions per unit of energy produced).
- Forecasted Carbon Emission reductions from new carbon free energy sources or due from transformation from fossil fuels to renewable energy from beneficial electrification.

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ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

7. Economic Metrics:
- Cost of energy production per unit.
- Economic benefits of energy projects (jobs created, GDP impact).
- Forecased savings over life cycle of new generation and economic quantification of other benefits-emission reductons, fuel savings, etc.

8. Energy Resilience and Reliability:
- Duration and frequency of power outages.
- Energy storage capacity.
- Forecasted energy storage capacity needs and economic and ESG quantification of benefits.

9. Energy Transition Goals:
- Targets for renewable energy adoption.
- Reduction targets for carbon emissions.
- Forecasts for transition goals with data to support transition initiatives

10. Energy Sales, volume by customer sector and price Information
- Transparent and accurate information provides objective fuel alternative calculations for collaborative community decision-making.
- Forecasted sales based on beneficial electrification, shorepower, industrial load growth, and converting interruptible sales to conditional firm power.

11. Overhead of utility costs
- Overhead cost data for comparison between similarly sized utilities to determine and approve managerial efficiencies.

12. Infrastructure Health
- Age, condition, and capacity of energy infrastructure (e.g., power plants, transmission lines).
- Forecasted infrastructure replacement and upgrades with new technology that provides operational control benefits and improves grid security and resilience.

13. Electric Vehicle number and percentage of community vehicle stock
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

14. Electric Vehicle public level 2 and level 3 charging stations
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

15. Heat Pumps
- Total Number of Air Source Heat Pump units in a community or utility, annual installation growth, and percentage breakdown of building and housing units by fuel source.
- Forecasted loads in 1 to 5 years.

16. Shorepower Installations
- Total number of units, annual sales, and peak demand
- Forecasted loads in 1 to 5 years.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

There is a cost to producing, maintaining, and updating information. Therefore, a cost-benefit analysis would need to occur to determine the net value of each data metric. However, as data-driven decision makes progress and we mature Alaska community energy decision-making from black box data to transparent and open information scenario, data is required for planning, decision making and also enabling Alaska communities to be armed with data when competing against communities from other States in competitive federal infrastructure, energy, and emission reduction grants.

Lastly, this recommendation does not include the requirement or decision bar that Alaska or communities must have perfect data or complete data to make decisions. Too much unuseful data or requirement to have impossible-to-achieve data has historically plagued some communities and energy decisions, or opposition will use stall-by-study tactics to impede energy development and transmission build-out required to elevate Alaska on an energy security level with the rest of the country. In other words, let us not fall into the trap that the enemy of good is the requirement for perfect or complete information.

Benefits:
Alaska can help make wise local energy planning decisions, forecasting demand and supply and using data to apply for grants and assistance requiring data-driven applications. All of these actions enable community leaders with utilities and public input to plan for a community's energy needs while working toward the lowest energy cost.

How Do We Get There?
In general, "how we get there" is to support the recommendations from the Data Subcommittee of the AESTF with the insistence that the viewpoint, practical delivery, and service from data is customer-focused, being the Alaska community and decision-makers. Data should be "community customer-driven" and community-centric in its approach and philosophy of conducting and maintaining data to help and propel Alaskan communities using data in a practical and common sense approach to drive energy affordability, reliability, and resilience for Alaskans now and for the future.

Establish a Data Department within the Alaska Energy Authority (AEA) with regulatory authority to request and receive data from any electrical utility in Alaska that is issued a Regulatory Commission of Alaska (RCA) Certificate of Public Convenience and Necessity (CPCN).

Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access that is "customer focused" on delivering data to customers for practical and cost-effective decision-making that propels and not slows the development of energy projects, solutions, and transmission systems.

Fund data capacity on a cost/benefit and the biggest bang for the buck approach to maximize data benefits at the lowest cost.

Improve existing energy data and collect new, needed data. Consider that if a utility and/or community desires state support from PCE and grant applications, it volunteers to judiciously supply requested data as required to ensure maximum participation in the production and use of energy data for the benefit of all Alaskans.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation as suggested by the Data Subcommittee of the Alaska State Energy Task Force.

Expected Results:
The expected results from this roadmap are for the State funded AEA Data department, as suggested and articulated by the Data Subcommittee mission is to provide customer-relevant information, metrics, and data that assist Alaska communities and utilities in making practical and wise energy decisions that lower the cost of energy, provide energy security and increase resilience for Alaska communities and electrical utilities.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.6:

Recruit, Train, and Enhance Alaska workforce with technical training for advancing beneficial electrification to lower Alaska energy costs and sustain Alaska's growing energy infrastructure.

Background:
Alaska has entered an unprecedented demand for apprentices and skilled electrical trade workers that are critically necessary to build out and achieve the required generation, transmission, distribution, storage, and commercial/residential wiring essential for Alaska to migrate from higher-cost fuel sources to lower-cost fuel sources. Various agencies, labor organizations, and contractors operate many training and apprenticeship programs to meet the training needs of Alaskans without an inventory of forecasted demand. When there's a shortage of workers, it disrupts the balance of supply and demand. This scarcity means Alaskans must pay higher wages to attract the limited available labor. As companies spend more on recruitment and possibly higher wages, these increased costs inflate energy project costs and raise energy costs.

Additionally, in energy generation and transmission systems, where contracts are awarded to the lowest bidder, companies must increase their bid amounts to cover the higher labor expenses and contingency risks in obtaining qualified employees to perform the work. This phenomenon can lead to higher prices for Alaska generation and transmission, construction delays, and potential quality declines. Worker shortages have immediate impacts; they ripple through the entire Alaska economy, driving up energy and transmission costs and potentially slowing growth.

Benefits:
Alaska can achieve its labor and workforce training requirements through a unity of effort with multi-year "forward planning" to engage Alaskans to successfully enter critical job skills in the electrical trades to build out the infrastructure needed to assist Alaskans in lowering the cost of energy with a self-reliant and local Alaskan workforce. With its unique challenges and vast geographic expanse, Alaska requires an innovative approach to workforce development, particularly in critical sectors like electrical trades. Meeting the state's labor and workforce training needs necessitates a holistic, long-term strategy from secondary to post-secondary and trade schools.

How Do We Get There?
Conduct an objective Alaska inventory demand and forecasting for critical skilled jobs with a multi-year forecast and then develop a plan to recruit, train, and place Alaskans to meet Alaska's needs for these critical skill sets.

Calibrate and coordinate with Alaska Dept. of Labor, Intl. Brotherhood of Electrical Workers (IBEW), other organized labor, Alaska Vocational Technical Center (AVTEC), Associated General Contractor of Alaska (AGC) , Alaska Safety Alliance to optimize resources and coordinate together to maximize results to ensure that Alaska's labor market has the skilled workers necessary to achieve results on time and on budget.

Engage trades and secondary school systems in developing advanced secondary education, enabling a seamless transition from secondary education to successful building trades job placement.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
By harnessing Alaska's own resources and prioritizing its people, especially the coastal and rural communities, the state can build a self-reliant workforce ready for its unique challenges and opportunities that are essential in helping Alaskans lower the cost of energy, producing energy generation, transmission, and energy security for our communities and maintaining grid resilience.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1:

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Benefits:
The development of state policies and goals to negotiate and execute with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska-Federal Renewable Energy Working Group between the Governor's Office, Attorney General, Alaska Energy Authority, Alaska Department Commissioners, the USDA Forest Service and US Dept. of Interior (DOI) landholding agencies, and the US Department of Energy (DOE) and USDA Rural Utilities Services officials that promote energy development in Alaska to find common ground to develop renewable energy projects and related transmission lines to collaboratively and successfully open up Alaska federal lands for Alaska renewable energy development and transmission execution.

Utilize the creation of an Alaskan-Federal Renewable Energy working group to Develop, Draft, and Execute mutually approved agreements between the authority of the Governor and the Executive Orders of the President of the United States and initiate binding Congressional legislation and Alaska legislation as needed for asserting the State of Alaska consultive and input rights on the development of federal lands for the purpose of renewable energy development and transmission siting authorities. This collaboration aims to ensure Alaska's consultative rights in renewable energy projects on federal lands and to shape necessary legislation.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1 (CONT.):

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Seek, negotiate, and obtain through agreement or through initiated federal legislation State primacy on existing and potentially new renewable energy Power Site Classification Sites (PSC) found on federal lands in Alaska identified in established Bureau of Land Management Public Land Orders and aimed for greater access to these PSC for development.

https://archive.org/details/powersiteclassif02geol/mode/2up

Seek, negotiate, and obtain through agreement or through initiated federal legislation a Renewable Energy Land Use Designation (RELUD) and Transmission Line Land Use Designation(TLUD) that overlay and have priority over all other Land Use Designations in the Tongass and Chugach Forest Land Use Management Plans.

Negotiate with federal agencies and obtain State Primacy over RS 2477. A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State primacy and control all Alaska RS 2477 Rights of Way located on or near federal lands to facilitate access to and from renewable energy sources for development. Seek to have State primacy on all RS 2477 trails and roadways in Alaska located on federal lands to facilitate access to and from renewable energy sites for development.

https://www.blm.gov/sites/default/files/docs/2022-05/PDF_AK_State_of_Alaska_RS2477_BLM_AK_RAC_May_2022_James_H_Walker.pdf

Enlist support from the Alaska Congressional Delegation to introduce legislation to have Alaska and other affected States gain state primacy over RS 2477 Rights of Way located in their respective states.

A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State authority over Section 4407 easements in Southeast Alaska or near federal lands to facilitate access to and from renewable energy sources for development. These easements were created pursuant to a land exchange ratified by Congress in Section 4407 of a 2005 federal transportation funding bill.

https://dot.alaska.gov/sereg/projects/sitka_katlianbayroad/assets/Section_4407_Easement.pdf

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Alaska's renewable energy development with cooperation and support from the federal government to achieve national purposes while reducing the energy cost of Alaskans. The expected results will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources on federal lands to achieve lower costs and meet national goals for reducing emissions.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2:

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Background:
Coastal Alaska communities are keen on lowering their energy, heating, and transportation costs through collaboration of State, Tribal, and federal resources. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Furthermore, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By working together, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint effort can enhance the creation, sharing, and use of energy across the State. Additionally, recent legislative changes in the Inflation Reduction Act actively seek to fund energy developments with tribal entities, which could provide lower-cost energy benefits and local energy resilience in many areas of Alaska.

Federal agencies, specifically the US Department of Energy (DOE) and the US Department of Agriculture, Rural Utilities Services (USDA-RUS) have rural and tribal-centric programs that can advance the State of Alaska's goals to develop energy infrastructure and reduce energy costs for Alaskans.

Benefits:
The State of Alaska, specific federal agencies, and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans and Alaskan communities. By identifying and sharing information, plans, and initiatives and then establishing a framework to cohesively advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska, federal agencies, and Alaska Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

How Do We Get There?
Establish a working group of regional tribes interested in or working on energy solutions to lower the cost of energy with State of Alaska officials, Alaska Energy Authority (AEA), the Governor's Office, and the Denali Commission. The working group would identify areas of mutual assistance to advance locally sustainable energy developments and transmission projects by strategically and tactically optimizing federal and tribal funds to achieve mutual energy goals of lower-cost and self-sustaining energy systems.

Identify and attract federal tribal energy program participation, technical assistance, and financing to work with state agencies to streamline permitting, regulatory processing, and funding to advance projects and transmission to lower energy costs and provide community energy security.

The US government has specific energy assistance programs for tribal entities to partner with the State of Alaska, Communities, and public/private developers of generation and transmission that work together with a unity of purpose and effort to assist in lowering the cost of energy for Alaskans.

If deemed viable and valuable, create a Fed State Navigator role or duties assigned to an existing position to assist rural and tribal entities in navigating the State permitting processes to develop and construct local renewable energy and transmission projects using tribal and federal funding with State assistance.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2 (CONT.):

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
This Action item, with its implementation steps, offers a roadmap to gain common ground, synergies, and practical outcomes for Alaska communities with overlapping interests of federally recognized tribes to achieve the mutually beneficial goal of lowering the cost of energy for Alaskans.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1:

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Background:
The foundation of Alaska's most cost-effective energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once the hydropower project's initial debts are settled, they yield consistent, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and commerce today and well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

Both in Alaska and across the U.S., the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — position it to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.

Benefits:
Hydropower in Alaska is not just an energy source; it's our Alaska energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure, we're not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and also reaping benefits for future generations with sustainable, clean energy. Investing in hydropower is our Alaska commitment to Alaska's proven energy model, where hydropower assets exist for a brighter, more affordable, energy-secure future for Alaska.

How Do We Get There?
Evaluate and execute adaptive investment practices from the Bradley Lake and Four Dam Pool model and combine them with some of the prudent practices of BC Hydro to create a public-private State of Alaska corporation to develop, invest, own, and oversee operations of new hydropower facilities in Alaska.

Provide and fund AEA the authority to identify and invest in regional hydropower and hydropower transmission and distribution assets for the public benefit.

Encourage utilities to financially participate in ownership and long-term offtake arrangements to provide energy security and growth in service areas or to allow utilities to service new large industrial loads-mining and cruise industry shore power.

Combine federal tax incentives, grants, and loan programs to optimize lower-cost financing and equity costs to lower the cost of power now and over the life of the assets.

Establish a State of Alaska Power Fund to own and operate Alaska hydropower assets that can provide regional benefits. Establish State of Alaska administered and supervised investment mechanisms and equity ownership for utility, tribal, and local community investments, combining local equity with federal financing through existing or new federal programs.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1 (CONT.):

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Seek federal legislation to provide funding for a State of Alaska Power Fund to help Alaska provide energy security for Alaska military bases and installations for the benefit of Alaska support for Alaska-based military and Coast Guard operations for national security.

Identify, support, and fund to build local and regional hydropower to serve Alaska communities and multiple transmission interconnected communities at economies of scale, providing lower-cost power. Alaska Energy Authority (AEA) and Alaska Industrial Development and Export Authority (AIDEA) financially support through existing programs and investments any executable-ready hydropower project (permitted/licensed, designed, economically feasible) that will provide lower-cost electricity over the project's life.

Identify, seek, and support the construction of hydropower assets to export power to provide economies of scale for hydropower projects to lower the energy cost for Alaskans by selling export power to finance and economically enhance a hydropower project's economic viability.

Develop and support economically and with regulatory approval intertie connections and transmission corridors to strategically place transmission to interconnect current and future transmission to provide transmission corridors to known and undeveloped hydropower locations.

Establish a State/Federal Power board, through Congressional legislation, to cooperatively have the Federal government land owners actively assist the State of Alaska in developing hydropower assets on federal lands.

Review, refine, and amend Sec. 42.45.350. Licensing for water-power development projects and enacting state regulatory control over small hydropower development with Alaska interdepartmental coordination to support hydropower projects with abbreviated regulatory permitting.

Governors Office and AEA work with the Congressional delegation to craft legislation to ensure that FERC-exempt or state-licensed hydropower projects qualify for all eligible federal Production Tax Credits (PTC) and Investment Tax Credits (ITC).

The Governor's Office and AEA work with Alaska's Congressional delegation to craft and support legislation identifying hydropower as a renewable carbon-free energy source for all federal legislative, regulatory, taxation, incentive, and national security purposes.

AEA provides an option for Renewable Energy Credit (REC) participation through a statewide pool. This pooling approach aims to achieve economies of scale when selling RECs. By doing so, both state-owned and other hydropower projects can maximize the value of Alaska's hydropower RECs. The ultimate goal is to reduce the cost of electricity for Alaskans.

These action steps have statewide applicability for other regions of Alaska where critically important hydropower development assets exist.

Implementation Timeline:
This action item has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1:

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

Background:
Heat pumps are widely used in Northern Europe, with over 90% market penetration. They efficiently provide affordable heating even at temperatures as low as 13˚ F, lowering the costs in these arctic, subarctic, and temperate regions.

		2014	2015	2016	2017	2018	2019	2020	2021	2022
Table 3.5-1: Heat pump market shares development by country - space heating	Denmark	43.9%	54.3%	56.5%	69.2%	72.0%	75.8%	80.4%	82.6%	91.4%
	Estonia	77.5%	77.6%	80.7%	80.5%	79.9%	80.5%	82.5%	86.0%	86.7%
	Finland	88.1%	86.6%	87.4%	88.9%	90.5%	92.5%	93.5%	94.7%	96.5%
	Norway	95.4%	96.0%	96.9%	96.5%	96.7%	96.6%	96.3%	97.6%	98.0%
	Sweden	90.6%	90.8%	91.3%	91.4%	91.0%	90.9%	90.8%	92.1%	94.8%

Source EHPA-European Heat Pump Market and Statistics 2023

Several communities of Alaska are experiencing a significant transformation from more expensive fossil fuel heating sources to lower-cost heat pumps, saving Alaska households.

Benefits:
How can Alaskans and Alaskan communities capture the lessons learned from Northern Europe, Canada, and Maine in ensuring that Alaskans gain from these successes and promote the same opportunities to lower their energy costs and improve their quality of life by spending less of their income on home heating?

How Do We Get There?
Strategies and Tactical Steps for Advancing Heat Pump Adoption in Alaska:
a. Collaborate Internationally: Partner with the European Heat Pump Association https://www.ehpa.org/ and the International Energy Administration Heat Pump Centre https://heatpumpingtechnologies.org/about/heat-pump-centre/ to leverage models and programs that have successfully increased heat pump adoption. Collaborate with Provinces of Canada that have heat pump adoption programs

b. Collaborate with Maine State Housing Authority and Efficiency Maine to learn of their programs to adapt and adopt a tailored State of Alaska heat pump program with the following suggestions

c. Homeowner Financing: Offer zero or low-interest loans to homeowners through AHFC and related programs, enabling Alaskans to transition to cost-effective heat pump heating systems.

d. Business and Public Facility Financing: Provide zero or low-interest loans via AHFC and other state organizations for businesses, apartment complexes, schools, governmental buildings, and NGO facilities to adopt heat pumps. This effort aims to reduce heating expenses for these entities, ultimately benefiting Alaskans.

e. Community Heating Solutions: Allocate funds for community District Heating projects that utilize heat pumps, further decreasing energy expenses for Alaskan residents.

f. Have AHFC publish and adopt for use the Juneau Commission of Sustainability fuel price calculator to assist communities and individual households with their annual fuel savings and use the savings to assist in financing for heat pump purchase and installations https://juneau.org › wp-content › uploads › 2019 › 06 › jcos_fuel_price_calculator-.xlsx

g. Bulk Purchasing: Collaborate with top manufacturers and suppliers to buy heat pumps in bulk, ensuring Alaskans receive a discounted rate and, consequently, more affordable heating solutions.

h. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality heat pump installations across Alaskan communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1 (CONT.):

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

i. Public Education: Partner with Alaskan non-profits such as Alaska Heat Smart and tribal organizations with heat pump programs to educate the public about heat pump benefits. This includes offering building assessments for heat pump suitability and providing unbiased advice and recommendations.

j. Utility Billing Integration: Obtain RCA authorization allowing electrical utilities to introduce on-bill financing. This lets Alaskans conveniently pay off their heat pump loans directly through their utility bills, streamlining the repayment process for consumers and AHFC alike.

k. RPACE-Residential Property Assessed Clean Energy. Consider State adoption of a streamlined, easy-for-consumer RPACE program. USDOE best practice guidelines: https://www.energy.gov/sites/prod/files/2016/11/f34/best-practice-guidelines-RPACE.pdf

l. Federal Support: Pursue federal aid and funding to bolster State of Alaska initiatives and community projects. This support will drive the widespread adoption of heat pumps, ultimately reducing energy costs for Alaskans.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska that is tried and proven in other arctic, sub-arctic, and temperate locations. The expected results will lower Alaskan's heating costs and reduce the dependency on imported fuels, creating demand for the development of local energy resources to displace imported fuels.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of heat pumps in Alaska to lower the cost of heating in Alaska.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2:

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Background:
Alaska set the standard for cruise ship shore power in Juneau, a model now global. This system benefits cruise lines financially, extends their stay in Alaskan ports, and fortifies our coastal grids. All modern cruise ships, including those being built today, are shore-power compatible. Seward and Whittier, with their utilities, are now developing these facilities. Efficient shore power involves precise transmission infrastructure, substations, and quick-connect equipment for cruise ships requiring 3MW to 8MW each. For perspective, Juneau's Franklin dock, with full shore power utilization, recorded over 6,000 MWh in a single cruise season. Such infrastructure investments uplift not just the cruise sector they also bolster community resilience and present affordable energy alternatives, enhancing community energy reliability and assisting the State and communities to reduce the cost of power for Alaskans.

Benefits:
By spearheading shore power, Alaska boosts its grid reliability, attracts local energy investments, and showcases greener, emission-free ports—enhancing its global appeal. The Alaska shore power task and purpose propels job growth and infrastructure enhancement, supports industries, augments energy resilience, and slashes energy bills for its residents.

How Do We Get There?
Alaska Energy Authority (AEA) provides technical oversight and assistance to communities, Independent Power Producers (IPP's), and local utilities to develop a shore power electrification plan to provide shore power at all cruise dock facilities in Alaska.

AEA and Alaska Industrial Development and Export Authority (AIDEA) support public-private transmission, distribution, and generation investments to execute shore power in Alaska communities using state head tax funding distributed and accountable to AEA.

Dept of Commerce and Community Development (DCCED) AEA, and the Regulatory Commission of Alaska (RCA) encourage communities to develop shore power planning for future-proofing generation and distribution infrastructure to meet current and future demand, fully utilizing Alaska generation and transmission resources.

AEA/AIDEA Develop a technology term sheet and outline for communities using known and established Alaska and worldwide shore power engineering and infrastructure firms established with tried and proven late generation (automated quicker connect and disconnect times) shore power distribution, BESS, and shore-to-ship connection infrastructure. EPS-Anchorage, WABTEC Stemman Technik, and other late shore power generation systems.

State of Alaska engage with Alaska's congressional delegation to modify federal transportation statutes and programs to include and support cruise marine vessel port funding on par with freight ports.

State of Alaska, AEA Establish and encourage cruise line industry participation and support in statewide shore power planning.

AEA/AIDEA Support by encouraging and funding power generation projects that support firm power generation for cruise line shore power during cruise season and supply winter load power in the off-season to bolster local energy resilience and security.

Identify legislative and regulatory modifications to support shore power installations in coastal communities to support economic development.

State, DCCED, and private companies combine Alaska tourism marketing programs to incorporate Alaska's strategy to shore power Alaskan ports to assist in marketing Alaska as a clean port state destination.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

AEA provides engineering systems to assist with pre-engineer systems to the extent possible to reduce purchase costs, gain consistency in systems, and incorporate local Battery Energy Storage Systems to enable local utilities to ramp up and provide quick connect and disconnect times using proven late-generation technologies used in fast connecting ports worldwide.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska has the potential to take a leadership role in shore power development by executing a carefully planned strategy. By focusing on shore power, Alaska can expand the demand for renewable energy. This increased demand can then stimulate further growth and construction of the state's renewable energy sources. The ultimate goal is for Alaska to be recognized globally as a leader in shore power implementation. Successful results have multiple benefits: higher revenues for utilities, encouraging investment in the energy generation and distribution infrastructure, enhancement of the State's energy resilience, reliability, and capacity, and decreasing energy costs for the residents of Alaska.

Additionally, dock electrification resources could provide electrical delivery from ship to shore emergency power to communities in the event of natural disasters providing an energy security back up for distressed communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.3:

Beneficially electrify the Alaska Ferry Fleet to lower cost of transportation, and emmissions and assist in reducing the cost of power in coastal communities.

Background:
Alaska Department of Transportation & Public Facilities (DOT&PF) and Southeast Conference (SEC) are partnering to conduct a Low Emission Ferry Research project. Alternative fuel powered, low-emission, and electric ferries could be a game-changer for Alaska's Marine Highway System, as DOT&PF starts to replace AMHS's aging fleet in upcoming years. Fuel efficient ferries could increase the range and capacity of the fleet, potentially increasing service to communities and reducing AMHS operating costs.

Benefits:
How can Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System (BESS) to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Refine shoreside energy storage system sizing for expected future vessel schedules.
- Prepare site plans for each port where a shore-side charging BESS is beneficial to meet current and future charging demands. Consider:
  - Permitting difficulties;
  - Floating vs. Shoreside.
- Investigate the capacity of available hydro power and impacts to the community where it is expected to be the primary source for powering electric ferries. Evaluate the impact to local power costs from periods of constricted supply when diesel power plants must be utilized to supplement or replace hydro power.
- Develop benefit calculation for avoided greenhouse gas emissions due to use of electric ferry routes powered by greenhouse gas neutral-generation electricity.
- During Low/No Emission port and BESS design, consider incorporating electric motor vehicle (National Electric Vehicle Infrastructure Program – NEVI) charging stations.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

- 3-5 years to secure funding from IIJA and other sources for specific ferry replacement projects.
- 5-10 years to complete design and construction of IIJA-financed vessels.

Expected Results:

- Lower carbon emissions compared to conventional diesel-mechanical engines.
- Increased electric utility revenues from purchase of electricity by BESS.
- Purchase of electricity at less than peak-rates for lower cost energy to AMHS ferries.
- BESS supported microgrids in AMHS communities.
- More reliable ferry service to AMHS communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.4:

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

Background:
Alaskan entities and government agencies built many legacy Alaska hydropower projects in Coastal Alaska to serve industrial loads. Many of the legacy hydropower assets of Juneau were developed, constructed, and operated by mining interests to power mills and lower the cost of mining. This tried and proven model of building hydropower to subscribe the generation output to large mines and other industrial loads provides economies of scale to finance large hydropower and transmission investments by creating economies of scale. The hydropower development history of Alaska and the colocation of industrial loads offer valuable lessons learned for Alaska as Alaska leans forward to increasing its energy security, and resilience and achieving lower-cost energy. These legacy hydroelectric facilities built in the past now provide the lowest-cost wholesale power in Alaska, proving the long-term investment model through providing long-term energy dividends in some cases for over 100 years.

The large customer concept whereby a hydropower project serves the Alaska industrial base, be it a military installation, a mine, a fish processing plant, or future industries like data service centers or even transferring a power consumptive industry (ferries, cruise ships, trains-such as electrifying the Alaska railroad) from diesel to electric provides the opportunity to colocate industrial loads near hydropower generation that can provide firm and conditionally firm power to establish lynchpin industry and employment in Coastal and Alaskan communities situated with hydropower resources. This concept is a tried and proven Alaska energy model based on historical development.

Today, the added benefit of producing clean power to meet Environmental, Social, and Governance (ESG) further compels the attraction of industry to use Alaska hydropower. ESG refers to the three central factors in measuring an investment's sustainability and societal impact on a company or business. These criteria are increasingly becoming crucial to investment decisions, as many investors recognize the long-term importance of sustainable operations for business success. In the context of investing, Socially conscious investors evaluate and screen investments for sustainability and ethical considerations using ESG metrics. Companies with strong ESG profiles may be deemed more future-ready and less risky in facing regulatory or reputational challenges. Colocating industrial loads with clean hydropower can competitively assist the State and investing companies in reducing regulatory and reputational risks.

Additionally, hydropower offers another product form that can generate revenues to lower costs of energy: cold water. The cold outtake water from a hydroelectric facility is valuable for circulating cooling water for data servers that require chilled rooms to operate efficiently. Colocating future data server operations at or near hydropower locations is a recent phenomenon that offers lower-cost energy to operate the data servers and reduces server chilling costs necessary to operate data server centers at peak efficiency.

Indeed, large industrial loads such as mines, data server centers, fish processing and freezing operations, and other large energy-consumptive industries provide the requisite economies of scale to finance and build hydropower opportunities in Alaska but also invigorate clean industrial development that not only creates and sustains family wage jobs but also provides the trajectory to lower energy costs through economies of scale.

Benefits:
Strategically collocating large industries, such as mines, fish processing plants, military bases, and data centers, near hydropower facilities is a game-changer for Alaska. It offers a dual benefit: fostering economic growth and ensuring cost-effective, sustainable energy for Alaskans. By leveraging the enduring 100-year lifecycle of hydropower, which has the lowest cost over time, Alaska can capitalize on its historic model of harnessing hydropower to drive industrial growth. This symbiotic relationship boosts Alaska's economic prosperity, creating jobs and opportunities and guarantees the most affordable power for its residents.

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ACTION B-4.4 (CONT.):

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

How Do We Get There?

1. Unified Policy Development :
   - Policy-making entities: Governor's Office, Department of Commerce and Community Economic Development (DCCED), Alaska Industrial Development and Export Authority (AIDEA), and Alaska Energy Authority (AEA) can collaborate to devise a policy promoting the recruitment and facilitation of industrial load development in Alaska to mate with future hydroelectric development. This collaboration of policy can leverage the historically successful Alaskan energy model to achieve multiple and synergistic Alaska benefits: local economic prosperity, energy security, job creation, and long-term reductions in energy costs.
2. Promotion of Long-term Hydropower Resources:
   - DCCED, AIDEA, AEA, and RCA should advocate and actively recruit for developing enduring hydropower resources, emphasizing their anchoring by industrial loads. Through strategic industrial colocation, hydropower, and related transmission, Alaska can harness the compounded benefits and ensure lower-cost energy for its residents throughout the century-long lifecycle of hydropower assets.
3. Legislative Action for Industry Attraction:
   - The Alaska legislature should enact laws and regulations incentivizing industries to align with Alaska's hydropower potential. Legislative action would underscore the vast economic advantages and clean energy outcomes resulting from maximizing the use of existing hydropower and fostering the creation of new hydropower projects within the State to advance the stated multiple and synergistic Alaska benefits that this initiative inspires.
4. Assistance and cooperative support for local initiatives and developments
   - DCCED, AIDEA, AEA, and RCA assist local communities and hydropower developers in local initiatives and development of optimizing hydropower assets and industrial loads to provide synergistic Alaska benefits, including lowering the energy cost for Alaskans.

Governors office, DCCED, AIDEA, and AEA, develop a policy that supports the recruitment and attraction of industrial load development in Alaska using this proven Alaska energy model for multiple beneficial purposes: prosperity, energy security, job creation, and long-term lower energy costs.

DCCED, AIDEA, AEA, and RCA support the development of long-term hydropower resources anchored by industrial loads and colocation/transmission of hydropower to achieve the synergistic benefits and obtain lower-cost energy for Alaskans over the 100-year life cycle of hydropower assets.

Alaska legislature enacts legislation to attract industry and support the colocation of Alaska industrial development to subscribe to new hydropower generation economically, recognizing the substantial economic prosperity and clean energy emissions benefits of fully subscribing to current hydropower and developing and constructing new hydropower in Alaska.

Implementation Timeline:

This action item has a blend of Immediate to long-term tasks for implementation.

Expected Results:

This proposed roadmap enables Alaska to tactically accelerate the positive development of new hydropower assets by strategically positioning and transmitting clean hydropower energy to industrial loads. The economies of scale of industrial sales assist hydropower in meeting economic viability while paying down the debt to offer the lowest cost power over time. This tried and proven Alaska hydropower/industrial load model can repeat itself as Alaska looks to develop the next tranche of hydropower assets to meet Alaska's energy needs to propel economic prosperity and achieve lower-cost energy for Alaska's current and future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.5:

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

Background:
BESS/ESS technology has advanced to the point that indicates significant potential savings for communities that are dependent on diesel power generation for electrical needs. Some new supercapacitor systems boast 97% efficiency and estimate up to 75% savings in diesel fuel consumption to provide equivalent power using BESS/ESS. US DOD is looking at exploiting this technology in Alaska. Other utilities have deployed other BESS technologies and energy storage works, promising to stabilize Alaska grid networks and microgrids.

There are several BESS demonstration projects currently being tested in Alaska. BESS technology provides a potential opportunity to significantly lower the cost of power generation in some rural and coastal Alaskan communities.

Background on Battery Energy Storage System (BESS):
1. Functionality: Simply, BESS stores electrical energy for use at a later time. BESS is especially important for integrating intermittent forms of renewable energy and immediately supplying large quantities of energy in seconds or minutes (supplying power to cruise ships) while stabilizing grid operations.

2. Components: A BESS typically includes the following:

Batteries: These are the actual storage units and can be of various types, such as lithium-ion, lead-acid, flow batteries, etc.

Power Electronics: This includes inverters and converters, which help transform electricity from AC to DC (and vice versa) and control the flow of electricity.

Control Systems: These manage the BESS's operations, ensuring it charges and discharges at the correct times and maintains optimal performance.

Thermal Management Systems: Maintaining a stable temperature is crucial for battery longevity and safety.

3. Types of Batteries: The most common type used in modern BESS installations is the lithium-ion battery due to its high energy density, long cycle life, and decreasing costs. However, other types, like flow and solid-state batteries, are being researched and deployed for specific applications.

Advantages of Battery Energy Storage Systems (BESS):

1. Grid Stability and Reliability: BESS can absorb or release power quickly, helping to stabilize grids, especially when there's intermittent renewable generation like solar or wind, and is especially useful in turning on and off large periodic loads like cruise ships.

2. Peak Shaving: Batteries can be charged during off-peak hours when demand (and often cost) is low and then discharged during peak demand times. BESS helps utilities and consumers reduce costs and can prevent the need for firing up expensive and potentially polluting "peaker" power plants or forego electric sales waiting for ramp-up times from other sources.

3. Integration of Renewables: Batteries make it easier to integrate renewable energy sources by storing excess energy when it's available and releasing it when needed.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security , increase grid resilience, and lower energy costs.

4. Microgrids & Energy Independence: In areas with unreliable grid connections or no connection at all, BESS can form the backbone of Coastal community grids that can operate independently and withstand outages.

5. Reduced Transmission and Distribution Investment: By placing BESS at strategic locations, utilities can delay or avoid expensive upgrades to transmission and distribution infrastructure.

6. Load Leveling: By storing energy during periods of low demand and releasing it during high demand, BESS can help level out the demand curve, ensuring a consistent power supply and reducing stress on the grid.

7. Backup & Emergency Power: BESS can serve as an emergency power source during outages, ensuring continuity in critical facilities like hospitals.

8. Support for Electric Vehicle (EV) Charging: As EV adoption grows, BESS can ensure that rapid charging stations get the power they need without causing strain on the local grid.

9. Economic Benefits: With the suitable RCA regulatory structures in place, BESS operations can pay for themselves by providing various grid services, from frequency regulation to capacity services.

10. Environmental Benefits: BESS can significantly reduce greenhouse gas emissions by enabling more renewable energy integration and reducing the need for fossil fuel-based peaker plants.

Benefits:
How can Alaskans and Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids, while lowering energy costs and improving their quality of life by spending less of their income on home energy costs and promoting local economic development?

How Do We Get There?
Strategies and Tactical Steps for Advancing BESS/ESS Adoption in Alaska:

a. Gather data from modeling and from existing BESS/ESS demonstration projects in Alaska to determine actual diesel fuel savings, and power reliability to meet demand, maintenance, and operation costs.

b. Gather proven performance data from BESS projects to prove out cost-saving claims.

c. Funding: Support local community efforts to access to Energy Improvement in Alaska to include rural or Remote Areas grants through the US Dept of Energy, Office of Clean Energy Demonstrations (OCED).

d. PPP: Encourage rural/coastal communities to pursue innovative financing vehicles to attract public-private-partnerships (PPP) and investment.

e. Public Facility Financing: Offer zero or low-interest loans to communities through AHFC and related programs for power generation to purchase and install BESS/ESS systems to improve reliability and lower energy costs.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

f. Bulk Purchasing: Encourage local communities in regions to pursue discounted contracts with BESS/ESS providers for multiple unit purchases.

g. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality BESS/ESS operation and maintenance across Alaskan communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska's Energy Revolution with BESS/ESS

- **Strategic Approach:** Alaska can effectively deploy BESS/ESS, a proven energy solution in similar climates.
- **Multiple Gains:** This leads to reduced power costs, decreased fossil fuel use, full utilization of energy resources by saving energy surpluses when available, and lower Greenhouse Gas (GHG) emissions.
- **Power Stability:** Enhances energy reliability throughout Alaska in both interconnected and stranded grid systems.
- **Coastal Advantages:** Enables coastal areas to support cruise ships and port growth.

In essence: With careful planning, Alaska can capitalize on BESS/ESS for cleaner, cheaper, and more resilient power, benefiting railbelt, rural, and coastal communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of BESS/ESS in Alaska to lower the cost of heating in Alaska and improve local energy security and grid resilience, helping communities achieve task force goals of Affordability, Reliability, and Resilience.

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ACTION C-2.5:

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Background:
Due to the remote nature of many Alaskan communities, many rural Alaskan communities must generate their own power for electricity and heat. Rural power generation in many cases is from diesel fueled generators. This vastly increases the cost of power in rural Alaska. Infrastructure investments that may help lower the cost for some rural Alaskan villages are building transmission lines from the Railbelt utility system to local villages, between local villages, or between local villages and private or public sector anchor tenants to grow economies of scale. This would allow villages connected to other power grids to enjoy power costs comparable to Railbelt residents.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, construct, and maintain transmission infrastructure tied to the Railbelt or other grids to ensure remote/rural Alaskan communities enjoy similar cost of power as Railbelt residents.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Identify the appropriate organization(s) that will oversee the development and construction of the grid. Task 1 is to ensure that all impacted parties are onboard, and that the organization has appropriate authority.
- Coordination and cooperation between energy sources and requirements of an integrated grid.
- Consolidate the variety of interconnection proposals that have been performed to date and select those most technically feasible.
- Estimate greenhouse gas reductions, fuel savings, and other direct savings.
- Assemble the team to recommend approaches to accomplish technically feasible alternatives i.e., segmented versus consolidated grid system.
- Investigate alternative financing options, including direct state investment, allocation of PCE funds, federal & state grants, subsidized loans, and P3 opportunities.
- Identify priorities that bring maximum and immediate return. The savings that can be applied to the balance of the project.
- Evaluate opportunities to co-develop energy infrastructure with transportation and other infrastructure developments

Implementation Timeline:

- Within 1 year have the organization identified and established.
- Within 2 years:
  - Have a technically feasible alternative identified.
  - Implement design and engineering.
  - Identify the most likely funding sources and environmental requirements.
- By year 3:
  - Obtain necessary permits.
  - Develop schedule for construction activities (define scope).
  - Procure qualified contractors.
- By year 5:
  - Authorize construction.
  - Establish operating guidelines and responsibilities.

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STRATEGY C-2: INFRASTRUCTURE INVESTMENT

ACTION C-2.5 (CONT.):

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Expected Results:

- Fuel cost savings from reduced diesel dependency.
- Greenhouse gas reductions.
- Reliability and resiliency benefits.
- Spur local economic development and employment.
- Expanded opportunities for distributed renewable resources.
- Reduced dependency on PCE (could funds be reallocated i.e., M&O).
- Measure and demonstrate the project as a template for other regions

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ACTION C-3.4:
Grid modernization and automation

Background:
Due to the remote nature of many Alaskan communities, there is potential for loss of power (electric/heat) without awareness outside of the community. Power loss may also reduce or prevent the ability to communicate outside of the community, threatening public health and life safety during temperature or climate extremes. Power plant automation, remote sensing equipment or use of growing drone technology, data management and artificial intelligence, and other emerging technologies provide the ability to automatically or remotely to avoid power system failures or outages, and alert power providers with notice of a failure to focus and accelerate recovery and restoration efforts.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate plant automation, remote sensing technology, unmanned aerial systems, data-driven preventative maintenance programs and other grid modernization enhancements to ensure remote/rural Alaskan communities are able to avoid or recover from power failures as expeditiously as possible, while improving reliability and reducing operating costs.

How Do We Get There?
- Enhance communications infrastructure and reliability. For example, ensure all new power conductors incorporate a fiber optic data and communications line.
- Enhance manually operated power plants with automation and remote monitoring and control operations including necessary communications infrastructure upgrades i.e. fiber optic and other platforms. Prioritize critical functions including remote black start, emergency stop, economic dispatch, video monitoring, and fuel system monitoring capabilities.
- Incorporate automation, remote monitoring and control, computer based data collection and storage predictive and preventative maintenance platforms, and communications upgrades into all new or replacement power plant projects.

Implementation Timeline:
- Within 1 year identify pilot communities and develop a modernization framework for those communities. Identify currently automated rural communities and capture lessons learned and best practices for guidance and knowledge-sharing to advise and streamline pilot deployments.
- Year 2 – Perform feasibility assessments, identify and select pilot communities or energy systems for modernization. Aggregate funding sources that can be allocated to selected projects to be undertaken by the producers and project partners. Identify adjacent opportunities for infrastructure enhancements to share the costs and benefits of grid modernization (automation of community water and sewer treatment facilities, for example).
- Years 3-5 deploy grid modernization enhancements to pilot community/communities and document and refine the process to serve as a template for additional communities. Each implementation should be continuous from inception to completion.

Expected Results:
- Improved grid reliability.
- Faster response and restoration times for outages.
- Improved operating efficiencies.
- Improved operations and maintenance of rural system to reduce preventable or catastrophic failures.
- Improved communications platforms that can be co-purposed to meet other community needs
- Provide opportunities to cost-share for other community infrastructure modernization initiatives.

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STRATEGY F-1: PLACEHOLDER STRATEGY TO BE DETERMINED

ACTION F-1.6:

Provide budgetary support for the Regulatory Commission of Alaska (RCA).

Background:
The RCA is responsible for regulation of public utilities and pipeline carriers in Alaska. Most of the statutes and regulations that govern RCA authority were developed during a period of time when the electrical generation and transmission utilities in Alaska generally operated islanded systems primarily built around baseload generation. However, as Alaska has grown and the technology for generation, transmission, and storage has advanced, the responsibilities of the RCA have grown more complex.

The Alaska Energy Security Task Force (AESTF) did not conduct a review sufficient to be able to recommend a comprehensive overhaul of the statutes or regulations that govern the RCA. Anectodely, it is understood that there are some improvements that could be made to facilitate more efficient utility regulation. It is also understood that the RCA is evaluating its own process and regulations to identify potential efficiencies.

However, the AESTF did find that within all expected scenarios, the RCA must be provided sufficient budgetary support to be able to attract and retain the highly skilled technical, legal, and administrative staff necessary to help adjudicate the complex and rapidly increasing pace of decisions that are necessary in today's to support Alaska's continued access to affordable, reliable, and resilient energy.

Benefits:
Provide enhanced regulatory support to better facilitate proposed recommendations of the AESTF.

How Do We Get There?
Executive branch collaborate with RCA to incorporate staff budgetary recommendations into 2024 operating budget.

Implementation Timeline:
2024 Alaska operating budget.

Expected Results:
Reduced casefile processing time by a highly skilled RCA will support Alaska's transition to a more integrated and technologically advanced energy utility landscape.

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Alaska Energy Security Task Force
DRAFT MEETING MINUTES
Tuesday, October 10, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on October 10, 2023, at 2:00 p.m.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice-Chair Curtis Thayer; Clay Koplin; Joe Byrnes for Commissioner John Boyle; Karl Hanneman; Jenn Miller; Duff Mitchell; John Sims; Robert Venables; UAF Chancellor Daniel White; Ex Officio: Anne Rittgers for Senator Click Bishop; Commissioner Keith Kurber; Representative George Rauscher; Erin Whitney.

Also present were Andrew Jensen, Policy Advisor to Governor Dunleavy; Michael Yaffee and Marc Luken, Michael Baker International (consultant); and Jennifer Bertolini, AEA. (Jennifer to confirm)

A quorum was present to conduct business.

3. Public Comments

Chair Lieutenant Governor Nancy Dahlstrom stated that the purpose of today's meeting is to accept public comments on the draft Alaska Statewide Energy Master Plan. In the interest of time, we are limiting comments today from each person to three minutes. In addition, we are accepting written comments until 4:00 p.m. on Tuesday, October 24th. Please send your written comments to:

info@akenergysecuritytaskforce.com

The floor was opened for comments from attendees in the room. Instructions were given to online folks to raise their hand in the Teams app to be recognized. Chair Lieutenant Governor Nancy Dahlstrom also asked Task Force members if they had any questions or comments to share.

June Okada (ph) - My name is June Okada, and I am commenting today on the draft Alaska Energy Security Task Force report. Specifically on Priority A-2.3 in the Railbelt Transmission Generation and Storage section. I speak on behalf of the Susitna River Coalition. And our more than 14,000 individuals and businesses who support our work.

Diversifying our local energy generation to conserve the diminishing Cook Inlet gas supply is a necessity at this point. However, we believe the proposed Susitna-Watana Hydroelectric project clearly warrants a no-go decision without moving forward with further feasibility assessments.

The Mat-Su dam is estimated to cost $7 billion in 2023 value, according to a recent presentation by the Alaska Energy Authority. This is a gross underestimation, and it does not consider the new, costly transmission lines that would have to be built. Nor does it include the costs associated with purchasing or leasing native corporation lands that the dam would exist on. In addition, state funds would also be required to mitigate damages to the Susitna's salmon fisheries. These would all add a significant amount to the already hefty price tag.

Taking meaningful action to create economically responsible and clean energy systems for Alaskans means deciphering what projects will create the least harmful impacts for decades to come. Mega dams are not carbon neutral and therefore cannot be considered clean energy. Reservoirs release methane, and the EPA now includes dams in their greenhouse gas reports--disparaging claims that large hydro projects reduce carbon emissions.

With our rapidly changing climate, Alaska's glaciers are melting at an alarming rate and causing river flow pattern changes. Extreme floods and droughts are more frequent, and water availability fluctuates unpredictably. Without accurate understanding of the timing and magnitude of deglaciation, a dam's size and scale has uncalculated risks and is inadequately reliable, and unsafe. Above all, the Su Dam would embody the collapse of south central Alaska's river life, its economy and ecology. The eradication of its unique ecosystems, the destruction of one of Alaska's most valued salmon spawning and rearing habitats, and the flooding of 40,000 acres teeming with wildlife. The Su Dam is not a silver bullet for clean energy, carbon reduction and lower energy rates, and remains costly with (indiscernible--cough). Thank you for your consideration today and for the opportunity to make a public comment.

Chair Lieutenant Governor Nancy Dahlstrom thanked June for her comments. And recognized Gretchen Keiser.

Gretchen Keiser - My name is Gretchen Kaiser (ph). I'm a board member for the Alaska Heat Smart. Annie Romanoff, the executive director of Alaska Heat Smart, testified earlier this summer, but is unavailable now. Alaska Heat Smart is a nonprofit organization that provides education and in home space heating technical assessments to Juneau homeowners on converting their homes to heat pumps.

Alaska Heat Smart works communitywide and also operates programs focused on lower income households. In 2023, Alaska Heat Smart initiated a pilot project in Sitka, our neighboring community. Our results since beginning operation in 2020 indicate Alaska Heat Smart technical assistant yields about 75% conversion by participating homeowners to heat pumps. Home

energy cost savings average over 50%, or $1200 to $1,800 a year, depending on the previous heating system. And significantly, Alaska Heat Smart educated homeowners means streamlined upfront work required of local installers. These small businesses can complete more projects, hire additional technicians, and improve their bottom line.

With that background on Alaska Heat Smart, I support the following strategies and actions in the Draft Energy Plan. And I'll just enumerate them as they're identified.

Action B-1.6, which is Enhance Alaska Workforce for Beneficial Electrification. Alaska Heat Smarts experience has been that we have had to grow our own workforce over the past five years.

Action B 4.1 Promote Heat Pumps in Coastal Alaska. Alaska Heat Smart fields many calls if there is growing interest from Ketchikan to Kodiak. Heat punts are highly efficient and proven technology, and the cheapest energy source is energy efficiency.

Priority D - State Energy Data. We wholeheartedly endorse this priority. Alaska Heat Smart has been able to use its data mentioned above to justify successful local and federal grant funding.

Priority E Incentives and Subsidies, Strategy E-4.3 Alaska Heat Smart supports a state green bank for financing community energy efficiency projects. It's a question of scale. With more money, we could do more houses.

Strategy E-6.3 Increase State Resources for Community Energy Efficiency Programs. We would suggest that the state use established local organizations such as Alaska Heat Smart for cost effective delivery to Alaskan households, especially as substantial federal clean energy funding is now coming to state agencies. That concludes my comments. Thank you very much for your hard work on this draft plan and we're all go for it.

Chair Lieutenant Governor Nancy Dahlstrom thanked Gretchen for her comments. She recognized Steve Behnke for his comments.

Steve Behnke - Hi, I'm Steve Benke and I'm with the nonprofit Renewable Juneau. We're a 501(c)(3) that provides information and advocacy for renewable energy in the state capital. Projects that we work on include public support for benefits, electrification in Juneau, energy efficiency, and renewable energy, including heat pumps, electric vehicles, energy efficiency, cruise ship dock, shore power, all things that reduce energy costs, keep money circulating in the local economy, and reduce the price shocks of oil.

We've supported and advocated for the City and Borough of Juneau's (CBJ) renewable Energy Strategy. We've been partners in creating Alaska Heat Smart, who just presented. We've also

raised money for the installation of heat pumps to replace oil heat and reduce heating costs in lower income homes. In Juneau have done about 40 installations of heat pumps and we're expanding our program to Sitka and Ketchikan. We've been following the development of the State Energy Master Plan. Appreciate the chance to testify. We see some big opportunities for the state to improve Alaskans' access to lower costs and cleaner energy.

I'm just going to tell you briefly a little bit about Juneau's experience to make some points about the kinds of things that the state could really help more on. In 2019, the City and Borough of Juneau adopted the Juneau Renewable Energy Strategy, which calls for shifting total energy use in the community from about what was about 20% of the community's total energy use in 2019 to about 80% by mid-century. We just completed an update of the goals of the General Climate Action Plan and Renewable Energy Strategy, and we're actually now at about 25% renewable energy for the total energy use in the community.

There's been a significant shift in heating, which has been one of the major changes over the past decade, with heat pumps increasing from a couple of hundred heat pumps, five-six years ago, to approximately 2,000 now, which is almost 20% of the community heating with heat pumps. As Gretchen mentioned earlier, that has a big impact because every time somebody shifts from an electric resistance or oil heat in Juneau to a heat pump, they can save about 50% on their heating bill. So Juneau intends to make this shift by supporting Alaska Hear Smart's budget. It also is working on supporting electric vehicle adoption, supporting energy efficiency and increased electrification of local, state and federal government operations and by supporting electrification of industrial energy use, including local mining operations and connecting cruise ships to shore power while docked in Juneau.

Obviously the CBJ can't do all of this alone. And it could do it a lot more effectively, I think, like almost all the communities, certainly all the rural communities and most of the smaller communities in the state, it really could be a lot more effective if it can join forces, if it can get broader support from the state, and a number of the items in the master plan head in that direction. So I'm just going to mention a couple of those things.

Certainly, the strategies that deal with providing better information on energy supplies and uses is a major element of that. We found we have to spend quite a bit of money on pulling that kind of data together. It's one thing for Juneau with our 30,000 people to do it, it's another thing for communities of 500 or 22,000 or 10,000 to do it. So that's somewhere the state could really help out and help everybody in the state.

The other thing is support for financing. Again, we've worked on financing programs within Juneau and have made some headway there with local community financial institutions supporting heat pump adoption loans for those. But again, it would be a lot more effective if there were the Green Bank, State Green Bank, for financing community scale energy efficiency

and beneficial electrification programs. So we think that the state could contribute a lot to those things.

The other big area the state could do is reduce some of its own institutional barriers to programs. Renewable energy projects are complicated. They often involve big upfront costs, but they also can get bogged down in the minutiae of utility regulation that really wasn't designed to deal with renewable energy development. I think looking back, we can see a number of cases where there have been useful projects that got delayed because the regulatory commission doesn't have a mandate to look at those elements of the public interest. So we support a number of the actions, particularly actions listed under the Strategy B dealing with coastal areas, a lot of which specifically target the kinds of areas that we care about. Thanks for the chance to testify.

Chair Lieutenant Governor Nancy Dahlstrom thanked Steve for his comment. She asked if anyone else wanted to share their comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Mr. Huckabee (ph) - (indiscernible--poor audio) Friday and the notice was for today. When people say the cheapest cost of energy available, is that as a cost analysis overall, as an energy supply, or to other people having that request? (indiscernible--poor audio)

Chair Lieutenant Governor Nancy Dahlstrom advised Mr. Huckabee that his phone is cutting in and out and the team is not able to hear him. She also advised Mr. Huckabee that we are not answering questions today, we're taking public comment. And so we would be happy to take that for the record.

Mr. Huckabee (ph) - his public comment is that this is awfully short notice on an important topic. We saw the notice on Friday for the meeting today, and that's why I don't think you're having anybody call into this thing. It's middle of the workday when other people have to do their doesn't seem like an appropriate time. And my comment would be that it seems like people are talking about costs at the cost of others, whether it be the State of Alaska taxpayers, and I think if we were talking about energy costs in our homes, that the cost analysis without (indiscernible--poor audio) that's my comment.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Huckabee for his comments. She wanted him to know that we did advertise this meeting on social media starting last Friday. However, the meeting followed all the notification regulations, and it has been publicly noticed for the last 21 days.

She asked if anyone else wanted to share their comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Chair Lieutenant Governor Nancy Dahlstrom recognized Mr. Ken Griffin for his comments.

Ken Griffin - My name is Ken Griffin and I have no affiliation. I'm just an Alaska citizen. When will we be able to testify? I mean, listen, I'll be honest. I agree that the notice is very short. I paid into stuff like this, and I just found it out. Of course, I don't use social media, so I don't think that's necessarily an appropriate way to get a hold of people. But maybe you could mention where I could find the future dates. Because listen, I'm interested in reading this document you guys put out, but it's quite a large document in draft format, and I need days to go over something so important. But I definitely want to be able to testify. I definitely want to be able to make public comment.

I see there's another meeting coming up, looks like on the 24th. Obviously, I work a job during the day. I'm an everyday citizen, so I have to stop my job if my employer allows me to, to give public comment on such things. But I try to make time for it. But if you guys could find other ways to really get this out. I'm not sure if it's on the dot.gov or maybe I'm looking at the wrong place for it, but it was really short notice, and this is an extremely important topic since Alaska is super energy dependent. It's extremely important the cost of energy out here. And the choice of fuels that we all want to use. Obviously, this energy board is going to be a big deal, especially as I read some of the writings. So could you address a couple of those things?

Vice Chair Curtis Thayer responded that yes, we did publicly notice this meeting through the normal State of Alaska in the proper notification time. These dates were also on our website and referred to the website for the last several weeks, if not months. And what we did is we also did social media posts and those were put up last week.

And sometimes if you look at those, it depends how they've been pushed or how people share social media posts when they do it. So the social media posts were within the last week. However, the actual notification of this meeting, and that was done in several weeks ago. And this report, in its entirety, was just available at our last meeting. And so we apologize if the social media posts were late, but we did go through the state system and through the proper notification with all the documents. The social media was just to add to encourage public just in case we miss people through the notification process. Apparently social media is a better hit. But we also allow written comments through the 24th at close of business. And then also we'll have more public comments on the 24th. So that would give you time to look and read the document for your next testimony. But thank you very much.

Mr. Griffin asked if the Task Force will take actual public testimony, where you guys will answer questions? I'm a little confused as to whether or not we're going to read this document, have questions of the validity of it or the content in it, and then be able to come to you guys for clarification of questions. Forgive me, it was a little harsh here. We're not answering questions,

you're just going to comment and that's what you get. I was a little astonished at that considering that somehow I feel like this is a state thing. So when will you guys let us testify to what we've read and ask questions and get questions answered about the material that you guys put out?

Vice Chair Thayer responded that we appreciate his comments. Just in context, we have met publicly since April, and we have met for over 200 hours in both full committee and subcommittee. Those meetings have all been publicly noticed and on social media and been available for the public to attend as we've gone through this process.

And the purpose for today's meeting was with the report in the draft format and that was to take public comment based on the draft format that is here to see if there's things that we might have missed or things that we need to hear from the public on particular questions on the task force. And our next meeting is October 24th.

For example, one of the subcommittees met today and another one met yesterday. They're all publicly noticed, and some subcommittees have been meeting for 7-8 hours. So we've had over 200 hours of public meetings thus far on this document, where we started with a clean slate to where we are today with a document before you.

Mr. Griffin asked if he will be able to ask questions on the 24th and have those answered if the answers can be provided. It just sounded like the last person that spoke was asking question, and I'm not sure I didn't catch because I don't see everybody's video. Sounded like someone said, we're not answering questions today. So on the 24th, as I go through this document, will you be answering questions then?

If you have questions of the document, I would appreciate if you could do that in writing so we can consolidate and provide answers.
Mr. Griffin stated you will not provide answers in audio format. I don't know. Listen, no offense, but I'm a father, I'm a husband. I have two jobs. It's very difficult for me to sit down, write a letter, send it off to you, and get it answered in time before or even hear time. I barely heard about this notice, and as I said, I pay attention to these things. So I'm kind of surprised you don't answer questions in the Zoom meetings. I mean, I've stopped my whole workday just to get to this Zoom meeting.

Vice Chair Thayer responded, again, we've had over 200 hours of public meetings and have dressed comments there. Plus we have a symposium series that took questions for 16 hours on various topics throughout this process. But I understand your concern. If you would email your concerns or email your questions, then we can attempt to answer the questions. And keep in mind, everybody on the task force is a volunteer in a similar situation. And so we want to be

sensitive of their time to make sure we do answer the public's questions, but also have time to respond too. To make sure you have the most accurate information.

Mr. Griffin responded, I thank you for your time. But as I sit here and this meeting is completely silent, maybe one or two people spoke, I would think there'd be plenty of time for citizens to ask questions. And it sounds like you guys are unwilling to do that in an audio format where it's the most convenient for citizens to do.

Vice Chair Thayer asked Mr. Griffin if he has a particular reference or section on one of the strategies or numbers that you would like to have addressed?

Mr. Griffin responded that he will on the 24th. I printed out this huge document, and I've been going through it all night. So, yeah, on the 24th, I will have some serious questions. I already found a bunch, but I'd like to have them all coordinated and ask the most important ones, since even in public testimony as important as this one, it sounds like we're only going to get roughly three or four minutes to ask these questions. So I wanted to make sure I asked the most important ones, the most highlighted ones, if you will.

And I haven't completely gone through the document. So, some questions that I have may be answered in that document, I don't know, because I just got my hands on it. So I will love to hear that in audio format. We could ask them on the 24th, because for me, that's the most convenient way, being that I have to stop my work to do everything to get into these meetings. That's very crucial for me. I appreciate that.

Vice Chair Thayer responded that he understands the situation and thanked Mr. Griffin for his comments. Again, if you wish to email anything so we can respond to you directly, we can do that too.

Chair Lieutenant Governor Nancy Dahlstrom asked if anyone else wanted to share their comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Vice Chair Thayer asked Mr. Griffin if he had another comment. Mr. Griffin asked when the 130-page document was released to the public. He found it on Friday. Vice Chair Thayer responded you found it on social media as an attachment. It was released through the State of Alaska Public Notice System earlier in that week with proper notice. And then also, as previously stated, it's been an ever evolving document throughout the course of the summer and the fall.

Mr. Griffin responded that somebody sent it to me. I don't do social media. I just don't. I don't have a Facebook or whatever. But somebody did send it to me. They texted it to me as it's an

area I like to read about. But the final draft, the draft, I'll call it the final draft, which is the last draft I received that was released when? You said earlier this last week?

Vice Chair Thayer responded yes. It was done through the public notification system, and then we augmented it through social media. And it sounds like you received it through social media.

Mr. Griffin stated he received it through a third party. Actually, I got it through text message. Again, I don't have social media, but I just received it recently. And I'm just trying to figure out how much actual time was given to the public to review 130 pages. That's all. Just curious. Vice Chair Thayer stated that the report has been available in different formats for the last several weeks. But I don't know the version that you have in hand that was provided through text.

Chair Lieutenant Governor Nancy Dahlstrom asked if anyone else wanted to share their comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Ken Huckaba (ph) - Ms. Bertolini stated that Mr. Ken Huckaba (ph) has submitted some comments online, and I'm going to read them into the record.

1. There is a statement repeatedly made as an assumption that electrification lowers costs. Probe that supposition or remove it from the plan.
2. Why push to develop renewables on federal land and develop and not develop and produce oil and gas?
3. Why should the state be in the business of workforce training. If it's truly competitive and cheaper, wouldn't generating companies do this themselves?
4. There is an inaction item to identify burdensome regulation. Isn't this more burdensome regulation?
5. Is there a program to pay for the 70% of the generation that renewables can never make? Why should we adopt net metering to pay for renewable when they often make power when it's not needed?
6. Lastly, he states, does this establish authority over utilities and co-ops?

Chair Lieutenant Governor Nancy Dahlstrom stated that it's 3:30 p.m., and we don't have any hands raised. She asked the Subcommittee chairs if there's anything that you would like to report out. And if those of you who are online could also state the time and location of your next meeting.

State Energy Data - Chancellor White stated that he's happy to bring up that the subcommittee on data produced a report. We had a very broad group of stakeholders that was called the Technical Advisory Committee, which was led by Brittany Smart at the Alaska Center for Energy and Power. We came up with a SWOT analysis and a number of goals that we thought would

help the state in analyzing energy needs and the energy position of all of our locations. So I think there's a lot there and there's a lot of opportunity.

We don't currently have a next meeting scheduled. We'll respond as needed from the Energy Task Force overall. But I think a lot of very good work was done and a lot of stakeholders were involved in producing the SWOT analysis and the recommendations. And we appreciate the work of the task force and look forward to modifying or adjusting as appropriate. Thank you very much.

Chair Lieutenant Governor Nancy Dahlstrom thanked Chancellor White for his update. She asked Mr. Duff Mitchell for an update.

Coastal Generation, Distribution, and Storage - This is Duff Mitchell. I'm the co-chair of the Coastal Subcommittee. And I would just like to point out that the Coastal Subcommittee met numerous hours, took public testimony, listened, and listened well, incorporated public comments in our meetings into our recommendations, and feel like we've come together with some good recommendations for the coastal sections of our Alaska and our economies. Like Chancellor White said, we have October 20 scheduled as the next date. However, it's to primarily listen and take incorporation of the public comments forward and discuss those as they need to be discussed in relation to the Coastal Committee. So that's my report, Madam Chair. Thank you.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Mitchell and asked Karl Hanneman for an update.

Statutes and Regulations Reform - Karl Hanneman here for Statutes and Reg Subcommittee with Robert Venables. And we had a meeting today where we haven't taken public testimony in our work because we've primarily been looking at the recommendations of the other subcommittees. But we did seek input from Alaska Power Association, and we participated in several of the symposiums that gave different perspectives on a number of issues. So we have another meeting next Tuesday, October 17th, and look forward to wrapping up our work on schedule.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Hanneman for his update. And asked Tony Izzo for an update.

Railbelt Transmission, Generation, and Storage - Good afternoon, Lieutenant Governor. As co-chair of the Railbelt Subcommittee, pleased to report that we are in the process of fine-tuning our recommendations primarily in the areas of infrastructure meaning transmission generation and the diversification of fuel supply as well as economic development options to grow load, which will help spread costs and as a result reduce the cost of power.

We do not have meetings scheduled. As mentioned by Mr. Thayer, our meetings have been attended by a wide variety of people. All of them have been subject to the Open Meetings Act. We've received public input from a variety of stakeholders, including railbelt utilities, the Susitna River Coalition and others. Greatly appreciate that input. We're looking forward to this and the next scheduled public comment session, which will inform us in how we finalize those recommendations for our full Task Force meeting, I believe, on October 31.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Izzo and asked Clay Koplin for his update.

Rural Generation, Distribution, and Storage - This is Clay Koplin for the Rural Generation, Transmission, Distribution and Storage subcommittee with Co-chair Andrew Guy. We also had fairly good public participation and comments, and we did incorporate those into our strategies. I think some of the positive comments in today's public testimony reflected some of those items.

We do have one more Rural Subcommittee meeting this Thursday at 1:00 p.m. Primarily, there were a few expected outcomes that we hadn't populated in the matrix. So we're just putting some placeholders in there for discussion. And that should be our final meeting before the meetings of the Task Force as a whole in the next public testimony on October 24th. Thank you.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Koplin for his update. She stated that we have about 25 more minutes of time available for public testimony. But I'll go ahead and announce that our next meeting is going to be Tuesday, October the 24th, and we did hear the request that was made earlier by a few about the time of the meetings. And so we are going to adjust our time. And the meeting will be held Tuesday, October 24th from 5:00 to 06:00 p.m. for public testimony.

Some of us will be here in this room and anyone is welcome to come here, or you will be able to join the meeting by Teams and that dial in information will also be online.

Ken Huckaba (ph) - Ms. Bertolini stated that Mr. Ken Huckaba (ph) has submitted additional comments online, and I'm going to read them into the record.

1. How does hydrogen lower cost? It is eight times less efficient than just burning natural gas.
2. Who pays for distribution and infrastructure that does not exist?
3. What happens when the IIJA and IRA money runs out?
4. And lastly, everywhere renewable portfolios have been adopted, costs have gone up drastically. Will benchmarking on other programs be conducted?

Chair Lieutenant Governor Nancy Dahlstrom asked Clay Koplin if he had any additional questions or comments? He responded no additional questions or comments at this time. I was glad to see fairly good public participation and glad that there's a second opportunity on October 24th for people to review materials and as Curtis pointed out, opportunities to post testimony online through the email address, their written comments, and to prepare for that second bite at the apple on the 24th. Thank you to all the committees for their many, many volunteer hours of work on this project.

Vice Chair Thayer commented that he was looking at his notes and realized that the Rail Belt does have a subcommittee meeting scheduled for Tuesday, October 17th from 1:00 to 3:00 p.m., which is publicly noticed. And it will be available through Teams. So we do have that one coming up.

Chair Lieutenant Governor Nancy Dahlstrom asked if anyone else wanted to share their comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Chair Lieutenant Governor Nancy Dahlstrom recognized Mr. Matt Jackson.

Matt Jackson - My name is Matt Jackson of Sitka, Alaska. I'm here to comment mostly on Action B 2.1 about the Alaska/Federal Energy Renewable Policy Task Force to coordinate plans between the state and the federal government. I think this is a noteworthy goal to try and coordinate between the state and the federal for the purposes of developing renewable energy. I think that's a very worthwhile goal.

There are two points that I wanted to make, though. In the background opening paragraph, it states that some of America's highest cost energy communities are in the Tongass and Chugach national forests. I feel that's a little bit of a disingenuous statement because some of the United States's cheapest energy also comes from communities within the Tongass National Forest, for example, in Sitka, where I live, or in Juneau or elsewhere. And there's even more expensive energy coming in other parts of the state in western and northern Alaska. So it's clearly not the Tongass that is the problem. It's just simply the geography of remote villages, and that extreme circumstances, even more extreme in other regions that are not surrounded by national forests. So that background, I just simply don't think that's an accurate or useful statement.

As far as how we get there, there was an action item. I'm scrolling through the plan now regarding a federal seek and negotiate obtained through agreement or federal legislation a renewable energy land use designation and transmission line land use designation or what overlay on the Tongass and National Forest Land Use Management plan. If I didn't mention it in my introduction. I work for the Southeast Alaska Conservation Council, and we've done a lot, a lot, a lot of work on national forest plans. And to propose a new renewable energy land use

designation (LUD) for the National Forest is, in my mind, a little redundant with the municipal watershed LUD that already exists. So I don't see a strong need to create a whole new type of LUD when municipal watershed LUDs already exist.

If there's a project that a community or utility wants to develop, there's an existing mechanism for doing so. The Tongass National Forest, also in their current LUD map, already has existing and proposed transmission lines shown on their west, including even pretty intensive, I might say almost radical ideas like a proposed transmission line going from Sitka to Angoon, which is almost certainly not going to happen for economic reasons.

So again, creating a new transmission line LUD is unnecessary. It would also have the effect of fracturing other LUDs because transmission lines are narrow, linear things. They don't have the same shape as other land use designations. So it would kind of just throw a wrench in the whole LUD map making process to have these narrow, skinny LUDS dividing up all the other LUDs. It's kind of impractical.

And the final comment I had was just on the idea that these two proposed LUDs would have priority over all other LUDs. That's just unworkable. Even if these two types of LUDs were good ideas, the idea that they would have priority over all other land uses is just not a reasonable, balanced approach to land management or land use planning. That being said, I don't particularly think those two LUDs are even good ideas to begin with. But even if we did get that far, to propose that they have priority over all other land uses does not seem wise to me.

I guess a final procedural point would be that I actually didn't know that this meeting was happening until about 15 minutes ago. And I intend to provide some more detailed comments on the rest of the plan at your October 24th meeting. But I would love to see better notice, more public notice, more lead time and more opportunity for public comment on such an important document as this energy plan, which, in the short time I've been able to skim the plan looks mostly fantastic. I'm very excited, I'm very grateful that you all are working on this. The state obviously needs a lot of investment in planning it's renewable energy and energy security. So thank you for all that work. I just want to make sure the public has time to digest it and make it as good as it can be. So thank you for this opportunity.

Chair Lieutenant Governor Nancy Dahlstrom thanked Mr. Jackson for his comments. We appreciate them. She announced that we have seven minutes remaining, if there are any other public comments. Hearing none, we will mute the microphone until someone joins us and wants to speak.

Chair Lieutenant Governor Nancy Dahlstrom stated that it is 4:00 p.m. We are going to end this session of the Energy Task Force public comment. We appreciate all those who called in and gave their testimony today.

4. **Next Meeting Date - Tuesday, October 24, 2023, 5:00 p.m. via Teams**

Chair Lieutenant Governor Nancy Dahlstrom announced again that our next meeting is going to be Tuesday, October 24, from 5:00 until 06:00 p.m. for public comment on the draft energy plan.

Please look on the website for the mailing address if you wish to send written comments and for the address of our meeting location if you would like to attend in person on the 24th. Also on the website is the Teams link, if you would like to call in. We look forward to hearing from folks.

5. **Adjourn**

There being no further business of the Task Force, the Alaska Energy Security Task Force meeting adjourned at 4:00 p.m.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #11, PUBLIC TESTIMONY MEETING
TUESDAY, OCTOBER 24, 2023, 5:00 PM – 6:00 PM

STATUS: Active

Alaska Energy Security Task Force Statewide Energy Plan Public Testimony

Alaska Energy Security Task Force Statewide Energy Report
Public Testimony
October 10, 2023, 2:00 p,m. - 4:00 p.m., and
October 24, 2023, 5:00 p.m. - 6:00 p.m.

Notice is hereby given that the Alaska Energy Security Task Force will hold a public meeting on October 10, 2023, 2:00 p.m. – 4:00 p.m., and on October 24, 2023, 5:00 p.m.

On October 10, 2023, The Alaska Energy Security Task Force will convene at 2:00 pm to solicit public testimony on the DRAFT Alaska Energy Security Task Force Report and continue in session until 4:00 p.m.

On October 24, 2023, the Alaska Energy Security Task Force will again convene at 5:00 p.m. to solicit public testimony on the DRAFT Alaska Energy Security Task Force Report and continue in session until 6:00 p.m.

The Task Force Public Testimony Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 West Northern Lights Blvd.
Anchorage, AK 99503

To participate, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 288 316 961 77
Passcode: 7J9hun

Download Teams | Join on the web

Or call in (audio only)

+1 907-313-5807,,576325260# United States, Anchorage

Phone Conference ID: 576 325 260#

Find a local number | Reset PIN

Learn More | Meeting options

Written comments may also be sent to info@akenergysecuritytaskforce.com .

The DRAFT Report is available below, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force.

The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modification to participate should contact 907-771-3074 to make arrangements.

Attachments, History, Details

Attachments

Alaska_Statewide_Energy_Master_Plan_Draft _100223 (1).pdf

Revision History

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, October 24, 2023
5:00 pm

Teams Meeting:

Click here to join the meeting
Meeting ID: 288 316 961 77
Passcode: 7J9hun

Agenda

1. Welcome and Introductions
2. Roll Call
3. Public Comments
    a. Limited to 3 minutes per person
    b. Written comments can also be submitted to info@akenergysecuritytaskforce.com until 4 pm on Oct. 24, 2023
4. Next Meeting Date – Tuesday, October 31, 2023, 9:00 am
5. Adjourn

Alaska Energy Security Task Force Meeting
October 3, 2023

Draft Sections of Statewide Energy Master Plan related to Priorities, Strategies and Actions

Handout Includes:

Section 4 - Energy Priorities

- Priority A – Railbelt Transmission, Generation, and Storage
- Priority B – Coastal Generation, Distribution, and Storage
- Priority C – Rural Generation, Distribution, and Storage
- Priority D – State Energy Data
- Priority E – Incentives and Subsidies
- Priority F – Statutes and Regulations

Appendix II – Action Tracking Sheet

Appendix III – Additional Action Detail Summary

Note: This is a draft, deliberative document for discussion purposes only. The preliminary action recommendations contained in this document have not been officially endorsed by the Alaska Energy Security Task Force at this time.

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STATE OF ALASKA
STATEWIDE ENERGY
MASTER PLAN
OCTOBER 2023

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- Priority E. Incentives and Subsidies
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Section 5. Next Steps

Appendices

- Appendix I. Definitions
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SECTION IV.

ENERGY PRIORITIES





This section is divided into the following Energy Priorities:

Priority A. Railbelt Transmission, Generation, and Storage

Priority B. Coastal Generation, Distribution, and Storage

Priority C. Rural Generation, Distribution, and Storage

Priority D. State Energy Data

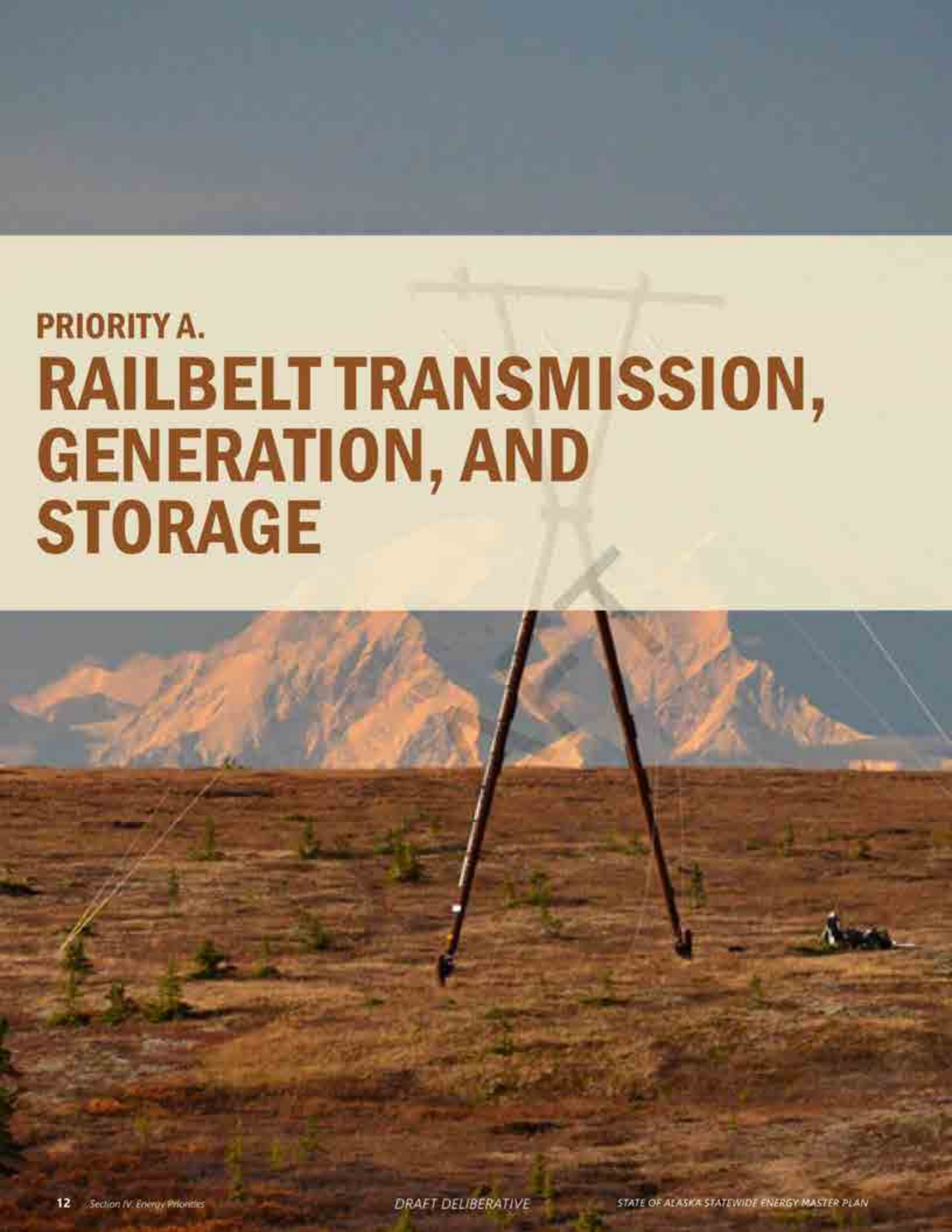
Priority E. Incentives and Subsidies

Priority F. Statutes and Regulations

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PRIORITY A.

RAILBELT TRANSMISSION, GENERATION, AND STORAGE





INTRODUCTION

The Railbelt Generation, Transmission, and Storage (RGTS) Priority of the Alaska Energy Security Task Force was created to develop an energy plan that will move the Railbelt towards energy independence while lowering the cost to its residents over the long-term. In order to complete this plan, it was important to understand the current state of our energy portfolio. Since Statehood, the Railbelt utilities and their customers have benefited from the significant natural gas finds in the Cook Inlet. Over time, this basin has supported approximately 80% of the power generation, and a majority of the population hubs' space and water heating needs.

In order to develop our recommended plan, the RGTS determined the most efficient approach would be to establish long-term, mid-term, and short-term goals that reflect our desired outcomes here along the Railbelt. Here are the recommended goals:

- Short-term: Minimize regret cost while providing reliable service.
- Mid-term: Invest in infrastructure improvements to advance our long-term goal of energy diversification.
- Long-term: Significantly diversify power generation with an emphasis on local, reliable, and affordable clean energy.

The RGTS was motivated to seek transformational approaches to reach these goals that might provide electrical energy to residents at a target price of $0.10/kwh in the future. The RGTS reviewed numerous generation and transmission configurations and strategies from publicly available data but did not complete independent or internal cost estimates in developing action items and our strategy. The following Railbelt strategies and recommended action items are meant to support these high level goals.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

B-1 Unify Transmission

B-2 Diversify Generation

B-3 Increase Demand

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STRATEGY A-1:
Unify Transmission

ACTIONS

A-1.1 Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.



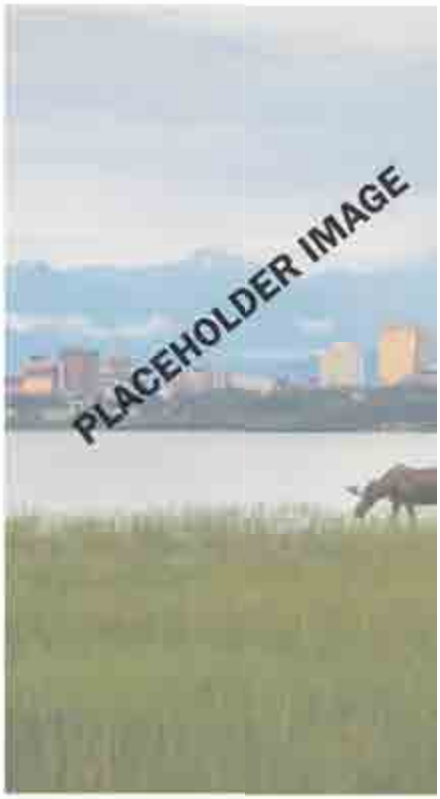
Purpose:
Accelerate upgrades to existing transmission from Bradley Lake to Fairbanks via Anchorage, and construct a second transmission line from Soldotna to Healy via Beluga enabling the long-term goals of improved resilience, reliability, and transfer capability between regions. This action would include unified ownership of the Railbelt transmission system and would minimize constraints on the system. Proceeds from the utility sales would help reduce debt owned by the utilities, eliminate wheeling charges, and create a postage stamp rate from Bradley to Fairbanks, thereby eliminating multiple tariffs in favor of one simplified tariff. Unified operation will lower system operating costs (rates), enable quicker interconnection of new generation sources, and reduce time to plan and construct new system components.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility

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and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

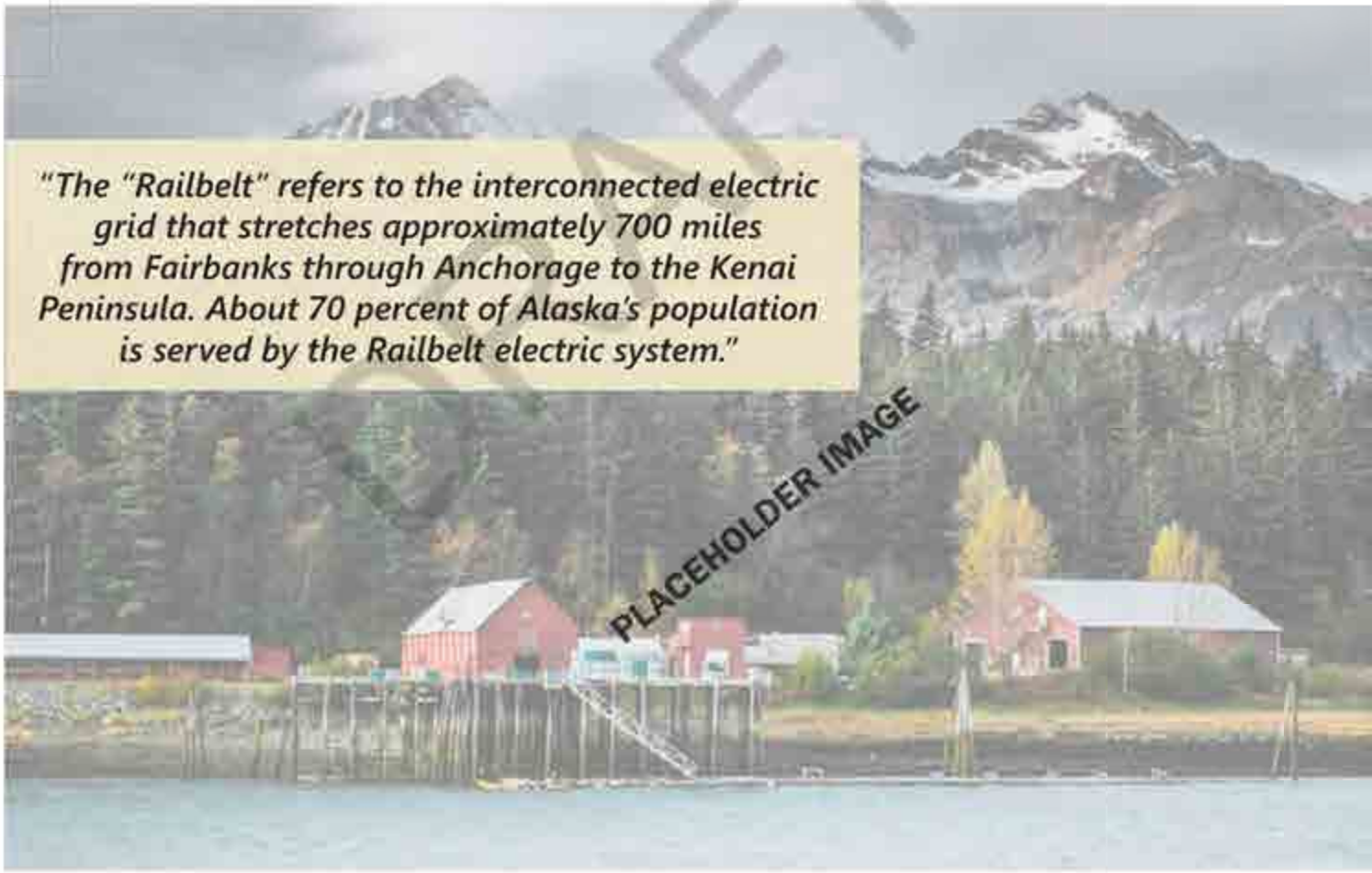


Benefits:

- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

Expected Results:

This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.



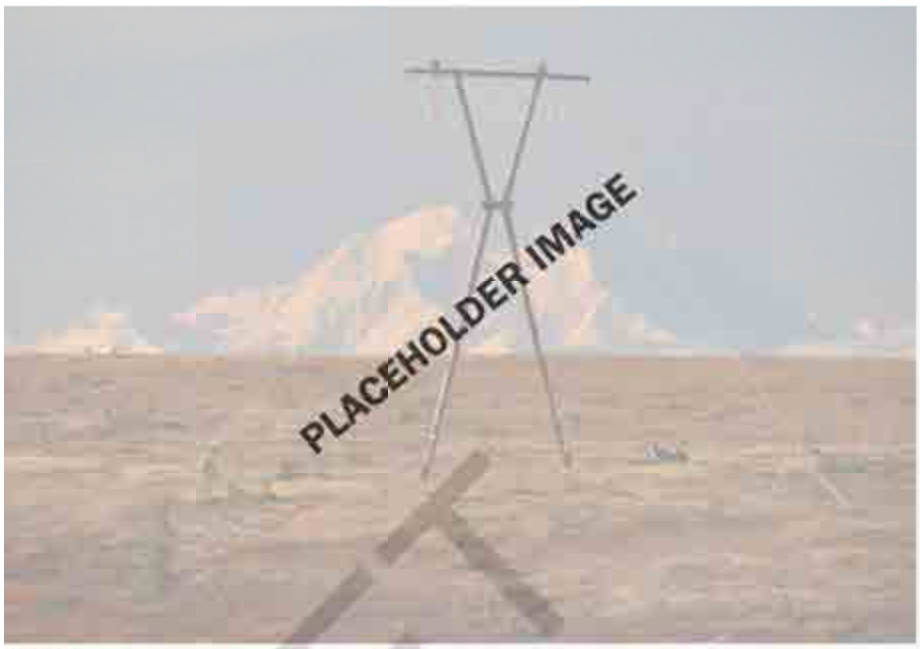
STRATEGY A-2:
Diversify Generation

ACTIONS

A-2.1 Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.

A-2.2 Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.

A-2.3 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision
- Dixon Diversion
- Susitna-Watana
- AKLNG



Location

Purpose:
Encourage and coordinate the diversification of Railbelt generation assets through projects and policy that provide opportunities to maximize energy cost savings.

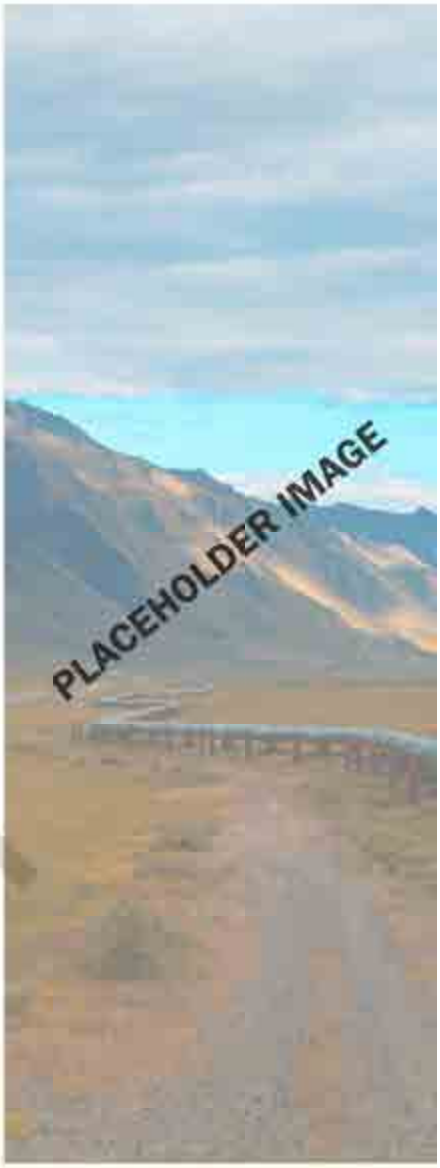
Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

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To enable this strategy the Railbelt Subcommittee supports the state adopting a Clean Energy Standard which would set electricity diversification goals. These goals should be supported with incentives rather than penalties to ensure affordable, reliable power is delivered to rate- payers. The Railbelt Subcommittee also recommends modifying state statutes to provide the Regulatory Commission of Alaska (RCA) the ability to value generation diversification (in addition to price) when reviewing and approving contracts.

The Railbelt Subcommittee did not complete comprehensive analysis or cost estimates for potential generation projects and ultimately all technologies should compete to bring the most affordable, diverse, reliable energy to the Railbelt. That said, there are projects which have previously been proposed or are currently being worked and the Subcommittee supports taking these projects through feasibility such that a "go/no-go" decision can be made. Alaska has several projects in various stages of development and permitting that could provide diversified renewable and clean power generation for Railbelt utilities including the Dixon Diversion project at Bradley Lake, and the potential mega-project at Susitna-Watana. Additionally, the Alaska LNG (AKLNG) project has the potential to open vast quantities of trapped North Slope natural gas for uses across the interior and south-central Alaska. The AKLNG is strategic in that it provides a local gas supply for heat and electricity base load for generations to come.



Benefits:
How can Alaskans encourage and promote diversification of power generation in the Railbelt and across Alaska to foster transition to reneable and clean energy generation sources to provide reliable, low cost energy for Alaskans.

Expected Results:
Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for Railbelt rate payers.

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STRATEGY A-3:
Increase Demand

ACTIONS

A-3.1 Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).



Purpose:
Significantly increase load to drive down energy rates.

Background:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

Benefits:
Incentivizing and attracting large industry customers to Alaska's Railbelt to increase electricity production demand, following a similar model to Iceland, could help lower the cost per- kWh for all Railbelt customers.

Expected Results:
The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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PLACEHOLDER IMAGE



PRIORITY B.

COASTAL GENERATION, DISTRIBUTION, AND STORAGE



INTRODUCTION

The Coastal Generation, Distribution, and Storage Priority includes strategies and actions that support the overall Alaska Energy Security Task Force goal of identifying opportunities to lower the cost of energy in Alaska for Alaskans. The Coastal Subcommittee settled on four high-level strategies supported by twelve specific action recommendations focused on lowering energy costs for Alaskans living in coastal areas of the state. Strategies recommend Alaska and Federal policy updates to allow streamlined project identification, planning, funding/financing and permitting. The Market Initiatives strategy seeks to maximize use of existing energy generation and transmission assets and promote new renewable energy assets to lower energy costs for Alaskans and their industries. Finally, as hydro-power is one of the primary sources of energy generation for many coastal Alaskan communities, the Alaska Hydropower strategy recommends enhancing Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- B-1 Alaska Policy Recommendations
- B-2 State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations
- B-3 Alaska Hydropower Generation Recommendations
- B-4 Alaska Market Initiatives

STRATEGY B-1:
Alaska Policy Recommendations

ACTIONS

B-1.1 Establish, require, assist, and Implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.

B-1.2 Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.

B-1.3 Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.



Purpose:
Enhance Alaska's departmental and regulatory policies to spur and sustain renewable energy and transmission development to cut energy costs and advance economic prosperity for Alaska.

Background:
Alaska policies, while unintended, can prevent, stall, or, in some cases, prohibit the permitting and necessary governmental authorizations to timely and optimally develop and advance renewable energy and transmission assets required to move Alaska forward from a developing state status to a first-world energy state that Alaskans deserve. While there is not one solution, the Administration can take many internal steps and actions to create a unity of effort among State agencies with disparate missions and objectives. An overarching Energy Plan that directionally provides State agencies the authority and motivation to help the Governor successfully implement that State Energy Plan and achieve recommended action is doable with a coordinated effort.

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Alaska can transcend policies that have been focused on the past or regulatory mission and should directionally (as opposed to aspirational) incorporate the Governor's directives to implement the State Energy Plan in concert with regulatory balance, protecting our environment while streamlining processes, procedures and producing results to lower the cost of energy for Alaskans. Regardless of whether the policy directive is called a "unity of purpose and effort" or an all-hands-on-deck policy, Alaskans are better served through introspection of how we can and should do better, with concentrated and collective efforts to do better in serving Alaskans achieve lower cost energy now and for future generations.

Benefits:
The proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans with administrative purpose and collective effort to find and exploit synergies to lower the energy cost for Alaskans in concert with Departmental missions and goals.

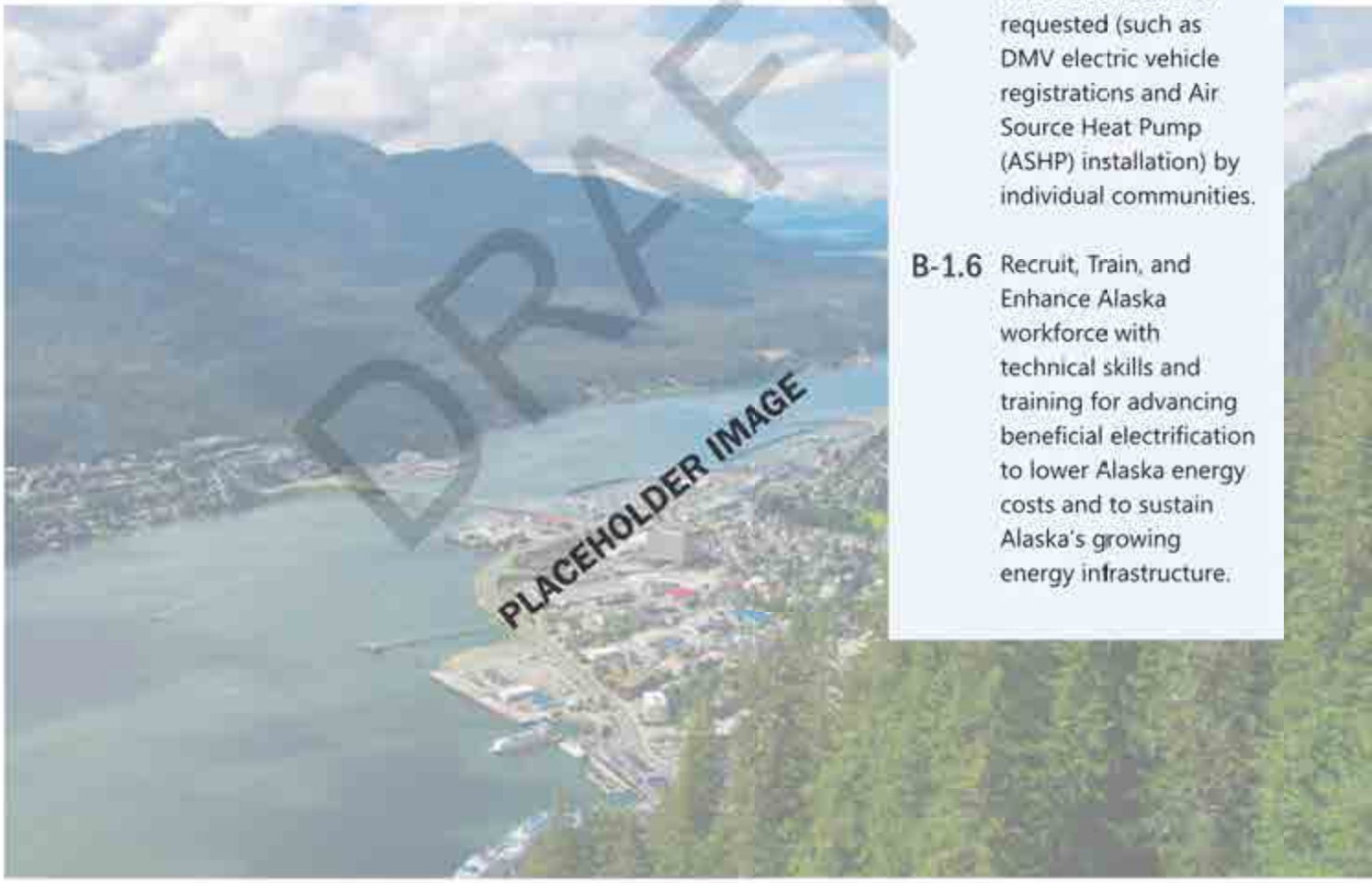
Expected results:
Strategically planned and matured by the Administration and AEA of the Task Force Alaska Policy Recommendations combined with efficient and well thought out implementation focused on light Integrated Resource Planning, reducing State of Alaska barriers and bottlenecks, optimizing federal funding for the strategic achievement of goals, tactical and practical implementation of can do, how we get to "yes" policies will reduce the cost of power for Alaskans today and leave an energy legacy for generations of Alaskans to follow.

ACTIONS (CONT.)

B-1.4 Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.

B-1.5 Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

B-1.6 Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.



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STRATEGY B-2:
State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations

ACTIONS

B-2.1 Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.

B-2.2 State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.



Purpose:
Refine federal policy to bolster Alaska's renewable energy and support tribes in securing affordable energy. Directionally (as opposed to aspirationally) advance Alaska's Energy Plan priorities to promote and develop renewable energy generation and transmission assets through negotiating and influencing federal agencies for proactive federal energy development policy modifications and revisions and to collaborate and assist Alaska's federally recognized tribes in obtaining lower cost energy in Alaska.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a

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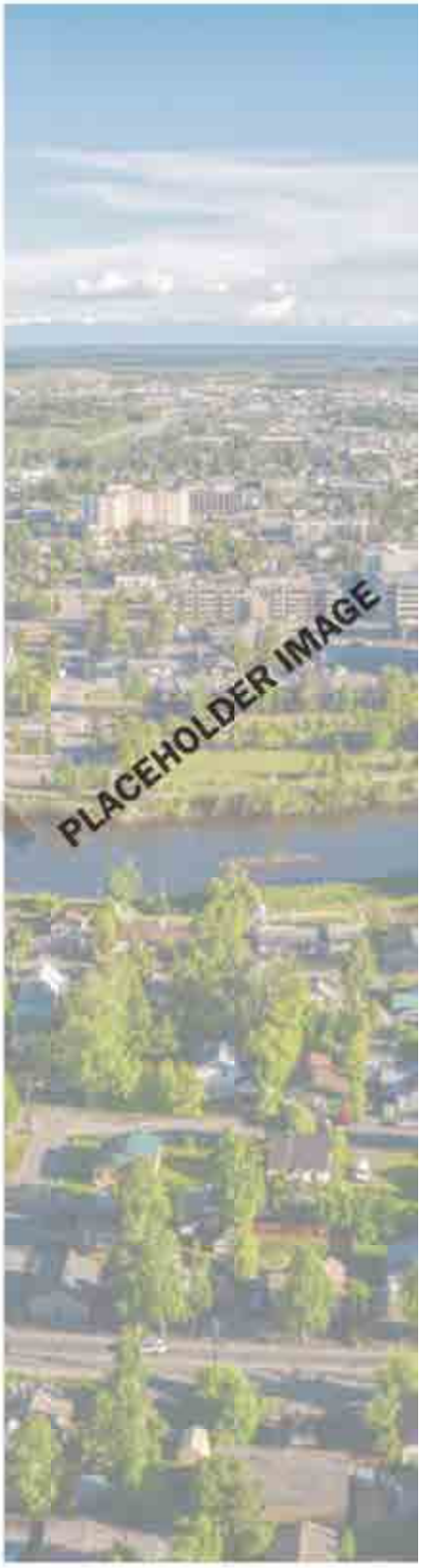
bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Coastal Alaska communities also want to lower energy, heating, and transportation costs. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources mutually beneficial to the State of Alaska's interests. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Additionally, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By coordinating and collaborating, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint party effort can enhance the creation, sharing, and use of energy across the State.

Benefits:
The development of state policies and goals to negotiate and carry out with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding the proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans lower cost energy.

The State of Alaska and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans in our Alaskan communities. By identifying and sharing information, plans, and initiatives and establishing a framework to advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska and Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

Expected Results:
The State of Alaska, with careful and planned implementation of these recommendations, can gain common ground with federal agencies and tribes and advance and promote Alaska's renewable energy development with cooperation and support from the federal government and Alaska's 229 federally recognized tribes to achieve national purposes while reducing the energy cost of Alaskans. The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska.



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STRATEGY B-3:
Alaska Hydropower Generation Recommendations

ACTIONS

B-3.1 Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.



Purpose:
Enhance Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security that Alaskans deserve and expect.

Background:
The foundation of Alaska's most cost-effective and affordable energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. There is no cheaper energy form in Alaska than old hydropower, and Alaska cannot achieve old hydropower without proactively supporting and investing in new hydropower. Hydropower is a tried and proven Alaska energy resource, and with proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once financing debt is paid, the hydropower project yields consistent, sustainable, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and economic prosperity well into the future.

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Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

In Alaska and across the US, the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as US hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined —leverage Alaska to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.



Benefits:
Hydropower in Alaska is not just an energy source; it is Alaska's energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure and related transmission, Alaska is not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and reaping energy dividends for future generations with sustainable, clean energy. Investing in hydropower assets is our Alaska commitment to Alaska's proven energy model for a brighter, more affordable, energy-secure future for Alaska.

Implementation Timeline:
The Alaska Generation Strategy for fostering hydropower has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.

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STRATEGY B-4:
Alaska Market Initiatives

ACTIONS

B-4.1 Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

B-4.2 Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

B-4.3 Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.

B-4.4 Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs.



Purpose:
Maximize utilization of existing energy generation and transmission and promote new renewable energy assets to lower energy costs for Alaskans and their industries through market initiatives and expansion.

Background:
Energy generation and transmission assets, like power plants and electricity distribution grids, have significant upfront costs. For these assets to be cost-effective and viable, they need to be built at a particular scale, benefiting from what is known as "economies of scale," the more significant the operation, the more cost-effective it becomes per unit of energy produced or transmitted. Market initiative and expansion of electricity is known as beneficial electrification. "Beneficial Electrification" refers to replacing direct fossil fuel use for heating and transportation with electricity to reduce overall emissions and energy costs while simultaneously delivering broader environmental and societal benefits. The primary aim is to shift end-use energy sources to cleaner, renewable electricity sources.

Energy Generation and Transmission assets require minimally sufficient economies of scale to enable minimum viable generation projects and transmission to be built or expanded. Expanding energy markets through market initiatives that serve multiple goals... creates sufficient economies of scale to lower energy costs through demand creation for critical energy

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generation and transmission assets, thereby increasing affordability, reliability, energy security, and grid resilience that reduce the cost of energy through displacement of higher cost fuel sources and by creating new energy demand. These market initiatives also create family-wage-sustaining jobs in Alaska.

Benefits:
The proposed market initiatives create multiple economic and societal benefits while providing Alaskans lower cost energy.

Implementation Timeline:
The Alaska Market Initiative Action Items have a range of planning, development, financing, implementation, and operation implementation timelines extending from the immediate to the long-term horizon for Alaska's Energy Plan.

Expected Results:
Strategically planned market initiative actions with tactical implementation focused on fully utilizing generation and transmission current and future assets will optimize State Alaska's Energy plan to lower Alaskans' energy costs (electric, heating, transportation).

ACTIONS (CONT.)

B-4.5 Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.



PRIORITY C.

RURAL GENERATION, DISTRIBUTION, AND STORAGE





INTRODUCTION

The vast majority of Alaska's rural communities have significantly higher cost of energy than more urbanized areas. This is primarily due to remote village locations having to rely on diesel powered generators supplying power for individual villages. The cost to purchase, transport and store diesel fuel drives these higher energy generation costs. The Rural Subcommittee identified five strategies target opportunities to help lower the cost of energy generation in rural Alaska. Increased access to capital and infrastructure investments by the state and federal government are two of these strategies. Lowering operational costs of existing energy generation also provide actions to pursue. The previous three strategies can be supported by increasing economies of scale, either by connecting communities or attracting industrial partners to increase demand, and better decision making concerning energy generation, storage, distribution based on access to better data is the final rural subcommittee strategy. Alaska's rural residents deserve access to clean, affordable, lower cost energy; these strategies are aimed to move the state in this direction.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- C-1 Increase Capital Availability
- C-2 Infrastructure Investment
- C-3 Lower Operational Costs
- C-4 Improve Economies of Scale
- C-5 Improve Data-Driven Decision Making

STRATEGY C-1:
Increase Capital Availability

ACTIONS

C-1.1 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-1.2 Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.

C-1.3 State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.



Purpose:
Increase access to capital to provide additional funding/finance for project and infrastructure construction.

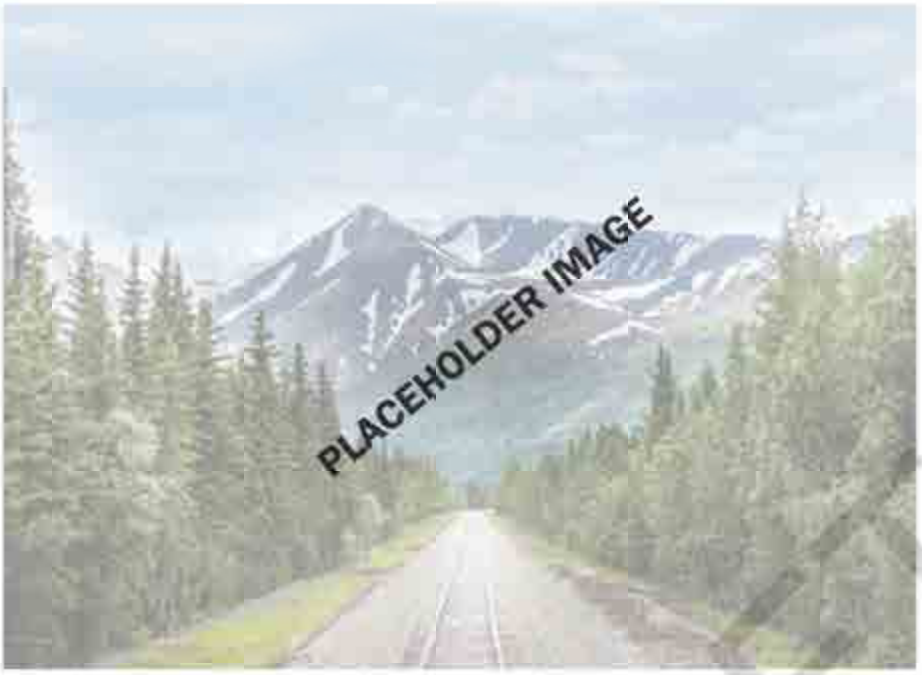
Background:
Small communities and developing regions to not have the economy required to generate the capital needed to build energy projects – e.g. hydro, SMR, transmission infrastructure

Benefits:
Alaskans need to reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:
Sufficient investment in energy projects/infrastructure to reduce the cost of energy in rural Alaska.

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STRATEGY C-2:
Infrastructure Investment



Purpose:
Support existing infrastructure and add new infrastructure to provide Alaskans with reliable energy at reduced cost.

Background:
Replace aging and inefficient infrastructure to improve reliability and affordability. Invest in new infrastructure related to the production and transmittal of power to rural Alaska in conjunction with transportation and broadband infrastructure.

Benefits:
Make regionally connected infrastructure investments that improve reliability and affordability in rural Alaska.

Expected Results:
Investment in connected regional infrastructure for the community needs that lead to the most affordable and reliable energy which would in turn improve public health, welfare, and socio-economic conditions in rural Alaska.

ACTIONS

C-2.1 Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.

C-2.2 Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.

C-2.3 Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.

C-2.4 IInvest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.

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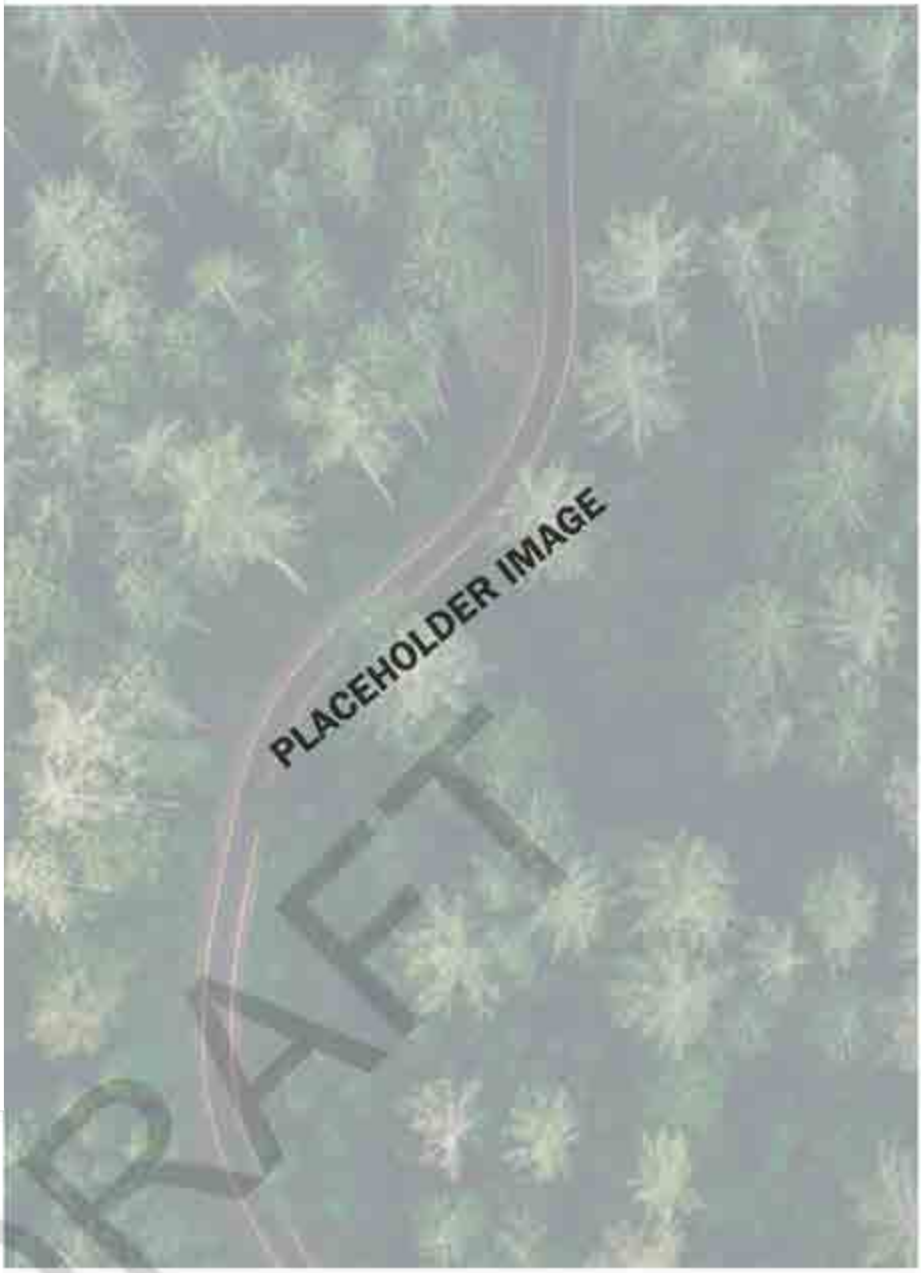
ACTIONS (CONT.)

C-2.5 Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

C-2.6 Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.

C-2.7 Invest in expanding the grid in rural areas.

C-2.8 Evaluate micronuclear and other emerging/ underutilized technologies throughout the State of Alaska.



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STRATEGY C-3:
Lower Operational Costs



Purpose:
Lower operational costs of power/electricity in rural Alaskan villages.

Background:
There is a need to lower operational costs to produce energy in rural Alaska. This can be done by increasing technical assistance in rural communities; lower maintenance costs; improve work force development opportunities for rural community residents; improve or develop transportation infrastructure beyond upgrading rural airports. Connecting rural communities to existing transmission/electric grids may be another option to lower operational costs.

Benefits:
Reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:

ACTIONS

C-3.1 Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production

C-3.2 Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.

C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.

C-3.4 Grid modernization and automation

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STRATEGY C-4:
Improve Economies of Scale

ACTIONS

C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.

C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.

C-4.3 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-4.4 Identify and complete a regional pilot project to demonstrate economies of scale.

C-4.5 Invest in rural beneficial electrification.



Purpose:
Reduce the cost of power and Improve reliability

Background:
By increasing the sale of power against fixed cost we can reduce the price per KWH.

Benefits:
Adequate access to reliable energy at lower cost to improve public health and welfare. Grow rural economies.

Expected Results:
Connect communities to each other and anchor tenants to improve the reliability and reduce the cost of energy which would in turn support public health and welfare and grow rural economies.

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STRATEGY C-5:
Improve Data-Driven Decision Making



Purpose:
Improve access to relevant data necessary to make informed value decisions related to energy generation, distribution, transimission and storage in rural Alaskan villages.

Background:
Legacy data collection processes have resulted in limited or incomplete data concerning Alaska's energy system, especially in rural Alaska. Current data analytic processes, provide an opportunity to improve baseline data access, processing, and archiving. There is no overarching data custodian within that state that collects, manages, and archives data necessary to plan, design and construct energy infrastructure in rural Alaska. This includes critical local knowledge provided by village residents.

Benefits:
Provide better economic outcomes, longterm cost/benefit analysis for rural Alaskan communities related to energy infrastructure.

Expected Results:

ACTIONS

C-5.1 Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.

C-5.2 Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects

C-5.3 Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions.

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PRIORITY D.

STATE ENERGY DATA



INTRODUCTION

There are literally terabytes of energy data available in the State of Alaska. Currently this data is not centrally located or managed. The Data Subcommittee created a Technical Advisory committee to help them identify and clarify four strategies intended to help the state better collect, manage, and analyze energy data. Four strategies came from this effort. The first recommended Establishing a Data Department within the Alaska Energy Authority to oversee management of Alaska's energy data. Second, Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access identifies the need for establishment of industry standard data governance protocols by an established data governance committee. The third strategy points to needed funding with the establishment of the above organizations, and the final strategy, Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation, focuses on validating and improving existing energy data, and collecting additional needed data to aid in future energy decision making.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- **D-1** Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary
- **D-2** Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access
- **D-3** Fund data capacity
- **D-4** Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation

STRATEGY D-1:
Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary

ACTIONS

D-1.1 Institute or update statutory requirements for AEA Data Department.

D-1.2 Fund, develop, and implement a technical and needs assessment.

D-1.3 Fund, develop, and implement a capital asset plan.

D-1.4 Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.

D-1.5 Appropriately staff the department based on the technical and needs assessment



Purpose:
To staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

Background:
While a substantial amount of valuable energy data exists in aggregate, they are often inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Existing data needs are thus being met by implementing unsustainable, short-term solutions such as adding additional responsibilities to existing staff, which often results in delays or needs going unmet.

The Alaska Energy Authority is the state's energy office and lead agency for statewide energy policy and program development.

Benefits:
This recommendation prioritizes, centralizes, and focuses the importance of energy data management in order to ensure the consistency and accessibility of energy data so it can better inform decision-making efforts on energy projects, program, and policy development. Housing a Data Department in AEA will ensure consistency and sustainability of state energy data management.

Expected Results:
The provision of consistent and accessible data further enabling data-informed decision-making on energy projects and policy across the state. Increased consistency of state data assets.

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STRATEGY D-2:

Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access



Purpose:
Ensure that collection, quality, storage, use of, and access to electric, heat, and transportation energy data in Alaska meets industry standards, current protocols, and best practices.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Security of, and ability to access, energy data are major concerns for public and private data users alike. The willingness to share, and the extent to which that data is shared, is significantly limited by concerns from such data providers regarding security, access, and usage.

Benefits:
Data-informed decision making is only as valid as the data on which the decision is based. The collection, quality, storage, use of, and access to energy data in Alaska should align with those industry best practices, standards, and current protocols so that all decisions are based on accurate and secure data.

Expected Results:
Energy data in Alaska meets and conforms with industry standards, protocols, and best practices. Increased participation of energy data stakeholders and end-users.

ACTIONS

D-2.1 Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.

D-2.2 Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.

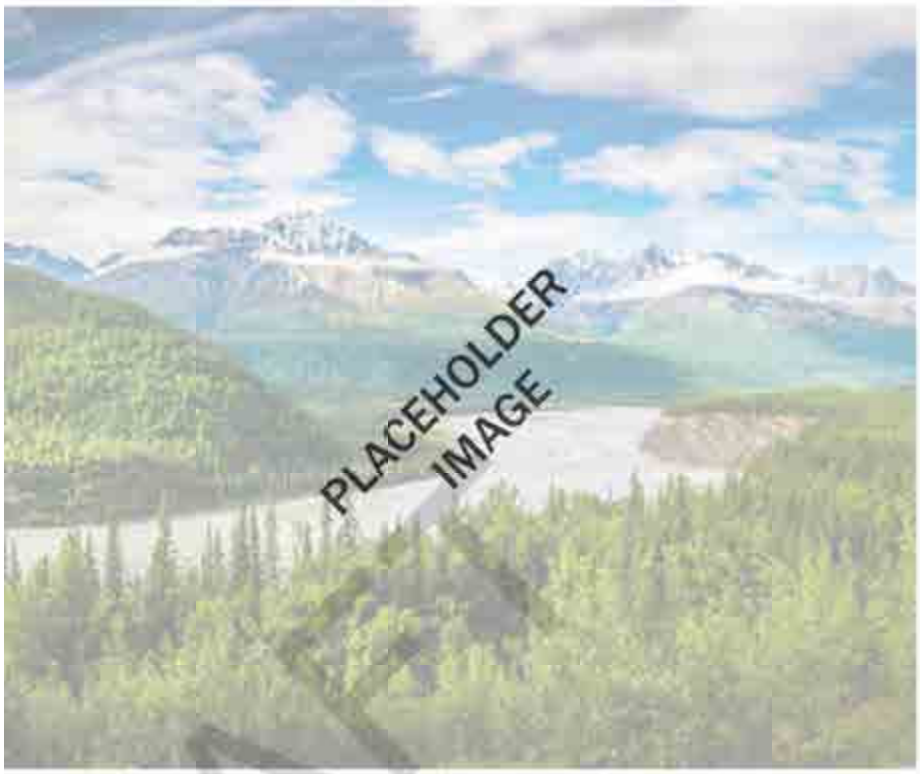
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STRATEGY D-3:
Fund data capacity

ACTIONS

D-3.1 Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.

D-3.2 Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis.



Purpose:
Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department

Background:
MMany of the ongoing data-related efforts across State agencies are borne by individuals whose duties and responsibilities are not primarily data-focused.

Benefits:
Establishing positions within State agencies whose primary duties and responsibilities are focused on data-related activities/initiatives, using statutes as necessary.

Expected Results:
Increased collaboration, reduced duplication of efforts, ease of data access, and better-informed decision making.

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STRATEGY D-4:
Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation



Purpose:
Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what form and character of data is and would be needed for data-informed decision making.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Thermal and transportation datasets are found to be lacking. The term "Energy Data" has historically been limited to electricity data, meaning there are significant gaps in thermal and transportation energy data.

Benefits:
Expand the definition of "Energy Data" and those existing, to-be-compiled, and to-be-created underlying datasets to include thermal and transportation data to better capture the dynamic and interrelated nature of energy use in Alaska.

Expected Results:
More all-encompassing and informed decision-making for energy projects and policies in Alaska, across electric, heat, and transportation sectors.

ACTIONS

D-4.1 Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.

D-4.2 Revitalize, fund, and maintain energy data platforms and services so as to ensure the long-term availability and accessibility of data.

D-4.3 Conduct a data audit of the Regulatory Commission of Alaska (RCA) to include recommendations.

D-4.4 Expand the Power Cost Equalization (PCE) report and the extent of such data reported.

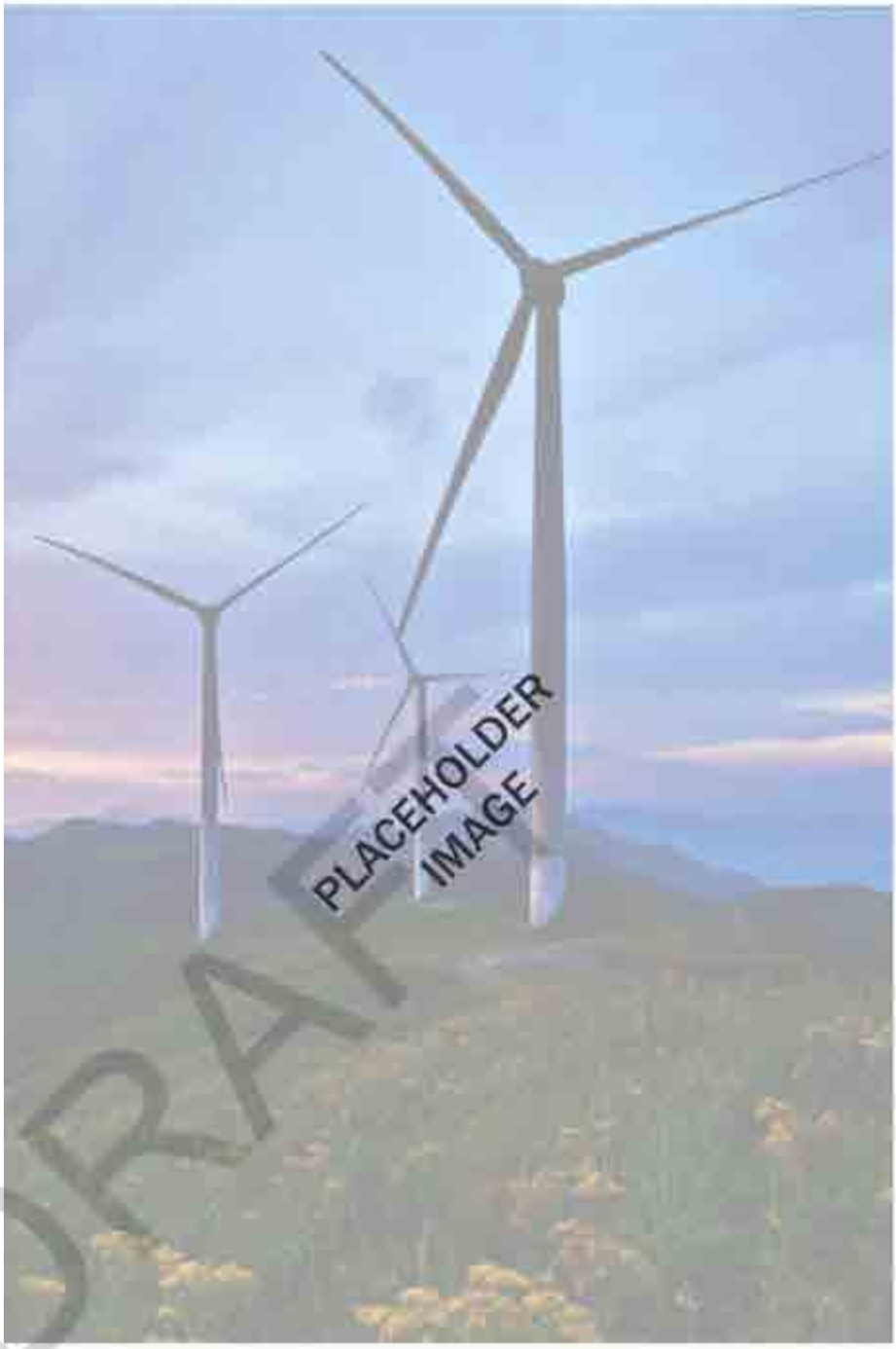
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ACTIONS (CONT.)

D-4.5 Expand the definition of "energy data" by adopting the TAC definition, ensuring the definition is inclusive of heat/thermal and transportation fuel data.

D-4.6 Understand how heating and transportation fuel is delivered and used.

D-4.7 Re-establish annual updates to the Alaska Energy Statistics report.



PLACEHOLDER CALL OUT BOX

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PLACEHOLDER
IMAGE

PRIORITY E.

INCENTIVES AND SUBSIDIES



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INTRODUCTION

The Incentives and Subsidies subcommittee settled on three themes and created seven strategies to support securing affordable energy in Alaska. The first theme relates to strategies and actions that incentivize private sector investment. These strategies include Decrease Barriers to Private Sector Investment, Improve Economies of Project Development, and Respond to and implement evolving Energy Business Models. The second theme is oriented to state and federal policy and law that could be modified to support and accelerate investment in energy generation, transmission, and storage in Alaska. These strategies include Strengthen State-Federal Coordination and Investment, Evaluate and implement State policy, tax, and other incentives, and Increase State programmatic investments. Finally, the Incentives subcommittee acknowledges the need to continue existing subsidies offered by the state while some of the previous strategies are implemented. The final theme and strategy includes, Maintaining Residential subsidy focused on equity, while reducing the need across communities.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

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STRATEGIES:

- E-1 Strengthen state-federal coordination and investment
- E-2 Decrease barriers to private sector investments
- E-3 Maintain residential subsidy focused on equity, while reducing need across communities
- E-4 Improve the economics of project development
- E-5 Evaluate and implement State policy, tax, and other incentives
- E-6 Increase State programmatic investments
- E-7 Respond to and implement evolving energy business models

STRATEGY E-1:
Strengthen state-federal coordination and investment

ACTIONS

E-1.1 Develop a funding and implementation toolkit for state/federal energy projects.

E-1.2 Establish a clean energy and transmission line land use designation on state and federal lands.

E-1.3 Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.

E-1.4 Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.

E-1.5 Implement a state/federal private sector investment energy coordinator (POC).

E-1.6 Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.



Purpose:
The AESTF recommends the establishment of a state/federal working group that identifies and works toward improved access on federal lands, funding in place to accelerate an affordable energy transition, and the ability to leverage investment opportunities between state and federal programs.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities have significant barriers in the form of federal lands, which comprise more than 60% of the state. Federal land use policy comes with significant hurdles and a limited ability to effect widespread access or change. A coordinated and targeted effort by state and federal agencies that focuses on improving access and removing barriers is critical to lowering the cost of energy in Alaska, even as it increases the potential to meet federal clean energy goals.

Benefits:
The increased capacity of the state to negotiate and execute priorities with willing federal agencies for developing cost-effective clean energy, transmission lines on federal lands, with dedicated funding in place to bring Alaska parity with the rest of the nation, will lower energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals. This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

Expected Results:
This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

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STRATEGY E-2:
Decrease barriers to private sector investments



Purpose:
The AESTF recommends a strategic approach to policy and program development that stimulates and incentivizes private sector activity, including to make investments alongside private sector partners that result in coordinated and more efficient project delivery.

Background:
Federal and state investment is insufficient to address the scale necessary to effect widespread and meaningful transition toward lower-cost and –carbon energy. At the same time, removing barriers or reducing the burdens associated with private sector investments has the potential to increase Alaska's ability to establish partnerships, and leverage private capital in the public interest.

Benefits:
Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment. Offsetting upfront costs and increasing the utilization of low-interest public capital will strengthen project economics while including strong public benefit criteria. Finally, this process envisions increasing the overall economy of scale, which will contribute to reducing barriers.

Expected Results:

ACTIONS

E-2.1 Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.

E-2.2 Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs.

E-2.3 Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC).

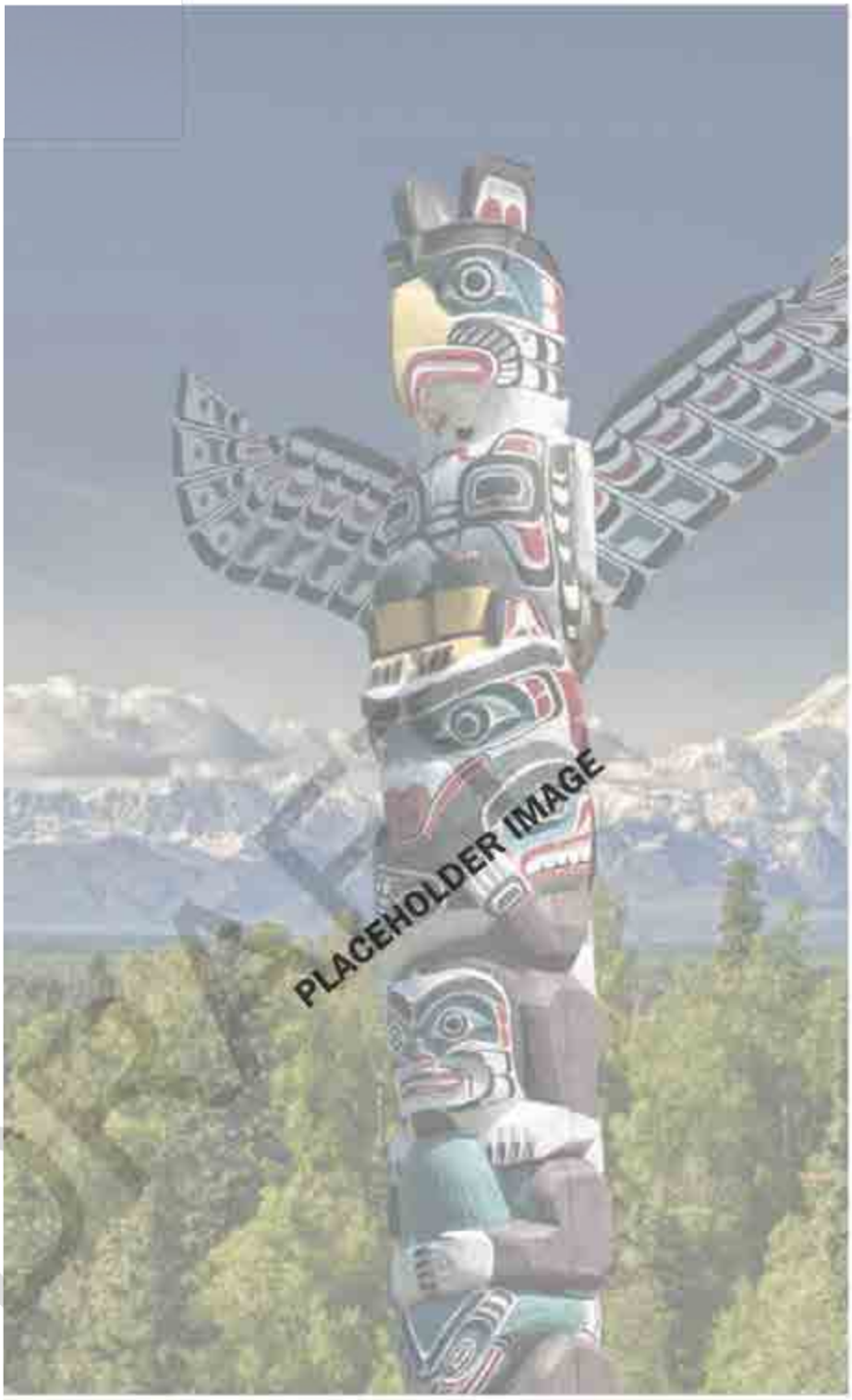
E-2.4 Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

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ACTIONS (CONT.)

E-2.1 Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.

E-2.6 Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.



STRATEGY E-3:
Maintain residential subsidy focused on equity, while reducing need across communities



Purpose:
The AESTF recommends the continued commitment by the State to ensuring residents have access to subsidy where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms for a fairer subsidy, 2) strategically deploys PCE funds to advance ow-cost energy solution, and 3) expands the ability of PCE to lower costs across sectors within communities.

Background:
The value of PCE cannot be overstated – it has proven to be a lifeline to Alaskans who bear the brunt of high costs. This equitable distribution of State funding, relative to and based on project investment in some parts of the state, has lowered costs in communities where otherwise more residents may have chosen outmigration. However, PCE has not equalized costs in any way, and it remains true that this high-cost burden falls on some Alaskans and not others. At the same time, the overall goals of the state can encompass reducing the need for this subsidy by actually lowering costs in communities.

Benefits:
Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans.

Expected Results:

ACTIONS

E-3.1 Ensure that PCE funds are available at the right scale over the correct time period.

E-3.2 Implement a strategic approach to lowering costs according to highest use communities.

E-3.3 Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

E-3.4 Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.

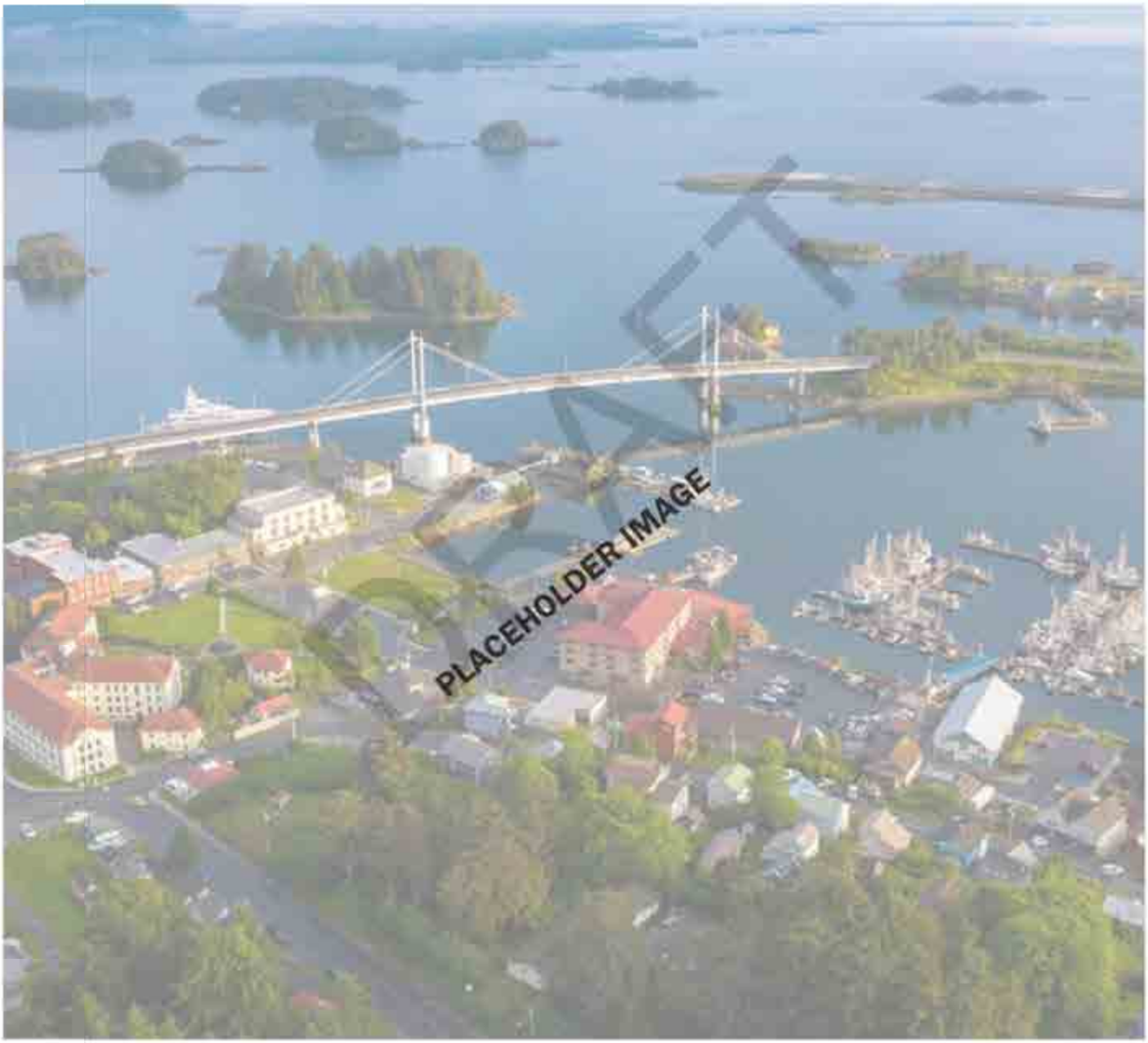
E-3.5 Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.

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ACTIONS (CONT.)

E-3.6 Ensure ability to offset debt that results in lower cost energy project development.

E-3.7 Implement community-based IPPs that sell power to utility for PCE reimbursement.



STRATEGY E-4:
Improve the economics of project development



Purpose:
The AESTF recommends a multi-pronged approach to reducing risk to utilities and project proponents, increasing the availability of financing mechanisms, and encouraging ancillary investments that will benefit the industry and economies of communities.

Background:
Alaska will always be a high-cost state, defined by the tyranny of geography, time, and distance. Access to markets, and at the tail-end of a global supply chain, there are clear competitive disadvantages within which utilities and project developers operate, even as ratepayers (or the State) bear the cost. There are ways, however, to lower the costs of project development, and state action can facilitate this.

Benefits:
Affordability rests on capex and opex, and both have avoidable and unavoidable layered costs. A strategic state approach can begin peeling away or mitigating avoidable costs to improve the economics of project development, and ultimately save ratepayers money.

Expected Results:

ACTIONS

E-4.1 Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.

E-4.2 Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.

E-4.3 Establish a green bank for financing of community scale energy efficiency projects.

E-4.4 Ensure adequate workforce training and skills development alongside job creation goals of State.

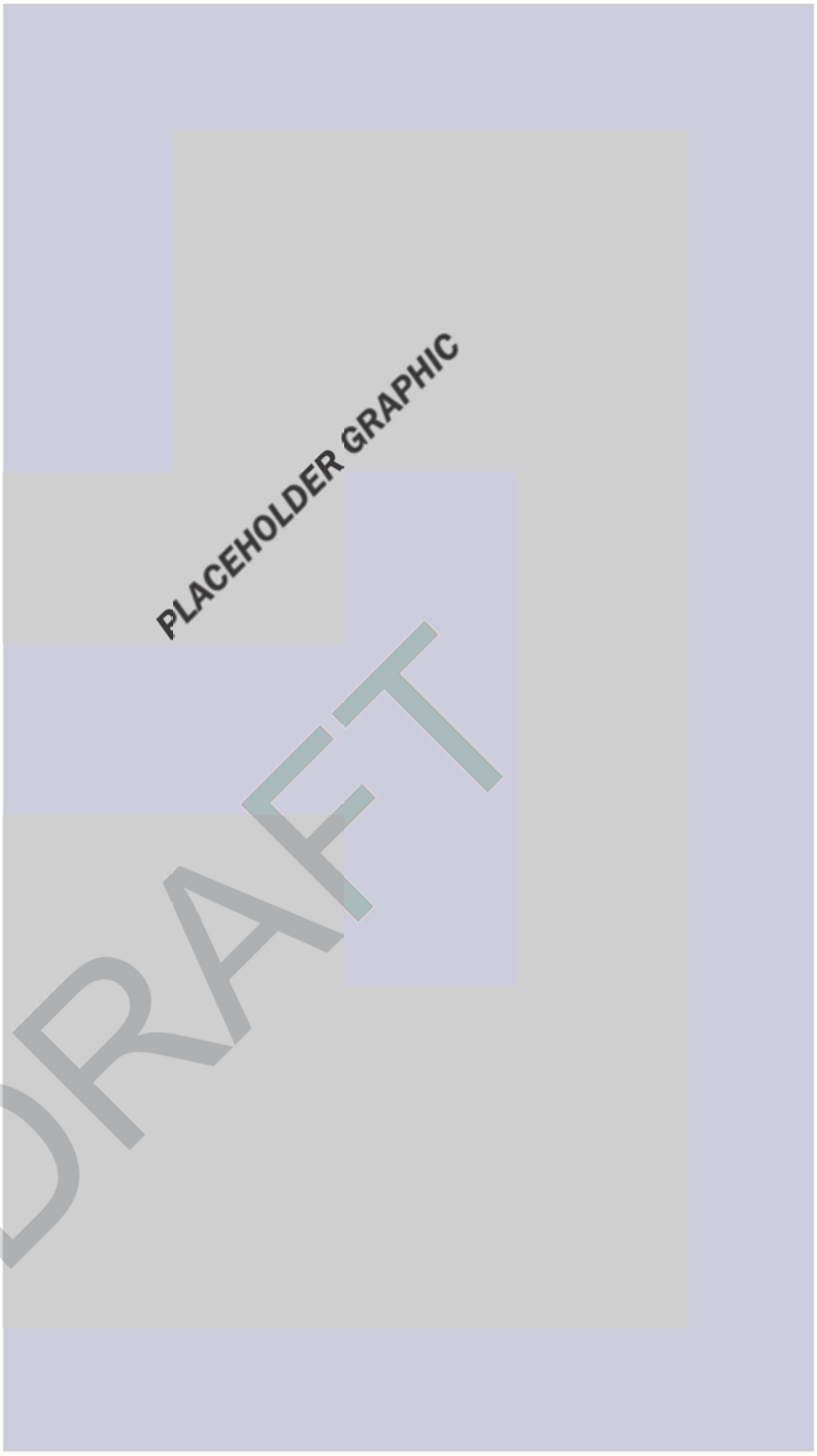
E-4.5 Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization

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ACTIONS (CONT.)

E-4.6 Implement pooling of RECs for system optimization and improving economy of scale.

E-4.7 Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.



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STRATEGY E-5:
Evaluate and implement State policy, tax, and other incentives



Purpose:
The AESTF recommends an audit of all State energy-related expenditures to assess impact, identify gaps, and maximize the benefits of future effort, even as it further identifies available and necessary funding to address other actions of the AESTF.

Background:
Ultimately, what the State has most control of is its own policy, regulatory, and tax systems. The State's capacity to contribute to lowering the cost of energy for Alaskans is immense, and intensity of effort is required to fully assess current activity and the potential need for new laws and practices that will incentivize change.

Benefits:
The majority of actions identified by the AESTF rest on the State's ability to adopt statutory or regulatory changes or make necessary investments.

Expected Results:

ACTIONS

E-5.1 Conduct an energy incentives program study to determine capacity of State to make investments.

E-5.2 Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.

E-5.3 Evaluate, track, and benchmark all State energy-related expenses for maximizing impact.

E-5.4 Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.

E-5.5 Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission.

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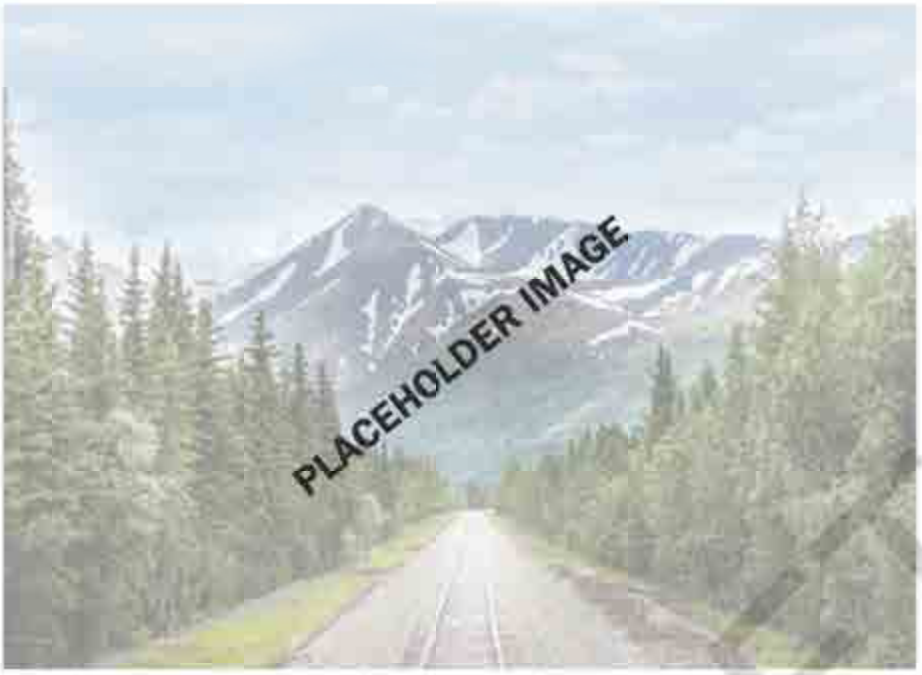
ACTIONS (CONT.)

E-5.6 Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.



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STRATEGY E-6:
Increase State programmatic investments



Purpose:
The AESTF recommends the evaluation of and changes to current programmatic investments such that 1) these programs have sufficient capacity and competency to act effectively in support of lowering energy costs in Alaska, and 2) that the braiding of programmatic intent results in streamlining action and reducing capex and opex costs.

Background:
Government programs may be developed to provide technical assistance or to serve as a resource to consumers, project proponents, and others. Program staff provide support and guidance as to how to utilize these tools. Programs may also try to provide direct services, such as improving energy efficiency, weatherization, community planning, or rate review and setting. Some programs are simply there to ensure compliance. Governments may spend significant resources on these programs. It is not clear that programs reduce the cost of energy, though they may have other benefits.

Benefits:
The ability of the state to achieve a moonshot goal requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end.

Expected Results:

ACTIONS

E-6.1 Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.

E-6.2 Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.

E-6.3 Increase availability of resources for weatherization, energy efficiency, and building retrofits

E-6.4 Ensure adequacy of staff resources at local and state level, including to provide technical assistance.

E-6.5 Evaluate State and local procurement policies that align with affordable and clean energy adoption.

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STRATEGY E-7:
Respond to and implement evolving energy business models

ACTIONS

E-7.1 Increase the use of energy technology demonstration and deployment programs.

E-7.2 Implement emerging tools like on-bill financing, net metering, etc.

E-7.3 Mirror FERC safe harbor rule allowing for backfeeding of up to 15% of circuit capacity.

E-7.4 Identify baseline and establish target for T&D capacity utilization of 90%.

E-7.5 Explore locational marginal pricing (LMP).

E-7.6 Implement utility rate incentives for time-of-use rates during periods of lower cost power.

E-7.7 Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.



Purpose:
The AESTF recommends the cost-benefit analysis of multiple tools that should lead to greater private sector investment and lower costs for ratepayers, and the development of an implementation strategy.

Background:
The pace and scale of change occurring globally and nationally has the potential to lower costs in Alaska, to the extent the state can incorporate new models of doing business. While not all tools may be as applicable here as elsewhere, it is worth investing time in increasing the suite of options that the state has at its disposal. In particular, these business models affect utility, ratepayer, and independent power producer relationships, even as they have the potential to lower costs for Alaskans.

Benefits:
Conventional tools have been used during a period of Alaska's energy system development that was responsive to certain conditions and available resources that are now evolving, even as high costs have plagued the majority of Alaska communities. As part of a strategic pathway toward lower cost energy, the state's investment in new business models and innovative tools that complement and build on current systems will be critical to Alaska's future.

Expected Results:

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PLACEHOLDER IMAGE
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PRIORITY F.

STATUTES AND REGULATIONS





INTRODUCTION

The Statutes and Regulations Subcommittee understands nearly all of the recommended actions from the other five subcommittees will require some form of statutory or regulatory modification or update. We are taking the approach of reviewing these recommended actions and consolidating those that are comparable or alike. We will then craft prioritized actions for the administration to progress forward in the coming legislative session as either new legislation or updates to existing draft legislation or recommended regulatory changes to the Alaska Administrative Code.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICAPTION THAT HELPED IDENIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

F-1
F-2
F-3

PLACEHOLDER STRATEGIES TO BE DETERMINED AFTER REVIEWING OTHER COMMITTEE STRATEGIES

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STRATEGY F-1:
Placeholder Strategy To Be Determined

ACTIONS

F-1.1 Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.

F-1.2 Streamline permitting for energy projects

F-1.3 Establish state funding to help with local match for federal grant cost share

F-1.4 Continue to allow transmission and distribution lines to share DOT right-of-way.

F-1.5 Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.

F-1.6 Provide budgetary support for the Regulatory Commission of Alaska (RCA).



Purpose:

Background:

Benefits:

Expected Results:

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Policies Currently Under Consideration

APA Policy Position (For Consideration):

- Clarify statute on wildfire liability
- Prioritize state investment in electric infrastructure and leverage federal funding opportunities
- Support reasonable and economic carbon reduction strategies that consider costs to consumers
- Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023
- Alternative Uses for Coal Regulations

CEDS Action (For Consideration)

- Carbon and Sequestration Regulations
- Hydrogen Roadmap and Regulations
- Establish Alaska Hydrogen Hub

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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG
Priority A. Railbelt Transmission, Generation, and Storage	Strategy A-2	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching di-versification goals.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.1	Establish, require, assist, and Implement community Integrated Re-source Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regu-lations for Alaska's diverse stakeholders to promote net metering re-newable energy investments.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulato-ry and land use administrative processes to accelerate approval to ad-vance strategic energy projects and transmission for regional energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal fund-ing and federal financing to build and expand Transmission and Distribu-tion lines in Alaska to bring Alaska on par with the US transmission sys-tems for Alaskan energy security and lower energy costs.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-1	Action C-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.1	Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to opti-mally advance renewable energy and transmission on federal lands.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
				✓	✓
	✓				✓
	✓				✓
	✓				✓
✓	✓	✓			✓
	✓				✓
✓	✓	✓		✓	✓
	✓			✓	✓
✓	✓	✓			✓

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Crosswalk Table of Actions from other committees that have a relationship with multiple subcommittees, including Statutes and Regulations, that need further review

Priority	Strategy	Action #	Action
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-2	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-3	Action B-3.1	Foster, Support, and Assist Hydropower development and their trans-mission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.
Priority B. Coastal Generation, Distribution, and Storage	Strategy B-4	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.
Priority C. Rural Generation, Distribution, and Storage	Strategy C-1	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities in-cluding a "Local Match" for Federal Grants.
Priority E. Incentives and Subsidies	Strategy C-3	Action C-3.1	Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activi-ties for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.
Priority E. Incentives and Subsidies	Strategy E-1	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.
Priority E. Incentives and Subsidies	Strategy E-4	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.

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Priority A. Railbelt Transmission, Generation, and Storage	Priority B. Coastal Generation, Distribution, and Storage	Priority C. Rural Generation, Distribution, and Storage	Priority D. State Energy Data	Priority E. Incentives and Subsidies	Priority F. Statues and Regulations
✓	✓	✓			✓
✓	✓				✓
	✓				✓
		✓			✓
		✓		✓	✓
				✓	✓
				✓	✓
				✓	✓

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APPENDIX II.
ACTION TRACKING SHEET

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Priority A. Railbelt Transmission, Generation, and Storage - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy	Number	Action Name (e.g., Policy, Regulation, Program, Improvement, Activity)	Action Description *(100 words or less)*	Implementation Timeframe *(Immediate, Short, Medium, Long-term)*	Lead Organization *(Primary Organization Responsible to Implement)*	Partners & Collaborators *(Supporting Secondary Organizations)*	Action Status *(New, On-going, Withdrawn)*
Strategy A-1: Unify Transmission	Action A-1.1	Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA for new non-for-profit regulated utility for the net book value.		Short (2 - 5 years)	AEA	Legislature; Dept of Revenue; Dept of Law; Railbelt Utilities	New
Strategy A-2: Diversify Generation	Action A-2.1	Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals	To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviors, action and outcomes for our State. 1. Direct Payment to Utilities for Achieving Diversification Targets 2. Augmentation of the Renewable Energy Fund (REF): 3. Augmentation of the Power Project Fund (PPF)				
Strategy A-2: Diversify Generation	Action A-2.2	Modify existing statute(s) requiring the commission to consider long term diversification goals when approving additional/new Railbelt power generation.					
Strategy A-2: Diversify Generation	Action A-2.3	Progress Known Energy Generation Diversification Projects to Go/No-Go Decision • Dixon Diversion • Susitna-Watana • AKLNG					
Strategy A-3: Increase Demand	Action A-3.1	Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-1: Alaska Policy Recommendations	Action B-1.1	Establish, require, assist, and Implement community Integrated Resource Plans (light)to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.	Identify future generation and demand for resource planning purposes to lower the energy cost for the communities and region. Establish Standardized Metrics Related to Power Generation Compared to Future Demand.	Immediate (0 - 2 years)	AEA	RCA; Utilities; DCCED; communities; tribal entities;	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.		Short (2 - 5 years)		Tribes and native corporations; schools; Utilities; DCCED; AEA; RCA; Legislature	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.3	Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.	Identify burdensome regulatory requirements at State Departments, with focus on hydro-electric power and other renewable energy development. Collaborate with appropriate state and regulatory agencies to promote solutions to streamline approvals, decrease costs, and expedite schedules.	Immediate and short term	Office of Governor, AEA	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law,	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.4	Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.	Identify funding/financing sources a the federal, state and local level to expand transmission lines across Alaska. Prioritize innovative construction and product types, such as submarine transmission and underground transmission.	Spectrum of timeframes based on local needs and initiatives	Governors Office, AEA	Congressional Delegation. Utilities; DCCED; AEA, AIDEA; local governments; tribal; state legislature; Governor's office	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.5	Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.					
Strategy B-1: Alaska Policy Recommendations	Action B-1.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.	Establish a workforce development program to educate, train, and retain skilled workers in electrification.	Immediate (0 - 2 years)	Dept. of Labor	DOR, DCCED, University of Alaska, Labor Unions, AVTEC, Tribal Training Programs - (Tlingit Tribal Central Council), Yuut Elitnaurviat	New
Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.1	Establish an Alaska/federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-2.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.	Coordinate and collaborate with federal land holding agencies to establish a renewable energy land use and Transmission use corridor Primacy on federal land allow Alaska renewable energy development on federal lands.	Immediate, short term ongoing	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT&PF; Dept of Law; Alaska Congressional Delegation, Denali Commission, Alaska Power Association	New
Strategy B-3: Alaska Hydropower Generation Recommendations	Action B-3.1	Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.	Build Execution ready Hydro Projects, Advance economically viable Hydro for energy security, spur economic growth and prosperity for Alaska.	Immediate-Execution Ready, Short (2 - 5 years) [licensed] Long-term (10 years plus) [unlicensed]	AEA	AIDEA, Federal funding, DCCED, DOL, DNR, ADF&G, state legislature	New
Strategy B-4: Alaska Market Initiatives	Action B-4.1	Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.	Plan to promote heat pumps as an alternative energy/heat source in Coastal Alaska. Identify successful case studies for further implementation in Alaska (there is data available on heat pumps, e.g. Heat Pumps Center).	Immediate	Local Leadership, AEA	DCCED; Legislature; Dept of Law; Utilities; AHFC; Community Development Organizations; Local Governments; Tribes	New
Strategy B-4: Alaska Market Initiatives	Action B-4.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships	Identify and execute shore power in Alaskan Ports and Harbors and make feasible. Identify funding sources, including Marine Passenger Fees and federal programs.	Immediate-Execution ready, short term (2-5 years)	AEA, Coastal Communities	Dept of Law; DCCED; DOT&PF	New
Strategy B-4: Alaska Market Initiatives	Action B-4.3	Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation and assist in reducing the cost of power in coastal communities.	Establish plan to convert ferry fleet to electric or electric hybrid vessels, using BC Ferries as a case study for implementation. Identify key ferry routes in Alaska, and evaluate for feasibility and implementation. Work with AKDOTPF strategy and plans. Use electric demand forecasts to assist coastal region utilities and communities generation and transmission resource planning.	Short (2 - 5 years)	DOT&PF	DCCED; Legislature; Dept of Law; Local utilities and IPPs	New
Strategy B-4: Alaska Market Initiatives	Action B-4.4	Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs	Note: Emerging Opportunity - Subcommittee will review in detail in September 2023.	Short (2 - 5 years)	Private Industry or Utilities	DCCED, DEC, AEA	New
Strategy B-4: Alaska Market Initiatives	Action B-4.5	Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure and stabilize grids. Integration of renewables. Acknowledge O&M of the systems.	Immediate. Change to Immediate and Short term	AEA, local communities	B&V; AEA; utilities; AIEDA; local communities, DOT&PF	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy	Number	**Action Name** *(e.g., Policy, Regulation, Program, Improvement, Activity)*	**Action Description** *(100 words or less)*	**Implementation Timeframe** *(Immediate, Short, Medium, Long-term)*	**Lead Organization** *(Primary Organization Responsible to Implement)*	**Partners & Collaborators** *(Supporting Secondary Organizations)*	**Action Status** *(New, On-going, Withdrawn)*
Strategy C-1: Increase Capital Availability	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.	Identify local or state funding mechanisms to "bridge the gap" commonly found with federal grant funding - the local match component is often a prohibitive hurdle for rural communities to receive federal grant funding.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-1: Increase Capital Availability	Action C-1.2	Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.					
Strategy C-1: Increase Capital Availability	Action C-1.3	State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.1	Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.					
Strategy C-2: Infrastructure Investment	Action C-2.2	Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.					
Strategy C-2: Infrastructure Investment	Action C-2.3	Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.4	Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.					
Strategy C-2: Infrastructure Investment	Action C-2.5	Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.	Where feasible, identify opportunities to connect rural communities through transmission lines and shared energy to enhance redundancy and connectivity. Focus on cost-effective solutions for connectivity. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas. Upgrade rural energy infrastructure such as power houses and bulk fuel farms.	Medium (5 - 10 years)	AEA	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy	Number	Action Name *(e.g., Policy, Regulation, Program, Improvement, Activity)*	Action Description *(100 words or less)*	Implementation Timeframe *(Immediate, Short, Medium, Long-term)*	Lead Organization *(Primary Organization Responsible to Implement)*	Partners & Collaborators *(Supporting Secondary Organizations)*	Action Status *(New, On-going, Withdrawn)*
Strategy C-2: Infrastructure Investment	Action C-2.6	Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.	Invest in resilient energy infrastructure with focus on most frequent/severe hazards, instead of focusing on repair after the damage or destruction occurs. Reference case studies and future opportunities with FEMA as a funding resource. Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-2: Infrastructure Investment	Action C-2.7	Invest in expanding the grid in rural areas.		Long-term (10 years plus)		P3 Partners, Utilities	Modified CEDs 2022 Plan Action
Strategy C-2: Infrastructure Investment	Action C-2.8	Evaluate micronuclear and other emerging/underutilized technologies throughout the State of Alaska.	Invest in expanding the grid in rural areas in cost effective ways to connect micro nuclear as it is adopted and built in the next 10+ years.				
Strategy C-3: Lower Operational Costs	Action C-3.1	Expand and Inventory technical assistance, training, and workforce development to identify gaps, and increase capability & capacity-building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production	Explore technical assistance such as: workforce training programs, financing mechanisms, grant support, and economic development.	Immediate (0 - 2 years)	DCCED	DOL; DOR ,P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.2	Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.	Identify new innovations in transportation that may support/improve supply chain logistics and reliability in rural AK - follow up with DOT&PF. Prioritize continuity of operations, and enhance redundancy where feasible.	Immediate (0 - 2 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.3	Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.	Identify opportunities to educate local communities about proposed or future energy projects. Focus on benefits, particularly related to affordability. Curate outreach to known controversial projects, such as hydro-power or mining. Identify past projects that have successfully navigated opposition mounted by local communities and environmental NGOs. Develop case studies and a suite of tools to engage with opposition. Recognize concerns from those who are opposed, and implement mitigation actions as appropriate. Engage early and often, incorporate visuals and avoid fear mongering.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.4	Grid modernization and automation					

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-4: Improve Economies of Scale	Action C-4.1	Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.	Identify development opportunities to be shared amongst multiple utilities. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Develop energy projects in coordination with other utilities, such water, sewer, heat, communications (broadband, fiber) or other infrastructure projects (transportation). Share costs associated amongst participants to enhance affordability, and thus pass off affordability to the users.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-4: Improve Economies of Scale	Action C-4.2	Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.	Identify existing and potential energy anchor tenants who are willing to share costs on energy projects and development. Examples include fishing, mining, industrial tenants. Explore opportunities where anchor tenants can partner with other business and communities for mutually beneficial projects, and enhance affordability.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-4: Improve Economies of Scale	Action C-4.3	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.					
Strategy C-4: Improve Economies of Scale	Action C-4.4	Identify and complete a regional pilot project to demonstrate economies of scale.					
Strategy C-4: Improve Economies of Scale	Action C-4.5	Invest in rural beneficial electrification.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.1	Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.	Explore opportunities to enhance remote sensing and technology for energy infrastructure in rural/remote locations.	Medium (5 - 10 years)			New
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.2	Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.3	Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.1	Institute or update statutory requirements for AEA Data Department.					
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.2	Fund, develop, and implement a technical and needs assessment		Immediate (0 - 2 years)			New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.3	Fund, develop, and implement a capital asset plan					New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.4	Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.5	Appropriately staff the department based on the technical and needs assessment					New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.1	Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.		Immediate (0 - 2 years)			New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.2	Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.					New
Strategy D-3: Fund data capacity	Action D-3.1	Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department		Short (2 - 5 years)			New
Strategy D-3: Fund data capacity	Action D-3.2	Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.1	Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.		Short (2 - 5 years)			New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.2	Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data					New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.3	Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations					New

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.4	Expand the Power Cost Equalization (PCE) report and extent of such data reported					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.5	Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.6	Understand how heating and transportation fuel is delivered and used					

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Priority D. State Energy Data - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.7	Re-establish annual updates to the Alaska Energy Statistics report					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.1	Develop a funding and implementation toolkit for state/federal energy projects in Alaska	Funding and implementation toolkit for energy projects in Alaska will include: resources, guidelines, case studies, and a funding tracker of opportunities for Alaskan communities, ANCs, State Agencies, Utilities, etc.	Short (2 - 5 years)	AEA	DCCED; DOR; ACEP; State Legislature	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.	Establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans to allow small community renewable energy development and transmission line corridors on federal lands. Establish an Alaska-Federal Renewable Energy Working Group to develop, collaborate, and execute State-Federal policy that supports State energy goals and rights to advance renewable energy development and transmission lines on federal lands to lower the energy cost for Alaskans.	This action item has a blend of Immediate and short-term tasks for implementation.	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT Dept of Law;	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund	Alaska has second world transmission and generation assets. Requires federal support to bring Alaska into this century with same level of service and transmission line capacity aligned with national standards.	Medium (5 - 10 years)	State Legislature	DCCED; DOR; Dept of Law, AEA	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.4	Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities.	Implement statewide energy project evaluation process that takes into account low cost, local, clean, and lifecycle. Alaska could use the levelized cost of energy for infrastructure projects.				
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.5	Implement a state/federal private sector investment energy coordinator (POC).					
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.6	Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.1	Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-2: Decrease barriers to private sector investments	Action E-2.2	Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.3	Adopt a Renewable Portfolio Standard (RPS) followed by a Renewable Energy Credit (REC)					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.4	Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.5	Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.6	Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.1	Ensure that PCE funds are available at the right scale over the correct time period.	Increase analysis of potential benefits of PCE, to reduce disincentives for lowering energy costs.	Short (2 - 5 years)			

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.2	Implement a strategic approach to lowering costs according to highest use communities.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.3	Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.4	Increase the use of community facilities allocation to lower State, Tribal, and local governments costs.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.5	Identify ways in which PCE can lower the cost of doing business, by evaluating residential costs beyond energy as part of the overall household burden.					

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.6	Ensure ability to offset debt that results in lower cost energy project development.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.7	Implement community-based IPPs that sell power to utility for PCE reimbursement.					
Strategy E-4: Improve the economics of project development	Action E-4.1	Establish a liability Trust for utilities, capitalized by the State with pooled contributions to protect against risk of wildfires or other impacts.					
Strategy E-4: Improve the economics of project development	Action E-4.2	Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.	Transmission related fires can bankrupt utilities. Provide relief and risk exposure to Alaska utilities in return for FERC defined Open Access which would justify the public benefit for providing risk reduction and exposure to Alaska utilities.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	New
Strategy E-4: Improve the economics of project development	Action E-4.3	Establish a green bank for financing of community scale energy efficiency projects.	Establish a green bank to finance energy efficiency projects at the community scale in partnership with the private sector. Support initial capitalization by the State.	Short (2 - 5 years)	AHFC	AEA	From CEDs 2022 Plan (For Consideration)
Strategy E-4: Improve the economics of project development	Action E-4.4	Ensure adequate workforce training and skills development alongside job creation goals of State.	Obtain federal grants under the IIJA to conduct workforce development, reskilling, and training, including as part of broad industry collaboration.	Medium (5 - 10 years)			From CEDs 2022 Plan (For Consideration)

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-4: Improve the economics of project development	Action E-4.5	Ensuring efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization.					
Strategy E-4: Improve the economics of project development	Action E-4.6	Implement pooling of RECs for system optimization and improving economy of scale.					
Strategy E-4: Improve the economics of project development	Action E-4.7	Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.1	Conduct an energy incentives program study to determine capacity of State to make investments.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.2	Finalize and implement a statewide energy plan and policy, consistent with Task Force goals.	Conduct and implement a statewide strategic plan for energy development.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska, REAP, Alaska Power Association	In Progress
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.3	Evaluate all State energy-related expenses for maximizing impact.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.4	Ensure availability of resources for investment, or the ability to forego revenue as part of incentive program.					

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Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.5	Implement State income tax exemption or credit on revenue produced from private investment in new generation and transmission					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.6	Reevaluate current mandatory municipal exemptions to encourage increased adoption of local exemptions that align with updated goals to attract private investment.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.1	Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting. Execute the State of Alaska's internal streamlining policy and interagency coordination to support and streamline internal state regulatory and land use requirements for Alaska projects, providing a unity of purpose and coordination to advance renewable energy projects to accelerate development, financing, permitting to lower the cost of energy for Alaskans.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Strategy E-6: Increase State Programmatic Investments	Action E-6.2	Strengthen the ability of the State and utilities to address the maintenance and operation needs of Alaska power systems.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.3	Increase availability of resources for weatherization, energy efficiency, and building retrofits.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.4	Ensure adequacy of staff resources at local and state level, including to provide technical assistance.					
Strategy E-6: Increase State Programmatic Investments	Action E-6.5	Evaluate State and local procurement policies that align with affordable and clean energy adoption.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.1	Increase use of energy technology demonstration and deployment programs.	Execute pilot and demonstration projects for energy technology that lowers energy costs and leads to commercialization, including through collaboration with entities such as AEA, Launch Alaska, and the National Laboratories.	Short (2 - 5 years)	AEA	ACEP, Launch Alaska	From CEDs 2022 Plan (For Consideration)
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.2	Implement emerging tools like on-bill financing, net metering, etc.			AHFC		
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.3	Mirror FERC safe harbor rule allowing for back feeding of up to 15% of circuit capacity.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.4	Identify baseline and establish target for T&D capacity utilization of 90%.					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.5	Explore locational marginal pricing (LMP).					
Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.6	Implement utility rate incentives for time-of-use rates during periods of lower cost power.					

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Strategy E-7: Respond to and implement evolving energy business models.	Action E-7.7	Consider Alaska version of FERC Order 2222 to open wholesale markets to broader participation by aggregators of customer resources.					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Placeholder strategy to be determined.	Action F-1.1	Restructure the RCA with 3 commissioners and administrative law judges to streamline/ handle rate cases. Example states include: Iowa, Virginia, etc.	Legislation should be passed (similar to Iowa House File 577) which allows for advanced ratemaking principles Under this legislation, significant projects/improvements are reviewed and approved in advance so all parties have clarity on costs, return on equity, and approval before proceeding (versus traditional pay and pray methodology)	Medium (5 - 10 years)	DCCED	AEA; Dept of Law; RCA; Legislature	New
Placeholder strategy to be determined.	Action F-1.2	Streamline permitting for energy projects	Streamlining the permitting process leads to cost savings for utilities and contributes to cost savings for constituents. Permitting timelines should match the timelines for the expenditure of the funds for grant opportunities. Address staff turnover in the permitting agencies that cause delays in permitting.	Medium (5 - 10 years)	Office of Governor	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law	New
Placeholder strategy to be determined.	Action F-1.3	Establish state funding to help with local match for federal grant cost share	Work with the utilities to understand the feasibility of meeting the local match requirements for various federal grants. Establish a fund to contribute to grant match requirements that may pose a challenge to potential grant recipients. In some cases, utilities may need to raise costs to come up with the local match amount, which negates some of the benefits of being awarded the grant.	Medium (5 - 10 years)	AEA	Legislature; DCCED; OMB	New
Placeholder strategy to be determined.	Action F-1.4	Continue to allow transmission and distribution lines to share DOT right-of-way	Note: Need to coordinate with DOT and partners to understand issue to define a recommendation.	Medium (5 - 10 years)			New
Placeholder strategy to be determined.	Action F-1.5	Evaluate similar states (such as Wyoming, North Dakota, etc.) for case studies and best practices regarding energy distribution, transmissions, and connectivity.	Investigate through energy commissioner organizations and inter-state governmental organizations.	Short (2 - 5 years)	ACEP	AEA	New

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Placeholder strategy to be determined.	Action F-1.6	Provide budgetary support for the Regulatory Commission of Alaska (RCA)					
	APA Policy Position (For Consideration)	Clarify statute on wildfire liability	Alaska's electric utilities work hard to maintain their rights-of-way for transmission and distribution lines but have no control over vegetation that grows outside their rights-of-way. This creates a scenario in which trees or other vegetation outside the right-of-way -- but tall enough to fall into the right-of-way -- can cause damage, such as a wildfire. The Alaska legislature can protect electric ratepayers by making clear in statute that electric utilities can only be held liable for damage, death or personal injury from contact between vegetation and the utility's facilities if the vegetation is located entirely within the boundaries of the utility's right-of-way. The state can help mitigate fire risk by continuing to provide funding for the mitigation of spruce beetle-killed trees, which are a significant problem in many parts of the state. Alaskans already pay some of the highest costs for electricity in the country. Making Alaska utilities, and ultimately their customers, responsible for damages caused by vegetation outside of utility control will drive those costs even higher. This could raise the prospect of financial difficulty for utilities themselves, as has happened in California.	Medium (5 - 10 years)	Dept of Law	DCCED; AEA; Legislature	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Prioritize state investment in electric infrastructure and leverage federal funding opportunities	Electric infrastructure is the bedrock of the state's economy and the operation of the daily lives of Alaskans. The Alaska legislature must leverage every federal dollar available that benefits infrastructure with a strong emphasis on electric infrastructure – generation, transmission, and distribution. The legislature should direct the appropriate state agencies to work with electric utilities statewide to determine where funding can best serve Alaskans through investment in electric infrastructure, including renewable energy technologies and digital communications infrastructure. Concurrently, the legislature should call on Congress to focus on funding for electric infrastructure when passing spending bills and when funding federal agency operations. Many areas of the United States continue to benefit from long running federal power marketing administrations (PMAs) that have brought low-cost power to vast reaches of the country. Alaska has not been afforded such federal programs. Through robust state and federal investment in electric systems, Alaska would strengthen its economic health during and following the COVID-19 pandemic.	Short (2 - 5 years)		Legislature; Dept of Law; OMB	APA Policy Positions (For Consideration)

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	APA Policy Position (For Consideration)	Support reasonable and economic carbon reduction strategies that consider costs to consumers	Carbon reduction efforts, whether legislative or regulatory, must allow for a technology neutral approach to decreasing fossil fuel consumption. Integrating renewable generation is one method of lowering reliance on fossil fuels, in addition to demand side management, energy efficiency, dynamic demand, and beneficial electrification, among others. Collectively, they are proven pathways to achieving carbon reduction. Above all, safety, reliability, and affordability must be considered as carbon reduction efforts are undertaken. For many years, Alaska's electric utilities have developed renewable generation assets and integrated renewable generation into their systems while exploring additional, economically feasible renewable generation. This integration, while partially driven by a goal to decrease carbon emissions, is also reliant on what is technologically and financially feasible at the various-sized electric utilities around the state. It must always be taken into consideration when creating new laws and regulations that ratepayers ultimately bear the costs of any new generation assets. All legislative or regulatory efforts that aim to reduce carbon emissions and increase renewable energy should carefully account for the cost impacts on Alaska electric consumers.	Short (2 - 5 years)		DEC; DCCED; Dept of Law: AEA	APA Policy Positions (For Consideration)

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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	APA Policy Position (For Consideration)	Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023	The Power Cost Equalization (PCE) Endowment must be preserved and maintained to provide certainty for 200 Alaska communities. The PCE program is a vital, lifeline program that makes it feasible for rural Alaskans to have access to affordable electric power and for rural communities to have affordable electricity for streetlights, water and sewer facilities, and other essential infrastructure. The Alaska Power Association urges the Legislature to fund the PCE program from PCE Endowment earnings at 100 percent for FY 2023. Until there is a permanent solution to the high cost of energy in rural Alaska, the PCE program must continue providing economic assistance to customers in areas of our state where the cost of electricity per kilowatt-hour can be three to five times higher than the cost in more urban areas. The state should also explore ways to address the diminishment of PCE for communities that have invested heavily in renewable electricity generation. Some communities that have lowered their reliance on fossil fuels by bringing on clean electric generation have seen lower PCE rates while still facing high electric rates. The state should allow for flexibility within the PCE program to accommodate communities that increase renewable generation but still face high electric costs.	Short (2 - 5 years)	AEA	AEA; RCA; OMB: State Legislature	APA Policy Positions (For Consideration)
	APA Policy Position (For Consideration)	Alternative Uses for Coal Regulations	Explore alternative uses for coal, such as gasification and hydrogen production.	Long-term (10 years plus)		University of Alaska, Mining companies	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Carbon and Sequestration Regulations	Pursue carbon capture and sequestration to make existing resources cleaner.	Long-term (10 years plus)			From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Hydrogen Roadmap and Regulations	Develop and implement Hydrogen Roadmap for Alaska.	Long-term (10 years plus)	UAF	Governor's Office, AGDC, University of Alaska Center for Economic Development, ACEP	From CEDs 2022 Plan (For Consideration)
	CEDS Action (For Consideration)	Establish Alaska Hydrogen Hub	Support the establishment of an Alaska Hydrogen Hub and an Alaska Carbon Capture, Utilization and Storage (CCUS) Hub.	Short (2 - 5 years)	Governor's Office	AGDC:,Governor's Office, Congressional delegation	From CEDs 2022 Plan (For Consideration)

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APPENDIX III.

ADDITIONAL ACTION DETAIL SUMMARY PAGES

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STRATEGY A-1: UNIFY TRANSMISSION

ACTION A-1.1:

Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system. The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

Benefits:
- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

How Do We Get There?
- Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.
- Develop financing plan.
- Develop transmission, operation, and control reform (potentially the Iceland model) with a regulated version of management committee.
- Align ERO statute and regulations with transmission reform.
- Complete design, permitting, and right-of-way acquisitions.
- Execute construction and commissioning.

Implementation Timeline:
2023 – 2035

Expected Results:
This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.1:

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

In order to ensure Alaska's future energy mix is affordable, reliable and secure, it's critical that diversification targets are set and positively reinforced. To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee considered both a Renewable Portfolio Standard and a Clean Energy Standard. Ultimately a Clean Energy Standard was preferred as it allows the widest range of generation technologies to compete driving affordability and gives Alaska the most options to diversify. Secondly, a Renewable Portfolio Standard policy typically includes penalties when targets are not met. Given Alaska's co-op utility structure, these penalties would pass directly to co-op members and drive up electricity prices which is counterproductive to the AESTF objective of affordable energy. Penalties may also likely lead to utility staff spending time to request relief or negotiate penalties where issues are encountered with meeting diversification targets; tying up valuable utility staff time and distracting staff from deploying new generation projects. Based on this, the Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviours, action and outcomes for our State. The Railbelt Subcommittee recommends the following incentives be implemented with a Clean Energy Standard:

1. **Direct Payment to Utilities for Achieving Diversification Targets:** Ultimately, it is up to each individual utility to agree to terms with these different types of generation so that it can be included in their portfolio. To incentivize utilities to consider a variety of options, the State of Alaska can award each utility with a direct payment when diversification targets are reached. This direct payment rewards utilities for diversifying and will result in an immediate reduction of rates for consumers, aligning with the AESTF mission of affordable energy.

2. **Augmentation of the Renewable Energy Fund (REF):** To facilitate significant diversification of statewide electricity generation, with a partilcuar emphasis on the Railbelt, it is important to have many generation projects being developed as only a small fraction will succeed in being fully developed. Project development is inherently risky and carries the most uncertainty, particularly for generation technologies which have not been broadly deployed in Alaska. To encourage numerous and diverse generation project development, the State should augment the Renewable Energy Fund to provide matching funds for development expenses. The intent of this funding structure is that grant funds will be a small fraction of the total project cost but will be awarded at a time when the project is most vulnerable. This will increase the number of projects being developed and accelerate the diversification of the Railbelt electricity generation.

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ACTION A-2.1 (CONT.):
Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

3. **Augmentation of the Power Project Fund (PPF):** New generation projects can also face obstacles with securing competitive debt terms for projects in Alaska given it's remoteness and that for many technologies is seen as a nascent market. Debt interest rate and term (duration) significanty affect project economics and ultimately the energy price paid by consumers. Providing a reliable debt source for generation projects which diversify the Railbelt's power generation will increase the number of successful projects, reduce the energy cost to consumers and earn the state a modest return. Given the funding scale of these projects, it's important that this capital support from the state is structured as a loan and not a grant. This ensures responsible project spending while generating a return for the state.

Benefits:
Diversify statewide, with a particular emphasis on Railbelt Electricity Generation
- Conserve CI natural gas supply for heating and base load to integrate new generation sources
- Provide secure electricity supply through locally built generation projects
- Enable affordable energy across the state
- Increase energy reiliability where no one source dominates or threatens overall supply
- Economic development with local projects

How Do We Get There?
Institute a Clean Energy Standard with Incentives to facilitate reaching diversification goals
- Clearly state Railbelt generation diversification percentages and target dates
- Adopt the following incentive program to drive diversification:

1. **Direct Payment to Utilities for Meeting Diversification Targets:**
- All direct payments to a Utility from the State of Alaska are a direct pass through to energy consumers
- Establish a $/% diversification value and diversification percentages at which payouts are received
- Payout will be made if diversification percentage is achieved by target date
- Direct payment from the State will be used by the utility to directly lower member costs, effectively lowering the cost of electricity
- Ideally the incentive payment would be illustrated on member bill so public can see the benefit of utility diversification

2. **Augment the Renewable Energy Fund to:**
- Provide up to 50/50 matching funds for projects which diversify the community or regional generation mix.
- The projects must demonstrate how they're providing affordable energy that is reliable and local
- Matching funds will be used for project development costs only
- Allocate annual funding for this program such that funding is secure and can be efficiently deployed. Increase the reward cycle (e.g. 2x/yr) to enable new project ideas to move forward with development at a faster pace than the current annual REF award process.
- Increased operational funding for AEA to accomodate increased administrative workload, including but not limited to elements such as additional staff or consultants to assist in program and/or application streamlining.

3. **Augment the Power Project Fund to:**
- Provide loans, for all development phases, for projects greater than 10MW in size
- For projects greater than 10MW increase the approval thresholds for AEA Board and Legislative approval such that it is commensurate with utility scale projects
- Adequately capitalize the PPF program to support utility scale generation projects
- Provide operational funding staffing to efficiently and timely process increased volume of loan applications.

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ACTION A-2.1 (CONT.):

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Implementation Timeline:
Implement policy change in 2023/2024 legislative session

Expected Results:
- Diverse electricity generation projects being built over the next 10-15 years
- Accelerated diversification timeline
- Lower cost power from new generation projects, ultimately flowing down in the form of reduced rates for ratepayers across varying time domains.
- Economic development across those funded communities, including the Railbelt.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.2:

Modify existing statute(s) requiring the Regulatory Commission of Alaska (RCA) to consider long term diversification goals when approving additional/new Railbelt power generation.

Background:
The general powers and duties of the RCA are defined in Alaska Statute 42.05.141. Specifically, it is tasked with the power to "appear personally or by counsel and represent the interests and welfare of the state in all matters and proceedings involving a public utility[.]" The Railbelt Generation, Distribution, Transmission, and Storage Subcommittee (RGDTSS) has determined that the state should be working toward a long-term goal of diversifying power generation with an emphasis on local supply, reliability, and affordability. In support of this goal, the RGDTSS recommends the legislature amend AS 42.05.141 to broaden the RCA's scope of considerations and ensure it has the ability to consider projects related to power generation.

Benefits:
- The amended statute provides the RCA with more definition on what truly is in the best "interest and welfare of the state" beyond just setting reasonable rates and promoting conservation.
- Pushes the Railbelt utilities towards diversification of power generation.

How Do We Get There?
- Amend AS 42.05.141 (c) add new subpart (d) and renumber existing subpart (d) as follows:
  (c) In the establishment of electric service rates under this chapter the commission shall promote the conservation **and diversification** of resources used in the generation of electric energy.
  (d) When considering whether the establishment or approval of electric service rates under this chapter is in the public interest the commission shall
  (1) recognize the public benefits of allowing a utility to negotiate different pricing mechanisms with different suppliers and to maintain a diversified portfolio of resource contracts to protect customers from the risks of inadequate supply or excessive cost that may arise from a single pricing mechanism; and
  (2) consider whether a utility could meet its responsibility to the public in a timely manner and without undue risk to the public if the commission fails to approve a rate or a contract proposed by a utility.
  (e) When considering whether the approval of a rate or a gas supply contract proposed by a utility to provide a realable supply of gas for a reasonable price is in the public interest, the commission shall…[.]

Implementation Timeline:
Implement timeline is in the 2023/2024 Legislative Session.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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ACTION A-2.3:
Additional details on Dixon Diversion Project

Background:
The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project (Bradley Lake), which has been a low-cost source of electricity for the Railbelt and 550,000 Alaskans for more than 30 years. The 120-megawatt (MW) facility generates about 10 percent of the total annual power used by Railbelt electric utilities at some of the lowest-cost energy in the state. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The proposed Dixon Diversion Project would boost the energy potential of Bradley Lake, the largest hydroelectric plant in Alaska. The project would be located five miles southwest of Bradley Lake dam, approximately 27 miles northeast of Homer on the Kenai Peninsula, and divert water from Dixon Glacier, increasing the annual energy production of Bradley Lake by 50 percent — or the equivalent of 24,000-30,000 homes. Bradley Lake currently electrifies the equivalent of 54,000 homes.

Benefits:
- Increases Bradley Lake's energy production capacity by 50 percent by leveraging existing generation assets.
- Enhances Alaska's energy security by increasing renewable penetration and grid stability, improving resilience to fuel price fluctuations and supply side disruptions, and regulating other renewable energy.
- Fosters economic development through job creation.
- Promotes environmental sustainability.
- Power Sharing Agreements with Railbelt Utilities provide stable long-term returns through revenue stability and market risk mitigation.
- Produces a substantial amount of renewable energy that will reduce greenhouse gas emissions and combat climate change.
- Augment and diversify Environment, Social, and Governance investment portfolio holdings.
- All land is owned by the State of Alaska

How Do We Get There?
AEA is currently conducting feasibility studies to assess the potential of increasing hydroelectric power generation at Bradley Lake. These studies include engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, and geomorphophology). The Dixon Diversion Project would expand Bradley Lake by capturing outflow from the Dixon Glacier and conveying it to Bradley Lake for generation. The main project components include:
- Small diversion dam and intake below the Dixon Glacier,
- Gravity flow 4.7 mile tunnel to Bradley Lake, and
- Raise of Bradley dam to lake level by 14 feet.

Implementation Timeline:
2023 – 2025: Engineering and Environmental Studies
2026 – 2027: Federal Energy Regulatory Commission (FERC) License Amendment
2028 – 2032: Construction

Expected Results:
The increased storage would provide Bradley Lake with an additional 55,000 megawatt-hours of "battery storage."

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on Susitna-Watana

Background:
The Susitna-Watana project has been on hold since 2017. Considerable expenditures were made to develop and license the project in the 1980s and from 2010 to 2017. The project is a viable alternative to meet the State's goal of 80 percent sustainable power by 2040. Once the project is licensed the State has a 10-year window before construction must begin. This should afford sufficient time for the State to determine the most advantageous approach to build the project.

Alaska has a strong track record of developing successful hydroelectric projects that provide clean, reliable energy across the state. Hydroelectric power is Alaska's largest source of renewable energy, supplying about 27 percent of the state's electrical energy in an average water year. Dozens of hydro projects provide power to Alaskans, including the 120-megawatt Alaska Energy Authority-owned Bradley Lake project near Homer, which supplies 10 percent of the Railbelt's electrical energy. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

AEA has completed a feasibility level design and was approximately two-thirds of the way through the Federal Energy Regulatory Commission (FERC) Integrated Licensing Process when it was paused by the previous administration. To proceed, the FERC licensing process would need to be completed at a cost of $50-100 million. The anticipated construction cost is $5.6 billion ($2014). Financing type and level are not yet finalized, but AEA's financial consultant recommended Rural Utilities Service (USDA) and government obligation bonds or by the private sector, financial modeling indicated the lowest long term cost of energy compared with other fuel sources.

Benefits:
The proposed Susitna-Watana Hydroelectric Project is a large hydro project that would provide long-term stable power for generations of Alaskans. The project would result in approximately 70 percent of the power generated in the Railbelt originating from renewable sources, up from the current 15 percent — a nearly four-fold increase. As part of the project, transmission lines will be connected to the existing Railbelt transmission system providing a more secure transmission system, and an access road will be constructed. The Susitna-Watana Hydroelectric Project will help provide reliable power for future generations of Alaskans, diversify Alaska's energy portfolio, and accelerate the transition to renewable energy.

How Do We Get There?
1. Update the Project Management Plan with specific focus on the approach, budget, and schedule to complete licensing activities.

2. Update construction cost and project economics

3. Meet with FERC staff to determine the licensing approach and studies necessary for FERC to conduct their National Environmental Policy Act (NEPA) process and make a licensing decision.

4. Go/no go decision for final FERC licensing.

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ACTION A-2.3 (CONT.):
Additional details on Susitna-Watana

Implementation Timeline:
Update the Project Management Plan regarding approach, budget, and schedule, including updating construction cost and project economics before a decision is made to complete FERC license.

- Preparation, Planning, Collaboration, and Environmental Studies 2-3 years
- FERC Review & Determination 2 years
- Project Execution Phase && Construction Phase 9-11 years
- Operational Phase 100 years

Expected Results:
Based on the economic studies conducted a decade ago, the project remained a viable alternative with a levelized power cost of about 6.5 cents per kWh. Based on this information and the amount of power the project would generate annually, the project remains a viable alternative to meeting the Energy Security Tasks Forces goals. The State should undertake the tasks outlined above to successfully license the project. Once the project is licensed, the State has options to complete the project.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3:
Additional details on AKLNG.

Background:
The Alaska Utilities Group June 28, 2023 Phase 1 Assessment Cook Inlet Gas Supply Project estimated that 2021 natural gas consumption from the Cook Inlet was comprised of approximately 49 BCF (67%) for heating requirements and 24 BCF (33%) for electrical generation. Forecasts for continued gas consumption for electrical generation are flat or decreasing by 5 BCF/yr. Assuming natural gas remains the space heating fuel of choice on the Railbelt, the largest distributor for natural gas for space heating on the Railbelt projects no decline in demand over the next 20 years. Without a change in this fuel source, natural gas will remain a necessary energy source on the Railbelt.

The Utilities Group Study determined that the median case gas supply shortage in the Cook Inlet is projected to be 8 BCF/yr beginning in 2028 and growing to 52 BCF/yr in 2040. In the short term, in order to meet the expected supply gas shortfall in 2027-2028, a decision to pursue LNG imports will likely need to be made in late 2023. In the long term, the study found that a gas pipeline from the North Slope could meet the projected demand most economically.

Benefits:
The 2023 contract price for natural gas from the Cook Inlet is approximately $8/Mcf. Imported gas is forecast to cost approximately $12/Mcf. Incremental supply potentially available from augmented Cook Inlet production is forecast to be generally at or above the imported gas cost. Gas prices from the proposed AK LNG project are estimated at $4.40/Mcf., while a smaller subsidized State-owned pipeline might deliver $9.10/Mcf.

Alaska is presently near the bottom compared to other states in terms of economic growth. Out migration from rural Alaska is rampant due to the lack of economic opportunities. Importing LNG into our resource rich state may be necessary in the short term but would be contrary to the goals of energy security over the long term.

The availability of a local and long term fuel source to support affordable and reliable baseload power generation throughout the Railbelt would provide stability for economic development and a platform around which further diversification of generation could confidently occur. Railbelt businesses and residents would enjoy predictability for their space heating requirements. Availability of natural gas from a pipeline could allow substantial new projects, such as the Donlin Gold Project in western Alaska, to help defray the cost of building gas pipeline infrastructure, and associated transmission and distribution, into western Alaska.

How Do We Get There?
Alaska needs to advance on two parallel tracks: (1) Advance the AKLNG project (permitting, design, financial), including Alaska using its financial strength as necessary to support the negotiation of commercial terms that could lead to a positive project decision; and (2) Resume planning on the in-state "bullet" pipeline so that a backup plan is in place to support Alaska's need for natural gas if the AKLNG project does not proceed.

Implementation Timeline:
Alaska must keep its options open for support of our economy over the next decades. While imports of LNG may occur in the short term, doing so over the long term or long past 2030 would be regrettable, would do little to boost our local economy.

Expected Results:
Unlocking Alaska's stranded natural gas and monetizing these assets will provide long term energy security, and positive economic benefit for all Alaskans, but should not be done so at the expense of diversifying the overall energy generation mix.

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ACTION A-3.1:

Significantly increase load to drive down energy rates.

Background/Benefits:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

How Do We Get There?
This strategy assumes that necessary transmission capacity and reliability upgrades are completed to handle increased loads. To facilitate and incentivize substantial load growth, three possible actions were identified, including (1) issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth), (2) providing tax credits or similar offsets for proposed large load customers to reach attractive power rates, and (3) identifying sites along the Railbelt which are already built to handle load growth.

(1) Upon sufficient analysis of rates achievable by large load additions to the Railbelt, an RFP could be issued by a coordinating Railbelt entity, utility, or the State guaranteeing a rate for power in exchange for the load addition to the grid. Such an approach would eliminate risk for a potential large industrial customer and also ensure load growth for the Railbelt. Long term rate stability would promote industry investment and aggregation of demand side resources.

(2) Alternatively, if a potential industrial customer could not add enough load to the grid to guarantee a satisfactorily low rate, the State could offset the difference with a tax credit or similar vehicle. Again, this approach would help eliminate risk for the new industrial customer and attract economic investment in the state. The tax credit amount would be informed by the estimated savings to utility co-op members due to the load growth associated with the new industrial customer.

(3) In concert with the above actions, it is important to identify areas on the Railbelt that are well-suited to large load growth in the short term, without necessarily waiting for transmission upgrades. Identification of these sites would help potential large industrial customers hone in on realistic locations and spur investment. In addition to specific sites, there may be larger geographic areas that can accommodate rapid growth of distributed loads, such as electric vehicles and heat pumps. These "load-friendly" areas could be further enhanced by management of of the distributed loads ("load as a resource") so they can strengthen, not strain, the grid.
growth.

One risk of these actions is potential cost overruns in the buildout of any required generation for increased loads, the contingencies and responsible parties for which would need to be considered carefully. However, this risk must be viewed in context because cost overruns from new infrastructure would likely be even more problematic without load growth.

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STRATEGY A-3: INCREASE DEMAND

ACTION A-3.1 (CONT.):

Issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth).

Implementation Timeline:

1. Identify areas within the Railbelt which are well-suited for load growth (minimal to no upgrades or new generation needed): 1-2 years

2. Establish incentivized industry/anchor tenant rates: 1-2 years.

3. Issue state-led RFP for new industry articulating $/kWh rate scale based on load growth amount or state tax incentives to offset energy cost for new industrial customers based on load growth savings to co-op members: 2-5 years

Expected Results:

The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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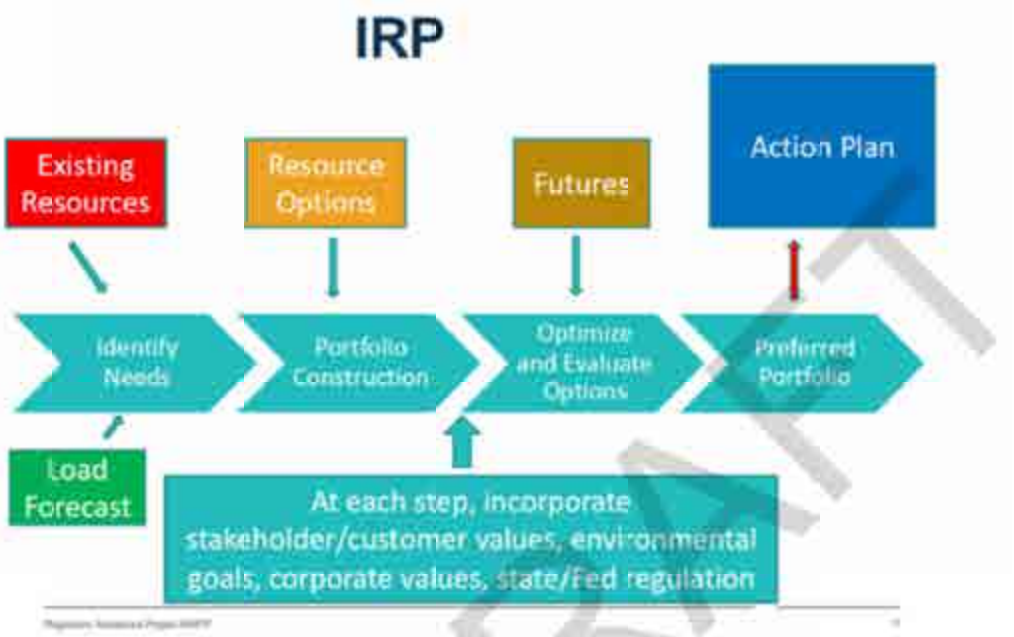
STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1:

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Background:

Integrated Resource Plans (IRP) and their associated forecasts of demand, generation, transmission, and distribution with public input are a tried and proven electrical industry methodology to coalesce State and community energy goals openly and transparently. Large utilities with regulatory oversight can engage in extensive plans that require deeply engaging studies. On the other hand, a lighter integrated resource planning analysis based on the collaboration of community energy needs is a cost-effective approach to local strategic and tactical energy planning required to move toward lower energy costs.



All communities engaged in future supply uncertainty, rising demand for heat pumps, conversion from fossil fuel use to lower-cost renewables, and electrified transportation benefit from intelligent and collaborative planning from utilities, communities, non-utility generators, and the public. The critical component in this process is public participation, as it provides an opportunity to educate the public, build support and constituencies required to advance renewable energy projects and transmission, and ultimately focus on lowering the energy cost for Alaskans.

According to the Pacific Northwest National Laboratory (PNNL), Over 35 US states require utilities to file IRPs or equivalent planning yearly or up to once every four years. These requirements are imposed either through regulation or legislation. The US Department of Energy (DOE), in its 2016 publication, "Sustainable Energy Solutions for Rural Alaska, provided a recommendation for Alaska Utility resource planning to identify a utility's least-cost path over time. These efforts are sometimes called "least-cost integrated resource plans" or simply "integrated resource planning" (IRP) when the scope of the resource decisions include demand-side considerations. The DOE publication explained that the IRPs typically include scenario planning and consideration of uncertainty. IRPs are also typically high-level plans frequently with time horizons of 20 years that look at a broad array of resource choices. However, they may include specific project-related and transmission analysis in the near term (i.e., 1-5 years).

STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.1 (CONT.):

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Benefits:

The State of Alaska can optimize State resources (and parlay federal resources) by establishing, requiring, assistng and implementing and Integrated Resource Plan Light (IRPL) for every utility in Alaska that requires a periodic update to ensure that local and grassroots energy planning is occurring collaboratively at the local Alaskan level with utilities, tribes, non-utility operators, community leadership, NGO's and the Alaska public so that there is a unified focus and format to ensure that no community is left behind in Alaska's transition to lower cost and self-sustaining energy for current and future generations of the affected community.

How Do We Get There?

Establish an Alaska-based IRPL, easy-to-implement model and format. Upon acceptance of the RCA, request each regulated Alaska utility to guide on with minimally established requirements based on prudent IRP practices. This model and format can be initiated and supervised by the Alaska Energy Authority and collaborated with the Regulatory of Alaska and Attorney General Office, Regulatory Affairs & Public Advocacy Section (RAPA). Municipal utilities and other non-regulated electrical utilities in Alaska can also adopt Alaska's IRPL model.

While large Alaska utilities can use this model, the use of the IRPL would not detract from the RCA authority to impose a more robust IRP on Alaska's sophisticated electrical utilities, and the IRPL can serve as an interim or an update adjustment to a utilities existing and perhaps more robust IRP.

AEA and any state of Alaska generation and transmission funding can use the IRPL to determine the viability and economic justification of the public IRPL as a requirement to obtain state funding. RCA can be a repository for the public record and public dissemination of all Alaska utility load and generation forecasting so that other communities and interested parties can learn and adapt from other communities' planning efforts.

AEA and other state agencies can provide resources and technical assistance to assist Alaskan utilities and communities. AEA can require IRPL as a prerequisite for future assistance, aid, and funding as an incentive to collaboratively participate together to analyze the community energy needs, demands, and agreed-upon solutions to lower the energy cost for the affected community. An IRPL also certifies that a utility and a community are wisely and responsibly planning to conserve PCE burdens and preserving PCE trust funds by optimizing appropriate energy solutions on a community-by-community basis.AEA, the Denali Commission, and other state agencies can assist a community with implementing the solutions and results from a community IRPL.

Implementation Timeline:

This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:

This Action item, IRPL, with its implementation steps, offers a fundamental milestone required to methodically transition to premeditated energy planning in an open, objective, and transparent process that will lead, if properly implemented and conducted, to lower cost energy and energy security for Alaskans.

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ACTION B-1.2:

Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering investments to provide grid resiliency and energy security and lower the energy cost for Alaskans.

Background:
Net Metering is a billing arrangement for owners of renewable energy systems. Under Net Metering, excess electricity generated by an Alaskan customer's renewable energy system is sent back to the utility grid, offsetting the electricity the customer draws from the grid when their system isn't producing electricity. Net Metering of private energy systems plays an integral role in the ongoing transition to more sustainable and flexible power grids and lowers the costs of power for Alaskans.

Benefits:
An advanced Net Metering statutory and regulatory framework for Alaskans can optimize mutually beneficial benefits from an advanced net metering program to act as a linchpin for a sustainable, resilient, and economically advantageous energy future in the islanded grid and transmission interconnected Alaska communities to provide a diverse energy portfolio that invigorates and sustains private and public investment, provides energy security and grid resiliency benefits while lowering the energy costs for Alaskans.

How Do We Get There?
Investigate, evaluate, recommend, and update/modify changes to Alaska's net metering laws and regulations for Best Management Practices (BMP) based on other successful State net metering programs.

Encourage the Alaska Energy Authority (AEA), Alaska Housing and Finance Corporation (AHFC), Denali Commission, and other agencies to assist and finance community, tribal, business, and residential net metering investments in Alaska to improve grid stability and resilience and lower energy costs.

Policy Framework and Regulation:
Develop through the Governor's office, AEA, and Regulatory Commission of Alaska (RCA) a clear, supportive regulatory framework that invigorates and favors net Metering incorporating vigorous net metering models and best management practices (BMP). Provide resources, leadership, and agency assignments and oversight to ensure the resulting regulatory framework provides long-term clarity and certainty to private/public investors, community energy security, and utilities.

Infrastructure Development:
Invest and finance grid infrastructure for residential, business, community renewables, and grid distribution systems to handle increased distributed energy resources and increase energy security through AHFC, AEA, AIDEA, Tribal and federal funding to facilitate grid interconnectivity for renewable energy sources.

Develop and promote short and long-term energy storage solutions, such as battery systems, to address the intermittent nature of community and residential renewable sources like solar and wind.

Incentivization and Financial Support: Develop and offer a breadbasket of incentives such as tax credits, rebates, or grants for individuals and businesses that invest in renewable energy systems. Set up a competitive feed-in tariff for excess energy fed into the grid. Work to develop State Agency and federal programs to provide zero or low-interest loans or financial incentives for energy storage solutions. Develop and structure incentives to assist higher PCE cost communities and the PCE program.

Outreach and Stakeholder Collaboration:
Create platforms for dialogue between utility companies, private investors, and government agencies. Incentivize and encourage utilities to develop advanced net metering models that benefit from distributed generation rather than viewing it as a threat.

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ACTION B-1.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Engage with Native tribes and corporations to ensure their perspectives and needs are incorporated. Encourage and direct State of Alaska (SOA) agencies and utilities to partner with Alaska university programs and renewable energy Non-Governmental Organizations (NGO), boroughs, and city governments to integrate renewable energy net metering in development planning for localized energy security, emergency planning, and sustained energy operations with natural disasters.

Develop state code and design criteria using prudent utility practices for net Metering. Consider state procurement agreements for integration hardware and controls selection and purchase.

Technology and Innovation:
Promote research and development in renewable energy net metering regimes tailored to Alaskan conditions.
Support innovation in grid management tools and technologies using best management systems to efficiently and effectively handle distributed energy.

Collaborate with tech companies to integrate advanced consumer energy management systems, such as smart meters and home energy management systems, that assist utilities and overall grid management.

Monitoring and Feedback Mechanisms:
State of Alaska: Stand up or administer/assign a dedicated agency or body to monitor utility progress and impacts of the net metering program and make suggestions to recalibrate and use adaptive management to gain incremental effectiveness of net metering regimes. Continuously gather net metering and utility participant feedback and iterate on the program's design and incentives.

Publish annual reports for AEA, AIDEA, RCA, the Governor, the Legislature, and the public to highlight achievements, challenges, and next steps.

Implementation Timeline:
This action item has a blend of Immediate, short-term, mid-term, and long-term (follow-up, review, and recalibration as necessary) tasks for implementation.

Expected Results:
The net metering roadmap places Alaska at the pinnacle of energy innovation and leadership while empowering net metering participants and utilities to collaboratively advance the state of Net Metering in Alaska as a public interest good. This strategy and tactics empower Alaskans to amplify private and public investments, fortify grid stability, strengthen grid resilience, and slash energy expenses. Embracing this Action Item, Alaska is assisting in meeting Alaska's energy demands and security while ensuring Net Metering advances are addressed collaboratively, openly, transparently, sustainably, and economically, ensuring a sustainable and cost-effective energy future that reduces the energy cost for Alaskans.

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ACTION B-1.3:

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Background:
The State of Alaska has multiple departments with diverse missions and responsibilities. Developing energy projects in Alaska requires developer coordination with competing agencies with differing priorities and willingness to assist a project developer. This lack of unity of effort can lead to chaos and time delays in permitting and executing energy projects and transmission with differing state agencies. There is a need for a navigation coordinator and assistance for Alaska communities and Alaska renewable energy developers to coordinate among the differing State Agency requirements.

Benefits:
The development of State policies and oversight that produce a coordinated and affirmative mindset for developing cost-effective renewable energy and transmission lines in Alaska lowers energy costs for Alaskans while also assisting developers in their pursuit with federal agencies in meeting national clean energy goals through mutual cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska Energy Authority (AEA)-sponsored in-state working group/oversight body between the Governor's Office, AEA, and State agencies to find common ground and purpose to streamline renewable energy, transmission, and energy project interconnection permitting, regulations, and State of Alaska authorizations. The focus and mindset are to "promote" and develop sustainable energy projects and related transmission lines to accelerate permit processing and get to "yes" renewable energy development to lower costs and increase energy security for Alaskans.

Each State agency and department conducts a critical internal review to identify permitting and authorization bottlenecks that impede or slow down renewable energy development and then develop internal agency courses of action and corrections necessary to fulfill the overarching directive to lower the cost of power for Alaskans.

Each State agency assigns a Change Officer duty and responsibility for implementing and executing departmental administrative changes based on permitting review/audit and course of action analysis.

Develop an energy development interdepartmental liaison between Commissioners and delegated staff to coordinate and accelerate renewable energy project and transmission development.

Identify state laws or regulations that impede or block renewable energy and transmission development and make recommendations to change statutes and regulations for the Governor and legislative leadership to accelerate energy development, transmission, and interconnections to lower the cost of energy for Alaskans and Alaska industry.
Create directional versus aspirational intentions to deliver results for Alaska's citizens desiring the lowest long-term and sustainable energy costs.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.3 (CONT.):

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can advance and promote Alaska's renewable energy development with cooperation, support, and a unity of effort between State agencies to support and accelerate the growth of Alaska's renewable energy resources for the maximum benefit of Alaskans, reducing energy costs and providing the energy security that Alaskans are entitled to from their State government leadership.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources between and among state agencies to provide a unity of effort to execute the State energy plan and lower the energy cost for Alaskans.

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ACTION B-1.4:

Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution Lines in Alaska to bring Alaska on par with the US transmission system for Alaskan energy security and lower energy costs.

Background:
Despite its vastness, covering 17.5% of the US landmass, Alaska's transmission system is strikingly underdeveloped. With only 1,697 miles of high and low-voltage transmission lines, it represents less than 0.25% of the nation's total transmission infrastructure. To put this transmission deficiency In perspective, the contiguous US boasts over 700,000 circuitous miles of these lines. Furthermore, Puerto Rico, a US territory, has 2,478 miles , while Wyoming—a state with a population size comparable to Alaska—has 4,300 miles . This subpar transmission network hampers the integration of renewable energy sources and poses challenges for military installations in ensuring transmission contingencies to support critical national security missions.

Moreover, there's an urgent need for Congressional funding action. For example, despite having Congressional authorization for $384 million for the Southeast Alaska Intertie , which aims to connect Metlakatla through Skagway, the promised funds have not been authorized. Alaska's grid modernization is not just about powering homes and lowering costs; it's crucial for national security, economic growth, and future energy resilience that Alaskans deserve.

Regardless of any metric, stating that there is a transmission need in Alaska is an understatement.

Benefits:
Alaska must upgrade its outdated territorial grid system to a modern, 21st-century standard, incorporating N-1 contingencies. This transformation is crucial for integrating renewables and other new energy sources. Bringing Alaska on par with the rest of the nation with a first-world transmission grid will reduce energy costs and enhance energy security, laying a self-reliant solid energy foundation for Alaska's future.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

Develop and create a State of Alaska Power Transmission Fund under AEA to promote, secure and establish federal authorization and appropriations funding to develop an additional 3000 miles of transmission corridor for Alaska to move Alaska from pre-territorial grid system to a grid system that ignites development and integrates renewables, displaces more expensive diesel generation reducing energy costs.

Create a system that allows AIDEA, AEA, and Federal funding to develop, design, build, execute, and operate additional regional transmission sections and lengths under a unified plan.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska must exponentially increase its haphazard and subgrade transmission system if Alaska is to develop and maintain its economic viability. Federal funding for a State of Alaska Power Transmission Fund State of Alaska Power Transmission Fund will enable the State to develop other State Energy Plan action items. Creating a robust transmission network in the Railbelt and Coastal areas is essential for Alaska to prosper economically.

This structured execution list to develop a State of Alaska Power Transmission Fund offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans while providing the means and funding to transform the dire transmission situation as it exists within Alaska today.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5:

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Background:
Alaska community energy planning ensures a stable and sustainable energy future, providing the optimum lowest cost power over time. For community leaders, citizens, and utilities to effectively plan growth, demand, and evolving market conditions, specific metrics are required to guide decisions continuously and track progress. Further, Alaska already has many data sets available, although this information is not readily boiled down and packaged for usefulness for community decision-makers or is not widely known. There is a demand and need for community data and metrics to make wiser community energy decisions, to prepare and request grant funding, and to position communities for greater energy self-reliance, energy security, and ultimately to lower the cost of energy-heating, electricity, and transportation.

Some key indicators and metrics could assist local energy planning and decision-makers in no priority order.

1. Energy Consumption:
- Total energy consumed per sector (e.g., residential, commercial, industrial).
- Per capita energy consumption.
- Forecasted energy consumption due to market condition changes-shore power, industrial loads, beneficial electrification in heating and transportation sectors.

2. Energy Production:
- Total energy produced from various sources (e.g., solar, wind, fossil fuels).
- The capacity factor of energy-producing installations (how often they produce energy compared to their maximum potential).

3. Energy Efficiency:
- Energy saved due to efficiency measures.
- Forecasted energy efficiency savings due to energy efficiency measures

4. Energy Import/Export:
- Amount and type of energy and units imported/exported to or from an Alaska community or utility.
- Dependency percentages on external energy sources that can be improved with local or regional energy resources or transmission.
- Forecasted energy dependence reduction with the forecasted increase in local or regional renewable energy production to include impacts from beneficial electrification in heating and electric transportation.

5. Renewable Energy:
- Percentage of total energy derived from renewable sources.
- Installed capacity and generation from each renewable source (e.g., solar, wind).
- Forecasted installed capacity and generation from each renewable source.

6. Carbon Emissions:
- Total carbon emissions from energy production.
- Carbon intensity (carbon emissions per unit of energy produced).
- Forecasted Carbon Emission reductions from new carbon free energy sources or due from transformation from fossil fuels to renewable energy from beneficial electrification.

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ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

7. Economic Metrics:
- Cost of energy production per unit.
- Economic benefits of energy projects (jobs created, GDP impact).
- Forecased savings over life cycle of new generation and economic quantification of other benefits-emission reductons, fuel savings, etc.

8. Energy Resilience and Reliability:
- Duration and frequency of power outages.
- Energy storage capacity.
- Forecasted energy storage capacity needs and economic and ESG quantification of benefits.

9. Energy Transition Goals:
- Targets for renewable energy adoption.
- Reduction targets for carbon emissions.
- Forecasts for transition goals with data to support transition initiatives

10. Energy Sales, volume by customer sector and price Information
- Transparent and accurate information provides objective fuel alternative calculations for collaborative community decision-making.
- Forecasted sales based on beneficial electrification, shorepower, industrial load growth, and converting interruptible sales to conditional firm power.

11. Overhead of utility costs
- Overhead cost data for comparison between similarly sized utilities to determine and approve managerial efficiencies.

12. Infrastructure Health
- Age, condition, and capacity of energy infrastructure (e.g., power plants, transmission lines).
- Forecasted infrastructure replacement and upgrades with new technology that provides operational control benefits and improves grid security and resilience.

13. Electric Vehicle number and percentage of community vehicle stock
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

14. Electric Vehicle public level 2 and level 3 charging stations
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

15. Heat Pumps
- Total Number of Air Source Heat Pump units in a community or utility, annual installation growth, and percentage breakdown of building and housing units by fuel source.
- Forecasted loads in 1 to 5 years.

16. Shorepower Installations
- Total number of units, annual sales, and peak demand
- Forecasted loads in 1 to 5 years.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

There is a cost to producing, maintaining, and updating information. Therefore, a cost-benefit analysis would need to occur to determine the net value of each data metric. However, as data-driven decision makes progress and we mature Alaska community energy decision-making from black box data to transparent and open information scenario, data is required for planning, decision making and also enabling Alaska communities to be armed with data when competing against communities from other States in competitive federal infrastructure, energy, and emission reduction grants.

Lastly, this recommendation does not include the requirement or decision bar that Alaska or communities must have perfect data or complete data to make decisions. Too much unuseful data or requirement to have impossible-to-achieve data has historically plagued some communities and energy decisions, or opposition will use stall-by-study tactics to impede energy development and transmission build-out required to elevate Alaska on an energy security level with the rest of the country. In other words, let us not fall into the trap that the enemy of good is the requirement for perfect or complete information.

Benefits:
Alaska can help make wise local energy planning decisions, forecasting demand and supply and using data to apply for grants and assistance requiring data-driven applications. All of these actions enable community leaders with utilities and public input to plan for a community's energy needs while working toward the lowest energy cost.

How Do We Get There?
In general, "how we get there" is to support the recommendations from the Data Subcommittee of the AESTF with the insistence that the viewpoint, practical delivery, and service from data is customer-focused, being the Alaska community and decision-makers. Data should be "community customer-driven" and community-centric in its approach and philosophy of conducting and maintaining data to help and propel Alaskan communities using data in a practical and common sense approach to drive energy affordability, reliability, and resilience for Alaskans now and for the future.

Establish a Data Department within the Alaska Energy Authority (AEA) with regulatory authority to request and receive data from any electrical utility in Alaska that is issued a Regulatory Commission of Alaska (RCA) Certificate of Public Convenience and Necessity (CPCN).

Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access that is "customer focused" on delivering data to customers for practical and cost-effective decision-making that propels and not slows the development of energy projects, solutions, and transmission systems.

Fund data capacity on a cost/benefit and the biggest bang for the buck approach to maximize data benefits at the lowest cost.

Improve existing energy data and collect new, needed data. Consider that if a utility and/or community desires state support from PCE and grant applications, it volunteers to judiciously supply requested data as required to ensure maximum participation in the production and use of energy data for the benefit of all Alaskans.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation as suggested by the Data Subcommittee of the Alaska State Energy Task Force.

Expected Results:
The expected results from this roadmap are for the State funded AEA Data department, as suggested and articulated by the Data Subcommittee mission is to provide customer-relevant information, metrics, and data that assist Alaska communities and utilities in making practical and wise energy decisions that lower the cost of energy, provide energy security and increase resilience for Alaska communities and electrical utilities.

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STRATEGY B-1: ALASKA POLICY RECOMMENDATIONS

ACTION B-1.6:

Recruit, Train, and Enhance Alaska workforce with technical training for advancing beneficial electrification to lower Alaska energy costs and sustain Alaska's growing energy infrastructure.

Background:
Alaska has entered an unprecedented demand for apprentices and skilled electrical trade workers that are critically necessary to build out and achieve the required generation, transmission, distribution, storage, and commercial/residential wiring essential for Alaska to migrate from higher-cost fuel sources to lower-cost fuel sources. Various agencies, labor organizations, and contractors operate many training and apprenticeship programs to meet the training needs of Alaskans without an inventory of forecasted demand. When there's a shortage of workers, it disrupts the balance of supply and demand. This scarcity means Alaskans must pay higher wages to attract the limited available labor. As companies spend more on recruitment and possibly higher wages, these increased costs inflate energy project costs and raise energy costs.

Additionally, in energy generation and transmission systems, where contracts are awarded to the lowest bidder, companies must increase their bid amounts to cover the higher labor expenses and contingency risks in obtaining qualified employees to perform the work. This phenomenon can lead to higher prices for Alaska generation and transmission, construction delays, and potential quality declines. Worker shortages have immediate impacts; they ripple through the entire Alaska economy, driving up energy and transmission costs and potentially slowing growth.

Benefits:
Alaska can achieve its labor and workforce training requirements through a unity of effort with multi-year "forward planning" to engage Alaskans to successfully enter critical job skills in the electrical trades to build out the infrastructure needed to assist Alaskans in lowering the cost of energy with a self-reliant and local Alaskan workforce. With its unique challenges and vast geographic expanse, Alaska requires an innovative approach to workforce development, particularly in critical sectors like electrical trades. Meeting the state's labor and workforce training needs necessitates a holistic, long-term strategy from secondary to post-secondary and trade schools.

How Do We Get There?
Conduct an objective Alaska inventory demand and forecasting for critical skilled jobs with a multi-year forecast and then develop a plan to recruit, train, and place Alaskans to meet Alaska's needs for these critical skill sets.

Calibrate and coordinate with Alaska Dept. of Labor, Intl. Brotherhood of Electrical Workers (IBEW), other organized labor, Alaska Vocational Technical Center (AVTEC), Associated General Contractor of Alaska (AGC) , Alaska Safety Alliance to optimize resources and coordinate together to maximize results to ensure that Alaska's labor market has the skilled workers necessary to achieve results on time and on budget.

Engage trades and secondary school systems in developing advanced secondary education, enabling a seamless transition from secondary education to successful building trades job placement.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
By harnessing Alaska's own resources and prioritizing its people, especially the coastal and rural communities, the state can build a self-reliant workforce ready for its unique challenges and opportunities that are essential in helping Alaskans lower the cost of energy, producing energy generation, transmission, and energy security for our communities and maintaining grid resilience.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1:

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Benefits:
The development of state policies and goals to negotiate and execute with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska-Federal Renewable Energy Working Group between the Governor's Office, Attorney General, Alaska Energy Authority, Alaska Department Commissioners, the USDA Forest Service and US Dept. of Interior (DOI) landholding agencies, and the US Department of Energy (DOE) and USDA Rural Utilities Services officials that promote energy development in Alaska to find common ground to develop renewable energy projects and related transmission lines to collaboratively and successfully open up Alaska federal lands for Alaska renewable energy development and transmission execution.

Utilize the creation of an Alaskan-Federal Renewable Energy working group to Develop, Draft, and Execute mutually approved agreements between the authority of the Governor and the Executive Orders of the President of the United States and initiate binding Congressional legislation and Alaska legislation as needed for asserting the State of Alaska consultive and input rights on the development of federal lands for the purpose of renewable energy development and transmission siting authorities. This collaboration aims to ensure Alaska's consultative rights in renewable energy projects on federal lands and to shape necessary legislation.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.1 (CONT.):

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Seek, negotiate, and obtain through agreement or through initiated federal legislation State primacy on existing and potentially new renewable energy Power Site Classification Sites (PSC) found on federal lands in Alaska identified in established Bureau of Land Management Public Land Orders and aimed for greater access to these PSC for development.

https://archive.org/details/powersiteclassif02geol/mode/2up

Seek, negotiate, and obtain through agreement or through initiated federal legislation a Renewable Energy Land Use Designation (RELUD) and Transmission Line Land Use Designation(TLUD) that overlay and have priority over all other Land Use Designations in the Tongass and Chugach Forest Land Use Management Plans.

Negotiate with federal agencies and obtain State Primacy over RS 2477. A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State primacy and control all Alaska RS 2477 Rights of Way located on or near federal lands to facilitate access to and from renewable energy sources for development. Seek to have State primacy on all RS 2477 trails and roadways in Alaska located on federal lands to facilitate access to and from renewable energy sites for development.

https://www.blm.gov/sites/default/files/docs/2022-05/PDF_AK_State_of_Alaska_RS2477_BLM_AK_RAC_May_2022_James_H_Walker.pdf

Enlist support from the Alaska Congressional Delegation to introduce legislation to have Alaska and other affected States gain state primacy over RS 2477 Rights of Way located in their respective states.

A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State authority over Section 4407 easements in Southeast Alaska or near federal lands to facilitate access to and from renewable energy sources for development. These easements were created pursuant to a land exchange ratified by Congress in Section 4407 of a 2005 federal transportation funding bill.

https://dot.alaska.gov/sereg/projects/sitka_katlianbayroad/assets/Section_4407_Easement.pdf

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Alaska's renewable energy development with cooperation and support from the federal government to achieve national purposes while reducing the energy cost of Alaskans. The expected results will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources on federal lands to achieve lower costs and meet national goals for reducing emissions.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2:

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Background:
Coastal Alaska communities are keen on lowering their energy, heating, and transportation costs through collaboration of State, Tribal, and federal resources. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Furthermore, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By working together, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint effort can enhance the creation, sharing, and use of energy across the State. Additionally, recent legislative changes in the Inflation Reduction Act actively seek to fund energy developments with tribal entities, which could provide lower-cost energy benefits and local energy resilience in many areas of Alaska.

Federal agencies, specifically the US Department of Energy (DOE) and the US Department of Agriculture, Rural Utilities Services (USDA-RUS) have rural and tribal-centric programs that can advance the State of Alaska's goals to develop energy infrastructure and reduce energy costs for Alaskans.

Benefits:
The State of Alaska, specific federal agencies, and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans and Alaskan communities. By identifying and sharing information, plans, and initiatives and then establishing a framework to cohesively advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska, federal agencies, and Alaska Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

How Do We Get There?
Establish a working group of regional tribes interested in or working on energy solutions to lower the cost of energy with State of Alaska officials, Alaska Energy Authority (AEA), the Governor's Office, and the Denali Commission. The working group would identify areas of mutual assistance to advance locally sustainable energy developments and transmission projects by strategically and tactically optimizing federal and tribal funds to achieve mutual energy goals of lower-cost and self-sustaining energy systems.

Identify and attract federal tribal energy program participation, technical assistance, and financing to work with state agencies to streamline permitting, regulatory processing, and funding to advance projects and transmission to lower energy costs and provide community energy security.

The US government has specific energy assistance programs for tribal entities to partner with the State of Alaska, Communities, and public/private developers of generation and transmission that work together with a unity of purpose and effort to assist in lowering the cost of energy for Alaskans.

If deemed viable and valuable, create a Fed State Navigator role or duties assigned to an existing position to assist rural and tribal entities in navigating the State permitting processes to develop and construct local renewable energy and transmission projects using tribal and federal funding with State assistance.

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STRATEGY B-2: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-2.2 (CONT.):

The State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
This Action item, with its implementation steps, offers a roadmap to gain common ground, synergies, and practical outcomes for Alaska communities with overlapping interests of federally recognized tribes to achieve the mutually beneficial goal of lowering the cost of energy for Alaskans.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1:

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Background:
The foundation of Alaska's most cost-effective energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once the hydropower project's initial debts are settled, they yield consistent, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and commerce today and well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

Both in Alaska and across the U.S., the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — position it to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.

Benefits:
Hydropower in Alaska is not just an energy source; it's our Alaska energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure, we're not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and also reaping benefits for future generations with sustainable, clean energy. Investing in hydropower is our Alaska commitment to Alaska's proven energy model, where hydropower assets exist for a brighter, more affordable, energy-secure future for Alaska.

How Do We Get There?
Evaluate and execute adaptive investment practices from the Bradley Lake and Four Dam Pool model and combine them with some of the prudent practices of BC Hydro to create a public-private State of Alaska corporation to develop, invest, own, and oversee operations of new hydropower facilities in Alaska.

Provide and fund AEA the authority to identify and invest in regional hydropower and hydropower transmission and distribution assets for the public benefit.

Encourage utilities to financially participate in ownership and long-term offtake arrangements to provide energy security and growth in service areas or to allow utilities to service new large industrial loads-mining and cruise industry shore power.

Combine federal tax incentives, grants, and loan programs to optimize lower-cost financing and equity costs to lower the cost of power now and over the life of the assets.

Establish a State of Alaska Power Fund to own and operate Alaska hydropower assets that can provide regional benefits. Establish State of Alaska administered and supervised investment mechanisms and equity ownership for utility, tribal, and local community investments, combining local equity with federal financing through existing or new federal programs.

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STRATEGY B-3: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-3.1 (CONT.):

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Seek federal legislation to provide funding for a State of Alaska Power Fund to help Alaska provide energy security for Alaska military bases and installations for the benefit of Alaska support for Alaska-based military and Coast Guard operations for national security.

Identify, support, and fund to build local and regional hydropower to serve Alaska communities and multiple transmission interconnected communities at economies of scale, providing lower-cost power. Alaska Energy Authority (AEA) and Alaska Industrial Development and Export Authority (AIDEA) financially support through existing programs and investments any executable-ready hydropower project (permitted/licensed, designed, economically feasible) that will provide lower-cost electricity over the project's life.

Identify, seek, and support the construction of hydropower assets to export power to provide economies of scale for hydropower projects to lower the energy cost for Alaskans by selling export power to finance and economically enhance a hydropower project's economic viability.

Develop and support economically and with regulatory approval intertie connections and transmission corridors to strategically place transmission to interconnect current and future transmission to provide transmission corridors to known and undeveloped hydropower locations.

Establish a State/Federal Power board, through Congressional legislation, to cooperatively have the Federal government land owners actively assist the State of Alaska in developing hydropower assets on federal lands.

Review, refine, and amend Sec. 42.45.350. Licensing for water-power development projects and enacting state regulatory control over small hydropower development with Alaska interdepartmental coordination to support hydropower projects with abbreviated regulatory permitting.

Governors Office and AEA work with the Congressional delegation to craft legislation to ensure that FERC-exempt or state-licensed hydropower projects qualify for all eligible federal Production Tax Credits (PTC) and Investment Tax Credits (ITC).

The Governor's Office and AEA work with Alaska's Congressional delegation to craft and support legislation identifying hydropower as a renewable carbon-free energy source for all federal legislative, regulatory, taxation, incentive, and national security purposes.

AEA provides an option for Renewable Energy Credit (REC) participation through a statewide pool. This pooling approach aims to achieve economies of scale when selling RECs. By doing so, both state-owned and other hydropower projects can maximize the value of Alaska's hydropower RECs. The ultimate goal is to reduce the cost of electricity for Alaskans.

These action steps have statewide applicability for other regions of Alaska where critically important hydropower development assets exist.

Implementation Timeline:
This action item has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1:

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

Background:
Heat pumps are widely used in Northern Europe, with over 90% market penetration. They efficiently provide affordable heating even at temperatures as low as 13˚ F, lowering the costs in these arctic, subarctic, and temperate regions.

		2014	2015	2016	2017	2018	2019	2020	2021	2022
Table 3.5-1: Heat pump market shares development by country - space heating	Denmark	43.9%	54.3%	56.5%	69.2%	72.0%	75.8%	80.4%	82.6%	91.4%
	Estonia	77.5%	77.6%	80.7%	80.5%	79.9%	80.5%	82.5%	86.0%	86.7%
	Finland	88.1%	86.6%	87.4%	88.9%	90.5%	92.5%	93.5%	94.7%	96.5%
	Norway	95.4%	96.0%	96.9%	96.5%	96.7%	96.6%	96.3%	97.6%	98.0%
	Sweden	90.6%	90.8%	91.3%	91.4%	91.0%	90.9%	90.8%	92.1%	94.8%

Source EHPA-European Heat Pump Market and Statistics 2023

Several communities of Alaska are experiencing a significant transformation from more expensive fossil fuel heating sources to lower-cost heat pumps, saving Alaska households.

Benefits:
How can Alaskans and Alaskan communities capture the lessons learned from Northern Europe, Canada, and Maine in ensuring that Alaskans gain from these successes and promote the same opportunities to lower their energy costs and improve their quality of life by spending less of their income on home heating?

How Do We Get There?
Strategies and Tactical Steps for Advancing Heat Pump Adoption in Alaska:
a. Collaborate Internationally: Partner with the European Heat Pump Association https://www.ehpa.org/ and the International Energy Administration Heat Pump Centre https://heatpumpingtechnologies.org/about/heat-pump-centre/ to leverage models and programs that have successfully increased heat pump adoption. Collaborate with Provinces of Canada that have heat pump adoption programs

b. Collaborate with Maine State Housing Authority and Efficiency Maine to learn of their programs to adapt and adopt a tailored State of Alaska heat pump program with the following suggestions

c. Homeowner Financing: Offer zero or low-interest loans to homeowners through AHFC and related programs, enabling Alaskans to transition to cost-effective heat pump heating systems.

d. Business and Public Facility Financing: Provide zero or low-interest loans via AHFC and other state organizations for businesses, apartment complexes, schools, governmental buildings, and NGO facilities to adopt heat pumps. This effort aims to reduce heating expenses for these entities, ultimately benefiting Alaskans.

e. Community Heating Solutions: Allocate funds for community District Heating projects that utilize heat pumps, further decreasing energy expenses for Alaskan residents.

f. Have AHFC publish and adopt for use the Juneau Commission of Sustainability fuel price calculator to assist communities and individual households with their annual fuel savings and use the savings to assist in financing for heat pump purchase and installations https://juneau.org › wp-content › uploads › 2019 › 06 › jcos_fuel_price_calculator-.xlsx

g. Bulk Purchasing: Collaborate with top manufacturers and suppliers to buy heat pumps in bulk, ensuring Alaskans receive a discounted rate and, consequently, more affordable heating solutions.

h. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality heat pump installations across Alaskan communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.1 (CONT.):

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

i. Public Education: Partner with Alaskan non-profits such as Alaska Heat Smart and tribal organizations with heat pump programs to educate the public about heat pump benefits. This includes offering building assessments for heat pump suitability and providing unbiased advice and recommendations.

j. Utility Billing Integration: Obtain RCA authorization allowing electrical utilities to introduce on-bill financing. This lets Alaskans conveniently pay off their heat pump loans directly through their utility bills, streamlining the repayment process for consumers and AHFC alike.

k. RPACE-Residential Property Assessed Clean Energy. Consider State adoption of a streamlined, easy-for-consumer RPACE program. USDOE best practice guidelines: https://www.energy.gov/sites/prod/files/2016/11/f34/best-practice-guidelines-RPACE.pdf

l. Federal Support: Pursue federal aid and funding to bolster State of Alaska initiatives and community projects. This support will drive the widespread adoption of heat pumps, ultimately reducing energy costs for Alaskans.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska that is tried and proven in other arctic, sub-arctic, and temperate locations. The expected results will lower Alaskan's heating costs and reduce the dependency on imported fuels, creating demand for the development of local energy resources to displace imported fuels.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of heat pumps in Alaska to lower the cost of heating in Alaska.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2:

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Background:
Alaska set the standard for cruise ship shore power in Juneau, a model now global. This system benefits cruise lines financially, extends their stay in Alaskan ports, and fortifies our coastal grids. All modern cruise ships, including those being built today, are shore-power compatible. Seward and Whittier, with their utilities, are now developing these facilities. Efficient shore power involves precise transmission infrastructure, substations, and quick-connect equipment for cruise ships requiring 3MW to 8MW each. For perspective, Juneau's Franklin dock, with full shore power utilization, recorded over 6,000 MWh in a single cruise season. Such infrastructure investments uplift not just the cruise sector they also bolster community resilience and present affordable energy alternatives, enhancing community energy reliability and assisting the State and communities to reduce the cost of power for Alaskans.

Benefits:
By spearheading shore power, Alaska boosts its grid reliability, attracts local energy investments, and showcases greener, emission-free ports—enhancing its global appeal. The Alaska shore power task and purpose propels job growth and infrastructure enhancement, supports industries, augments energy resilience, and slashes energy bills for its residents.

How Do We Get There?
Alaska Energy Authority (AEA) provides technical oversight and assistance to communities, Independent Power Producers (IPP's), and local utilities to develop a shore power electrification plan to provide shore power at all cruise dock facilities in Alaska.

AEA and Alaska Industrial Development and Export Authority (AIDEA) support public-private transmission, distribution, and generation investments to execute shore power in Alaska communities using state head tax funding distributed and accountable to AEA.

Dept of Commerce and Community Development (DCCED) AEA, and the Regulatory Commission of Alaska (RCA) encourage communities to develop shore power planning for future-proofing generation and distribution infrastructure to meet current and future demand, fully utilizing Alaska generation and transmission resources.

AEA/AIDEA Develop a technology term sheet and outline for communities using known and established Alaska and worldwide shore power engineering and infrastructure firms established with tried and proven late generation (automated quicker connect and disconnect times) shore power distribution, BESS, and shore-to-ship connection infrastructure. EPS-Anchorage, WABTEC Stemman Technik, and other late shore power generation systems.

State of Alaska engage with Alaska's congressional delegation to modify federal transportation statutes and programs to include and support cruise marine vessel port funding on par with freight ports.

State of Alaska, AEA Establish and encourage cruise line industry participation and support in statewide shore power planning.

AEA/AIDEA Support by encouraging and funding power generation projects that support firm power generation for cruise line shore power during cruise season and supply winter load power in the off-season to bolster local energy resilience and security.

Identify legislative and regulatory modifications to support shore power installations in coastal communities to support economic development.

State, DCCED, and private companies combine Alaska tourism marketing programs to incorporate Alaska's strategy to shore power Alaskan ports to assist in marketing Alaska as a clean port state destination.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

AEA provides engineering systems to assist with pre-engineer systems to the extent possible to reduce purchase costs, gain consistency in systems, and incorporate local Battery Energy Storage Systems to enable local utilities to ramp up and provide quick connect and disconnect times using proven late-generation technologies used in fast connecting ports worldwide.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska has the potential to take a leadership role in shore power development by executing a carefully planned strategy. By focusing on shore power, Alaska can expand the demand for renewable energy. This increased demand can then stimulate further growth and construction of the state's renewable energy sources. The ultimate goal is for Alaska to be recognized globally as a leader in shore power implementation. Successful results have multiple benefits: higher revenues for utilities, encouraging investment in the energy generation and distribution infrastructure, enhancement of the State's energy resilience, reliability, and capacity, and decreasing energy costs for the residents of Alaska.

Additionally, dock electrification resources could provide electrical delivery from ship to shore emergency power to communities in the event of natural disasters providing an energy security back up for distressed communities.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.3:

Beneficially electrify the Alaska Ferry Fleet to lower cost of transportation, and emmissions and assist in reducing the cost of power in coastal communities.

Background:
Alaska Department of Transportation & Public Facilities (DOT&PF) and Southeast Conference (SEC) are partnering to conduct a Low Emission Ferry Research project. Alternative fuel powered, low-emission, and electric ferries could be a game-changer for Alaska's Marine Highway System, as DOT&PF starts to replace AMHS's aging fleet in upcoming years. Fuel efficient ferries could increase the range and capacity of the fleet, potentially increasing service to communities and reducing AMHS operating costs.

Benefits:
How can Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System (BESS) to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Refine shoreside energy storage system sizing for expected future vessel schedules.
- Prepare site plans for each port where a shore-side charging BESS is beneficial to meet current and future charging demands. Consider:
  - Permitting difficulties;
  - Floating vs. Shoreside.
- Investigate the capacity of available hydro power and impacts to the community where it is expected to be the primary source for powering electric ferries. Evaluate the impact to local power costs from periods of constricted supply when diesel power plants must be utilized to supplement or replace hydro power.
- Develop benefit calculation for avoided greenhouse gas emissions due to use of electric ferry routes powered by greenhouse gas neutral-generation electricity.
- During Low/No Emission port and BESS design, consider incorporating electric motor vehicle (National Electric Vehicle Infrastructure Program – NEVI) charging stations.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

- 3-5 years to secure funding from IIJA and other sources for specific ferry replacement projects.
- 5-10 years to complete design and construction of IIJA-financed vessels.

Expected Results:

- Lower carbon emissions compared to conventional diesel-mechanical engines.
- Increased electric utility revenues from purchase of electricity by BESS.
- Purchase of electricity at less than peak-rates for lower cost energy to AMHS ferries.
- BESS supported microgrids in AMHS communities.
- More reliable ferry service to AMHS communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.4:

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

Background:
Alaskan entities and government agencies built many legacy Alaska hydropower projects in Coastal Alaska to serve industrial loads. Many of the legacy hydropower assets of Juneau were developed, constructed, and operated by mining interests to power mills and lower the cost of mining. This tried and proven model of building hydropower to subscribe the generation output to large mines and other industrial loads provides economies of scale to finance large hydropower and transmission investments by creating economies of scale. The hydropower development history of Alaska and the colocation of industrial loads offer valuable lessons learned for Alaska as Alaska leans forward to increasing its energy security, and resilience and achieving lower-cost energy. These legacy hydroelectric facilities built in the past now provide the lowest-cost wholesale power in Alaska, proving the long-term investment model through providing long-term energy dividends in some cases for over 100 years.

The large customer concept whereby a hydropower project serves the Alaska industrial base, be it a military installation, a mine, a fish processing plant, or future industries like data service centers or even transferring a power consumptive industry (ferries, cruise ships, trains-such as electrifying the Alaska railroad) from diesel to electric provides the opportunity to colocate industrial loads near hydropower generation that can provide firm and conditionally firm power to establish lynchpin industry and employment in Coastal and Alaskan communities situated with hydropower resources. This concept is a tried and proven Alaska energy model based on historical development.

Today, the added benefit of producing clean power to meet Environmental, Social, and Governance (ESG) further compels the attraction of industry to use Alaska hydropower. ESG refers to the three central factors in measuring an investment's sustainability and societal impact on a company or business. These criteria are increasingly becoming crucial to investment decisions, as many investors recognize the long-term importance of sustainable operations for business success. In the context of investing, Socially conscious investors evaluate and screen investments for sustainability and ethical considerations using ESG metrics. Companies with strong ESG profiles may be deemed more future-ready and less risky in facing regulatory or reputational challenges. Colocating industrial loads with clean hydropower can competitively assist the State and investing companies in reducing regulatory and reputational risks.

Additionally, hydropower offers another product form that can generate revenues to lower costs of energy: cold water. The cold outtake water from a hydroelectric facility is valuable for circulating cooling water for data servers that require chilled rooms to operate efficiently. Colocating future data server operations at or near hydropower locations is a recent phenomenon that offers lower-cost energy to operate the data servers and reduces server chilling costs necessary to operate data server centers at peak efficiency.

Indeed, large industrial loads such as mines, data server centers, fish processing and freezing operations, and other large energy-consumptive industries provide the requisite economies of scale to finance and build hydropower opportunities in Alaska but also invigorate clean industrial development that not only creates and sustains family wage jobs but also provides the trajectory to lower energy costs through economies of scale.

Benefits:
Strategically collocating large industries, such as mines, fish processing plants, military bases, and data centers, near hydropower facilities is a game-changer for Alaska. It offers a dual benefit: fostering economic growth and ensuring cost-effective, sustainable energy for Alaskans. By leveraging the enduring 100-year lifecycle of hydropower, which has the lowest cost over time, Alaska can capitalize on its historic model of harnessing hydropower to drive industrial growth. This symbiotic relationship boosts Alaska's economic prosperity, creating jobs and opportunities and guarantees the most affordable power for its residents.

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ACTION B-4.4 (CONT.):

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

How Do We Get There?

1. Unified Policy Development :
   - Policy-making entities: Governor's Office, Department of Commerce and Community Economic Development (DCCED), Alaska Industrial Development and Export Authority (AIDEA), and Alaska Energy Authority (AEA) can collaborate to devise a policy promoting the recruitment and facilitation of industrial load development in Alaska to mate with future hydroelectric development. This collaboration of policy can leverage the historically successful Alaskan energy model to achieve multiple and synergistic Alaska benefits: local economic prosperity, energy security, job creation, and long-term reductions in energy costs.
2. Promotion of Long-term Hydropower Resources:
   - DCCED, AIDEA, AEA, and RCA should advocate and actively recruit for developing enduring hydropower resources, emphasizing their anchoring by industrial loads. Through strategic industrial colocation, hydropower, and related transmission, Alaska can harness the compounded benefits and ensure lower-cost energy for its residents throughout the century-long lifecycle of hydropower assets.
3. Legislative Action for Industry Attraction:
   - The Alaska legislature should enact laws and regulations incentivizing industries to align with Alaska's hydropower potential. Legislative action would underscore the vast economic advantages and clean energy outcomes resulting from maximizing the use of existing hydropower and fostering the creation of new hydropower projects within the State to advance the stated multiple and synergistic Alaska benefits that this initiative inspires.
4. Assistance and cooperative support for local initiatives and developments
   - DCCED, AIDEA, AEA, and RCA assist local communities and hydropower developers in local initiatives and development of optimizing hydropower assets and industrial loads to provide synergistic Alaska benefits, including lowering the energy cost for Alaskans.

Governors office, DCCED, AIDEA, and AEA, develop a policy that supports the recruitment and attraction of industrial load development in Alaska using this proven Alaska energy model for multiple beneficial purposes: prosperity, energy security, job creation, and long-term lower energy costs.

DCCED, AIDEA, AEA, and RCA support the development of long-term hydropower resources anchored by industrial loads and colocation/transmission of hydropower to achieve the synergistic benefits and obtain lower-cost energy for Alaskans over the 100-year life cycle of hydropower assets.

Alaska legislature enacts legislation to attract industry and support the colocation of Alaska industrial development to subscribe to new hydropower generation economically, recognizing the substantial economic prosperity and clean energy emissions benefits of fully subscribing to current hydropower and developing and constructing new hydropower in Alaska.

Implementation Timeline:

This action item has a blend of Immediate to long-term tasks for implementation.

Expected Results:

This proposed roadmap enables Alaska to tactically accelerate the positive development of new hydropower assets by strategically positioning and transmitting clean hydropower energy to industrial loads. The economies of scale of industrial sales assist hydropower in meeting economic viability while paying down the debt to offer the lowest cost power over time. This tried and proven Alaska hydropower/industrial load model can repeat itself as Alaska looks to develop the next tranche of hydropower assets to meet Alaska's energy needs to propel economic prosperity and achieve lower-cost energy for Alaska's current and future generations.

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STRATEGY B-4: ALASKA MARKET INITIATIVES

ACTION B-4.5:

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

Background:
BESS/ESS technology has advanced to the point that indicates significant potential savings for communities that are dependent on diesel power generation for electrical needs. Some new supercapacitor systems boast 97% efficiency and estimate up to 75% savings in diesel fuel consumption to provide equivalent power using BESS/ESS. US DOD is looking at exploiting this technology in Alaska. Other utilities have deployed other BESS technologies and energy storage works, promising to stabilize Alaska grid networks and microgrids.

There are several BESS demonstration projects currently being tested in Alaska. BESS technology provides a potential opportunity to significantly lower the cost of power generation in some rural and coastal Alaskan communities.

Background on Battery Energy Storage System (BESS):
1. Functionality: Simply, BESS stores electrical energy for use at a later time. BESS is especially important for integrating intermittent forms of renewable energy and immediately supplying large quantities of energy in seconds or minutes (supplying power to cruise ships) while stabilizing grid operations.

2. Components: A BESS typically includes the following:

Batteries: These are the actual storage units and can be of various types, such as lithium-ion, lead-acid, flow batteries, etc.

Power Electronics: This includes inverters and converters, which help transform electricity from AC to DC (and vice versa) and control the flow of electricity.

Control Systems: These manage the BESS's operations, ensuring it charges and discharges at the correct times and maintains optimal performance.

Thermal Management Systems: Maintaining a stable temperature is crucial for battery longevity and safety.

3. Types of Batteries: The most common type used in modern BESS installations is the lithium-ion battery due to its high energy density, long cycle life, and decreasing costs. However, other types, like flow and solid-state batteries, are being researched and deployed for specific applications.

Advantages of Battery Energy Storage Systems (BESS):

1. Grid Stability and Reliability: BESS can absorb or release power quickly, helping to stabilize grids, especially when there's intermittent renewable generation like solar or wind, and is especially useful in turning on and off large periodic loads like cruise ships.

2. Peak Shaving: Batteries can be charged during off-peak hours when demand (and often cost) is low and then discharged during peak demand times. BESS helps utilities and consumers reduce costs and can prevent the need for firing up expensive and potentially polluting "peaker" power plants or forego electric sales waiting for ramp-up times from other sources.

3. Integration of Renewables: Batteries make it easier to integrate renewable energy sources by storing excess energy when it's available and releasing it when needed.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security , increase grid resilience, and lower energy costs.

4. Microgrids & Energy Independence: In areas with unreliable grid connections or no connection at all, BESS can form the backbone of Coastal community grids that can operate independently and withstand outages.

5. Reduced Transmission and Distribution Investment: By placing BESS at strategic locations, utilities can delay or avoid expensive upgrades to transmission and distribution infrastructure.

6. Load Leveling: By storing energy during periods of low demand and releasing it during high demand, BESS can help level out the demand curve, ensuring a consistent power supply and reducing stress on the grid.

7. Backup & Emergency Power: BESS can serve as an emergency power source during outages, ensuring continuity in critical facilities like hospitals.

8. Support for Electric Vehicle (EV) Charging: As EV adoption grows, BESS can ensure that rapid charging stations get the power they need without causing strain on the local grid.

9. Economic Benefits: With the suitable RCA regulatory structures in place, BESS operations can pay for themselves by providing various grid services, from frequency regulation to capacity services.

10. Environmental Benefits: BESS can significantly reduce greenhouse gas emissions by enabling more renewable energy integration and reducing the need for fossil fuel-based peaker plants.

Benefits:
How can Alaskans and Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids, while lowering energy costs and improving their quality of life by spending less of their income on home energy costs and promoting local economic development?

How Do We Get There?
Strategies and Tactical Steps for Advancing BESS/ESS Adoption in Alaska:

a. Gather data from modeling and from existing BESS/ESS demonstration projects in Alaska to determine actual diesel fuel savings, and power reliability to meet demand, maintenance, and operation costs.

b. Gather proven performance data from BESS projects to prove out cost-saving claims.

c. Funding: Support local community efforts to access to Energy Improvement in Alaska to include rural or Remote Areas grants through the US Dept of Energy, Office of Clean Energy Demonstrations (OCED).

d. PPP: Encourage rural/coastal communities to pursue innovative financing vehicles to attract public-private-partnerships (PPP) and investment.

e. Public Facility Financing: Offer zero or low-interest loans to communities through AHFC and related programs for power generation to purchase and install BESS/ESS systems to improve reliability and lower energy costs.

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ACTION B-4.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

f. Bulk Purchasing: Encourage local communities in regions to pursue discounted contracts with BESS/ESS providers for multiple unit purchases.

g. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality BESS/ESS operation and maintenance across Alaskan communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska's Energy Revolution with BESS/ESS

- **Strategic Approach:** Alaska can effectively deploy BESS/ESS, a proven energy solution in similar climates.
- **Multiple Gains:** This leads to reduced power costs, decreased fossil fuel use, full utilization of energy resources by saving energy surpluses when available, and lower Greenhouse Gas (GHG) emissions.
- **Power Stability:** Enhances energy reliability throughout Alaska in both interconnected and stranded grid systems.
- **Coastal Advantages:** Enables coastal areas to support cruise ships and port growth.

In essence: With careful planning, Alaska can capitalize on BESS/ESS for cleaner, cheaper, and more resilient power, benefiting railbelt, rural, and coastal communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of BESS/ESS in Alaska to lower the cost of heating in Alaska and improve local energy security and grid resilience, helping communities achieve task force goals of Affordability, Reliability, and Resilience.

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ACTION C-2.5:

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Background:
Due to the remote nature of many Alaskan communities, many rural Alaskan communities must generate their own power for electricity and heat. Rural power generation in many cases is from diesel fueled generators. This vastly increases the cost of power in rural Alaska. Infrastructure investments that may help lower the cost for some rural Alaskan villages are building transmission lines from the Railbelt utility system to local villages, between local villages, or between local villages and private or public sector anchor tenants to grow economies of scale. This would allow villages connected to other power grids to enjoy power costs comparable to Railbelt residents.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, construct, and maintain transmission infrastructure tied to the Railbelt or other grids to ensure remote/rural Alaskan communities enjoy similar cost of power as Railbelt residents.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Identify the appropriate organization(s) that will oversee the development and construction of the grid. Task 1 is to ensure that all impacted parties are onboard, and that the organization has appropriate authority.
- Coordination and cooperation between energy sources and requirements of an integrated grid.
- Consolidate the variety of interconnection proposals that have been performed to date and select those most technically feasible.
- Estimate greenhouse gas reductions, fuel savings, and other direct savings.
- Assemble the team to recommend approaches to accomplish technically feasible alternatives i.e., segmented versus consolidated grid system.
- Investigate alternative financing options, including direct state investment, allocation of PCE funds, federal & state grants, subsidized loans, and P3 opportunities.
- Identify priorities that bring maximum and immediate return. The savings that can be applied to the balance of the project.
- Evaluate opportunities to co-develop energy infrastructure with transportation and other infrastructure developments

Implementation Timeline:

- Within 1 year have the organization identified and established.
- Within 2 years:
  - Have a technically feasible alternative identified.
  - Implement design and engineering.
  - Identify the most likely funding sources and environmental requirements.
- By year 3:
  - Obtain necessary permits.
  - Develop schedule for construction activities (define scope).
  - Procure qualified contractors.
- By year 5:
  - Authorize construction.
  - Establish operating guidelines and responsibilities.

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STRATEGY C-2: INFRASTRUCTURE INVESTMENT

ACTION C-2.5 (CONT.):

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Expected Results:

- Fuel cost savings from reduced diesel dependency.
- Greenhouse gas reductions.
- Reliability and resiliency benefits.
- Spur local economic development and employment.
- Expanded opportunities for distributed renewable resources.
- Reduced dependency on PCE (could funds be reallocated i.e., M&O).
- Measure and demonstrate the project as a template for other regions

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ACTION C-3.4:
Grid modernization and automation

Background:
Due to the remote nature of many Alaskan communities, there is potential for loss of power (electric/heat) without awareness outside of the community. Power loss may also reduce or prevent the ability to communicate outside of the community, threatening public health and life safety during temperature or climate extremes. Power plant automation, remote sensing equipment or use of growing drone technology, data management and artificial intelligence, and other emerging technologies provide the ability to automatically or remotely to avoid power system failures or outages, and alert power providers with notice of a failure to focus and accelerate recovery and restoration efforts.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate plant automation, remote sensing technology, unmanned aerial systems, data-driven preventative maintenance programs and other grid modernization enhancements to ensure remote/rural Alaskan communities are able to avoid or recover from power failures as expeditiously as possible, while improving reliability and reducing operating costs.

How Do We Get There?
- Enhance communications infrastructure and reliability. For example, ensure all new power conductors incorporate a fiber optic data and communications line.
- Enhance manually operated power plants with automation and remote monitoring and control operations including necessary communications infrastructure upgrades i.e. fiber optic and other platforms. Prioritize critical functions including remote black start, emergency stop, economic dispatch, video monitoring, and fuel system monitoring capabilities.
- Incorporate automation, remote monitoring and control, computer based data collection and storage predictive and preventative maintenance platforms, and communications upgrades into all new or replacement power plant projects.

Implementation Timeline:
- Within 1 year identify pilot communities and develop a modernization framework for those communities. Identify currently automated rural communities and capture lessons learned and best practices for guidance and knowledge-sharing to advise and streamline pilot deployments.
- Year 2 – Perform feasibility assessments, identify and select pilot communities or energy systems for modernization. Aggregate funding sources that can be allocated to selected projects to be undertaken by the producers and project partners. Identify adjacent opportunities for infrastructure enhancements to share the costs and benefits of grid modernization (automation of community water and sewer treatment facilities, for example).
- Years 3-5 deploy grid modernization enhancements to pilot community/communities and document and refine the process to serve as a template for additional communities. Each implementation should be continuous from inception to completion.

Expected Results:
- Improved grid reliability.
- Faster response and restoration times for outages.
- Improved operating efficiencies.
- Improved operations and maintenance of rural system to reduce preventable or catastrophic failures.
- Improved communications platforms that can be co-purposed to meet other community needs
- Provide opportunities to cost-share for other community infrastructure modernization initiatives.

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STRATEGY F-1: PLACEHOLDER STRATEGY TO BE DETERMINED

ACTION F-1.6:

Provide budgetary support for the Regulatory Commission of Alaska (RCA).

Background:
The RCA is responsible for regulation of public utilities and pipeline carriers in Alaska. Most of the statutes and regulations that govern RCA authority were developed during a period of time when the electrical generation and transmission utilities in Alaska generally operated islanded systems primarily built around baseload generation. However, as Alaska has grown and the technology for generation, transmission, and storage has advanced, the responsibilities of the RCA have grown more complex.

The Alaska Energy Security Task Force (AESTF) did not conduct a review sufficient to be able to recommend a comprehensive overhaul of the statutes or regulations that govern the RCA. Anectodely, it is understood that there are some improvements that could be made to facilitate more efficient utility regulation. It is also understood that the RCA is evaluating its own process and regulations to identify potential efficiencies.

However, the AESTF did find that within all expected scenarios, the RCA must be provided sufficient budgetary support to be able to attract and retain the highly skilled technical, legal, and administrative staff necessary to help adjudicate the complex and rapidly increasing pace of decisions that are necessary in today's to support Alaska's continued access to affordable, reliable, and resilient energy.

Benefits:
Provide enhanced regulatory support to better facilitate proposed recommendations of the AESTF.

How Do We Get There?
Executive branch collaborate with RCA to incorporate staff budgetary recommendations into 2024 operating budget.

Implementation Timeline:
2024 Alaska operating budget.

Expected Results:
Reduced casefile processing time by a highly skilled RCA will support Alaska's transition to a more integrated and technologically advanced energy utility landscape.

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Alaska Energy Security Task Force Meeting

Draft Sections of Statewide Energy Master Plan related to Priorities, Strategies and Actions

DRAFT AS OF OCTOBER 20, 2023

Handout Includes:

Section 4 – Energy Priorities

- Priority A – Rail Transmission, Generation, and Storage
- Priority B – Coastal Generation, Distribution, and Storage
- Priority C – Rural Generation, Distribution and Storage
- Priority D – State Energy Data
- Priority E – Incentives and Subsidies
- Priority F – Statues and Regulations

Appendix II – Action Tracking Sheet

Appendix III – Additional Action Detail Summary

Note: This is a draft, deliberative document for discussion purposes only. The preliminary action recommendations contained in this document have not been officially endorsed by the Alaska Energy Security Task Force at this time.

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SECTION IV.

ENERGY PRIORITIES





This section is divided into the following Energy Priorities:

Priority A. Railbelt Transmission, Generation, and Storage

Priority B. Coastal Generation, Distribution, and Storage

Priority C. Rural Generation, Distribution, and Storage

Priority D. State Energy Data

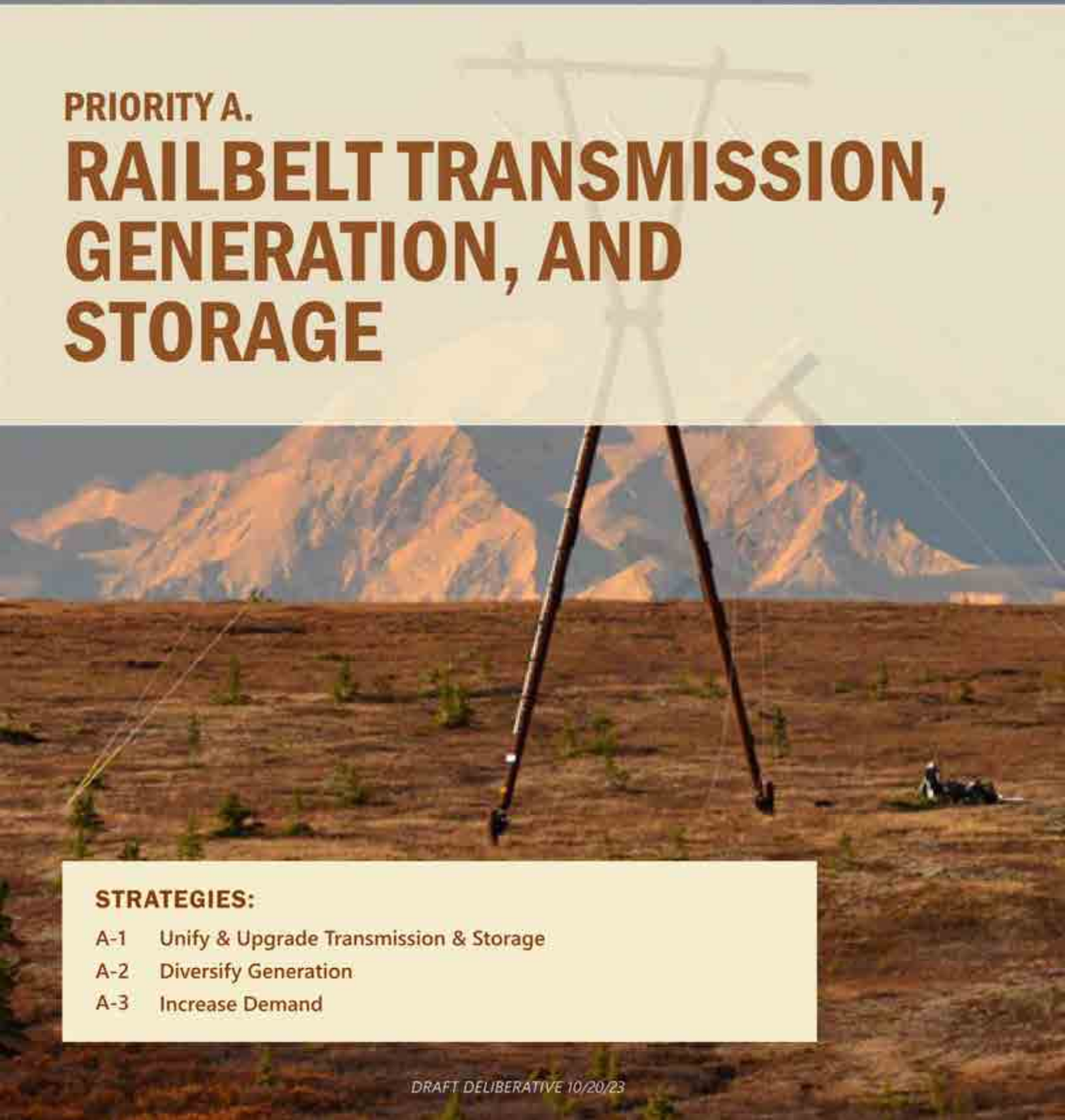
Priority E. Incentives and Subsidies

Priority F. Statutes and Regulations

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PRIORITY A.

RAILBELT TRANSMISSION, GENERATION, AND STORAGE



STRATEGIES:

- A-1 Unify & Upgrade Transmission & Storage
- A-2 Diversify Generation
- A-3 Increase Demand



INTRODUCTION

The Railbelt Generation, Transmission, and Storage (RGTS) subcommittee of the Alaska Energy Security Task Force (RGTS) was created to develop an energy plan that will move the Railbelt towards energy independence while lowering the cost to its residents over the long-term. In order to complete this plan, it was important to understand the current state of our energy portfolio. Since Statehood, the Railbelt utilities and their customers have benefited from the significant natural gas finds in the Cook Inlet. Over time, this basin has supported approximately 80% of the power generation, and a majority of the population hubs' space and water heating needs.

Sixty years later, local supplies of natural gas are getting harder to find and the quantities of gas behind pipe and available for market consumption are dwindling. This fact is causing commodity prices to increase, presenting the region with an opportunity to diversify our power generation and build for the future. It also forced the RGTS to acknowledge the fact that we must include solutions for space and water heating in our plan recommendations. In order to develop our recommended plan, the RGTS determined the most efficient approach would be to establish long-term, mid-term, and short-term goals that reflect our desired outcomes here along the Railbelt. Here are the recommended goals:

- Short-term: Minimize regret cost while providing reliable service.
- Mid-term: Invest in infrastructure improvements to advance our long-term goal of energy diversification.
- Long-term: Significantly diversify power generation with an emphasis on in-state, reliable, and more affordable clean energy.

The RGTS was motivated to seek transformational approaches to reach these goals that might provide electrical energy to residents at a target price of $0.10/kwh in the future. The RGTS reviewed numerous generation and transmission configurations and strategies from publicly available data but did not complete independent or internal cost estimates in developing action items and our strategy.

In the short-term, the RGTS acknowledges that continued reliability along the Railbelt generation and transmission system may require certain actions that are likely to increase costs. The expected increase in costs is directly tied to the local gas supply market in Cook Inlet. There are no other options for electric and gas utilities that can reliably serve the local demand in the short to mid- term. The magnitude of the rising costs, and the ability to arrest and then reverse these rising costs as energy sources are diversified, will depend upon our collective response to the recommendations set forth within. Therefore, it is important that investments in the short term do not hinder mid-term and long-term goals of infrastructure improvements for diversified power generation sources.

In the mid-term (2-20 years), significant state and federal investment must be made in energy and power infrastructure to enable the long-term goal of diversified, local, reliable, and affordable energy. Alaska must invest in its future. Transmission system upgrades must be made to allow cost competition to optimize all generation, including clean energy. Energy storage is another much needed investment area; where it is viewed that shared costs and control will help optimize overall energy cost across the Railbelt and enable diverse generation forms to expand in the Railbelt. Transmission upgrades, further deployment of energy storage and improved operating models are necessary to facilitate economic dispatch of electrical energy.

In the long term, for 2040 and beyond, the RGTS has established a goal that the system for generation, transmission and space heating within the Railbelt should reflect a significant diversification of energy supply from 2023 metrics and be affordable, sourced within the State of Alaska and, most importantly, reliable. Energy generation sources also need to be considered in the context of a sustained supply for the years to come.

STRATEGY A-1:
Unify & Upgrade Transmission & Storage

ACTIONS

A-1.1 Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.



Purpose:
Provide a strong transmission system which enables new generation projects to integrate to the grid. Simplify owner/operatorship to reduce transmission costs and efficiently dispatch energy across the Railbelt. Investing in transmission and storage infrastructure and simplifying its operation will ultimately enable the long term goal to significantly diversify Railbelt generation and provide energy that is reliable, affordable and generated in-state. We recommend accomplishing this by:

- Unify and convey all existing transmission and storage assets along the Railbelt to AEA
- Identify state and federal funding opportunities for transmission upgrades
  - Complete HVDC transmission line from the Kenai peninsula
  - Complete HVDC transmission line from Anchorage to Fairbanks
  - Complete additional necessary system upgrades
- Develop transmission, operation, and control reform with a regulated version of management committee
- Establish a single transmission rate for the Railbelt
- Align ERO statute and regulations with transmission reform

Background:
The Railbelt system is made up of five electric utilities providing service to the communities of the Kenai peninsula to Fairbanks. These five utilities all generate power through various means including hydro-electric generation, natural gas powered generation and coal fired generation. The transmission system ownership and operatorship is split up across its length and transmitting generation from one region to another currently incurs wheeling charges which may be multiple depending on the number of operating areas energy is transmitted across. The multiple owner/operator model limits funding opportunities for infrastructure upgrades. The transmission lines have current bottleneck points and generally lack redundancy. Battery energy

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storage systems are being added to the grid to stabilize operations and additional storage is needed to enable generation diversification and ensure reliability.

The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional clean energy generation.

Further, AEA and Railbelt utilities are seeking federal funding to construct a second line between Soldotna and Healy to allow Bradley Lake power to reach consumers along the Railbelt even when one line is out of service on either a scheduled or unscheduled basis.



Benefits:

- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional clean energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

Expected Results:

This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation, reduce costs for consumers, and promote job creation.



Bradley Lake Hydroelectric Project

STRATEGY A-2:
Diversify Generation

ACTIONS

A-2.1 Provide full state support to progress the AKLNG project

A-2.2 Complete project development for the Bullet Line project to make a go/no-go decision on this option

A-2.3 Progress Known Near Term Energy Diversification Projects to a Go/No-Go Decision:
- 2.3.1: Dixon Diversion

A-2.4 Progress Known Long Term Energy Diversification Projects to a Go/No-Go Decision:
- 2.4.1: Susitna Watana
- 2.4.2: AKLNG, Bullet Line & Alternatives



Purpose:
Set up the State of Alaska to have a long term source for heat and base load power that maximizes the value to Alaskans and enables long-term energy generation diversification . In the next two years, parallel path three options to minimize regret cost of short term LNG import and enable timely decision making, including (1) Provide full support to enable the AKLNG project, (2) complete project development for the North Slope Natural Gas Bullet Line and (3) complete a robust analysis of alternative sources for heat and base load power.

Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. For at least the next couple decades, natural gas will be an essential resource to meet heat demand across the Railbelt and provide base load for electricity generation, allowing for diversification and integration of new clean energy generation projects.

The Alaska Utilities Group conducted a Phase 1 assessment ("June 2023 Utilities Study") of Cook Inlet gas supply and options to meet future demand. The June 2023 Utilities Study determined that the median case gas supply shortage in the Cook Inlet is projected to be 8 BCF/yr beginning in 2028 and grow to 52 BCF/yr in 2040. In the short term, in order to meet the expected supply gas shortfall in 2027-2028, a decision to pursue LNG imports will likely need to be made in late 2023. While importing energy does not provide as much local economic development or price and supply certainty, this option may be preferred due to its ability to meet the natural gas supply shortage in a short term execution window. In the mid-term an in-state natural gas supply is preferred as it shifts the economic development benefit to Alaska and provides an opportunity for reliable and stably priced natural gas supply for decades.

The 2023 contract price for natural gas from the Cook Inlet is approximately $8/Mcf. Imported LNG is forecast to cost approximately $12-$16/Mcf. The June 2023 Utilities Study evaluated several options to meet existing natural gas demand, and key options are summarized below.

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- **AKLNG**: $4.40-$5.8/Mcf
- **In-State North Slope Gas Pipeline "Bullet Line" (Private)**: $28.1-$37.0/Mcf
- **In-State North Slope Gas Pipeline "Bullet Line" (80% State Participation)**: $7.3-$12.6/Mcf
- **Continued Cook Inlet Gas Exploration/Development**: $9.3-$25.5Mcf (limited supply)

Given the state-wide economic development opportunity and affordable gas supply price of the AKLNG project, the AESTF Railbelt Subcommittee recommends the state strongly support bringing this project to fruition. The AESTF Railbelt Subcommittee set a long term goal to significantly diversify electricity generation such that it is affordable, reliable and sourced in-state, and it is important to note that if the AKLNG project is progressed, it should not divert the state from diversifying electricity generation as this is critical for long term energy security.

As it is not a given that the AKLNG project will advance to construction, the Railbelt Subcommittee recommends that the state take action now to complete project development (funding plan, financing terms, permitting research and cost estimating) for the Bullet Line option such that in two years time the State is poised to make a go/no-go decision to either proceed with this project or shelve it. As with any project, the delivered natural gas price from an in-state North Slope pipeline varies widely depending on the funding plan and financing terms. Therefore, the state needs to complete further development to understand the competitiveness of this option.

Also in parallel the State should complete a robust analysis of alternative options including but not limited to, (1) development of other Alaska natural gas basins, (2) long term conversion of heat supply to electricity and (3) other alternative proven heat supply technologies (e.g. geothermal).

If the AKLNG project does not proceed, the Bullet Line and the alternatives should be compared and a decision made based on the long term goal of providing energy that is affordable, reliable and preferably sourced in-state such that the projects can be constructed and the energy will be available prior to the time that the Cook Inlet gas shortage is forecast to become significant (early 2030's). Ultimately the state needs to set itself up to make a decision on the long term source for heat and base load electricity generation to maximize the benefit to Alaskans. Without taking action now to progress project concepts to a decision making point, there is a significant risk that near term importation of natural gas will become the long term default solution.

Benefits:
Ensure energy supply for heat and base load electricity generation that is affordable, reliable and sourced in-state
- Reliable energy supply at known long term price to consumers
- Local economic development
- Assurance that energy supply is best long-term option for Alaskans
- Timely decision making to prevent further regret cost with short-term supply options and opportunity cost with delayed alternative solutions

Expected Results:
Ensure mid to long term energy source for heat and base load electricity is the best option that maximizes the value to Alaskans.


Alaska Intertie, Alaska Source: GVEA

"Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027."

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STRATEGY A-3:
Increase Demand

ACTIONS

A-3.1 Significantly increase load to drive down energy rates.

- 3.1.1: RFP for Industrial Customers
- 3.1.2: Energy Tax Credit for New Industrial Customers
- 3.1.3: Identify "Load-Friendly" Areas Already In-Place


Port of Alaska

Purpose:
Significantly increase load to drive down energy rates.

Background:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

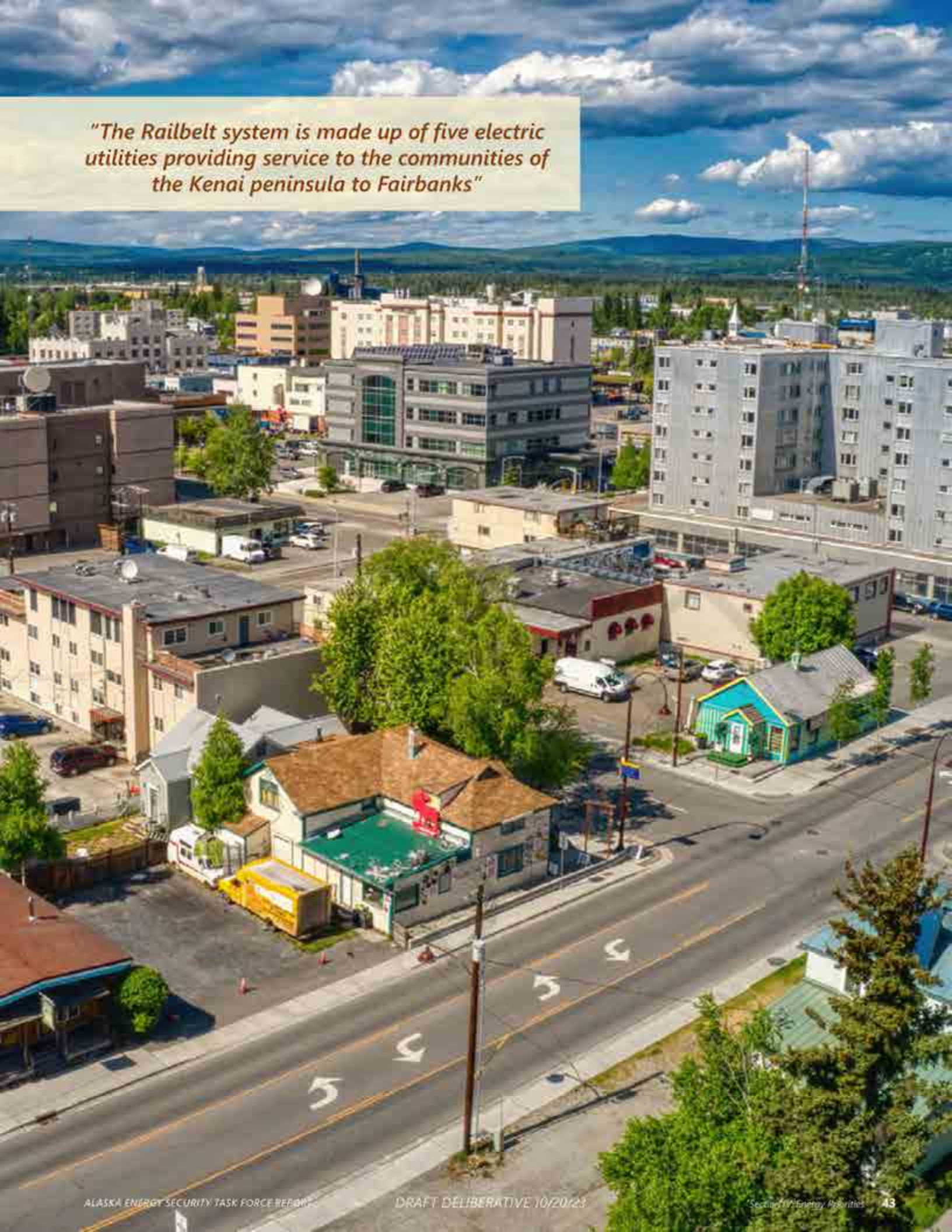
A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

Benefits:
Incentivizing and attracting large industry customers to Alaska's Railbelt to increase electricity production demand, following a similar model to Iceland, could help lower the cost per- kWh for all Railbelt customers.

Expected Results:
The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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"The Railbelt system is made up of five electric utilities providing service to the communities of the Kenai peninsula to Fairbanks"





PRIORITY B.

COASTAL GENERATION, DISTRIBUTION, AND STORAGE





INTRODUCTION

The Coastal Subcommittee's strategies and actions are meant to support the overall Alaska Energy Security Task Force goal of identifying opportunities to lower the cost of energy in Alaska for Alaskans. The Coastal Subcommittee settled on four high-level strategies supported by twelve specific action recommendations focused on lowering energy costs for Alaskans living in coastal areas of the state. Our strategies recommend Alaska and Federal policy updates to allow streamlined project identification, planning, funding/financing and permitting. The Market Initiatives strategy seeks to maximize use of existing energy generation and transmission assets and promote new renewable energy assets to lower energy costs for Alaskans and their industries. Finally, as hydropower is one of the primary sources of energy generation for many coastal Alaskan communities, the Alaska Hydropower strategy recommends enhancing Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

- B-1 Alaska Market Initiatives
- B-2 Alaska Policy Recommendations
- B-3 State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations
- B-4 Alaska Hydropower Generation Recommendations

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STRATEGY B-1:
Alaska Market Initiatives

ACTIONS

B-1.1 Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

B-1.2 Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

B-1.3 Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.

B-1.4 Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs.



Cruise Ship at Port, Juneau, Alaska

Purpose:
Maximize utilization of existing energy generation and transmission and promote new renewable energy assets to lower energy costs for Alaskans and their industries through market initiatives and expansion.

Background:
Energy generation and transmission assets, like power plants and electricity distribution grids, have significant upfront costs. For these assets to be cost-effective and viable, they need to be built at a particular scale, benefiting from what is known as "economies of scale," the more significant the operation, the more cost-effective it becomes per unit of energy produced or transmitted. Market initiative and expansion of electricity is known as beneficial electrification. "Beneficial Electrification" refers to replacing direct fossil fuel use for heating and transportation with electricity to reduce overall emissions and energy costs while simultaneously delivering broader environmental and societal benefits. The primary aim is to shift end-use energy sources to cleaner, renewable electricity sources.

Energy Generation and Transmission assets require minimally sufficient economies of scale to enable minimum viable generation projects and transmission to be built or expanded. Expanding energy markets through market initiatives that serve multiple goals... creates sufficient economies of scale to lower energy costs through demand creation for critical energy generation and transmission assets, thereby increasing affordability, reliability, energy security, and grid resilience that reduce the cost of energy through displacement of higher cost fuel sources and by creating new energy demand. These market initiatives also create family-wage-sustaining jobs in Alaska.

Benefits:
The proposed market initiatives create multiple economic and societal benefits while providing Alaskans lower cost energy.

The Alaska Market Initiative Action Items have a range of planning, development, financing, implementation, and operation implementation timelines extending from the immediate to the long-term horizon for Alaska's Energy Plan.

Expected Results:
Strategically planned market initiative actions with tactical implementation focused on fully utilizing generation and transmission current and future assets will optimize State Alaska's Energy plan to lower Alaskans' energy costs (electric, heating, transportation).

ACTIONS (CONT.)

B-1.5 Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.



Cordova, Alaska

STRATEGY B-2:
Alaska Policy Recommendations

ACTIONS

B-2.1 Establish, require, assist, and Implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.

B-2.2 Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.

B-2.3 Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.


Kodiak, Alaska

Purpose:
Enhance Alaska's departmental and regulatory policies to spur and sustain renewable energy and transmission development to cut energy costs and advance economic prosperity for Alaska.

Background:
Alaska policies, while unintended, can prevent, stall, or, in some cases, prohibit the permitting and necessary governmental authorizations to timely and optimally develop and advance renewable energy and transmission assets required to move Alaska forward from a developing state status to a first-world energy state that Alaskans deserve. While there is not one solution, the Administration can take many internal steps and actions to create a unity of effort among State agencies with disparate missions and objectives. An overarching Energy Plan that directionally provides State agencies the authority and motivation to help the Governor successfully implement that State Energy Plan and achieve recommended action is doable with a coordinated effort.

Alaska can transcend policies that have been focused on the past or regulatory mission and should directionally (as opposed to aspirational) incorporate the Governor's directives to implement the State Energy Plan in concert with regulatory balance, protecting our environment while streamlining processes, procedures and producing results to lower the cost of energy for Alaskans. Regardless of whether the policy directive is called a "unity of purpose and effort" or an all-hands-on-deck policy, Alaskans are better served through introspection of how we can and should do better, with concentrated and collective efforts to do better in serving Alaskans achieve lower cost energy now and for future generations.

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Ketchikan, Alaska

ACTIONS (CONT.)

B-2.4 Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.

B-2.5 Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

B-2.6 Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.

Benefits:
The proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans with administrative purpose and collective effort to find and exploit synergies to lower the energy cost for Alaskans in concert with Departmental missions and goals.

The proposed Alaska Policy Recommendation creates multiple economic and societal benefits while providing Alaskans lower cost energy.

Expected Results:
Strategically planned and matured by the Administration and AEA of the Task Force Alaska Policy Recommendations combined with efficient and well thought out implementation focused on light Integrated Resource Planning, reducing State of Alaska barriers and bottlenecks, optimizing federal funding for the strategic achievement of goals, tactical and practical implementation of can do, how we get to "yes" policies will reduce the cost of power for Alaskans today and leave an energy legacy for generations of Alaskans to follow.

STRATEGY B-3:
State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations

ACTIONS

B-3.1 Establish an Alaska/ federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.

B-3.2 State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/ Distribution to advance the State Energy Plan to lower the cost of energy.


Ketchikan, Alaska

Purpose:
Refine federal policy to bolster Alaska's renewable energy and support tribes in securing affordable energy. Directionally (as opposed to aspirationally) advance Alaska's Energy Plan priorities to promote and develop renewable energy generation and transmission assets through negotiating and influencing federal agencies for proactive federal energy development policy modifications and revisions and to collaborate and assist Alaska's federally recognized tribes in obtaining lower cost energy in Alaska.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities amplify that these communities are in the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.

Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was

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a bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

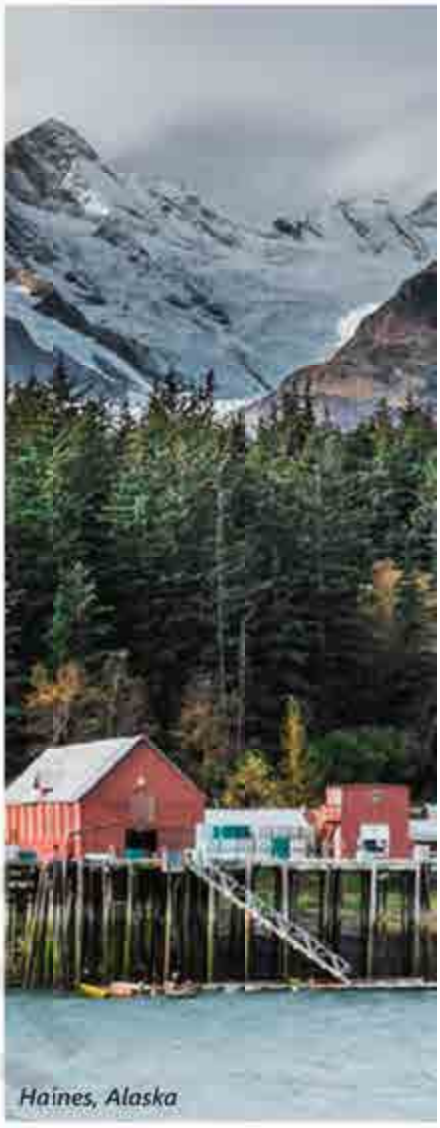
Coastal Alaska communities also want to lower energy, heating, and transportation costs. Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources mutually beneficial to the State of Alaska's interests. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Additionally, many federally recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By coordinating and collaborating, the State of Alaska, Federally Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint party effort can enhance the creation, sharing, and use of energy across the State.

Benefits:
The development of state policies and goals to negotiate and carry out with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding the proposed Alaska Policy Recommendations create multiple economic and societal benefits while providing Alaskans lower cost energy.

The State of Alaska and federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans in our Alaskan communities. By identifying and sharing information, plans, and initiatives and establishing a framework to advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska and Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

This strategy has a blend of immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned implementation of these recommendations, can gain common ground with federal agencies and tribes and advance and promote Alaska's renewable energy development with cooperation and support from the federal government and Alaska's 229 federally recognized tribes to achieve national purposes while reducing the energy cost of Alaskans. The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska.


Haines, Alaska

"The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska."

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STRATEGY B-4:
Alaska Hydropower Generation Recommendations

ACTIONS

B-4.1 Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.


Unalaska, Alaska

Purpose:
Enhance Alaska's policies to fast-track hydropower for affordable, secure energy Alaskans expect by optimizing Alaska public policies and investments to promote and advance execution-ready hydropower projects to lower the cost of energy and to bolster community and regional energy security that Alaskans deserve and expect.

Background:
The foundation of Alaska's most cost-effective and affordable energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. There is no cheaper energy form in Alaska than old hydropower, and Alaska cannot achieve old hydropower without proactively supporting and investing in new hydropower. Hydropower is a tried and proven Alaska energy resource, and with proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once financing debt is paid, the hydropower project yields consistent, sustainable, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and economic prosperity well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.
In Alaska and across the US, the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as US hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — leverage Alaska to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

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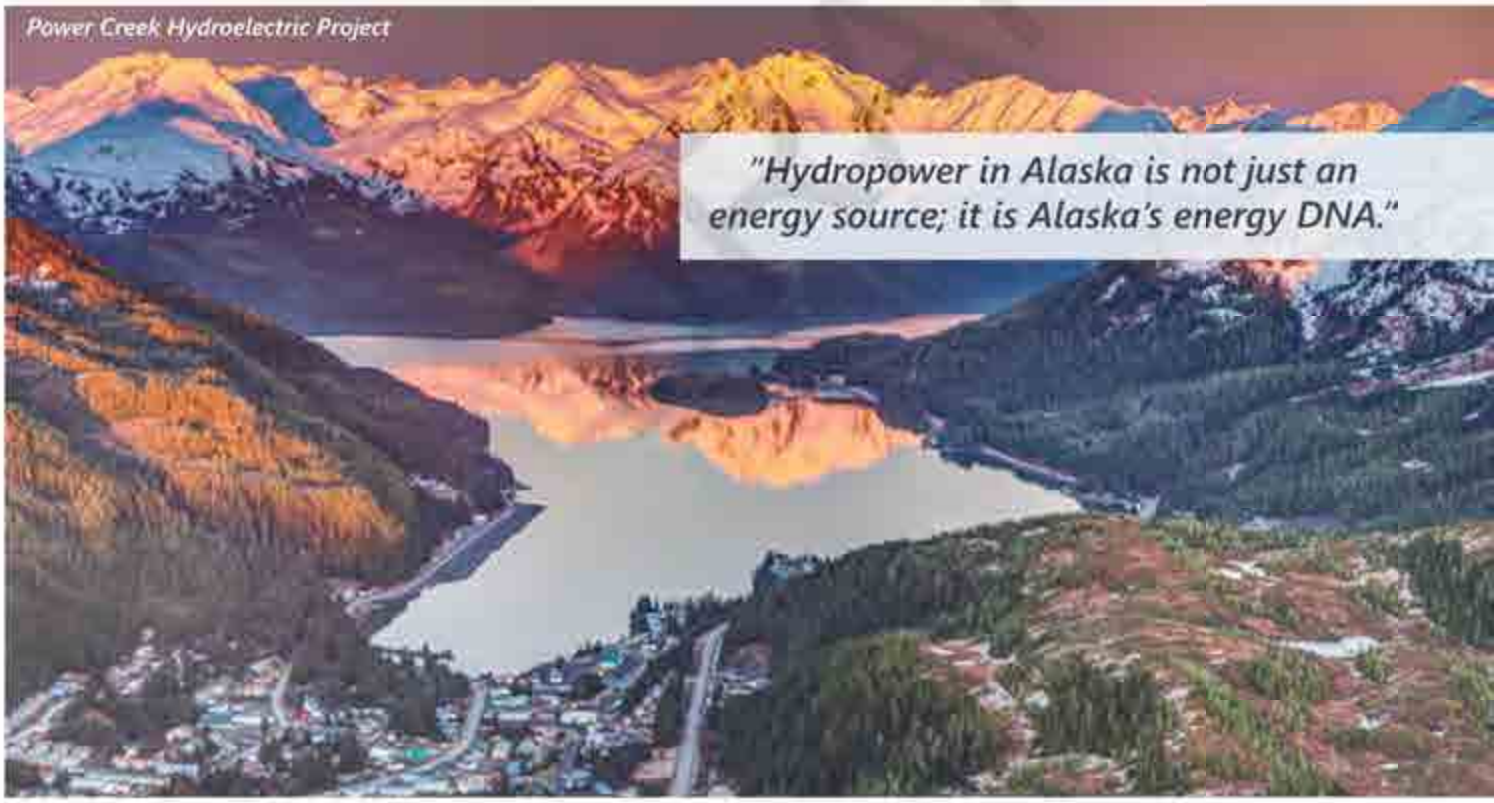
Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.


Juneau, Alaska

Benefits:
Hydropower in Alaska is not just an energy source; it is Alaska's energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure and related transmission, Alaska is not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and reaping energy dividends for future generations with sustainable, clean energy. Investing in hydropower assets is our Alaska commitment to Alaska's proven energy model for a brighter, more affordable, energy-secure future for Alaska.

The Alaska Generation Strategy for fostering hydropower has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.


Power Creek Hydroelectric Project

"Hydropower in Alaska is not just an energy source; it is Alaska's energy DNA."

PRIORITY C.

RURAL GENERATION, DISTRIBUTION, AND STORAGE





INTRODUCTION

The vast majority of Alaska's rural communities have significantly higher cost of energy than more urbanized areas. This is primarily due to remote village locations having to rely on diesel powered generators supplying power for individual villages. The cost to purchase, transport and store diesel fuel drives these higher energy generation costs. The Rural Subcommittee identified five strategies target opportunities to help lower the cost of energy generation in rural Alaska. Increased access to capital and infrastructure investments by the state and federal government are two of these strategies. Lowering operational costs of existing energy generation also provide actions to pursue. The previous three strategies can be supported by increasing economies of scale, either by connecting communities or attracting industrial partners to increase demand, and better decision making concerning energy generation, storage, distribution based on access to better data is the final rural subcommittee strategy. Alaska's rural residents deserve access to clean, affordable, lower cost energy; these strategies are aimed to move the state in this direction.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

DRAFT

STRATEGIES:

- C-1 Increase Capital Availability
- C-2 Infrastructure Investment
- C-3 Lower Operational Costs
- C-4 Improve Economies of Scale
- C-5 Improve Data-Driven Decision Making

STRATEGY C-1:
Increase Capital Availability

ACTIONS

C-1.1 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-1.2 Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.

C-1.3 State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.


Humpback Creek Intake

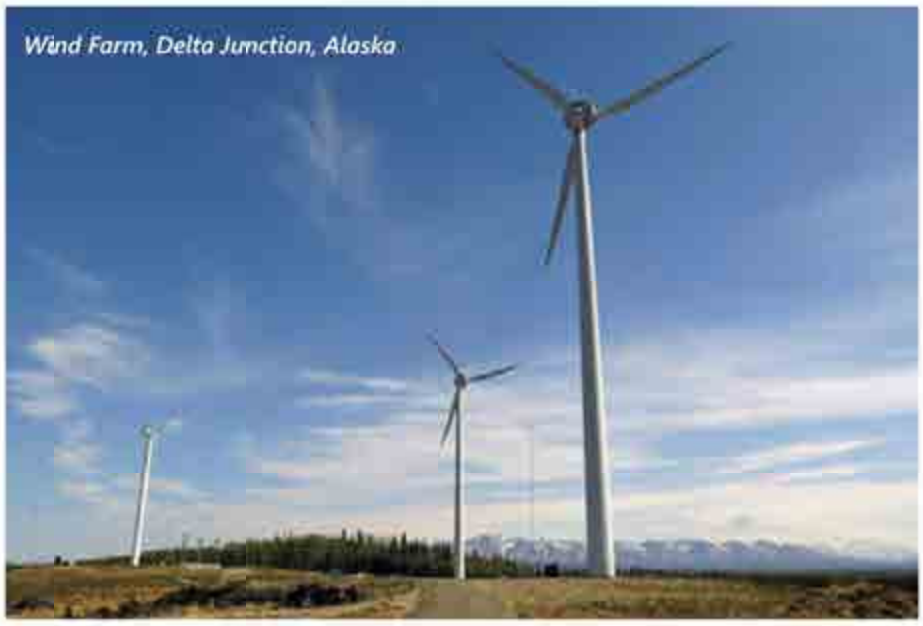
Purpose:
Increase access to capital to provide additional funding/finance for project and infrastructure construction.

Background:
Small communities and developing regions to not have the economy required to generate the capital needed to build energy projects – e.g. hydro, SMR, transmission infrastructure

Benefits:
Alaskans need to reduce the cost and increase access to reliable energy in rural Alaska.

Expected Results:
Sufficient investment in energy projects/infrastructure to reduce the cost of energy in rural Alaska.

STRATEGY C-2:
Infrastructure Investment


Wind Farm, Delta Junction, Alaska

Purpose:
Support existing infrastructure and add new infrastructure to provide Alaskans with reliable energy at reduced cost.

Background:
Replace aging and inefficient infrastructure to improve reliability and affordability. Invest in new infrastructure related to the production and transmittal of power to rural Alaska in conjunction with transportation and broadband infrastructure.

Benefits:
Make regionally connected infrastructure investments that improve reliability and affordability in rural Alaska.

Expected Results:
Investment in connected regional infrastructure for the community needs that lead to the most affordable and reliable energy which would in turn improve public health, welfare, and socio-economic conditions in rural Alaska.

ACTIONS

C-2.1 Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.

C-2.2 Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.

C-2.3 Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.

C-2.4 Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.

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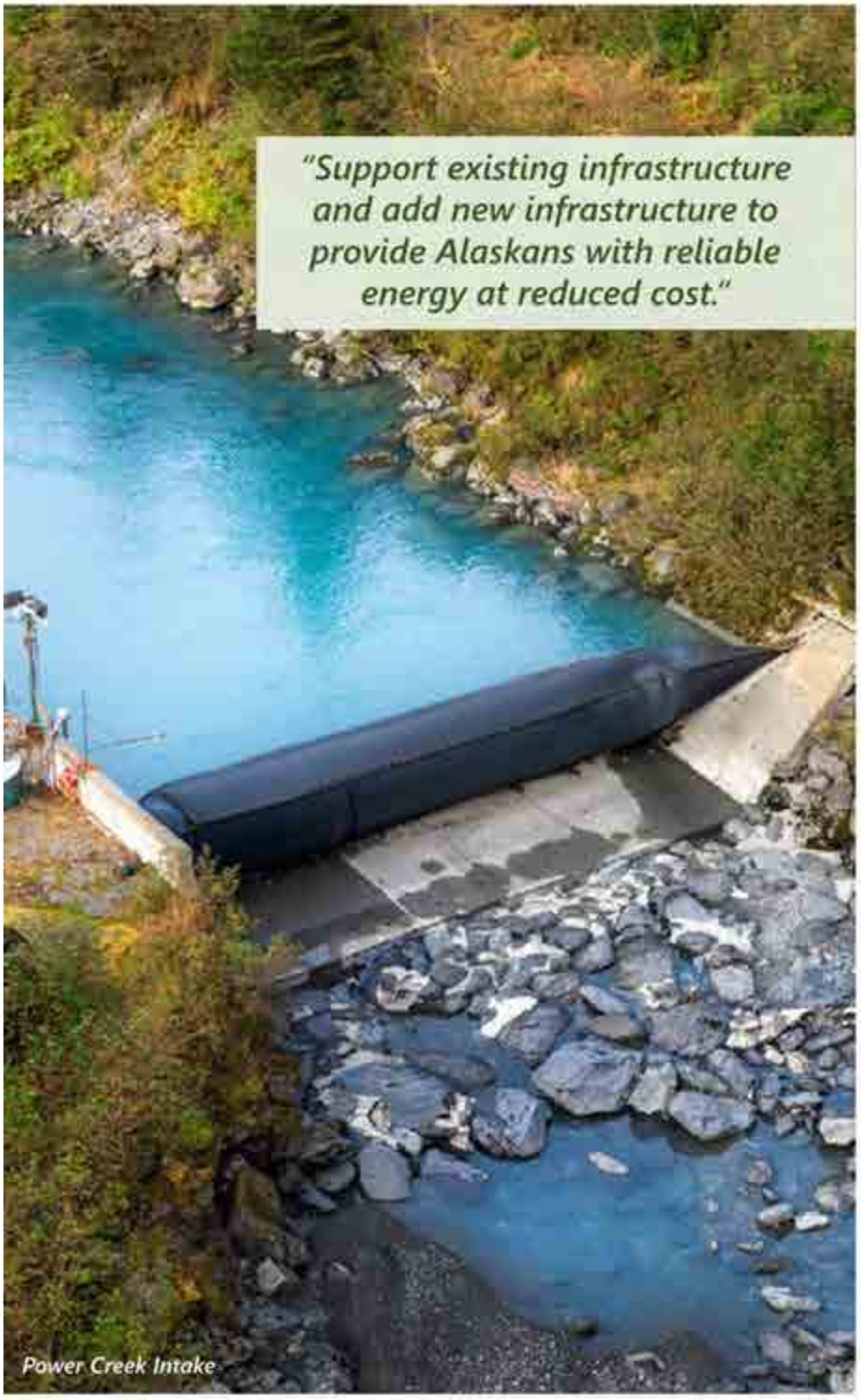
ACTIONS (CONT.)

C-2.5 Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

C-2.6 Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.

C-2.7 Invest in expanding the grid in rural areas.

C-2.8 Evaluate micronuclear and other emerging/ underutilized technologies throughout the State of Alaska.



Power Creek Intake

STRATEGY C-3:
Lower Operational Costs



Purpose:
Lower operational costs of power/electricity in rural Alaskan villages.

Background:
There is a need to lower operational costs to produce energy in rural Alaska. This can be done by increasing technical assistance in rural communities; lower maintenance costs; improve work force development opportunities for rural community residents; improve or develop transportation infrastructure beyond upgrading rural airports. Connecting rural communities to existing transmission/electric grids may be another option to lower operational costs.

Benefits and Expected Results:
Reduce the cost and increase access to reliable energy in rural Alaska.

ACTIONS

C-3.1 Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production

C-3.2 Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.

C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.

C-3.4 Grid modernization and automation

DRAFT

STRATEGY C-4:
Improve Economies of Scale

ACTIONS

C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.

C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.

C-4.3 Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

C-4.4 Identify and complete a regional pilot project to demonstrate economies of scale.

C-4.5 Invest in rural beneficial electrification.


Utqiagvik, Alaska

Purpose:
Reduce the cost of power and Improve reliability.

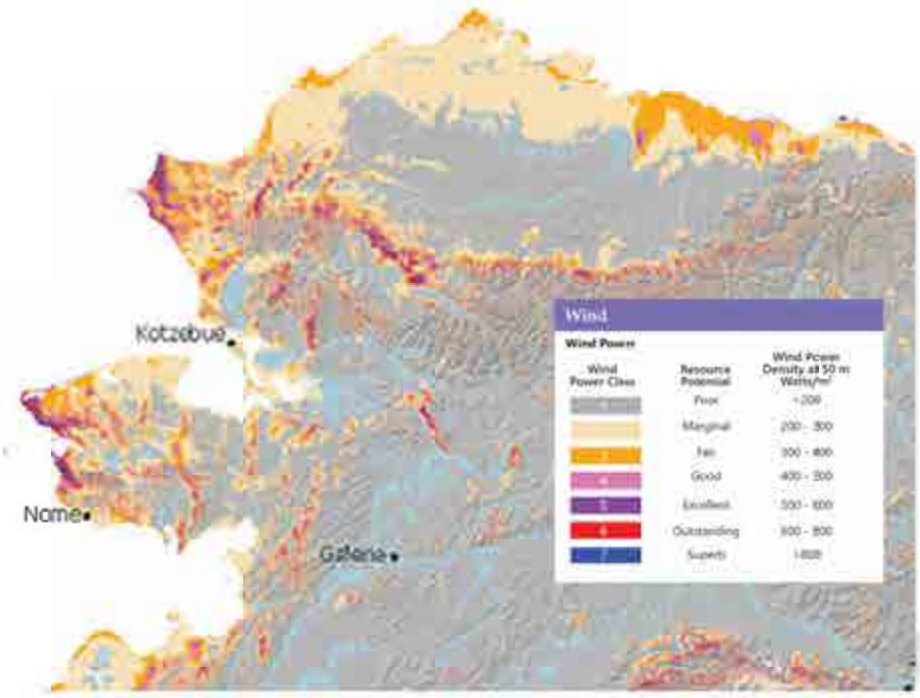
Background:
By increasing the sale of power against fixed cost we can reduce the price per KWH.

Benefits:
Adequate access to reliable energy at lower cost to improve public health and welfare. Grow rural economies.

Expected Results:
Connect communities to each other and anchor tenants to improve the reliability and reduce the cost of energy which would in turn support public health and welfare and grow rural economies.

DRAFT

STRATEGY C-5:
Improve Data-Driven Decision Making



Renewable Energy Atlas of Alaska Map

Purpose:
Improve access to relevant data necessary to make informed value decisions related to energy generation, distribution, transmission and storage in rural Alaskan villages.

Background:
Legacy data collection processes have resulted in limited or incomplete data concerning Alaska's energy system, especially in rural Alaska. Current data analytic processes, provide an opportunity to improve baseline data access, processing, and archiving. There is no overarching data custodian within that state that collects, manages, and archives data necessary to plan, design and construct energy infrastructure in rural Alaska. This includes critical local knowledge provided by village residents.

Benefits and Expected Results:
Provide better economic outcomes, longterm cost/benefit analysis for rural Alaskan communities related to energy infrastructure.

ACTIONS

C-5.1 Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.

C-5.2 Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects

C-5.3 Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions.

DRAFT



PRIORITY D.

STATE ENERGY DATA



INTRODUCTION

There are literally terabytes of energy data available in the State of Alaska. Currently this data is not centrally located or managed. The Data Subcommittee created a Technical Advisory committee to help them identify and clarify four strategies intended to help the state better collect, manage, and analyze energy data. Four strategies came from this effort. The first recommended Establishing a Data Department within the Alaska Energy Authority to oversee management of Alaska's energy data. Second, Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access identifies the need for establishment of industry standard data governance protocols by an established data governance committee. The third strategy points to needed funding with the establishment of the above organizations, and the final strategy, Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation, focuses on validating and improving existing energy data, and collecting additional needed data to aid in future energy decision making.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

DRAFT

STRATEGIES:

- D-1 Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary
- D-2 Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access
- D-3 Fund data capacity
- D-4 Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation

STRATEGY D-1:
Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary

ACTIONS

D-1.1 Institute or update statutory requirements for AEA Data Department.

D-1.2 Fund, develop, and implement a technical and needs assessment.

D-1.3 Fund, develop, and implement a capital asset plan.

D-1.4 Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.

D-1.5 Appropriately staff the department based on the technical and needs assessment.


Alaska Intertie Mountains

Purpose:
To staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

Background:
While a substantial amount of valuable energy data exists in aggregate, they are often inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Existing data needs are thus being met by implementing unsustainable, short-term solutions such as adding additional responsibilities to existing staff, which often results in delays or needs going unmet.

The Alaska Energy Authority is the state's energy office and lead agency for statewide energy policy and program development.

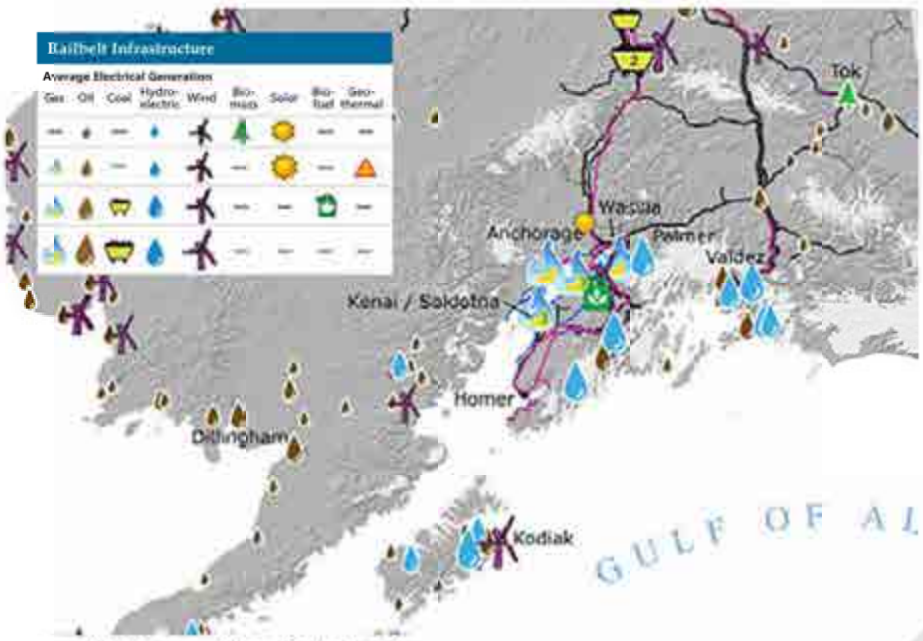
Benefits:
This recommendation prioritizes, centralizes, and focuses the importance of energy data management in order to ensure the consistency and accessibility of energy data so it can better inform decision-making efforts on energy projects, program, and policy development. Housing a Data Department in AEA will ensure consistency and sustainability of state energy data management.

Expected Results:
The provision of consistent and accessible data further enabling data-informed decision-making on energy projects and policy across the state. Increased consistency of state data assets.

DRAFT

STRATEGY D-2:

Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access



Renewable Energy Atlas of Alaska Map

Purpose:
Ensure that collection, quality, storage, use of, and access to electric, heat, and transportation energy data in Alaska meets industry standards, current protocols, and best practices.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Security of, and ability to access, energy data are major concerns for public and private data users alike. The willingness to share, and the extent to which that data is shared, is significantly limited by concerns from such data providers regarding security, access, and usage.

Benefits:
Data-informed decision making is only as valid as the data on which the decision is based. The collection, quality, storage, use of, and access to energy data in Alaska should align with those industry best practices, standards, and current protocols so that all decisions are based on accurate and secure data.

Expected Results:
Energy data in Alaska meets and conforms with industry standards, protocols, and best practices. Increased participation of energy data stakeholders and end-users.

ACTIONS

D-2.1 Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.

D-2.2 Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.

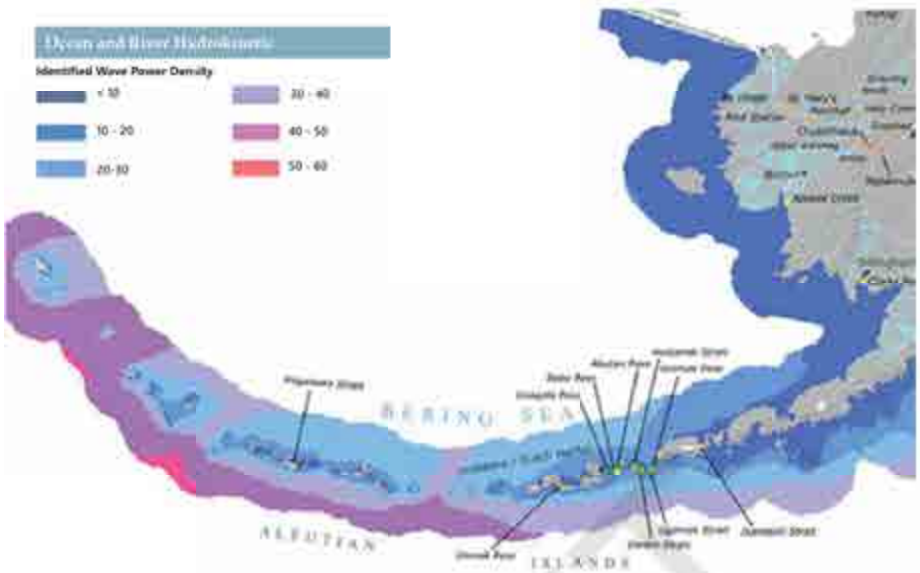
DRAFT

STRATEGY D-3:
Fund data capacity

ACTIONS

D-3.1 Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.

D-3.2 Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis.



Renewable Energy Atlas of Alaska Map

Purpose:
Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.

Background:
Many of the ongoing data-related efforts across State agencies are borne by individuals whose duties and responsibilities are not primarily data-focused.

Benefits:
Establishing positions within State agencies whose primary duties and responsibilities are focused on data-related activities/initiatives, using statutes as necessary.

Expected Results:
Increased collaboration, reduced duplication of efforts, ease of data access, and better-informed decision making.

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STRATEGY D-4:
Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation


Wind Farm Construction, Toksook Bay, Alaska

Purpose:
Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what form and character of data is and would be needed for data-informed decision making.

Background:
Existing data can be inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Thermal and transportation datasets are found to be lacking. The term "Energy Data" has historically been limited to electricity data, meaning there are significant gaps in thermal and transportation energy data.

Benefits:
Expand the definition of "Energy Data" and those existing, to-be-compiled, and to-be-created underlying datasets to include thermal and transportation data to better capture the dynamic and interrelated nature of energy use in Alaska.

Expected Results:
More all-encompassing and informed decision-making for energy projects and policies in Alaska, across electric, heat, and transportation sectors.

ACTIONS

D-4.1 Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.

D-4.2 Revitalize, fund, and maintain energy data platforms and services so as to ensure the long-term availability and accessibility of data.

D-4.3 Conduct a data audit of the Regulatory Commission of Alaska (RCA) to include recommendations.

D-4.4 Expand the Power Cost Equalization (PCE) report and the extent of such data reported.

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ACTIONS (CONT.)

D-4.5 Expand the definition of "energy data" by adopting the TAC definition, ensuring the definition is inclusive of heat/thermal and transportation fuel data.

D-4.6 Understand how heating and transportation fuel is delivered and used.

D-4.7 Re-establish annual updates to the Alaska Energy Statistics report.





PRIORITY E.

INCENTIVES AND SUBSIDIES





INTRODUCTION

The Incentives and Subsidies subcommittee settled on three themes and created seven strategies to support securing affordable energy in Alaska. The first theme relates to strategies and actions that incentivize private sector investment. These strategies include Decrease Barriers to Private Sector Investment, Improve Economies of Project Development, and Respond to and implement evolving Energy Business Models. The second theme is oriented to state and federal policy and law that could be modified to support and accelerate investment in energy generation, transmission, and storage in Alaska. These strategies include Strengthen State-Federal Coordination and Investment, Evaluate and implement State policy, tax, and other incentives, and Increase State programmatic investments. Finally, the Incentives subcommittee acknowledges the need to continue existing subsidies offered by the state while some of the previous strategies are implemented. The final theme and strategy includes, Maintaining Residential subsidy focused on equity, while reducing the need across communities.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

- E-1 Strengthen state-federal coordination and investment
- E-2 Decrease barriers to private sector investments
- E-3 Maintain residential subsidy focused on equity, while reducing need across communities
- E-4 Improve the economics of project development
- E-5 Evaluate and implement State policy, tax, and other incentives

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STRATEGY E-1:
Strengthen state-federal coordination and investment

ACTIONS

E-1.1 Develop an implementation strategy for federal energy funding opportunities, including to align with State-level investments.

E-1.2 Establish a clean energy and transmission line land use designation on state and federal lands.

E-1.3 Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund.

E-1.4 Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities consistent with the AESTF.

E-1.5 Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program, USDA, Rural Utility Service programs and other applicable federal programs.


Chugach Mountains

Purpose:
The AESTF recommends the establishment of a state/federal working group that identifies and works toward improved access on federal lands, funding in place to accelerate a local, reliable, and affordable energy transition, and the ability to leverage investment opportunities between state and federal programs.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's highest-cost energy communities have significant barriers in the form of federal lands, which comprise more than 60% of the state. Additionally, Alaska has comparatively underdeveloped transmission lines compared to other States and territories, and this deficiency negatively impacts renewable energy development required to lower energy costs. Federal land use policy comes with significant hurdles and a limited ability to effect widespread access or change. A coordinated and targeted effort by state and federal agencies that focuses on improving access and removing barriers is critical to lowering the cost of energy in Alaska, even as it increases the potential to meet federal clean energy goals.

Benefits and Expected Results:
The increased capacity of the state to negotiate and execute priorities with willing federal agencies for developing cost-effective clean energy, transmission lines on federal lands, with dedicated funding in place to bring Alaska parity with the rest of the nation, will lower energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals. This process will increase knowledge of available funding and implementation support for energy projects in Alaska. This action aligns with and should leverage current federal investment through IIJA and IRA.

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STRATEGY E-2:
Decrease barriers to private sector investments


Anchorage, Alaska

Purpose:
The AESTF recommends a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy.

Background:
Federal and state investment is insufficient to address the scale necessary to effect widespread and meaningful transition toward lower-cost and –carbon energy. At the same time, removing barriers or reducing the burdens associated with private sector investments has the potential to increase Alaska's ability to establish partnerships, and leverage private capital in the public interest. Ultimately, what the State has most control of is its own policy, regulatory, and tax systems. The State's capacity to contribute to lowering the cost of energy for Alaskans is immense, and intensity of effort is required to fully assess current activity and the potential need for new laws and practices that will incentivize change.

Benefits and Expected Results:
Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment. Offsetting upfront costs and increasing the utilization of low-interest public capital will strengthen project economics while including strong public benefit criteria. Finally, this process envisions increasing the overall economy of scale, which will contribute to reducing barriers.

ACTIONS

E-2.1 Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.

E-2.2 Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs.

E-2.3 Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.

E-2.4 Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

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ACTIONS (CONT.)

E-2.5 Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.

E-2.6 Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.

E-2.7 Conduct an evaluation of state and local government's capacity to increase incentive programs or make investments that lead to lower cost energy.



STRATEGY E-3:
Maintain residential subsidy focused on equity, while reducing need across communities



Purpose:
The AESTF recommends the continued commitment by the State to ensuring residents have access to subsidy where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms, 2) strategically deploys PCE funds to advance low-cost energy solutions, and 3) expands the ability of PCE to lower costs across sectors within communities.

Background:
The value of PCE cannot be overstated – it has proven to be a lifeline to Alaskans who bear the brunt of high costs. This equitable distribution of State funding, relative to and based on project investment in some parts of the state, has lowered costs in communities where otherwise more residents may have chosen outmigration. However, PCE has not equalized costs in any way, and it remains true that this high-cost burden falls on some Alaskans and not others. At the same time, the overall goals of the state can encompass reducing the need for this subsidy by actually lowering costs in communities.

Benefits and Expected Results:
Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans.

ACTIONS

E-3.1 Ensure that PCE funds are available at the right scale over the correct time period.

E-3.2 Implement a strategic approach to lowering costs according to highest use communities.

E-3.3 Increase the use of PCE funds available to community facilities, ensuring the full utilization of the current allocation

E-3.4 Enact a provision in law to provide a modest annual payment to PCE-eligible communities/ utilities who are producing at least 50% of their annual electric energy from a renewable energy source have incurred debt to support this investment, and as a result are no longer receiving any or only nominal amount of PCE payments.

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ACTIONS (CONT.)

E-3.5 Increase utilization of community-based IPPs that sell power to utility for PCE reimbursement.

E-3.6 Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

"Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans."



STRATEGY E-4:
Improve the economics of project development


AEA Training, Nikolai, Alaska

Purpose:
The AESTF recommends a multi-pronged approach to reducing risk to utilities and project proponents, increasing the availability of financing mechanisms, and encouraging ancillary investments that will benefit the industry and economies of communities.

Background:
Alaska will always be a high-cost state, defined by the tyranny of geography, time, and distance. Access to markets, and at the tail-end of a global supply chain, there are clear competitive disadvantages within which utilities and project developers operate, even as ratepayers (or the State) bear the cost. There are ways, however, to lower the costs of project development, and state action can facilitate this.

Benefits and Expected Results:
Affordability rests on capex and opex, and both have avoidable and unavoidable layered costs. A strategic state approach can begin peeling away or mitigating avoidable costs to improve the economics of project development, and ultimately save ratepayers money.

ACTIONS

E-4.1 Establish a green bank for financing of community scale energy efficiency projects.

E-4.2 Ensure adequate workforce training and skills development alongside job creation goals of State.

E-4.3 Increase the ability of the State to encourage efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization.

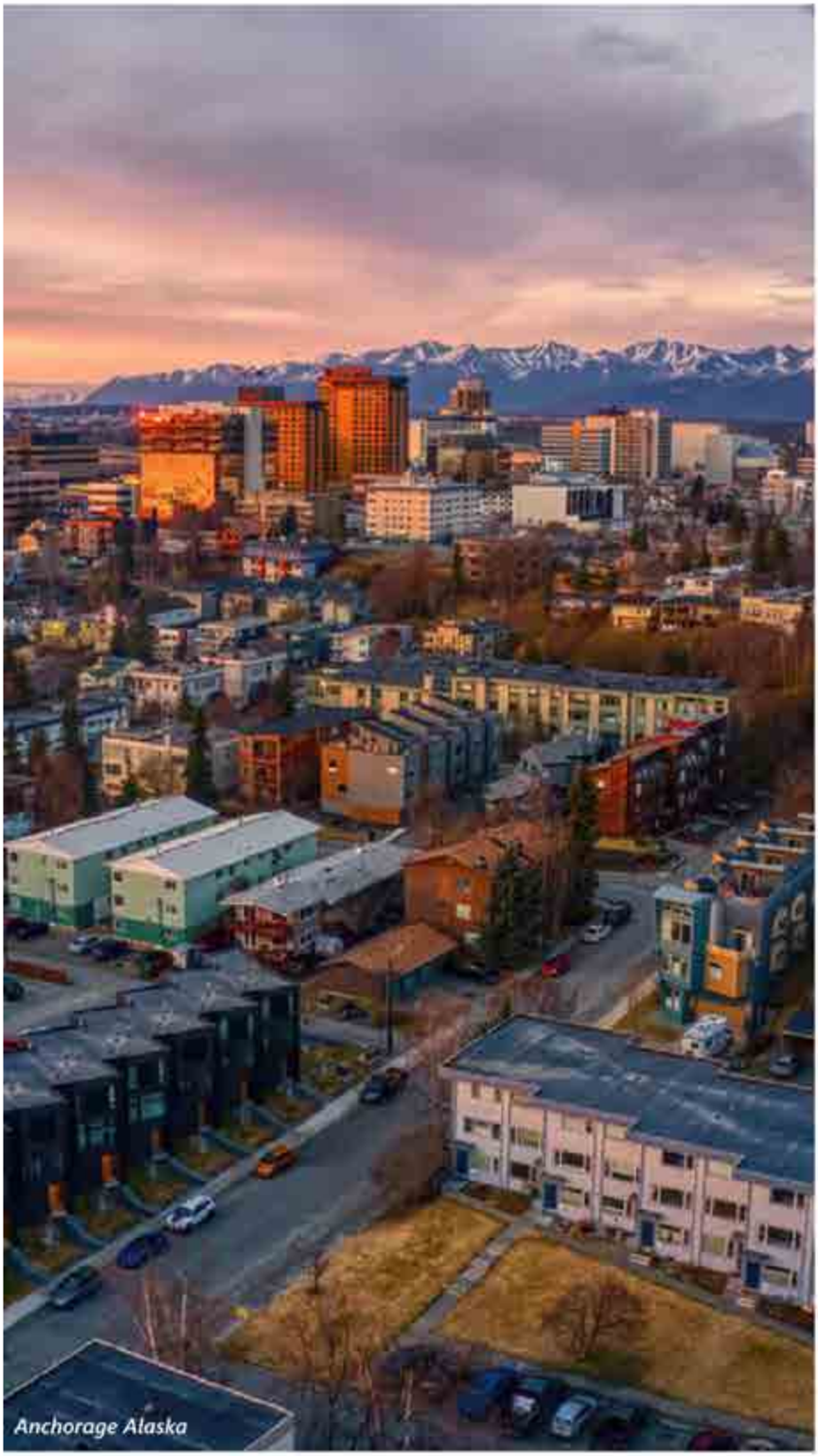
E-4.4 Establish an opportunity for pooling of RECs for system optimization and improving economy of scale.

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ACTIONS (CONT.)

E-4.5 Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.

E-4.6 Resurrect the Emerging Energy Technology Fund (EETF) in order to promote investment in energy technology demonstration and deployment programs.



Anchorage Alaska

STRATEGY E-5:
Evaluate and implement State policy, tax, and other incentives


Denali Range Mt McKinley Alaska

Purpose:
The AESTF recommends the evaluation of and changes to current programmatic investments such that 1) these programs have sufficient capacity and competency to act effectively in support of lowering energy costs in Alaska, and 2) that the braiding of programmatic intent results in streamlining action and reducing capex and opex costs.

Background:
Government programs may be developed to provide technical assistance or to serve as a resource to consumers, project proponents, and others. Program staff provide support and guidance as to how to utilize these tools. Programs may also try to provide direct services, such as improving energy efficiency, weatherization, community planning, or rate review and setting. Some programs are simply there to ensure compliance. Governments may spend significant resources on these programs. It is not clear that programs reduce the cost of energy, though they may have other benefits.

Benefits and Expected Results:
The ability of the state to achieve a moonshot goal requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end.

ACTIONS

E-5.1 Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.

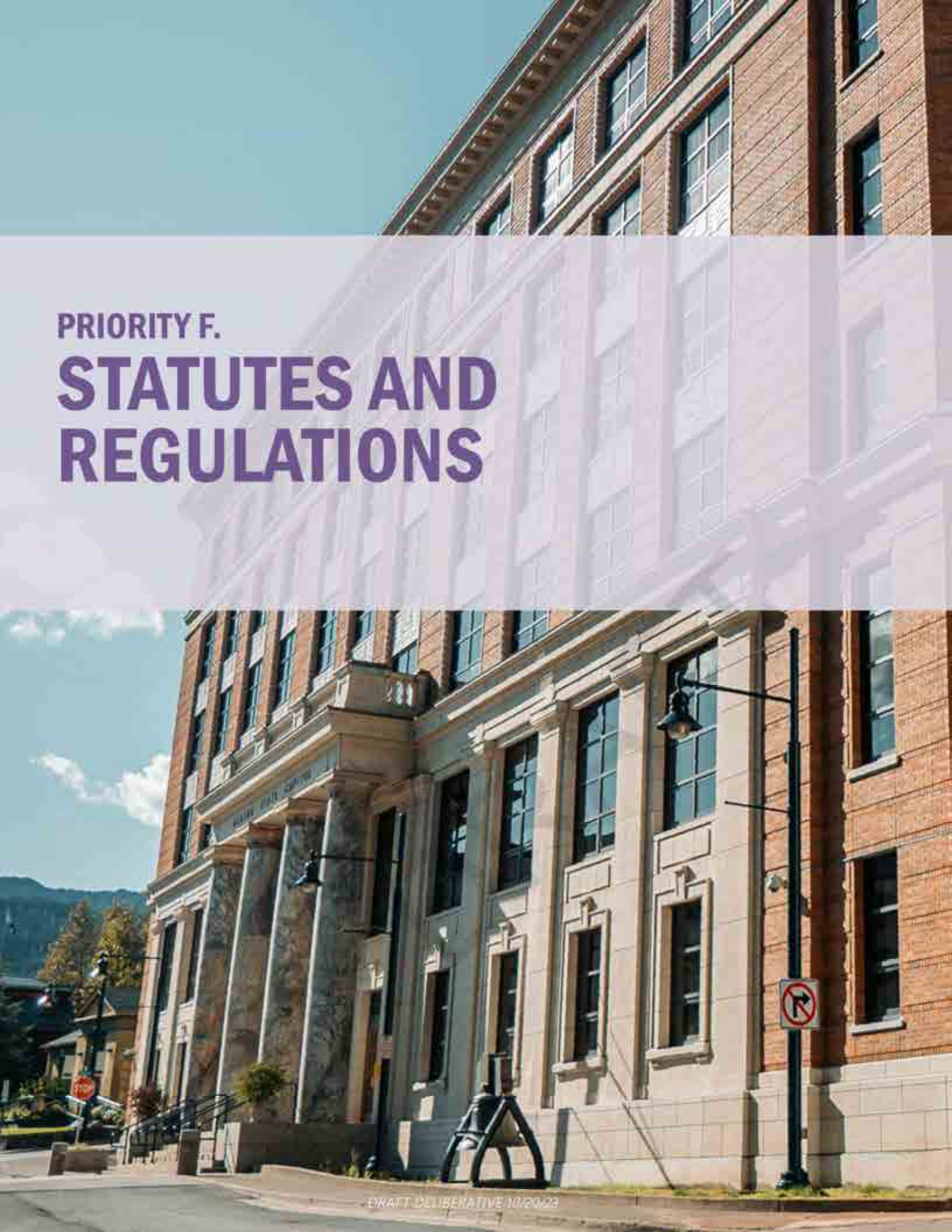
E-5.2 Leverage and strengthen AEA's ability to execute their circuit rider program or provide other means to allow utilities to address the maintenance and operation needs of Alaska power systems by encouraging public, including public-private-partnerships for energy projects.

E-5.3 Increase availability of resources for weatherization, energy efficiency, and building retrofits.

E-5.4 Coordinate recruitment and retention of staff resources at local and state level, including to provide technical assistance.

E-5.5 Strengthen state and local procurement policies to provide preference for affordable and clean energy projects.

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PRIORITY F.

STATUTES AND REGULATIONS



INTRODUCTION

Described below is the method that the Statutes and Regulations Subcommittee ("SRS") used to present its findings and recommendations in support of the overall objectives of the AESTF.

First, the SRS compiled a comprehensive Statutes and Regulations Matrix included herein as Table xxx ("Matrix"). This Matrix is a summary of each of the action items from the other five AESTF subcommittees that recommend changes in government policy. While not attempting to duplicate the detailed discussion on each item presented in the subcommittee sections, the Matrix provides the reader with a consolidated and comprehensive presentation of actionable statute, regulation, appropriation, and government policy recommendations from the entire Task Force.

Second, the SRS then considered input received by the Task Force, as well as discussions with the Task Force and developed a number of action items in furtherance of Task Force goals that had not been addressed by the other subcommittees. These SRS action items are reflected in papers F1.1 – F4.xx included herein.

These SRS action items were then grouped into four general strategies (1) Improve Transmission, (2) Diversify Energy and Generation, (3) Utility Regulation, and (4) Other. Where these align with similar strategies from other subcommittees, key statute or policy recommendations from the other subcommittees were included together in a bulleted list with the SRS action items in order to provide a compilation of all key actions needed to fully implement the strategy. When an action item arose from the SRS, it is referenced with an Fx.x number. When an action item arose from another committee, the reference from the Matrix is noted.

PLANNING PROCESS HIGHLIGHTS

PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION

STRATEGIES:

F-1 Improve Electrical Transmission System

F-2 Encourage Energy and Generation Diversification

F-3 Utility Regulation

F-4 Executive and Organizational Changes

DRAFT

STRATEGY F-1:
Improve Electrical Transmission System

ACTIONS

F-1.1 Identify state matching funds for all federal funds available for transmission infrastructure (See Action B-2.4).

F-1.2 Clarify state statute AS 09.65.86 on Utility ROW wildfire liability.

F-1.3 Review 17 AAC 15.131. Utility accommodation on controlled-access highways in order to continue to allow transmission and distribution lines to share DOT right-of-way.

F-1.4 Establish a State/ Municipal planning effort to focus on future transmission and distribution siting and ROW's to facilitate efficient buildout of Alaska's transmission infrastructure.

F-1.5 Establish renewable energy or transmission line land designations and ROW's


Hoonah, Alaska

Purpose:
Identify changes in statutes, regulations, or appropriations that are needed to implement AESTF recommendations regarding planning, investment, construction and operation of improved electrical transmission in Alaska.

Background:
Originally, all electrical generation in Alaska occurred within local islanded systems, whether in coastal, rural, or railbelt regions. As Alaska has grown, there is a dire need to improve reliability and efficiency of transmitting power between communities. The benefits would be:

- Reduces transmission constraints while also allowing new generation technologies and locations to compete.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power across regions or communities.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.

Benefits and Expected Results:
This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.

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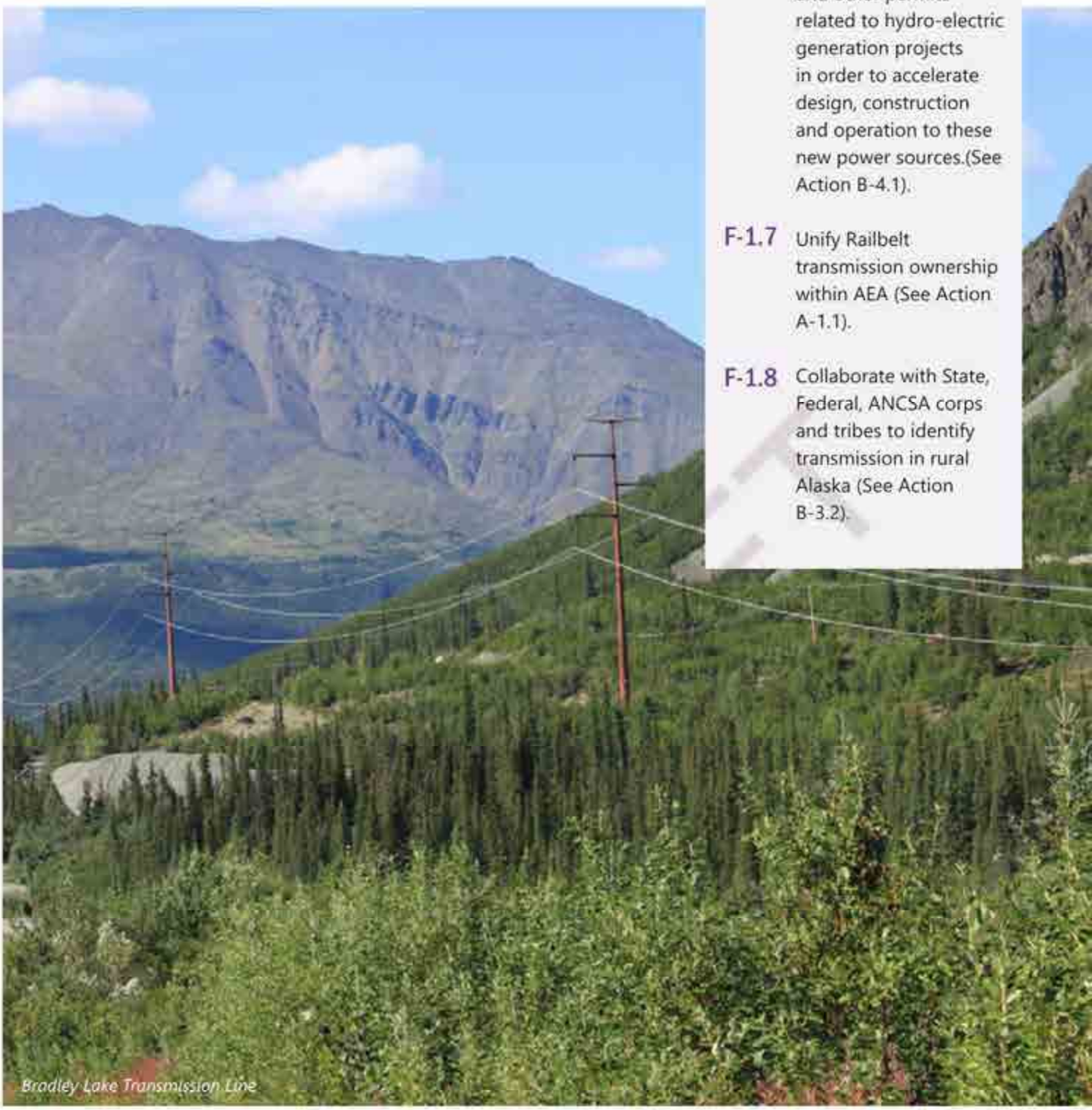
ACTIONS CONTINUED FOR STRATEGY F-1

ACTIONS

F-1.6 Modify 11 ACC 93.120 and other permits related to hydro-electric generation projects in order to accelerate design, construction and operation to these new power sources.(See Action B-4.1).

F-1.7 Unify Railbelt transmission ownership within AEA (See Action A-1.1).

F-1.8 Collaborate with State, Federal, ANCSA corps and tribes to identify transmission in rural Alaska (See Action B-3.2).



Bradley Lake Transmission Line

STRATEGY F-2:
Encourage Energy and Generation Diversification

ACTIONS

F-2.1 Appropriate or identify state funds to provide the local match required to obtain federal grants for electrical generation projects when a cost/benefit analysis shows a positive benefit to the state or the communities the project is intended for (See Action C-1.1).

F-2.2 Maximize future optionality for use of Alaska sourced fossil fuels by monitoring and evaluating third party development of carbon capture and sequestration technologies and passing legislation establishing a regulatory framework for the geologic storage of carbon.


King Salmon, Alaska

Purpose:
Identify changes in statutes, regulations, or appropriations that are needed to implement AESTF recommendations to encourage energy and generation diversification.

Background:
For many years, for both space heat and electricity, the railbelt has relied primarily on Cook Inlet natural gas, rural Alaska has relied primarily upon diesel fuel, and coastal Alaska has primarily used a combination of hydropower and diesel fuel.

Energy source and generation diversification within each of these regions will allow various technologies to compete to bring the most affordable, reliable, and local energy to Alaskans.

Benefits and Expected Results:
Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for rate payers.

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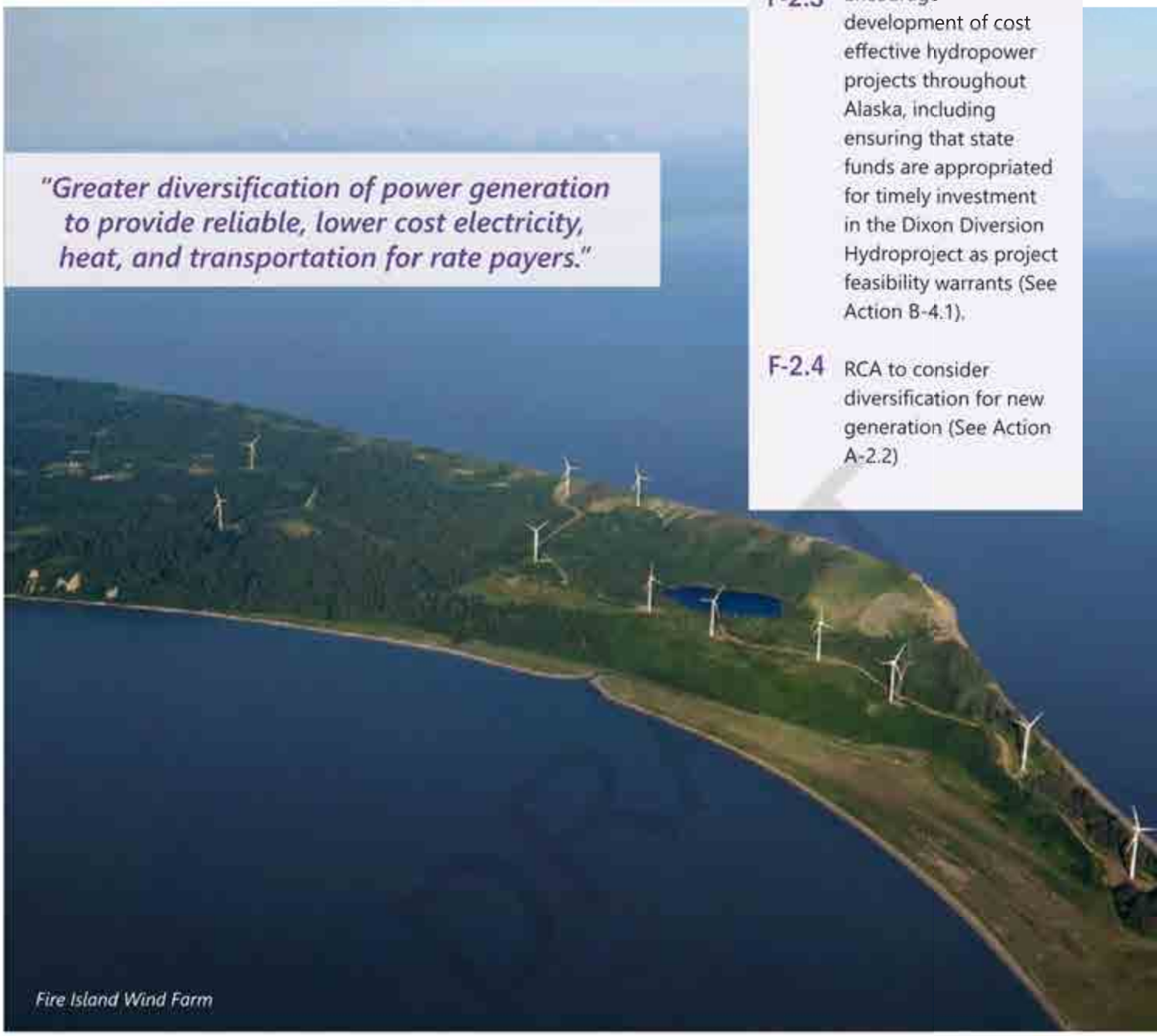
ACTIONS CONTINUED FOR STRATEGY F-2

"Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for rate payers."

ACTIONS

F-2.3 Encourage development of cost effective hydropower projects throughout Alaska, including ensuring that state funds are appropriated for timely investment in the Dixon Diversion Hydroproject as project feasibility warrants (See Action B-4.1).

F-2.4 RCA to consider diversification for new generation (See Action A-2.2)



Fire Island Wind Farm

STRATEGY F-3:
Utility Regulation

ACTIONS

F-3.1 Provide budgetary support for the Regulatory Commission of Alaska (RCA) sufficient to improve the RCA's ability to respond timely and appropriately to the complex energy production, generation, and transmission challenges in Alaska.

F-3.2 Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023 (See also Action E-3.1).

F-3.3 Streamline state and federal permitting for energy projects within transportation/utility corridors.


Sitka, Alaska

Purpose:
Identify changes in statutes, regulations, or appropriations that are needed to implement AESTF recommendations related to utility regulation.

Background:
Federal, state, and local governments play a key role in development and transport of oil and gas and regulation of generation and transmission of electricity.

Benefits and Expected Results:
Budgetary support or modification of statutes and regulations that govern Alaska's utilities, energy generation, distribution, transmission and storage is recommended in order to support lower energy costs for all Alaskans.

Improved utility regulation and a more efficient RCA will support a more dynamic environment for utilities to be able to respond to system challenges in a more timely and cost effective manner.

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Humpback Creek Plant

ACTIONS

F-3.4 Modify 3AAC 46.270 (f) to reduce the ambiguity surrounding avoided cost standards.

F-3.5 Modify (AS42.05.760) to ensure alignment with unified Railbelt transmission authority.

F-3.6 Adopt a Clean Energy Standard with incentives (See Action A-2.1).

F-3.7 Offer state abatement or incentive rate to attract industry to Alaska as large energy users to grow demand.

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STRATEGY F-4:
Executive and Organizational Changes

ACTIONS

F-4.1 Create a Data Department with the Alaska Energy Authority (AEA), using statute as necessary (See Data Strategy - 1).



Purpose:
Staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority

Background:
While a substantial amount of valuable energy data exists in aggregate, this data is often inconsistent, inaccessible, and provided in formats which do not meet end-user needs. Existing data needs are thus being met by implementing unsustainable, short-term solutions such as adding additional responsibilities to existing staff, which often results in delays or needs going unmet.

The Alaska Energy Authority is the state's energy office and lead agency for statewide energy policy and program development.

Benefits and Expected Results:
This recommendation prioritizes, centralizes, and focuses the importance of energy data management in order to ensure the consistency and accessibility of energy data so it can better inform decision-making efforts on energy projects, program, and policy development. Housing a Data Department in AEA will ensure consistency and sustainability of state energy data management.

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Haines, Alaska

ADDITIONAL ACTIONS FOR CONSIDERATION IN PRIORITY F. STATUTES AND REGULATIONS (FROM INCENTIVES AND SUBSIDIES SUBCOMMITTEE)

- Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines.
- Expand on-bill financing, net metering, to leverage alternate funding and financing options to encourage investments in emerging technology.
- Update RCA regulations to allow virtual power plants to operate under the same rules as existing generation assets.
- Implement utility rate incentives for time-of-use rates during periods of lower cost power.
- Strengthen state and local procurement policies to provide preference for affordable and clean energy projects.
- Establish a Green Bank for financing of community scale energy efficiency projects.
- Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

APPENDIX II.
ACTION TRACKING SHEET

DRAFT

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Priority A. Railbelt Transmission, Generation, and Storage - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy A-1: Unify Transmission	Action A-1.1	Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA for new non-for-profit regulated utility for the net book value.		Short (2 - 5 years)	AEA	Legislature; Dept of Revenue; Dept of Law; Railbelt Utilities	New
Strategy A-2: Diversify Generation	Action A-2.1	Provide full state support to progress the AKLNG project					
Strategy A-2: Diversify Generation	Action A-2.2	Complete project development for the Bullet Line project to make a go/no-go decision on this option					
Strategy A-2: Diversify Generation	Action A-2.3	Progress Known Near Term Energy Diversification Projects to a Go/No-Go Decision: 2.3.1: Dixon Diversion					
Strategy A-2: Diversify Generation	Action A-2.4	Progress Known Long Term Energy Diversification Projects to a Go/No-Go Decision: 2.4.1: Susitna Watana 2.4.2: AKLNG, Bullet Line & Alternatives					
Strategy A-3: Increase Demand	Action A-3.1	Significantly increase load to drive down energy rates. 3.1.1: RFP for Industrial Customers 3.1.2: Energy Tax Credit for New Industrial Customers 3.1.3: Identify "Load-Friendly" Areas Already In-Place					

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-1: Alaska Policy Recommendations	Action B-1.1	Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.	Plan to promote heat pumps as an alternative energy/heat source in Coastal Alaska. Identify successful case studies for further implementation in Alaska (there is data available on heat pumps, e.g. Heat Pumps Center).	Immediate	Local Leadership, AEA	DCCED; Legislature; Dept of Law; Utilities; AHFC; Community Development Organizations; Local Governments; Tribes	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.2	Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.	Identify and execute shore power in Alaskan Ports and Harbors and make feasible. Identify funding sources, including Marine Passenger Fees and federal programs.	Immediate-Execution ready, short term (2-5 years)	AEA, Coastal Communities	Dept of Law; DCCED; DOT&PF	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.3	Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.	Establish plan to convert ferry fleet to electric or electric hybrid vessels, using BC Ferries as a case study for implementation. Identify key ferry routes in Alaska, and evaluate for feasibility and implementation. Work with AKDOTPF strategy and plans. Use electric demand forecasts to assist coastal region utilities and communities generation and transmission resource planning.	Short (2 - 5 years)	DOT&PF	DCCED; Legislature; Dept of Law; Local utilities and IPPs	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.4	Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies tolower energy costs.	Note: Emerging Opportunity - Subcommittee will review in detail in September 2023.	Short (2 - 5 years)	Private Industry or Utilities	DCCED, DEC, AEA	New
Strategy B-1: Alaska Policy Recommendations	Action B-1.5	Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs.	Identify successful ESS use in Alaska or other case studies beneficial for future use in Alaska communities. Explore all storage opportunities, including pump storage and battery energy. Evaluate opportunity to re-use or re-purpose existing infrastructure and stabilize grids. Integration of renewables. Acknowledge O&M of the systems.	Immediate. Change to Immediate and Short term	AEA, local communities	B&V; AEA; utilities; AIEDA; local communities, DOT&PF	New
Strategy B-2: Alaska Policy Recommendations	Action B-2.1	Establish, require, assist, and Implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs and to lower energy costs.	Identify future generation and demand for resource planning purposes to lower the energy cost for the communities and region. Establish Standardized Metrics Related to Power Generation Compared to Future Demand.	Immediate (0 - 2 years)	AEA	RCA; Utilities; DCCED; communities; tribal entities;	New
Strategy B-1: Alaska Policy Recommendations	Action B-2.2	Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.		Short (2 - 5 years)		Tribes and native corporations; schools; Utilities; DCCED; AEA; RCA; Legislature	New
Strategy B-1: Alaska Policy Recommendations	Action B-2.3	Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.	Identify burdensome regulatory requirements at State Departments, with focus on hydro-electric power and other renewable energy development. Collaborate with appropriate state and regulatory agencies to promote solutions to streamline approvals, decrease costs, and expedite schedules.	Immediate and short term	Office of Governor, AEA	Office of Project Management and Permitting (OPMP), DNR; DOT&PF; DEC; DFG; Dept of Law,	New

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Priority B. Coastal Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy B-1: Alaska Policy Recommendations	Action B-2.4	Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution lines in Alaska to bring Alaska on par with the US transmission systems for Alaskan energy security and lower energy costs.	Identify funding/financing sources a the federal, state and local level to expand transmission lines across Alaska. Prioritize innovative construction and product types, such as submarine transmission and underground transmission.	Spectrum of timeframes based on local needs and initiatives	Governors Office, AEA	Congressional Delegation. Utilities; DCCED; AEA, AIDEA; local governments; tribal; state legislature; Governor's office	New
Strategy B-1: Alaska Policy Recommendations	Action B-2.5	Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.					
Strategy B-1: Alaska Policy Recommendations	Action B-2.6	Recruit, Train, and Enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.	Establish a workforce development program to educate, train, and retain skilled workers in electrification.	Immediate (0 - 2 years)	Dept. of Labor	DOR, DCCED, University of Alaska, Labor Unions, AVTEC, Tribal Training Programs - (Tlingit Tribal Central Council), Yuut Elitnaurviat	New
Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-3.1	Establish an Alaska/federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.					
Strategy B-2: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations	Action B-3.2	State of Alaska partners and collaborates with Federally recognized Alaska tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.	Coordinate and collaborate with federal land holding agencies to establish a renewable energy land use and Transmission use corridor Primacy on federal land allow Alaska renewable energy development on federal lands.	Immediate, short term ongoing	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT&PF; Dept of Law; Alaska Congressional Delegation, Denali Commission, Alaska Power Association	New
Strategy B-3: Alaska Hydropower Generation Recommendations	Action B-4.1	Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.	Build Execution ready Hydro Projects, Advance economically viable Hydro for energy security, spur economic growth and prosperity for Alaska.	Immediate-Execution Ready, Short (2 - 5 years) [licensed] Long-term (10 years plus) [unlicensed]	AEA	AIDEA, Federal funding, DCCED, DOL, DNR, ADF&G, state legislature	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-1: Increase Capital Availability	Action C-1.1	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.	Identify local or state funding mechanisms to "bridge the gap" commonly found with federal grant funding – the local match component is often a prohibitive hurdle for rural communities to receive federal grant funding.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-1: Increase Capital Availability	Action C-1.2	Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.					
Strategy C-1: Increase Capital Availability	Action C-1.3	State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.1	Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.					
Strategy C-2: Infrastructure Investment	Action C-2.2	Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denali Commission, and other organizations as well as state and federal agencies.					
Strategy C-2: Infrastructure Investment	Action C-2.3	Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.					
Strategy C-2: Infrastructure Investment	Action C-2.4	Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.					
Strategy C-2: Infrastructure Investment	Action C-2.5	Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.	Where feasible, identify opportunities to connect rural communities through transmission lines and shared energy to enhance redundancy and connectivity. Focus on cost-effective solutions for connectivity. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Where feasible, install renewable energy systems such as wind, tidal, geothermal, and solar to reduce power costs in rural areas. Upgrade rural energy infrastructure such as power houses and bulk fuel farms.	Medium (5 - 10 years)	AEA	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-2: Infrastructure Investment	Action C-2.6	Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.), to avoid energy disruptions and preserve continuity of operations.	Invest in resilient energy infrastructure with focus on most frequent/severe hazards, instead of focusing on repair after the damage or destruction occurs. Reference case studies and future opportunities with FEMA as a funding resource. Deploy next generation renewable energy solutions throughout rural Alaska as legacy systems reach end of useful life, accounting for maintenance and training costs.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-2: Infrastructure Investment	Action C-2.7	Invest in expanding the grid in rural areas.		Long-term (10 years plus)		P3 Partners, Utilities	Modified CEDs 2022 Plan Action
Strategy C-2: Infrastructure Investment	Action C-2.8	Evaluate micronuclear and other emerging/underutilized technologies throughout the State of Alaska.	Invest in expanding the grid in rural areas in cost effective ways to connect micro nuclear as it is adopted and built in the next 10+ years.				
Strategy C-3: Lower Operational Costs	Action C-3.1	Expand and Inventory technical assistance, training, and workforce development to identify gaps, and increase capability & capacity-building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production	Explore technical assistance such as: workforce training programs, financing mechanisms, grant support, and economic development.	Immediate (0 - 2 years)	DCCED	DOL; DOR ,P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.2	Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.	Identify new innovations in transportation that may support/improve supply chain logistics and reliability in rural AK – follow up with DOT&PF. Prioritize continuity of operations, and enhance redundancy where feasible.	Immediate (0 - 2 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.3	Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.	Identify opportunities to educate local communities about proposed or future energy projects. Focus on benefits, particularly related to affordability. Curate outreach to known controversial projects, such as hydro-power or mining. Identify past projects that have successfully navigated opposition mounted by local communities and environmental NGOs. Develop case studies and a suite of tools to engage with opposition. Recognize concerns from those who are opposed, and implement mitigation actions as appropriate. Engage early and often, incorporate visuals and avoid fear mongering.	Medium (5 - 10 years)		DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-3: Lower Operational Costs	Action C-3.4	Grid modernization and automation					

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Priority C. Rural Generation, Distribution, and Storage - Action Tracking Sheet

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Strategy C-4: Improve Economies of Scale	Action C-4.1	Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.	Identify development opportunities to be shared amongst multiple utilities. Expand transmission lines to connect outlying communities to the Railbelt (or other regional) grids wherever a cost-benefit analysis indicates a positive value. Develop energy projects in coordination with other utilities, such water, sewer, heat, communications (broadband, fiber) or other infrastructure projects (transportation). Share costs associated amongst participants to enhance affordability, and thus pass off affordability to the users.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC P3 Partners	New
Strategy C-4: Improve Economies of Scale	Action C-4.2	Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.	Identify existing and potential energy anchor tenants who are willing to share costs on energy projects and development. Examples include fishing, mining, industrial tenants. Explore opportunities where anchor tenants can partner with other business and communities for mutually beneficial projects, and enhance affordability.	Medium (5 - 10 years)	DCCED	DOT&PF; Utilities; DEC; ANTHC	New
Strategy C-4: Improve Economies of Scale	Action C-4.3	Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.					
Strategy C-4: Improve Economies of Scale	Action C-4.4	Identify and complete a regional pilot project to demonstrate economies of scale.					
Strategy C-4: Improve Economies of Scale	Action C-4.5	Invest in rural beneficial electrification.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.1	Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.	Explore opportunities to enhance remote sensing and technology for energy infrastructure in rural/remote locations.	Medium (5 - 10 years)			New
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.2	Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects.					
Strategy C-5: Improve Data-Driven Decision Making	Action C-5.3	Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.1	Institute or update statutory requirements for AEA Data Department.					
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.2	Fund, develop, and implement a technical and needs assessment		Immediate (0 - 2 years)			New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.3	Fund, develop, and implement a capital asset plan					New
Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.4	Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms					New

Draft

Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-1: Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary	Action D-1.5	Appropriately staff the department based on the technical and needs assessment					New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.1	Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.		Immediate (0 - 2 years)			New
Strategy D-2: Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access	Action D-2.2	Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.					New
Strategy D-3: Fund data capacity	Action D-3.1	Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.		Short (2 - 5 years)			New
Strategy D-3: Fund data capacity	Action D-3.2	Provide professional development and/or skills training opportunities for staff and other agency partners as it relates to data collection and analysis					New

Draft

Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.1	Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.		Short (2 - 5 years)			New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.2	Revitalize, fund, and maintain energy data platforms and services that ensures the availability and accessibility of data.					New
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.3	Conduct a data audit of the Regulatory Commission of Alaska (RCA), to include recommendations.					New

Draft

Priority D. State Energy Data - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.4	Expand the Power Cost Equalization (PCE) report and extent of such data reported					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.5	Expand the definition of "energy data" by adopting the TAC definition, ensuring the term is inclusive of heat/thermal and transportation fuel data					
Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.6	Understand how heating and transportation fuel is delivered and used					

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Priority D. State Energy Data - Action Tracking Sheet

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Strategy D-4: Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation.	Action D-4.7	Re-establish annual updates to the Alaska Energy Statistics report					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 10/2/2023)

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Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.1	Develop an implementation strategy for federal energy funding opportunities, including to align with State-level investments.	Funding and implementation toolkit for energy projects in Alaska will include: resources, guidelines, case studies, and a funding tracker of opportunities for Alaskan communities, ANCs, State Agencies, Utilities, etc.	Short (2 - 5 years)	AEA	DCCED; DOR; ACEP; State Legislature	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.2	Establish a clean energy and transmission line land use designation on state and federal lands.	Establish a renewable energy land use designation or transmission line land use designation in Chugach and Tongass Forest plans to allow small community renewable energy development and transmission line corridors on federal lands. Establish an Alaska-Federal Renewable Energy Working Group to develop, collaborate, and execute State-Federal policy that supports State energy goals and rights to advance renewable energy development and transmission lines on federal lands to lower the energy cost for Alaskans.	This action item has a blend of immediate and short-term tasks for implementation.	Governors Office, AEA	Governors Office, AEA, DCCED; Legislature; DOT Dept of Law;	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.3	Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund	Alaska has second world transmission and generation assets. Requires federal support to bring Alaska into this century with same level of service and transmission line capacity aligned with national standards.	Medium (5 - 10 years)	State Legislature	DCCED; DOR; Dept of Law, AEA	New
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.4	Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities consistent with the AESTF.	Implement statewide energy project evaluation process that takes into account low cost, local, clean, and lifecycle. Alaska could use the levelized cost of energy for infrastructure projects.				
Strategy E-1: Strengthen state-federal coordination and investment	Action E-1.5	Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program, USDA, Rural Utility Service programs and other applicable federal programs.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.1	Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.2	Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-2: Decrease barriers to private sector investments	Action E-2.3	Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.4	Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.5	Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.6	Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.					
Strategy E-2: Decrease barriers to private sector investments	Action E-2.7	Conduct an evaluation of state and local government's capacity to increase incentive programs or make investments that lead to lower cost energy.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.1	Ensure that PCE funds are available at the right scale over the correct time period.	Increase analysis of potential benefits of PCE, to reduce disincentives for lowering energy costs.	Short (2 - 5 years)			

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.2	Implement a strategic approach to lowering costs according to highest use communities.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.3	Increase the use of PCE funds available to community facilities, ensuring the full utilization of the current allocation					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.4	Enact a provision in law to provide a modest annual payment to PCE-eligible communities/utilities who are producing at least 50% of their annual electric energy from a renewable energy source have incurred debt to support this investment, and as a result are no longer receiving any or only nominal amount of PCE payments.					
Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.5	Increase utilization of community-based IPPs that sell power to utility for PCE reimbursement.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-3: Maintain Residential subsidy focused on equity, while reducing need across communities	Action E-3.6	Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.					
Strategy E-4: Improve the economics of project development	Action E-4.1	Establish a green bank for financing of community scale energy efficiency projects.	Establish a green bank to finance energy efficiency projects at the community scale in partnership with the private sector. Support initial capitalization by the State.	Short (2 - 5 years)	AHFC	AEA	From CEDs 2022 Plan (For Consideration)
Strategy E-4: Improve the economics of project development	Action E-4.2	Ensure adequate workforce training and skills development alongside job creation goals of State.	Obtain federal grants under the IIJA to conduct workforce development, reskilling, and training, including as part of broad industry collaboration.	Medium (5 - 10 years)			From CEDs 2022 Plan (For Consideration)
Strategy E-4: Improve the economics of project development	Action E-4.3	Increase the ability of the State to encourage efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning highcost utilities and aging plant securitization.					
Strategy E-4: Improve the economics of project development	Action E-4.4	Establish an opportunity for pooling of RECs for system optimization and improving economy of scale.					
Strategy E-4: Improve the economics of project development	Action E-4.5	Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.					
Strategy E-4: Improve the economics of project development	Action E-4.6	Resurrect the Emerging Energy Technology Fund (EETF) in order to promote investment in energy technology demonstration and deployment programs.					

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Priority E. Incentives and Subsidies - Action Tracking Sheet

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Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.1	Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.2	Leverage and strengthen AEA's ability to execute their circuit rider program or provide other meansto allow utilities to address the maintenance and operation needs of Alaska power systems by encouraging public, including public-privatepartnerships for energy projects.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.3	Increase availability of resources for weatherization, energy efficiency, and building retrofits.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.4	Coordinate recruitment and retention of staff resources at local and state level, including to provide technical assistance.					
Strategy E-5: Evaluate and implement State policy, tax, and other incentives	Action E-5.5	Strengthen state and local procurement policies to provide preference for affordable and clean energy projects.					

Draft

Priority F. Statutes and Regulations Reform - Action Tracking Sheet

Appendix II, State of Alaska Statewide Energy Master Plan

(Draft as of 9/18/2023)

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Strategy F-1: Improve Electrical Transmission System	F-1.1	Identify state matching funds for all federal funds available for transmission infrastructure (See Action B-2.4).					
Strategy F-1: Improve Electrical Transmission System	F-1.2	Clarify state statute AS 09.65.86 on Utility ROW wildfire liability.					
Strategy F-1: Improve Electrical Transmission System	F-1.3	Review 17 AAC 15.131. Utility accommodation on controlled-access highways in order to continue to allow transmission and distribution lines to share DOT right-of-way.					
Strategy F-1: Improve Electrical Transmission System	F-1.4	Establish a State/Municipal planning effort to focus on future transmission and distribution siting and ROW's to facilitate efficient buildout of Alaska's transmission infrastructure.					
Strategy F-1: Improve Electrical Transmission System	F-1.5	Establish renewable energy or transmission line land designations and ROW's					
Strategy F-1: Improve Electrical Transmission System	F-1.6	Modify 11 ACC 93.120 and other permits related to hydro-electric generation projects in order to accelerate design, construction and operation to these new power sources.(See Action B-4.1).					
Strategy F-1: Improve Electrical Transmission System	F-1.7	Unify Railbelt transmission ownership within AEA (See Action A-1.1).					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Strategy F-1: Improve Electrical Transmission System	F-1.8	Collaborate with State, Federal, ANCSA corps and tribes to identify transmission in rural Alaska (See Action B-3.2).					
Strategy F-2: Encourage Energy and Generation Diversification	F-2.1	Appropriate or identify state funds to provide the local match required to obtain federal grants for electrical generation projects when a cost/benefit analysis shows a positive benefit to the state or the communities the project is intended for (See Action C-1.1).					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Strategy F-2: Encourage Energy and Generation Diversification	F-2.2	Maximize future optionality for use of Alaska sourced fossil fuels by monitoring and evaluating third party development of carbon capture and sequestration technologies and passing legislation establishing a regulatory framework for the geologic storage of carbon.					
Strategy F-2: Encourage Energy and Generation Diversification	F-2.3	Encourage development of cost effective hydropower projects throughout Alaska, including ensuring that state funds are appropriated for timely investment in the Dixon Diversion Hydroproject as project feasibility warrants (See Action B-4.1).					
Strategy F-2: Encourage Energy and Generation Diversification	F-2.4	RCA to consider diversification for new generation (See Action A-2.2)					
Strategy F-3: Utility Regulation	F-3.1	Provide budgetary support for the Regulatory Commission of Alaska (RCA) sufficient to improve the RCA's ability to respond timely and appropriately to the complex energy production, generation, and transmission challenges in Alaska.					
Strategy F-3: Utility Regulation	F-3.2	Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize the PCE program, and full funding the PCE program in FY 2023 (See also Action E-3.1).					
Strategy F-3: Utility Regulation	F-3.3	Streamline state and federal permitting for energy projects within transportation/utility corridors.					
Strategy F-3: Utility Regulation	F-3.4	Modify 3AAC 46.270 (f) to reduce the ambiguity surrounding avoided cost standards.					
Strategy F-3: Utility Regulation	F-3.5	Modify (AS42.05.760) to ensure alignment with unified Railbelt transmission authority.					
Strategy F-3: Utility Regulation	F-3.6	Adopt a Clean Energy Standard with incentives (See Action A-2.1).					
Strategy F-3: Utility Regulation	F-3.7	Offer state abatement or incentive rate to attract industry to Alaska as large energy users to grow demand.					

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Priority F. Statutes and Regulations Reform - Action Tracking Sheet

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Strategy F-4	F-4.1	Create a Data Department with the Alaska Energy Authority (AEA), using statute as necessary (See Data Strategy - 1).					

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APPENDIX III.

ADDITIONAL ACTION DETAIL SUMMARY PAGES

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STRATEGY A-1: UNIFY & UPGRADE TRANSMISSION & STORAGE

ACTION A-1.1:

Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.

Background:
The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system. The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project, the largest hydroelectric plant in Alaska. Energized in 1991, Bradley Lake generates the lowest-cost electricity on the Railbelt and provides clean power to more than 550,000 Alaska residents. There is now a unique opportunity to leverage past investments in Bradley Lake. Through further federal, state, utility and private sector investment in specific shovel-ready capital projects, Alaska can optimize Bradley Lake's value without incurring significant additional costs to Alaskans. The Alaska Energy Authority (AEA), in partnership with the five Railbelt utilities, has identified several opportunities for transmission line upgrades and battery energy storage systems that will reduce existing constraints on the Railbelt grid by increasing the Kenai Peninsula's transmission capacity to export power from Bradley Lake hydropower, while also allowing for the integration of additional renewable energy generation. The current system is in need of upgrades to facilitate a diverse fuel supply portfolio.

Benefits:
- Reduces transmission constraints on Railbelt grid, while also allowing for the quicker integration of additional renewable energy generation.
- Provides system redundancy, resilience, and increases reliability.
- Benefits utilities and ratepayers by sharing power throughout the region.
- Reduces costs for consumers and promotes job creation.
- Coordinates planning, financing, and construction of new infrastructure.
- Augments and diversifies Environment, Social, and Governance investment portfolio holdings.

How Do We Get There?
- Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.
- Develop financing plan.
- Develop transmission, operation, and control reform (potentially the Iceland model) with a regulated version of management committee.
- Align ERO statute and regulations with transmission reform.
- Complete design, permitting, and right-of-way acquisitions.
- Execute construction and commissioning.

Implementation Timeline:
2023 – 2035

Expected Results:
This strategy will result in a more resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.1:

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

Background:
Today, 80-90% of the Railbelt's energy (heat and power) is generated using Cook Inlet (CI) natural gas, a supply source which is forecasted to fall short of demand as soon as 2027. Alaska utilities may likely need to import Liquified Natural Gas (LNG) to meet short term supply needs and this is anticipated to increase the cost of energy and introduces potential energy security concerns. In order to ensure a secure, local supply of energy that is affordable and reliable, the Alaska Energy Security Task Force, (AESTF) Railbelt Subcommittee set a long term goal of significantly diversifying the Railbelt's energy generation.

Today, many proven and cost competitive electricity generation technologies exist and are ready for at-scale deployment across the Railbelt, and the state as a whole. Alternative technologies for central heat generation are not as ready to deploy and distributed heat generation solutions such as heat pumps point to electricity generation as their source. Based on this, the Railbelt Subcommittee recommends a near term focus on diversifying electricity generation. This will conserve natural gas for heat while increasing energy security with local and diverse electricity generation projects.

In order to ensure Alaska's future energy mix is affordable, reliable and secure, it's critical that diversification targets are set and positively reinforced. To ensure strong commitment and action to electricity generation diversification the Railbelt Subcommittee recommends the State adopt a Clean Energy Standard with incentives for new generation projects and for utilities when diversification goals are reached. The Railbelt Subcommittee considered both a Renewable Portfolio Standard and a Clean Energy Standard. Ultimately a Clean Energy Standard was preferred as it allows the widest range of generation technologies to compete driving affordability and gives Alaska the most options to diversify. Secondly, a Renewable Portfolio Standard policy typically includes penalties when targets are not met. Given Alaska's co-op utility structure, these penalties would pass directly to co-op members and drive up electricity prices which is counterproductive to the AESTF objective of affordable energy. Penalties may also likely lead to utility staff spending time to request relief or negotiate penalties where issues are encountered with meeting diversification targets; tying up valuable utility staff time and distracting staff from deploying new generation projects. Based on this, the Railbelt Subcommittee recommends providing incentives for generation diversification rather than penalties to drive the right behaviours, action and outcomes for our State. The Railbelt Subcommittee recommends the following incentives be implemented with a Clean Energy Standard:

1. **Direct Payment to Utilities for Achieving Diversification Targets:** Ultimately, it is up to each individual utility to agree to terms with these different types of generation so that it can be included in their portfolio. To incentivize utilities to consider a variety of options, the State of Alaska can award each utility with a direct payment when diversification targets are reached. This direct payment rewards utilities for diversifying and will result in an immediate reduction of rates for consumers, aligning with the AESTF mission of affordable energy.

2. **Augmentation of the Renewable Energy Fund (REF):** To facilitate significant diversification of statewide electricity generation, with a partilcuar emphasis on the Railbelt, it is important to have many generation projects being developed as only a small fraction will succeed in being fully developed. Project development is inherently risky and carries the most uncertainty, particularly for generation technologies which have not been broadly deployed in Alaska. To encourage numerous and diverse generation project development, the State should augment the Renewable Energy Fund to provide matching funds for development expenses. The intent of this funding structure is that grant funds will be a small fraction of the total project cost but will be awarded at a time when the project is most vulnerable. This will increase the number of projects being developed and accelerate the diversification of the Railbelt electricity generation.

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ACTION A-2.1 (CONT.):
Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

3. **Augmentation of the Power Project Fund (PPF):** New generation projects can also face obstacles with securing competitive debt terms for projects in Alaska given it's remoteness and that for many technologies is seen as a nascent market. Debt interest rate and term (duration) significanty affect project economics and ultimately the energy price paid by consumers. Providing a reliable debt source for generation projects which diversify the Railbelt's power generation will increase the number of successful projects, reduce the energy cost to consumers and earn the state a modest return. Given the funding scale of these projects, it's important that this capital support from the state is structured as a loan and not a grant. This ensures responsible project spending while generating a return for the state.

Benefits:
Diversify statewide, with a particular emphasis on Railbelt Electricity Generation

- Conserve CI natural gas supply for heating and base load to integrate new generation sources
- Provide secure electricity supply through locally built generation projects
- Enable affordable energy across the state
- Increase energy reiliability where no one source dominates or threatens overall supply
- Economic development with local projects

How Do We Get There?

Institute a Clean Energy Standard with Incentives to facilitate reaching diversification goals

- Clearly state Railbelt generation diversification percentages and target dates
- Adopt the following incentive program to drive diversification:

1. **Direct Payment to Utilities for Meeting Diversification Targets:**

- All direct payments to a Utility from the State of Alaska are a direct pass through to energy consumers
- Establish a $/% diversification value and diversification percentages at which payouts are received
- Payout will be made if diversification percentage is achieved by target date
- Direct payment from the State will be used by the utility to directly lower member costs, effectively lowering the cost of electricity
- Ideally the incentive payment would be illustrated on member bill so public can see the benefit of utility diversification

2. **Augment the Renewable Energy Fund to:**

- Provide up to 50/50 matching funds for projects which diversify the community or regional generation mix.
- The projects must demonstrate how they're providing affordable energy that is reliable and local
- Matching funds will be used for project development costs only
- Allocate annual funding for this program such that funding is secure and can be efficiently deployed. Increase the reward cycle (e.g. 2x/yr) to enable new project ideas to move forward with development at a faster pace than the current annual REF award process.
- Increased operational funding for AEA to accomodate increased administrative workload, including but not limited to elements such as additional staff or consultants to assist in program and/or application streamlining.

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ACTION A-2.1 (CONT.):

Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals

3. **Augment the Power Project Fund to:**

- Provide loans, for all development phases, for projects greater than 10MW in size
- For projects greater than 10MW increase the approval thresholds for AEA Board and Legislative approval such that it is commensurate with utility scale projects
- Adequately capitalize the PPF program to support utility scale generation projects
- Provide operational funding staffing to efficiently and timely process increased volume of loan applications.

Implementation Timeline:
Implement policy change in 2023/2024 legislative session

Expected Results:

- Diverse electricity generation projects being built over the next 10-15 years
- Accelerated diversification timeline
- Lower cost power from new generation projects, ultimately flowing down in the form of reduced rates for ratepayers across varying time domains.
- Economic development across those funded communities, including the Railbelt.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.2:

Modify existing statute(s) requiring the Regulatory Commission of Alaska (RCA) to consider long term diversification goals when approving additional/new Railbelt power generation.

Background:
The general powers and duties of the RCA are defined in Alaska Statute 42.05.141. Specifically, it is tasked with the power to "appear personally or by counsel and represent the interests and welfare of the state in all matters and proceedings involving a public utility[.]" The Railbelt Generation, Distribution, Transmission, and Storage Subcommittee (RGDTSS) has determined that the state should be working toward a long-term goal of diversifying power generation with an emphasis on local supply, reliability, and affordability. In support of this goal, the RGDTSS recommends the legislature amend AS 42.05.141 to broaden the RCA's scope of considerations and ensure it has the ability to consider projects related to power generation.

Benefits:
- The amended statute provides the RCA with more definition on what truly is in the best "interest and welfare of the state" beyond just setting reasonable rates and promoting conservation.
- Pushes the Railbelt utilities towards diversification of power generation.

How Do We Get There?
- Amend AS 42.05.141 (c) add new subpart (d) and renumber existing subpart (d) as follows:

  (c) In the establishment of electric service rates under this chapter the commission shall promote the conservation **and diversification** of resources used in the generation of electric energy.

  (d) When considering whether the establishment or approval of electric service rates under this chapter is in the public interest the commission shall

  (1) recognize the public benefits of allowing a utility to negotiate different pricing mechanisms with different suppliers and to maintain a diversified portfolio of resource contracts to protect customers from the risks of inadequate supply or excessive cost that may arise from a single pricing mechanism; and

  (2) consider whether a utility could meet its responsibility to the public in a timely manner and without undue risk to the public if the commission fails to approve a rate or a contract proposed by a utility.

  (e) When considering whether the approval of a rate or a gas supply contract proposed by a utility to provide a realable supply of gas for a reasonable price is in the public interest, the commission shall…[.]

Implementation Timeline:
Implement timeline is in the 2023/2024 Legislative Session.

Expected Results:
This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans for future generations.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.3.1:

Progress Known Near Term Energy Diversification Projects to a Go/No-Go Decision: Dixon Diversion

Background:
The Alaska Energy Authority (AEA) owns the Bradley Lake Hydroelectric Project (Bradley Lake), which has been a low-cost source of electricity for the Railbelt and 550,000 Alaskans for more than 30 years. The 120-megawatt (MW) facility generates about 10 percent of the total annual power used by Railbelt electric utilities at some of the lowest-cost energy in the state. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

The proposed Dixon Diversion Project would boost the energy potential of Bradley Lake, the largest hydroelectric plant in Alaska. The project would be located five miles southwest of Bradley Lake dam, approximately 27 miles northeast of Homer on the Kenai Peninsula, and divert water from Dixon Glacier, increasing the annual energy production of Bradley Lake by 50 percent — or the equivalent of 24,000-30,000 homes. Bradley Lake currently electrifies the equivalent of 54,000 homes.

Benefits:
- Increases Bradley Lake's energy production capacity by 50 percent by leveraging existing generation assets.
- Enhances Alaska's energy security by increasing renewable penetration and grid stability, improving resilience to fuel price fluctuations and supply side disruptions, and regulating other renewable energy.
- Fosters economic development through job creation.
- Promotes environmental sustainability.
- Power Sharing Agreements with Railbelt Utilities provide stable long-term returns through revenue stability and market risk mitigation.
- Produces a substantial amount of renewable energy that will reduce greenhouse gas emissions and combat climate change.
- Augment and diversify Environment, Social, and Governance investment portfolio holdings.
- All land is owned by the State of Alaska

How Do We Get There?
AEA is currently conducting feasibility studies to assess the potential of increasing hydroelectric power generation at Bradley Lake. These studies include engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, and geomorphophology). The Dixon Diversion Project would expand Bradley Lake by capturing outflow from the Dixon Glacier and conveying it to Bradley Lake for generation. The main project components include:
- Small diversion dam and intake below the Dixon Glacier,
- Gravity flow 4.7 mile tunnel to Bradley Lake, and
- Raise of Bradley dam to lake level by 14 feet.

Implementation Timeline:
2023 – 2025: Engineering and Environmental Studies
2026 – 2027: Federal Energy Regulatory Commission (FERC) License Amendment
2028 – 2032: Construction

Expected Results:
The increased storage would provide Bradley Lake with an additional 55,000 megawatt-hours of "battery storage."

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.4.1:

Progress Known Long Term Energy Diversification Projects to a Go/No-Go Decision: Susitna Watana

Background:
The Susitna-Watana project has been on hold since 2017. Considerable expenditures were made to develop and license the project in the 1980s and from 2010 to 2017. The project is a viable alternative to meet the State's goal of 80 percent sustainable power by 2040. Once the project is licensed the State has a 10-year window before construction must begin. This should afford sufficient time for the State to determine the most advantageous approach to build the project.

Alaska has a strong track record of developing successful hydroelectric projects that provide clean, reliable energy across the state. Hydroelectric power is Alaska's largest source of renewable energy, supplying about 27 percent of the state's electrical energy in an average water year. Dozens of hydro projects provide power to Alaskans, including the 120-megawatt Alaska Energy Authority-owned Bradley Lake project near Homer, which supplies 10 percent of the Railbelt's electrical energy. The "Railbelt" refers to the interconnected electric grid that stretches approximately 700 miles from Fairbanks through Anchorage to the Kenai Peninsula. About 70 percent of Alaska's population is served by the Railbelt electric system.

AEA has completed a feasibility level design and was approximately two-thirds of the way through the Federal Energy Regulatory Commission (FERC) Integrated Licensing Process when it was paused by the previous administration. To proceed, the FERC licensing process would need to be completed at a cost of $50-100 million. The anticipated construction cost is $5.6 billion ($2014). Financing type and level are not yet finalized, but AEA's financial consultant recommended Rural Utilities Service (USDA) and government obligation bonds or by the private sector, financial modeling indicated the lowest long term cost of energy compared with other fuel sources.

Project Summary:
Dam Height: 705 feet

Dam Elevation: 2,065 feet

Reservoir Length: ~42 miles

Reservoir Length: ~1.25 miles

Capacity at full pool: 618 MW

Annual Energy: 2,800,000 MWh

Cost: ~$5.6 billion (2014$) (including licensing and construction)

Benefits:
The proposed Susitna-Watana Hydroelectric Project is a large hydro project that would provide long-term stable power for generations of Alaskans. The project would result in approximately 70 percent of the power generated in the Railbelt originating from renewable sources, up from the current 15 percent — a nearly four-fold increase. As part of the project, transmission lines will be connected to the existing Railbelt transmission system providing a more secure transmission system, and an access road will be constructed. The Susitna-Watana Hydroelectric Project will help provide reliable power for future generations of Alaskans, diversify Alaska's energy portfolio, and accelerate the transition to renewable energy.

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ACTION A-2.4.1 (CONT.):

Progress Known Long Term Energy Diversification Projects to a Go/No-Go Decision: Susitna Watana

How Do We Get There?

1. Update the Project Management Plan with specific focus on the approach, budget, and schedule to complete licensing activities.

2. Update construction cost and project economics

3. Meet with FERC staff to determine the licensing approach and studies necessary for FERC to conduct their National Environmental Policy Act (NEPA) process and make a licensing decision.

4. Go/no go decision for final FERC licensing.

Implementation Timeline:

Update the Project Management Plan regarding approach, budget, and schedule, including updating construction cost and project economics before a decision is made to complete FERC license.

- Preparation, Planning, Collaboration, and Environmental Studies 2-3 years
- FERC Review & Determination 2 years
- Project Execution Phase & Construction Phase 9-11 years
- Operational Phase 100 years

Expected Results:

Based on the economic studies conducted a decade ago, the project remained a viable alternative with a levelized power cost of about 6.5 cents per kWh. Based on this information and the amount of power the project would generate annually, the project remains a viable alternative to meeting the Energy Security Tasks Forces goals. The State should undertake the tasks outlined above to successfully license the project. Once the project is licensed, the State has options to complete the project.

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STRATEGY A-2: DIVERSIFY GENERATION

ACTION A-2.4.1:

Progress Known Long Term Energy Diversification Projects to a Go/No-Go Decision: AKLNG, Bullet Line & Alternatives

Background:
The Alaska Utilities Group June 28, 2023 Phase 1 Assessment Cook Inlet Gas Supply Project estimated that 2021 natural gas consumption from the Cook Inlet was comprised of approximately 49 BCF (67%) for heating requirements and 24 BCF (33%) for electrical generation. Forecasts for continued gas consumption for electrical generation are flat or decreasing by 5 BCF/yr. Assuming natural gas remains the space heating fuel of choice on the Railbelt, the largest distributor for natural gas for space heating on the Railbelt projects no decline in demand over the next 20 years. Without a change in this fuel source, natural gas will remain a necessary energy source on the Railbelt.

The Utilities Group Study determined that the median case gas supply shortage in the Cook Inlet is projected to be 8 BCF/yr beginning in 2028 and growing to 52 BCF/yr in 2040. In the short term, in order to meet the expected supply gas shortfall in 2027-2028, a decision to pursue LNG imports will likely need to be made in late 2023. In the long term, the study found that a gas pipeline from the North Slope could meet the projected demand most economically.

Benefits:
The 2023 contract price for natural gas from the Cook Inlet is approximately $8/Mcf. Imported gas is forecast to cost approximately $12/Mcf. Incremental supply potentially available from augmented Cook Inlet production is forecast to be generally at or above the imported gas cost. Gas prices from the proposed AK LNG project are estimated at $4.40/Mcf., while a smaller subsidized State-owned pipeline might deliver $9.10/Mcf.

Alaska is presently near the bottom compared to other states in terms of economic growth. Out migration from rural Alaska is rampant due to the lack of economic opportunities. Importing LNG into our resource rich state may be necessary in the short term but would be contrary to the goals of energy security over the long term.

The availability of a local and long term fuel source to support affordable and reliable baseload power generation throughout the Railbelt would provide stability for economic development and a platform around which further diversification of generation could confidently occur. Railbelt businesses and residents would enjoy predictability for their space heating requirements. Availability of natural gas from a pipeline could allow substantial new projects, such as the Donlin Gold Project in western Alaska, to help defray the cost of building gas pipeline infrastructure, and associated transmission and distribution, into western Alaska.

How Do We Get There?
Alaska needs to advance on two parallel tracks: (1) Advance the AKLNG project (permitting, design, financial), including Alaska using its financial strength as necessary to support the negotiation of commercial terms that could lead to a positive project decision; and (2) Resume planning on the in-state "bullet" pipeline so that a backup plan is in place to support Alaska's need for natural gas if the AKLNG project does not proceed.

Implementation Timeline:
Alaska must keep its options open for support of our economy over the next decades. While imports of LNG may occur in the short term, doing so over the long term or long past 2030 would be regrettable, would do little to boost our local economy.

Expected Results:
Unlocking Alaska's stranded natural gas and monetizing these assets will provide long term energy security, and positive economic benefit for all Alaskans, but should not be done so at the expense of diversifying the overall energy generation mix.

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ACTION A-3.1:

Significantly increase load to drive down energy rates.

Background/Benefits:
All other things being equal, if the fixed infrastructure costs of a power grid are spread over more customers and greater energy loads, customers will end up paying less on a per-kWh basis. This strategy has been used in Iceland, for example, where a high volume of production and sales have created efficiencies and economies of scale. According to analysis provided by Holdmann and Gudleifsson (in preparation), Iceland's total electric production and Alaska's tracked very closely until the mid-1990s, as did the delivered cost for electric power. After that point in time, the trajectories diverged significantly both in terms of annual production and sales as Iceland actively courted and attracted large industry (aluminum smeltering) to its electric grid. This new industry increased Iceland's energy demand by four-fold. Iceland's cost of power delivered to the customer's meter is now $0.7-$0.13 per kWh, as compared with $0.19-$0.26 for power from Alaska's Railbelt grid.

A similar approach could be undertaken on Alaska's Railbelt to drive the cost of power down for all customers and spur continued economic growth. Examples of new, large customers on the Railbelt could include ore processing of locally-resourced materials as well as new fuel generation production facilities for the transportation industry (air carriers, shipping, etc.), among others. A key insight is that Iceland simultaneously sought out new industry and committed to lower than current energy costs to incentivize industry to select Iceland as the preferred location.

How Do We Get There?
This strategy assumes that necessary transmission capacity and reliability upgrades are completed to handle increased loads. To facilitate and incentivize substantial load growth, three possible actions were identified, including (1) issuing an RFP to industry for a large load that would be provided at a guaranteed low energy price (the energy price could be tiered based on amount of load growth), (2) providing tax credits or similar offsets for proposed large load customers to reach attractive power rates, and (3) identifying sites along the Railbelt which are already built to handle load growth.

3.1.1 Upon sufficient analysis of rates achievable by large load additions to the Railbelt, an RFP could be issued by a coordinating Railbelt entity, utility, or the State guaranteeing a rate for power in exchange for the load addition to the grid. Such an approach would eliminate risk for a potential large industrial customer and also ensure load growth for the Railbelt. Long term rate stability would promote industry investment and aggregation of demand side resources.

3.1.2 Alternatively, if a potential industrial customer could not add enough load to the grid to guarantee a satisfactorily low rate, the State could offset the difference with a tax credit or similar vehicle. Again, this approach would help eliminate risk for the new industrial customer and attract economic investment in the state. The tax credit amount would be informed by the estimated savings to utility co-op members due to the load growth associated with the new industrial customer.

3.1.3 In concert with the above actions, it is important to identify areas on the Railbelt that are well-suited to large load growth in the short term, without necessarily waiting for transmission upgrades. Identification of these sites would help potential large industrial customers hone in on realistic locations and spur investment. In addition to specific sites, there may be larger geographic areas that can accommodate rapid growth of distributed loads, such as electric vehicles and heat pumps. These "load-friendly" areas could be further enhanced by management of of the distributed loads ("load as a resource") so they can strengthen, not strain, the grid.

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STRATEGY A-3: INCREASE DEMAND

ACTION A-3.1 (CONT.):
Significantly increase load to drive down energy rates.

One risk of these actions is potential cost overruns in the buildout of any required generation for increased loads, the contingencies and responsible parties for which would need to be considered carefully. However, this risk must be viewed in context because cost overruns from new infrastructure would likely be even *more* problematic *without* load growth.

Implementation Timeline:

1. Identify areas within the Railbelt which are well-suited for load growth (minimal to no upgrades or new generation needed): 1-2 years

2. Establish incentivized industry/anchor tenant rates: 1-2 years.

3. Issue state-led RFP for new industry articulating $/kWh rate scale based on load growth amount or state tax incentives to offset energy cost for new industrial customers based on load growth savings to co-op members: 2-5 years

Expected Results:

The Railbelt will significantly increase its load to drive down prices for all consumers and spur economic development overall.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.1:

Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

Background:
Heat pumps are widely used in Northern Europe, with over 90% market penetration. They efficiently provide affordable heating even at temperatures as low as 13˚ F, lowering the costs in these arctic, subarctic, and temperate regions.

Table 3.5-1: Heat pump market shares development by country - space heating

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Denmark	43.9%	54.3%	56.5%	69.2%	72.0%	75.8%	80.4%	82.6%	91.4%
Estonia	77.5%	77.6%	80.7%	80.5%	79.9%	80.5%	82.5%	86.0%	86.7%
Finland	88.1%	86.6%	87.4%	88.9%	90.5%	92.5%	93.5%	94.7%	96.5%
Norway	95.4%	96.0%	96.9%	96.5%	96.7%	96.6%	96.3%	97.6%	98.0%
Sweden	90.6%	90.8%	91.3%	91.4%	91.0%	90.9%	90.8%	92.1%	94.8%

Source EHPA-European Heat Pump Market and Statistics 2023

Several communities of Alaska are experiencing a significant transformation from more expensive fossil fuel heating sources to lower-cost heat pumps, saving Alaska households.

Benefits:
How can Alaskans and Alaskan communities capture the lessons learned from Northern Europe, Canada, and Maine in ensuring that Alaskans gain from these successes and promote the same opportunities to lower their energy costs and improve their quality of life by spending less of their income on home heating?

How Do We Get There?
Strategies and Tactical Steps for Advancing Heat Pump Adoption in Alaska:
a. Collaborate Internationally: Partner with the European Heat Pump Association https://www.ehpa.org/ and the International Energy Administration Heat Pump Centre https://heatpumpingtechnologies.org/about/heat-pump-centre/ to leverage models and programs that have successfully increased heat pump adoption. Collaborate with Provinces of Canada that have heat pump adoption programs

b. Collaborate with Maine State Housing Authority and Efficiency Maine to learn of their programs to adapt and adopt a tailored State of Alaska heat pump program with the following suggestions

c. Homeowner Financing: Offer zero or low-interest loans to homeowners through AHFC and related programs, enabling Alaskans to transition to cost-effective heat pump heating systems.

d. Business and Public Facility Financing: Provide zero or low-interest loans via AHFC and other state organizations for businesses, apartment complexes, schools, governmental buildings, and NGO facilities to adopt heat pumps. This effort aims to reduce heating expenses for these entities, ultimately benefiting Alaskans.

e. Community Heating Solutions: Allocate funds for community District Heating projects that utilize heat pumps, further decreasing energy expenses for Alaskan residents.

f. Have AHFC publish and adopt for use the Juneau Commission of Sustainability fuel price calculator to assist communities and individual households with their annual fuel savings and use the savings to assist in financing for heat pump purchase and installations https://juneau.org › wp-content › uploads › 2019 › 06 › jcos_fuel_price_calculator-.xlsx

g. Bulk Purchasing: Collaborate with top manufacturers and suppliers to buy heat pumps in bulk, ensuring Alaskans receive a discounted rate and, consequently, more affordable heating solutions.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.1 (CONT.):
Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.

h. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality heat pump installations across Alaskan communities.

i. Public Education: Partner with Alaskan non-profits such as Alaska Heat Smart and tribal organizations with heat pump programs to educate the public about heat pump benefits. This includes offering building assessments for heat pump suitability and providing unbiased advice and recommendations.

j. Utility Billing Integration: Obtain RCA authorization allowing electrical utilities to introduce on-bill financing. This lets Alaskans conveniently pay off their heat pump loans directly through their utility bills, streamlining the repayment process for consumers and AHFC alike.

k. RPACE-Residential Property Assessed Clean Energy. Consider State adoption of a streamlined, easy-for-consumer RPACE program. USDOE best practice guidelines: https://www.energy.gov/sites/prod/files/2016/11/f34/best-practice-guidelines-RPACE.pdf

l. Federal Support: Pursue federal aid and funding to bolster State of Alaska initiatives and community projects. This support will drive the widespread adoption of heat pumps, ultimately reducing energy costs for Alaskans.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska that is tried and proven in other arctic, sub-arctic, and temperate locations. The expected results will lower Alaskan's heating costs and reduce the dependency on imported fuels, creating demand for the development of local energy resources to displace imported fuels.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of heat pumps in Alaska to lower the cost of heating in Alaska.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.2:

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

Background:
Alaska set the standard for cruise ship shore power in Juneau, a model now global. This system benefits cruise lines financially, extends their stay in Alaskan ports, and fortifies our coastal grids. All modern cruise ships, including those being built today, are shore-power compatible. Seward and Whittier, with their utilities, are now developing these facilities. Efficient shore power involves precise transmission infrastructure, substations, and quick-connect equipment for cruise ships requiring 3MW to 8MW each. For perspective, Juneau's Franklin dock, with full shore power utilization, recorded over 6,000 MWh in a single cruise season. Such infrastructure investments uplift not just the cruise sector they also bolster community resilience and present affordable energy alternatives, enhancing community energy reliability and assisting the State and communities to reduce the cost of power for Alaskans.

Benefits:
By spearheading shore power, Alaska boosts its grid reliability, attracts local energy investments, and showcases greener, emission-free ports—enhancing its global appeal. The Alaska shore power task and purpose propels job growth and infrastructure enhancement, supports industries, augments energy resilience, and slashes energy bills for its residents.

How Do We Get There?
Alaska Energy Authority (AEA) provides technical oversight and assistance to communities, Independent Power Producers (IPP's), and local utilities to develop a shore power electrification plan to provide shore power at all cruise dock facilities in Alaska.

AEA and Alaska Industrial Development and Export Authority (AIDEA) support public-private transmission, distribution, and generation investments to execute shore power in Alaska communities using state head tax funding distributed and accountable to AEA.

Dept of Commerce and Community Development (DCCED) AEA, and the Regulatory Commission of Alaska (RCA) encourage communities to develop shore power planning for future-proofing generation and distribution infrastructure to meet current and future demand, fully utilizing Alaska generation and transmission resources.

AEA/AIDEA Develop a technology term sheet and outline for communities using known and established Alaska and worldwide shore power engineering and infrastructure firms established with tried and proven late generation (automated quicker connect and disconnect times) shore power distribution, BESS, and shore-to-ship connection infrastructure. EPS-Anchorage, WABTEC Stemman Technik, and other late shore power generation systems.

State of Alaska engage with Alaska's congressional delegation to modify federal transportation statutes and programs to include and support cruise marine vessel port funding on par with freight ports.

State of Alaska, AEA Establish and encourage cruise line industry participation and support in statewide shore power planning.

AEA/AIDEA Support by encouraging and funding power generation projects that support firm power generation for cruise line shore power during cruise season and supply winter load power in the off-season to bolster local energy resilience and security.

Identify legislative and regulatory modifications to support shore power installations in coastal communities to support economic development.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.2 (CONT.):

Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise Ships.

State, DCCED, and private companies combine Alaska tourism marketing programs to incorporate Alaska's strategy to shore power Alaskan ports to assist in marketing Alaska as a clean port state destination.

AEA provides engineering systems to assist with pre-engineer systems to the extent possible to reduce purchase costs, gain consistency in systems, and incorporate local Battery Energy Storage Systems to enable local utilities to ramp up and provide quick connect and disconnect times using proven late-generation technologies used in fast connecting ports worldwide.

Implementation timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected results:
The State of Alaska has the potential to take a leadership role in shore power development by executing a carefully planned strategy. By focusing on shore power, Alaska can expand the demand for renewable energy. This increased demand can then stimulate further growth and construction of the state's renewable energy sources. The ultimate goal is for Alaska to be recognized globally as a leader in shore power implementation. Successful results have multiple benefits: higher revenues for utilities, encouraging investment in the energy generation and distribution infrastructure, enhancement of the State's energy resilience, reliability, and capacity, and decreasing energy costs for the residents of Alaska.

Additionally, dock electrification resources could provide electrical delivery from ship to shore emergency power to communities in the event of natural disasters providing an energy security back up for distressed communities.

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ACTION B-1.3:

Beneficially electrify the Alaska Ferry Fleet to lower cost of transportation, and emmissions and assist in reducing the cost of power in coastal communities.

Background:
Alaska Department of Transportation & Public Facilities (DOT&PF) and Southeast Conference (SEC) are partnering to conduct a Low Emission Ferry Research project. Alternative fuel powered, low-emission, and electric ferries could be a game-changer for Alaska's Marine Highway System, as DOT&PF starts to replace AMHS's aging fleet in upcoming years. Fuel efficient ferries could increase the range and capacity of the fleet, potentially increasing service to communities and reducing AMHS operating costs.

Benefits:
How can Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System (BESS) to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Refine shoreside energy storage system sizing for expected future vessel schedules.
- Prepare site plans for each port where a shore-side charging BESS is beneficial to meet current and future charging demands. Consider:
  - Permitting difficulties;
  - Floating vs. Shoreside.
- Investigate the capacity of available hydro power and impacts to the community where it is expected to be the primary source for powering electric ferries. Evaluate the impact to local power costs from periods of constricted supply when diesel power plants must be utilized to supplement or replace hydro power.
- Develop benefit calculation for avoided greenhouse gas emissions due to use of electric ferry routes powered by greenhouse gas neutral-generation electricity.
- During Low/No Emission port and BESS design, consider incorporating electric motor vehicle (National Electric Vehicle Infrastructure Program – NEVI) charging stations.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.
- 3-5 years to secure funding from IIJA and other sources for specific ferry replacement projects.
- 5-10 years to complete design and construction of IIJA-financed vessels.

Expected Results:
- Lower carbon emissions compared to conventional diesel-mechanical engines.
- Increased electric utility revenues from purchase of electricity by BESS.
- Purchase of electricity at less than peak-rates for lower cost energy to AMHS ferries.
- BESS supported microgrids in AMHS communities.
- More reliable ferry service to AMHS communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.4:

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

Background:
Alaskan entities and government agencies built many legacy Alaska hydropower projects in Coastal Alaska to serve industrial loads. Many of the legacy hydropower assets of Juneau were developed, constructed, and operated by mining interests to power mills and lower the cost of mining. This tried and proven model of building hydropower to subscribe the generation output to large mines and other industrial loads provides economies of scale to finance large hydropower and transmission investments by creating economies of scale. The hydropower development history of Alaska and the colocation of industrial loads offer valuable lessons learned for Alaska as Alaska leans forward to increasing its energy security, and resilience and achieving lower-cost energy. These legacy hydroelectric facilities built in the past now provide the lowest-cost wholesale power in Alaska, proving the long-term investment model through providing long-term energy dividends in some cases for over 100 years.

The large customer concept whereby a hydropower project serves the Alaska industrial base, be it a military installation, a mine, a fish processing plant, or future industries like data service centers or even transferring a power consumptive industry (ferries, cruise ships, trains-such as electrifying the Alaska railroad) from diesel to electric provides the opportunity to colocate industrial loads near hydropower generation that can provide firm and conditionally firm power to establish lynchpin industry and employment in Coastal and Alaskan communities situated with hydropower resources. This concept is a tried and proven Alaska energy model based on historical development.

Today, the added benefit of producing clean power to meet Environmental, Social, and Governance (ESG) further compels the attraction of industry to use Alaska hydropower. ESG refers to the three central factors in measuring an investment's sustainability and societal impact on a company or business. These criteria are increasingly becoming crucial to investment decisions, as many investors recognize the long-term importance of sustainable operations for business success. In the context of investing, Socially conscious investors evaluate and screen investments for sustainability and ethical considerations using ESG metrics. Companies with strong ESG profiles may be deemed more future-ready and less risky in facing regulatory or reputational challenges. Colocating industrial loads with clean hydropower can competitively assist the State and investing companies in reducing regulatory and reputational risks.

Additionally, hydropower offers another product form that can generate revenues to lower costs of energy: cold water. The cold outtake water from a hydroelectric facility is valuable for circulating cooling water for data servers that require chilled rooms to operate efficiently. Colocating future data server operations at or near hydropower locations is a recent phenomenon that offers lower-cost energy to operate the data servers and reduces server chilling costs necessary to operate data server centers at peak efficiency.

Indeed, large industrial loads such as mines, data server centers, fish processing and freezing operations, and other large energy-consumptive industries provide the requisite economies of scale to finance and build hydropower opportunities in Alaska but also invigorate clean industrial development that not only creates and sustains family wage jobs but also provides the trajectory to lower energy costs through economies of scale.

Benefits:
Strategically collocating large industries, such as mines, fish processing plants, military bases, and data centers, near hydropower facilities is a game-changer for Alaska. It offers a dual benefit: fostering economic growth and ensuring cost-effective, sustainable energy for Alaskans. By leveraging the enduring 100-year lifecycle of hydropower, which has the lowest cost over time, Alaska can capitalize on its historic model of harnessing hydropower to drive industrial growth. This symbiotic relationship boosts Alaska's economic prosperity, creating jobs and opportunities and guarantees the most affordable power for its residents.

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ACTION B-1.4 (CONT.):

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

How Do We Get There?

1. Unified Policy Development :

- Policy-making entities: Governor's Office, Department of Commerce and Community Economic Development (DCCED), Alaska Industrial Development and Export Authority (AIDEA), and Alaska Energy Authority (AEA) can collaborate to devise a policy promoting the recruitment and facilitation of industrial load development in Alaska to mate with future hydroelectric development. This collaboration of policy can leverage the historically successful Alaskan energy model to achieve multiple and synergistic Alaska benefits: local economic prosperity, energy security, job creation, and long-term reductions in energy costs.

2. Promotion of Long-term Hydropower Resources:

- DCCED, AIDEA, AEA, and RCA should advocate and actively recruit for developing enduring hydropower resources, emphasizing their anchoring by industrial loads. Through strategic industrial colocation, hydropower, and related transmission, Alaska can harness the compounded benefits and ensure lower-cost energy for its residents throughout the century-long lifecycle of hydropower assets.

3. Legislative Action for Industry Attraction:

- The Alaska legislature should enact laws and regulations incentivizing industries to align with Alaska's hydropower potential. Legislative action would underscore the vast economic advantages and clean energy outcomes resulting from maximizing the use of existing hydropower and fostering the creation of new hydropower projects within the State to advance the stated multiple and synergistic Alaska benefits that this initiative inspires.

4. Assistance and cooperative support for local initiatives and developments

- DCCED, AIDEA, AEA, and RCA assist local communities and hydropower developers in local initiatives and development of optimizing hydropower assets and industrial loads to provide synergistic Alaska benefits, including lowering the energy cost for Alaskans.

Governors office, DCCED, AIDEA, and AEA, develop a policy that supports the recruitment and attraction of industrial load development in Alaska using this proven Alaska energy model for multiple beneficial purposes: prosperity, energy security, job creation, and long-term lower energy costs.

DCCED, AIDEA, AEA, and RCA support the development of long-term hydropower resources anchored by industrial loads and colocation/transmission of hydropower to achieve the synergistic benefits and obtain lower-cost energy for Alaskans over the 100-year life cycle of hydropower assets.

Alaska legislature enacts legislation to attract industry and support the colocation of Alaska industrial development to subscribe to new hydropower generation economically, recognizing the substantial economic prosperity and clean energy emissions benefits of fully subscribing to current hydropower and developing and constructing new hydropower in Alaska.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.4 (CONT.):

Identify and support the colocation of industrial loads (e.g., data servers) with Alaska Hydropower facilities for synergies to lower energy costs.

Implementation Timeline:
This action item has a blend of Immediate to long-term tasks for implementation.

Expected Results:
This proposed roadmap enables Alaska to tactically accelerate the positive development of new hydropower assets by strategically positioning and transmitting clean hydropower energy to industrial loads. The economies of scale of industrial sales assist hydropower in meeting economic viability while paying down the debt to offer the lowest cost power over time. This tried and proven Alaska hydropower/industrial load model can repeat itself as Alaska looks to develop the next tranche of hydropower assets to meet Alaska's energy needs to propel economic prosperity and achieve lower-cost energy for Alaska's current and future generations.

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ACTION B-1.5:

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

Background:
BESS/ESS technology has advanced to the point that indicates significant potential savings for communities that are dependent on diesel power generation for electrical needs. Some new supercapacitor systems boast 97% efficiency and estimate up to 75% savings in diesel fuel consumption to provide equivalent power using BESS/ESS. US DOD is looking at exploiting this technology in Alaska. Other utilities have deployed other BESS technologies and energy storage works, promising to stabilize Alaska grid networks and microgrids.

There are several BESS demonstration projects currently being tested in Alaska. BESS technology provides a potential opportunity to significantly lower the cost of power generation in some rural and coastal Alaskan communities.

Background on Battery Energy Storage System (BESS):

1. Functionality: Simply, BESS stores electrical energy for use at a later time. BESS is especially important for integrating intermittent forms of renewable energy and immediately supplying large quantities of energy in seconds or minutes (supplying power to cruise ships) while stabilizing grid operations.

2. Components: A BESS typically includes the following:

Batteries: These are the actual storage units and can be of various types, such as lithium-ion, lead-acid, flow batteries, etc.

Power Electronics: This includes inverters and converters, which help transform electricity from AC to DC (and vice versa) and control the flow of electricity.

Control Systems: These manage the BESS's operations, ensuring it charges and discharges at the correct times and maintains optimal performance.

Thermal Management Systems: Maintaining a stable temperature is crucial for battery longevity and safety.

3. Types of Batteries: The most common type used in modern BESS installations is the lithium-ion battery due to its high energy density, long cycle life, and decreasing costs. However, other types, like flow and solid-state batteries, are being researched and deployed for specific applications.

Advantages of Battery Energy Storage Systems (BESS):

1. Grid Stability and Reliability: BESS can absorb or release power quickly, helping to stabilize grids, especially when there's intermittent renewable generation like solar or wind, and is especially useful in turning on and off large periodic loads like cruise ships.

2. Peak Shaving: Batteries can be charged during off-peak hours when demand (and often cost) is low and then discharged during peak demand times. BESS helps utilities and consumers reduce costs and can prevent the need for firing up expensive and potentially polluting "peaker" power plants or forego electric sales waiting for ramp-up times from other sources.

3. Integration of Renewables: Batteries make it easier to integrate renewable energy sources by storing excess energy when it's available and releasing it when needed.

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STRATEGY B-1: ALASKA MARKET INITIATIVES

ACTION B-1.5 (CONT.):
Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security , increase grid resilience, and lower energy costs.

4. Microgrids & Energy Independence: In areas with unreliable grid connections or no connection at all, BESS can form the backbone of Coastal community grids that can operate independently and withstand outages.

5. Reduced Transmission and Distribution Investment: By placing BESS at strategic locations, utilities can delay or avoid expensive upgrades to transmission and distribution infrastructure.

6. Load Leveling: By storing energy during periods of low demand and releasing it during high demand, BESS can help level out the demand curve, ensuring a consistent power supply and reducing stress on the grid.

7. Backup & Emergency Power: BESS can serve as an emergency power source during outages, ensuring continuity in critical facilities like hospitals.

8. Support for Electric Vehicle (EV) Charging: As EV adoption grows, BESS can ensure that rapid charging stations get the power they need without causing strain on the local grid.

9. Economic Benefits: With the suitable RCA regulatory structures in place, BESS operations can pay for themselves by providing various grid services, from frequency regulation to capacity services.

10. Environmental Benefits: BESS can significantly reduce greenhouse gas emissions by enabling more renewable energy integration and reducing the need for fossil fuel-based peaker plants.

Benefits:
How can Alaskans and Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate Battery Energy Storage System to integrate additional power supplies, assist in serving cruise ships, and stabilize local and regional transmission and distribution grids, while lowering energy costs and improving their quality of life by spending less of their income on home energy costs and promoting local economic development?

How Do We Get There?
Strategies and Tactical Steps for Advancing BESS/ESS Adoption in Alaska:

a. Gather data from modeling and from existing BESS/ESS demonstration projects in Alaska to determine actual diesel fuel savings, and power reliability to meet demand, maintenance, and operation costs.

b. Gather proven performance data from BESS projects to prove out cost-saving claims.

c. Funding: Support local community efforts to access to Energy Improvement in Alaska to include rural or Remote Areas grants through the US Dept of Energy, Office of Clean Energy Demonstrations (OCED).

d. PPP: Encourage rural/coastal communities to pursue innovative financing vehicles to attract public-private-partnerships (PPP) and investment.

e. Public Facility Financing: Offer zero or low-interest loans to communities through AHFC and related programs for power generation to purchase and install BESS/ESS systems to improve reliability and lower energy costs.

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ACTION B-1.5 (CONT.):

Identify, Assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, increase grid resilience, and lower energy costs.

f. Bulk Purchasing: Encourage local communities in regions to pursue discounted contracts with BESS/ESS providers for multiple unit purchases.

g. Workforce Training: Invest in workforce development initiatives with Alaska's trade unions and contractor associations. High-quality training ensures high-quality BESS/ESS operation and maintenance across Alaskan communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska's Energy Revolution with BESS/ESS

- **Strategic Approach:** Alaska can effectively deploy BESS/ESS, a proven energy solution in similar climates.
- **Multiple Gains:** This leads to reduced power costs, decreased fossil fuel use, full utilization of energy resources by saving energy surpluses when available, and lower Greenhouse Gas (GHG) emissions.
- **Power Stability:** Enhances energy reliability throughout Alaska in both interconnected and stranded grid systems.
- **Coastal Advantages:** Enables coastal areas to support cruise ships and port growth.

In essence: With careful planning, Alaska can capitalize on BESS/ESS for cleaner, cheaper, and more resilient power, benefiting railbelt, rural, and coastal communities.

This structured execution list offers a clear roadmap of the proposed steps to promote the adoption of BESS/ESS in Alaska to lower the cost of heating in Alaska and improve local energy security and grid resilience, helping communities achieve task force goals of Affordability, Reliability, and Resilience.

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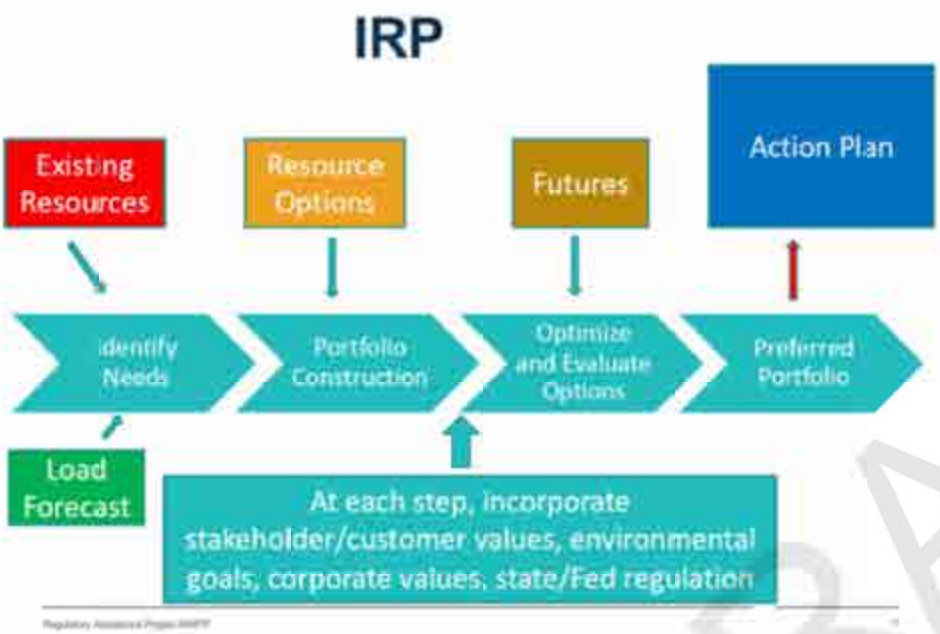
STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.1:

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Background:

Integrated Resource Plans (IRP) and their associated forecasts of demand, generation, transmission, and distribution with public input are a tried and proven electrical industry methodology to coalesce State and community energy goals openly and transparently. Large utilities with regulatory oversight can engage in extensive plans that require deeply engaging studies. On the other hand, a lighter integrated resource planning analysis based on the collaboration of community energy needs is a cost-effective approach to local strategic and tactical energy planning required to move toward lower energy costs.



All communities engaged in future supply uncertainty, rising demand for heat pumps, conversion from fossil fuel use to lower-cost renewables, and electrified transportation benefit from intelligent and collaborative planning from utilities, communities, non-utility generators, and the public. The critical component in this process is public participation, as it provides an opportunity to educate the public, build support and constituencies required to advance renewable energy projects and transmission, and ultimately focus on lowering the energy cost for Alaskans.

According to the Pacific Northwest National Laboratory (PNNL), Over 35 US states require utilities to file IRPs or equivalent planning yearly or up to once every four years. These requirements are imposed either through regulation or legislation. The US Department of Energy (DOE), in its 2016 publication, "Sustainable Energy Solutions for Rural Alaska, provided a recommendation for Alaska Utility resource planning to identify a utility's least-cost path over time. These efforts are sometimes called "least-cost integrated resource plans" or simply "integrated resource planning" (IRP) when the scope of the resource decisions include demand-side considerations. The DOE publication explained that the IRPs typically include scenario planning and consideration of uncertainty. IRPs are also typically high-level plans frequently with time horizons of 20 years that look at a broad array of resource choices. However, they may include specific project-related and transmission analysis in the near term (i.e., 1-5 years).

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ACTION B-2.1 (CONT.):

Establish, require, assist, and implement community Integrated Resource Plans (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.

Benefits:
The State of Alaska can optimize State resources (and parlay federal resources) by establishing, requiring, assistng and implementing and Integrated Resource Plan Light (IRPL) for every utility in Alaska that requires a periodic update to ensure that local and grassroots energy planning is occurring collaboratively at the local Alaskan level with utilities, tribes, non-utility operators, community leadership, NGO's and the Alaska public so that there is a unified focus and format to ensure that no community is left behind in Alaska's transition to lower cost and self-sustaining energy for current and future generations of the affected community.

How Do We Get There?
Establish an Alaska-based IRPL, easy-to-implement model and format. Upon acceptance of the RCA, request each regulated Alaska utility to guide on with minimally established requirements based on prudent IRP practices. This model and format can be initiated and supervised by the Alaska Energy Authority and collaborated with the Regulatory of Alaska and Attorney General Office, Regulatory Affairs & Public Advocacy Section (RAPA). Municipal utilities and other non-regulated electrical utilities in Alaska can also adopt Alaska's IRPL model.

While large Alaska utilities can use this model, the use of the IRPL would not detract from the RCA authority to impose a more robust IRP on Alaska's sophisticated electrical utilities, and the IRPL can serve as an interim or an update adjustment to a utilities existing and perhaps more robust IRP.

AEA and any state of Alaska generation and transmission funding can use the IRPL to determine the viability and economic justification of the public IRPL as a requirement to obtain state funding. RCA can be a repository for the public record and public dissemination of all Alaska utility load and generation forecasting so that other communities and interested parties can learn and adapt from other communities' planning efforts.

AEA and other state agencies can provide resources and technical assistance to assist Alaskan utilities and communities. AEA can require IRPL as a prerequisite for future assistance, aid, and funding as an incentive to collaboratively participate together to analyze the community energy needs, demands, and agreed-upon solutions to lower the energy cost for the affected community. An IRPL also certifies that a utility and a community are wisely and responsibly planning to conserve PCE burdens and preserving PCE trust funds by optimizing appropriate energy solutions on a community-by-community basis. AEA, the Denali Commission, and other state agencies can assist a community with implementing the solutions and results from a community IRPL.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
This Action item, IRPL, with its implementation steps, offers a fundamental milestone required to methodically transition to premeditated energy planning in an open, objective, and transparent process that will lead, if properly implemented and conducted, to lower cost energy and energy security for Alaskans.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.2:

Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering investments to provide grid resiliency and energy security and lower the energy cost for Alaskans.

Background:
Net Metering is a billing arrangement for owners of renewable energy systems. Under Net Metering, excess electricity generated by an Alaskan customer's renewable energy system is sent back to the utility grid, offsetting the electricity the customer draws from the grid when their system isn't producing electricity. Net Metering of private energy systems plays an integral role in the ongoing transition to more sustainable and flexible power grids and lowers the costs of power for Alaskans.

Benefits:
An advanced Net Metering statutory and regulatory framework for Alaskans can optimize mutually beneficial benefits from an advanced net metering program to act as a linchpin for a sustainable, resilient, and economically advantageous energy future in the islanded grid and transmission interconnected Alaska communities to provide a diverse energy portfolio that invigorates and sustains private and public investment, provides energy security and grid resiliency benefits while lowering the energy costs for Alaskans.

How Do We Get There?
Investigate, evaluate, recommend, and update/modify changes to Alaska's net metering laws and regulations for Best Management Practices (BMP) based on other successful State net metering programs.

Encourage the Alaska Energy Authority (AEA), Alaska Housing and Finance Corporation (AHFC), Denali Commission, and other agencies to assist and finance community, tribal, business, and residential net metering investments in Alaska to improve grid stability and resilience and lower energy costs.

Policy Framework and Regulation:
Develop through the Governor's office, AEA, and Regulatory Commission of Alaska (RCA) a clear, supportive regulatory framework that invigorates and favors net Metering incorporating vigorous net metering models and best management practices (BMP). Provide resources, leadership, and agency assignments and oversight to ensure the resulting regulatory framework provides long-term clarity and certainty to private/public investors, community energy security, and utilities.

Infrastructure Development:
Invest and finance grid infrastructure for residential, business, community renewables, and grid distribution systems to handle increased distributed energy resources and increase energy security through AHFC, AEA, AIDEA, Tribal and federal funding to facilitate grid interconnectivity for renewable energy sources.

Develop and promote short and long-term energy storage solutions, such as battery systems, to address the intermittent nature of community and residential renewable sources like solar and wind.

Incentivization and Financial Support: Develop and offer a breadbasket of incentives such as tax credits, rebates, or grants for individuals and businesses that invest in renewable energy systems. Set up a competitive feed-in tariff for excess energy fed into the grid. Work to develop State Agency and federal programs to provide zero or low-interest loans or financial incentives for energy storage solutions. Develop and structure incentives to assist higher PCE cost communities and the PCE program.

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ACTION B-2.2 (CONT.):

Strengthen Alaska's Net Metering energy framework, tariffs, and regulations for Alaska's diverse stakeholders to promote net metering investments to provide grid resiliency and energy security and lower the energy cost for Alaskans.

Outreach and Stakeholder Collaboration:
Create platforms for dialogue between utility companies, private investors, and government agencies. Incentivize and encourage utilities to develop advanced net metering models that benefit from distributed generation rather than viewing it as a threat.

Engage with Native tribes and corporations to ensure their perspectives and needs are incorporated. Encourage and direct State of Alaska (SOA) agencies and utilities to partner with Alaska university programs and renewable energy Non-Governmental Organizations (NGO), boroughs, and city governments to integrate renewable energy net metering in development planning for localized energy security, emergency planning, and sustained energy operations with natural disasters.

Develop state code and design criteria using prudent utility practices for net Metering. Consider state procurement agreements for integration hardware and controls selection and purchase.

Technology and Innovation:
Promote research and development in renewable energy net metering regimes tailored to Alaskan conditions.

Support innovation in grid management tools and technologies using best management systems to efficiently and effectively handle distributed energy.

Collaborate with tech companies to integrate advanced consumer energy management systems, such as smart meters and home energy management systems, that assist utilities and overall grid management.

Monitoring and Feedback Mechanisms:
State of Alaska: Stand up or administer/assign a dedicated agency or body to monitor utility progress and impacts of the net metering program and make suggestions to recalibrate and use adaptive management to gain incremental effectiveness of net metering regimes. Continuously gather net metering and utility participant feedback and iterate on the program's design and incentives.

Publish annual reports for AEA, AIDEA, RCA, the Governor, the Legislature, and the public to highlight achievements, challenges, and next steps.

Implementation Timeline:
This action item has a blend of Immediate, short-term, mid-term, and long-term (follow-up, review, and recalibration as necessary) tasks for implementation.

Expected Results:
The net metering roadmap places Alaska at the pinnacle of energy innovation and leadership while empowering net metering participants and utilities to collaboratively advance the state of Net Metering in Alaska as a public interest good. This strategy and tactics empower Alaskans to amplify private and public investments, fortify grid stability, strengthen grid resilience, and slash energy expenses. Embracing this Action Item, Alaska is assisting in meeting Alaska's energy demands and security while ensuring Net Metering advances are addressed collaboratively, openly, transparently, sustainably, and economically, ensuring a sustainable and cost-effective energy future that reduces the energy cost for Alaskans.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.3:

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Background:
The State of Alaska has multiple departments with diverse missions and responsibilities. Developing energy projects in Alaska requires developer coordination with competing agencies with differing priorities and willingness to assist a project developer. This lack of unity of effort can lead to chaos and time delays in permitting and executing energy projects and transmission with differing state agencies. There is a need for a navigation coordinator and assistance for Alaska communities and Alaska renewable energy developers to coordinate among the differing State Agency requirements.

Benefits:
The development of State policies and oversight that produce a coordinated and affirmative mindset for developing cost-effective renewable energy and transmission lines in Alaska lowers energy costs for Alaskans while also assisting developers in their pursuit with federal agencies in meeting national clean energy goals through mutual cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska Energy Authority (AEA)-sponsored in-state working group/oversight body between the Governor's Office, AEA, and State agencies to find common ground and purpose to streamline renewable energy, transmission, and energy project interconnection permitting, regulations, and State of Alaska authorizations. The focus and mindset are to "promote" and develop sustainable energy projects and related transmission lines to accelerate permit processing and get to "yes" renewable energy development to lower costs and increase energy security for Alaskans.

Each State agency and department conducts a critical internal review to identify permitting and authorization bottlenecks that impede or slow down renewable energy development and then develop internal agency courses of action and corrections necessary to fulfill the overarching directive to lower the cost of power for Alaskans.

Each State agency assigns a Change Officer duty and responsibility for implementing and executing departmental administrative changes based on permitting review/audit and course of action analysis.

Develop an energy development interdepartmental liaison between Commissioners and delegated staff to coordinate and accelerate renewable energy project and transmission development.

Identify state laws or regulations that impede or block renewable energy and transmission development and make recommendations to change statutes and regulations for the Governor and legislative leadership to accelerate energy development, transmission, and interconnections to lower the cost of energy for Alaskans and Alaska industry.
Create directional versus aspirational intentions to deliver results for Alaska's citizens desiring the lowest long-term and sustainable energy costs.

Create directional versus aspirational intentions to deliver results for Alaska's citizens desiring the lowest long-term and sustainable energy costs.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.3 (CONT.):

Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can advance and promote Alaska's renewable energy development with cooperation, support, and a unity of effort between State agencies to support and accelerate the growth of Alaska's renewable energy resources for the maximum benefit of Alaskans, reducing energy costs and providing the energy security that Alaskans are entitled to from their State government leadership.

This structured execution list offers a clear roadmap of the proposed policy initiatives and steps to promote the coordinated and cooperative development of energy resources between and among state agencies to provide a unity of effort to execute the State energy plan and lower the energy cost for Alaskans.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.4:

Strategize and Prioritize State of Alaska funding to match federal funding and federal financing to build and expand Transmission and Distribution Lines in Alaska to bring Alaska on par with the US transmission system for Alaskan energy security and lower energy costs.

Background:
Despite its vastness, covering 17.5% of the US landmass, Alaska's transmission system is strikingly underdeveloped. With only 1,697 miles of high and low-voltage transmission lines, it represents less than 0.25% of the nation's total transmission infrastructure. To put this transmission deficiency In perspective, the contiguous US boasts over 700,000 circuitous miles of these lines. Furthermore, Puerto Rico, a US territory, has 2,478 miles , while Wyoming—a state with a population size comparable to Alaska—has 4,300 miles . This subpar transmission network hampers the integration of renewable energy sources and poses challenges for military installations in ensuring transmission contingencies to support critical national security missions.

Moreover, there's an urgent need for Congressional funding action. For example, despite having Congressional authorization for $384 million for the Southeast Alaska Intertie , which aims to connect Metlakatla through Skagway, the promised funds have not been authorized. Alaska's grid modernization is not just about powering homes and lowering costs; it's crucial for national security, economic growth, and future energy resilience that Alaskans deserve.

Regardless of any metric, stating that there is a transmission need in Alaska is an understatement.

Benefits:
Alaska must upgrade its outdated territorial grid system to a modern, 21st-century standard, incorporating N-1 contingencies. This transformation is crucial for integrating renewables and other new energy sources. Bringing Alaska on par with the rest of the nation with a first-world transmission grid will reduce energy costs and enhance energy security, laying a self-reliant solid energy foundation for Alaska's future.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

Develop and create a State of Alaska Power Transmission Fund under AEA to promote, secure and establish federal authorization and appropriations funding to develop an additional 3000 miles of transmission corridor for Alaska to move Alaska from pre-territorial grid system to a grid system that ignites development and integrates renewables, displaces more expensive diesel generation reducing energy costs.

Create a system that allows AIDEA, AEA, and Federal funding to develop, design, build, execute, and operate additional regional transmission sections and lengths under a unified plan.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
Alaska must exponentially increase its haphazard and subgrade transmission system if Alaska is to develop and maintain its economic viability. Federal funding for a State of Alaska Power Transmission Fund State of Alaska Power Transmission Fund will enable the State to develop other State Energy Plan action items. Creating a robust transmission network in the Railbelt and Coastal areas is essential for Alaska to prosper economically.

This structured execution list to develop a State of Alaska Power Transmission Fund offers a clear roadmap of the proposed steps to promote the Action to lower the energy cost for Alaskans while providing the means and funding to transform the dire transmission situation as it exists within Alaska today.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.5:

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Background:
Alaska community energy planning ensures a stable and sustainable energy future, providing the optimum lowest cost power over time. For community leaders, citizens, and utilities to effectively plan growth, demand, and evolving market conditions, specific metrics are required to guide decisions continuously and track progress. Further, Alaska already has many data sets available, although this information is not readily boiled down and packaged for usefulness for community decision-makers or is not widely known. There is a demand and need for community data and metrics to make wiser community energy decisions, to prepare and request grant funding, and to position communities for greater energy self-reliance, energy security, and ultimately to lower the cost of energy-heating, electricity, and transportation.

Some key indicators and metrics could assist local energy planning and decision-makers in no priority order.

1. Energy Consumption:
- Total energy consumed per sector (e.g., residential, commercial, industrial).
- Per capita energy consumption.
- Forecasted energy consumption due to market condition changes-shore power, industrial loads, beneficial electrification in heating and transportation sectors.

2. Energy Production:
- Total energy produced from various sources (e.g., solar, wind, fossil fuels).
- The capacity factor of energy-producing installations (how often they produce energy compared to their maximum potential).

3. Energy Efficiency:
- Energy saved due to efficiency measures.
- Forecasted energy efficiency savings due to energy efficiency measures

4. Energy Import/Export:
- Amount and type of energy and units imported/exported to or from an Alaska community or utility.
- Dependency percentages on external energy sources that can be improved with local or regional energy resources or transmission.
- Forecasted energy dependence reduction with the forecasted increase in local or regional renewable energy production to include impacts from beneficial electrification in heating and electric transportation.

5. Renewable Energy:
- Percentage of total energy derived from renewable sources.
- Installed capacity and generation from each renewable source (e.g., solar, wind).
- Forecasted installed capacity and generation from each renewable source.

6. Carbon Emissions:
- Total carbon emissions from energy production.
- Carbon intensity (carbon emissions per unit of energy produced).
- Forecasted Carbon Emission reductions from new carbon free energy sources or due from transformation from fossil fuels to renewable energy from beneficial electrification.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

7. Economic Metrics:
- Cost of energy production per unit.
- Economic benefits of energy projects (jobs created, GDP impact).
- Forecased savings over life cycle of new generation and economic quantification of other benefits-emission reductons, fuel savings, etc.

8. Energy Resilience and Reliability:
- Duration and frequency of power outages.
- Energy storage capacity.
- Forecasted energy storage capacity needs and economic and ESG quantification of benefits.

9. Energy Transition Goals:
- Targets for renewable energy adoption.
- Reduction targets for carbon emissions.
- Forecasts for transition goals with data to support transition initiatives

10. Energy Sales, volume by customer sector and price Information
- Transparent and accurate information provides objective fuel alternative calculations for collaborative community decision-making.
- Forecasted sales based on beneficial electrification, shorepower, industrial load growth, and converting interruptible sales to conditional firm power.

11. Overhead of utility costs
- Overhead cost data for comparison between similarly sized utilities to determine and approve managerial efficiencies.

12. Infrastructure Health
- Age, condition, and capacity of energy infrastructure (e.g., power plants, transmission lines).
- Forecasted infrastructure replacement and upgrades with new technology that provides operational control benefits and improves grid security and resilience.

13. Electric Vehicle number and percentage of community vehicle stock
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

14. Electric Vehicle public level 2 and level 3 charging stations
- Estimated annual power demand and consumption
- Forecasted loads in 1 to 5 years.

15. Heat Pumps
- Total Number of Air Source Heat Pump units in a community or utility, annual installation growth, and percentage breakdown of building and housing units by fuel source.
- Forecasted loads in 1 to 5 years.

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ACTION B-2.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

16. Shorepower Installations
- Total number of units, annual sales, and peak demand
- Forecasted loads in 1 to 5 years.

There is a cost to producing, maintaining, and updating information. Therefore, a cost-benefit analysis would need to occur to determine the net value of each data metric. However, as data-driven decision makes progress and we mature Alaska community energy decision-making from black box data to transparent and open information scenario, data is required for planning, decision making and also enabling Alaska communities to be armed with data when competing against communities from other States in competitive federal infrastructure, energy, and emission reduction grants.

Lastly, this recommendation does not include the requirement or decision bar that Alaska or communities must have perfect data or complete data to make decisions. Too much unuseful data or requirement to have impossible-to-achieve data has historically plagued some communities and energy decisions, or opposition will use stall-by-study tactics to impede energy development and transmission build-out required to elevate Alaska on an energy security level with the rest of the country. In other words, let us not fall into the trap that the enemy of good is the requirement for perfect or complete information.

Benefits:
Alaska can help make wise local energy planning decisions, forecasting demand and supply and using data to apply for grants and assistance requiring data-driven applications. All of these actions enable community leaders with utilities and public input to plan for a community's energy needs while working toward the lowest energy cost.

How Do We Get There?
In general, "how we get there" is to support the recommendations from the Data Subcommittee of the AESTF with the insistence that the viewpoint, practical delivery, and service from data is customer-focused, being the Alaska community and decision-makers. Data should be "community customer-driven" and community-centric in its approach and philosophy of conducting and maintaining data to help and propel Alaskan communities using data in a practical and common sense approach to drive energy affordability, reliability, and resilience for Alaskans now and for the future.

Establish a Data Department within the Alaska Energy Authority (AEA) with regulatory authority to request and receive data from any electrical utility in Alaska that is issued a Regulatory Commission of Alaska (RCA) Certificate of Public Convenience and Necessity (CPCN).

Establish an energy data governance committee that is responsible for establishing minimum protocols for data collection, quality, storage, use, and access that is "customer focused" on delivering data to customers for practical and cost-effective decision-making that propels and not slows the development of energy projects, solutions, and transmission systems.

Fund data capacity on a cost/benefit and the biggest bang for the buck approach to maximize data benefits at the lowest cost.

Improve existing energy data and collect new, needed data. Consider that if a utility and/or community desires state support from PCE and grant applications, it volunteers to judiciously supply requested data as required to ensure maximum participation in the production and use of energy data for the benefit of all Alaskans.

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STRATEGY B-2: ALASKA POLICY RECOMMENDATIONS

ACTION B-2.5 (CONT.):

Establish and provide valuable energy planning and modeling metrics from State data sources, where available and requested (such as DMV electric vehicle registrations and Air Source Heat Pump (ASHP) installation) by individual communities.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation as suggested by the Data Subcommittee of the Alaska State Energy Task Force.

Expected Results:
The expected results from this roadmap are for the State funded AEA Data department, as suggested and articulated by the Data Subcommittee mission is to provide customer-relevant information, metrics, and data that assist Alaska communities and utilities in making practical and wise energy decisions that lower the cost of energy, provide energy security and increase resilience for Alaska communities and electrical utilities.

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ACTION B-2.6:

Recruit, Train, and Enhance Alaska workforce with technical training for advancing beneficial electrification to lower Alaska energy costs and sustain Alaska's growing energy infrastructure.

Background:
Alaska has entered an unprecedented demand for apprentices and skilled electrical trade workers that are critically necessary to build out and achieve the required generation, transmission, distribution, storage, and commercial/residential wiring essential for Alaska to migrate from higher-cost fuel sources to lower-cost fuel sources. Various agencies, labor organizations, and contractors operate many training and apprenticeship programs to meet the training needs of Alaskans without an inventory of forecasted demand. When there's a shortage of workers, it disrupts the balance of supply and demand. This scarcity means Alaskans must pay higher wages to attract the limited available labor. As companies spend more on recruitment and possibly higher wages, these increased costs inflate energy project costs and raise energy costs.

Additionally, in energy generation and transmission systems, where contracts are awarded to the lowest bidder, companies must increase their bid amounts to cover the higher labor expenses and contingency risks in obtaining qualified employees to perform the work. This phenomenon can lead to higher prices for Alaska generation and transmission, construction delays, and potential quality declines. Worker shortages have immediate impacts; they ripple through the entire Alaska economy, driving up energy and transmission costs and potentially slowing growth.

Benefits:
Alaska can achieve its labor and workforce training requirements through a unity of effort with multi-year "forward planning" to engage Alaskans to successfully enter critical job skills in the electrical trades to build out the infrastructure needed to assist Alaskans in lowering the cost of energy with a self-reliant and local Alaskan workforce. With its unique challenges and vast geographic expanse, Alaska requires an innovative approach to workforce development, particularly in critical sectors like electrical trades. Meeting the state's labor and workforce training needs necessitates a holistic, long-term strategy from secondary to post-secondary and trade schools.

How Do We Get There?
Conduct an objective Alaska inventory demand and forecasting for critical skilled jobs with a multi-year forecast and then develop a plan to recruit, train, and place Alaskans to meet Alaska's needs for these critical skill sets.

Calibrate and coordinate with Alaska Dept. of Labor, Intl. Brotherhood of Electrical Workers (IBEW), other organized labor, Alaska Vocational Technical Center (AVTEC), Associated General Contractor of Alaska (AGC) , Alaska Safety Alliance to optimize resources and coordinate together to maximize results to ensure that Alaska's labor market has the skilled workers necessary to achieve results on time and on budget.

Engage trades and secondary school systems in developing advanced secondary education, enabling a seamless transition from secondary education to successful building trades job placement.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
By harnessing Alaska's own resources and prioritizing its people, especially the coastal and rural communities, the state can build a self-reliant workforce ready for its unique challenges and opportunities that are essential in helping Alaskans lower the cost of energy, producing energy generation, transmission, and energy security for our communities and maintaining grid resilience.

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STRATEGY B-3: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-3.1:

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Background:
The State of Alaska has the highest disparity of power costs from one community or region to another. Some of America's most significant energy cost disparities exist between high-energy and low-cost energy communities within the Tongass and Chugach Forests lands controlled by the US Department of Agriculture (USDA) US Forest Service (USFS). A key factor between a high-cost and low-cost National Forest community is access to regional hydropower and associated transmission lines built with economies of scale required to deliver lower-cost hydropower energy sources. Currently, there is limited or no State input or consultive rights provided by the State of Alaska to affect the federal policies of the federal government in a collaborative and constructive dialogue that lowers the cost of energy for Alaskans and reduces emissions and other national goals of energy security and lessening dependence on fossil fuels.

RS 2477 (Revised Statute 2477) refers to a provision in the Mining Act of 1866, which allowed for the construction of highways across public lands not reserved for public uses. In simple terms, RS 2477 granted a "right-of-way" to build roadways and transmission lines over public land that provide access to renewable energy project areas.
Section 4407 of Public Law 109-59 (Section 4407) of a 2005 federal transportation funding bill refers to a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU was a bill sponsored by the late Congressman Don Young and was signed into law by President George W. Bush in August 2005. Section 4407 provides as follows: Notwithstanding any other provision of law, the reciprocal rights-of-way and easements identified on the map numbered 92337 and dated June 15, 2005, were enacted into law. Section 4407 Rights of Way provides roadways and transmission line corridors over the Tongass National Forest, instrumental for the State of Alaska's interests in providing access to renewable energy project areas and transmission lines. However, Tongass Forest Land Management Plans, Land Use Designations (LUD), and other federal regulations are at odds with the State exercising its rights.

Value Proposition: The development of state policies and goals to negotiate and execute with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding.

Benefits:
The development of state policies and goals to negotiate and execute with federal agencies for developing cost-effective renewable energy and transmission lines on federal lands lowers energy costs for Alaskans while assisting federal agencies in meeting national clean energy goals through mutual State-Federal cooperation, respect, and understanding.

How Do We Get There?
Establish an Alaska-Federal Renewable Energy Working Group between the Governor's Office, Attorney General, Alaska Energy Authority, Alaska Department Commissioners, the USDA Forest Service and US Dept. of Interior (DOI) landholding agencies, and the US Department of Energy (DOE) and USDA Rural Utilities Services officials that promote energy development in Alaska to find common ground to develop renewable energy projects and related transmission lines to collaboratively and successfully open up Alaska federal lands for Alaska renewable energy development and transmission execution.

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STRATEGY B-3: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-3.1 (CONT.):

Establish an Alaska/Federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy transmission lines on federal lands.

Utilize the creation of an Alaskan-Federal Renewable Energy working group to Develop, Draft, and Execute mutually approved agreements between the authority of the Governor and the Executive Orders of the President of the United States and initiate binding Congressional legislation and Alaska legislation as needed for asserting the State of Alaska consultive and input rights on the development of federal lands for the purpose of renewable energy development and transmission siting authorities. This collaboration aims to ensure Alaska's consultative rights in renewable energy projects on federal lands and to shape necessary legislation.

Seek, negotiate, and obtain through agreement or through initiated federal legislation State primacy on existing and potentially new renewable energy Power Site Classification Sites (PSC) found on federal lands in Alaska identified in established Bureau of Land Management Public Land Orders and aimed for greater access to these PSC for development.

https://archive.org/details/powersiteclassif02geol/mode/2up

Seek, negotiate, and obtain through agreement or through initiated federal legislation a Renewable Energy Land Use Designation (RELUD) and Transmission Line Land Use Designation(TLUD) that overlay and have priority over all other Land Use Designations in the Tongass and Chugach Forest Land Use Management Plans.

Negotiate with federal agencies and obtain State Primacy over RS 2477. A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State primacy and control all Alaska RS 2477 Rights of Way located on or near federal lands to facilitate access to and from renewable energy sources for development. Seek to have State primacy on all RS 2477 trails and roadways in Alaska located on federal lands to facilitate access to and from renewable energy sites for development.

https://www.blm.gov/sites/default/files/docs/2022-05/PDF_AK_State_of_Alaska_RS2477_BLM_AK_RAC_May_2022_James_H_Walker.pdf

Enlist support from the Alaska Congressional Delegation to introduce legislation to have Alaska and other affected States gain state primacy over RS 2477 Rights of Way located in their respective states.

A component of actions to accomplish through an Alaska-Federal Renewable Energy working group is to gain State authority over Section 4407 easements in Southeast Alaska or near federal lands to facilitate access to and from renewable energy sources for development. These easements were created pursuant to a land exchange ratified by Congress in Section 4407 of a 2005 federal transportation funding bill.

https://dot.alaska.gov/sereg/projects/sitka_katlianbayroad/assets/Section_4407_Easement.pdf

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
The State of Alaska, with careful and planned execution, can Advance and Promote Alaska's renewable energy development with cooperation and support from the federal government to achieve national purposes while reducing the energy cost of Alaskans. The expected results will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources.

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STRATEGY B-3: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-3.2:

The State of Alaska partners and collaborates with the State of Alaska and Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.

Background:
Coastal Alaska communities are keen on lowering their energy, heating, and transportation costs through collaboration of State, Tribal, and federal resources. State and Federally Recognized Tribes actively explore energy solutions and are supported in tribal energy endeavors by federal resources. Tribal goals align with the broader Alaska state mission of making energy more affordable for all residents. Furthermore, many recognized tribes have designated staff working specifically on energy projects, often in collaboration with federal entities. By working together, the State of Alaska, Recognized Tribes, and our shared Alaskan communities can assist the wider Alaskan population by cooperatively developing and sharing efficient energy solutions. This joint effort can enhance the creation, sharing, and use of energy across the State. Additionally, recent legislative changes in the Inflation Reduction Act actively seek to fund energy developments with tribal entities, which could provide lower-cost energy benefits and local energy resilience in many areas of Alaska.

Federal agencies, specifically the US Department of Energy (DOE) and the US Department of Agriculture, Rural Utilities Services (USDA-RUS) have rural and tribal-centric programs that can advance the State of Alaska's goals to develop energy infrastructure and reduce energy costs for Alaskans.

Benefits:
The State of Alaska, specific federal agencies, and state/federally recognized tribes have mutually shared goals to provide low-cost heating, electricity, and transportation to Alaskans and Alaskan communities. By identifying and sharing information, plans, and initiatives and then establishing a framework to cohesively advance energy generation, transmission, distribution, storage, and heating solutions, the State of Alaska, federal agencies, and Alaska Tribes can optimize resources and benefits to lower the cost of energy and increase energy security for Alaskans.

How Do We Get There?
Establish a working group of regional tribes interested in or working on energy solutions to lower the cost of energy with State of Alaska officials, Alaska Energy Authority (AEA), the Governor's Office, and the Denali Commission. The working group would identify areas of mutual assistance to advance locally sustainable energy developments and transmission projects by strategically and tactically optimizing federal and tribal funds to achieve mutual energy goals of lower-cost and self-sustaining energy systems.

Identify and attract federal tribal energy program participation, technical assistance, and financing to work with state agencies to streamline permitting, regulatory processing, and funding to advance projects and transmission to lower energy costs and provide community energy security.

The US government has specific energy assistance programs for tribal entities to partner with the State of Alaska, Communities, and public/private developers of generation and transmission that work together with a unity of purpose and effort to assist in lowering the cost of energy for Alaskans.

If deemed viable and valuable, create a Fed State Navigator role or duties assigned to an existing position to assist rural and tribal entities in navigating the State permitting processes to develop and construct local renewable energy and

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STRATEGY B-3: STATE OF ALASKA COORDINATION WITH FEDERAL AGENCIES AND FEDERALLY RECOGNIZED TRIBES RECOMMENDATIONS

ACTION B-3.2 (CONT.):

State of Alaska partners and collaborates with Federally recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.

transmission projects using tribal and federal funding with State assistance.

Implementation Timeline:
This action item has a blend of Immediate and short-term tasks for implementation.

Expected Results:
This Action item, with its implementation steps, offers a roadmap to gain common ground, synergies, and practical outcomes for Alaska communities with overlapping interests of federally recognized tribes to achieve the mutually beneficial goal of lowering the cost of energy for Alaskans.

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STRATEGY B-4: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-4.1:

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Background:
The foundation of Alaska's most cost-effective energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once the hydropower project's initial debts are settled, they yield consistent, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and commerce today and well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

Both in Alaska and across the U.S., the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — position it to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.

Benefits:
Hydropower in Alaska is not just an energy source; it's our Alaska energy DNA. Historically, hydropower has consistently delivered the state's most affordable power. By investing in hydroelectric infrastructure, we're not just tapping into a proven energy solution but securing Alaska's energy future. This investment strategy, rooted in a track record over a century, offers unmatched cost-effectiveness in the long run and past most investment cycles. While the initial outlay is significant, the long lifecycle of hydropower — exceeding 100 years — ensures that Alaska is planting seeds for today's needs and also reaping benefits for future generations with sustainable, clean energy. Investing in hydropower is our Alaska commitment to Alaska's proven energy model, where hydropower assets exist for a brighter, more affordable, energy-secure future for Alaska.

How Do We Get There?
Evaluate and execute adaptive investment practices from the Bradley Lake and Four Dam Pool model and combine them with some of the prudent practices of BC Hydro to create a public-private State of Alaska corporation to develop, invest, own, and oversee operations of new hydropower facilities in Alaska.

Provide and fund AEA the authority to identify and invest in regional hydropower and hydropower transmission and distribution assets for the public benefit.

Encourage utilities to financially participate in ownership and long-term offtake arrangements to provide energy security and growth in service areas or to allow utilities to service new large industrial loads-mining and cruise industry shore power.

Combine federal tax incentives, grants, and loan programs to optimize lower-cost financing and equity costs to lower the cost of power now and over the life of the assets.

Establish a State of Alaska Power Fund to own and operate Alaska hydropower assets that can provide regional benefits.

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ACTION B-4.1 (CONT.):

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Establish State of Alaska administered and supervised investment mechanisms and equity ownership for utility, tribal, and local community investments, combining local equity with federal financing through existing or new federal programs.

Seek federal legislation to provide funding for a State of Alaska Power Fund to help Alaska provide energy security for Alaska military bases and installations for the benefit of Alaska support for Alaska-based military and Coast Guard operations for national security.

Identify, support, and fund to build local and regional hydropower to serve Alaska communities and multiple transmission interconnected communities at economies of scale, providing lower-cost power. Alaska Energy Authority (AEA) and Alaska Industrial Development and Export Authority (AIDEA) financially support through existing programs and investments any executable-ready hydropower project (permitted/licensed, designed, economically feasible) that will provide lower-cost electricity over the project's life.

Identify, seek, and support the construction of hydropower assets to export power to provide economies of scale for hydropower projects to lower the energy cost for Alaskans by selling export power to finance and economically enhance a hydropower project's economic viability.

Develop and support economically and with regulatory approval intertie connections and transmission corridors to strategically place transmission to interconnect current and future transmission to provide transmission corridors to known and undeveloped hydropower locations.

Establish a State/Federal Power board, through Congressional legislation, to cooperatively have the Federal government land owners actively assist the State of Alaska in developing hydropower assets on federal lands.

Review, refine, and amend Sec. 42.45.350. Licensing for water-power development projects and enacting state regulatory control over small hydropower development with Alaska interdepartmental coordination to support hydropower projects with abbreviated regulatory permitting.

Governors Office and AEA work with the Congressional delegation to craft legislation to ensure that FERC-exempt or state-licensed hydropower projects qualify for all eligible federal Production Tax Credits (PTC) and Investment Tax Credits (ITC).

The Governor's Office and AEA work with Alaska's Congressional delegation to craft and support legislation identifying hydropower as a renewable carbon-free energy source for all federal legislative, regulatory, taxation, incentive, and national security purposes.

AEA provides an option for Renewable Energy Credit (REC) participation through a statewide pool. This pooling approach aims to achieve economies of scale when selling RECs. By doing so, both state-owned and other hydropower projects can maximize the value of Alaska's hydropower RECs. The ultimate goal is to reduce the cost of electricity for Alaskans.

These action steps have statewide applicability for other regions of Alaska where critically important hydropower development assets exist.

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STRATEGY B-4: ALASKA HYDROPOWER GENERATION RECOMMENDATIONS

ACTION B-4.1 (CONT.):

Foster, Support, and Assist Hydropower development and transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

Implementation Timeline:
This action item has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.

This structured execution list offers a clear roadmap of the proposed actions to initiate and promote hydropower development to lower the energy cost for Alaskans, provide energy security, and increase the diversification of Alaska's energy-producing assets.

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STRATEGY C-2: INFRASTRUCTURE INVESTMENT

ACTION C-2.5:

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

Background:
Due to the remote nature of many Alaskan communities, many rural Alaskan communities must generate their own power for electricity and heat. Rural power generation in many cases is from diesel fueled generators. This vastly increases the cost of power in rural Alaska. Infrastructure investments that may help lower the cost for some rural Alaskan villages are building transmission lines from the Railbelt utility system to local villages, between local villages, or between local villages and private or public sector anchor tenants to grow economies of scale. This would allow villages connected to other power grids to enjoy power costs comparable to Railbelt residents.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, construct, and maintain transmission infrastructure tied to the Railbelt or other grids to ensure remote/rural Alaskan communities enjoy similar cost of power as Railbelt residents.

How Do We Get There?
Strategies and Tactical Steps for Advancing Action

- Identify the appropriate organization(s) that will oversee the development and construction of the grid. Task 1 is to ensure that all impacted parties are onboard, and that the organization has appropriate authority.
- Coordination and cooperation between energy sources and requirements of an integrated grid.
- Consolidate the variety of interconnection proposals that have been performed to date and select those most technically feasible.
- Estimate greenhouse gas reductions, fuel savings, and other direct savings.
- Assemble the team to recommend approaches to accomplish technically feasible alternatives i.e., segmented versus consolidated grid system.
- Investigate alternative financing options, including direct state investment, allocation of PCE funds, federal & state grants, subsidized loans, and P3 opportunities.
- Identify priorities that bring maximum and immediate return. The savings that can be applied to the balance of the project.
- Evaluate opportunities to co-develop energy infrastructure with transportation and other infrastructure developments

Implementation Timeline:
- Within 1 year have the organization identified and established.
- Within 2 years:
  - Have a technically feasible alternative identified.
  - Implement design and engineering.
  - Identify the most likely funding sources and environmental requirements.
- By year 3:
  - Obtain necessary permits.
  - Develop schedule for construction activities (define scope).
  - Procure qualified contractors.

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STRATEGY C-2: INFRASTRUCTURE INVESTMENT

ACTION C-2.5 (CONT.):

Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

- By year 5:
  - Authorize construction.
  - Establish operating guidelines and responsibilities.

Expected Results:

- Fuel cost savings from reduced diesel dependency.
- Greenhouse gas reductions.
- Reliability and resiliency benefits.
- Spur local economic development and employment.
- Expanded opportunities for distributed renewable resources.
- Reduced dependency on PCE (could funds be reallocated i.e., M&O).
- Measure and demonstrate the project as a template for other regions

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STRATEGY C-3: LOWER OPERATIONAL COSTS

ACTION C-3.4:

Explore opportunities to modernize rural grids to improve operating efficiency and support maintenance and operations of energy infrastructure in rural/remote locations to reduce the cost and increase the reliability of rural energy systems.

Background:
Due to the remote nature of many Alaskan communities, there is potential for loss of power (electric/heat) without awareness outside of the community. Power loss may also reduce or prevent the ability to communicate outside of the community, threatening public health and life safety during temperature or climate extremes. Power plant automation, remote sensing equipment or use of growing drone technology, data management and artificial intelligence, and other emerging technologies provide the ability to automatically or remotely to avoid power system failures or outages, and alert power providers with notice of a failure to focus and accelerate recovery and restoration efforts.

Benefits:
Alaskans, Alaskan communities, utilities, and independent power producers work together or independently to finance, execute, and operate plant automation, remote sensing technology, unmanned aerial systems, data-driven preventative maintenance programs and other grid modernization enhancements to ensure remote/rural Alaskan communities are able to avoid or recover from power failures as expeditiously as possible, while improving reliability and reducing operating costs.

How Do We Get There?
- Enhance communications infrastructure and reliability. For example, ensure all new power conductors incorporate a fiber optic data and communications line.
- Enhance manually operated power plants with automation and remote monitoring and control operations including necessary communications infrastructure upgrades i.e. fiber optic and other platforms. Prioritize critical functions including remote black start, emergency stop, economic dispatch, video monitoring, and fuel system monitoring capabilities.
- Incorporate automation, remote monitoring and control, computer based data collection and storage predictive and preventative maintenance platforms, and communications upgrades into all new or replacement power plant projects.

Implementation Timeline:
- Within 1 year identify pilot communities and develop a modernization framework for those communities. Identify currently automated rural communities and capture lessons learned and best practices for guidance and knowledge-sharing to advise and streamline pilot deployments.
- Year 2 – Perform feasibility assessments, identify and select pilot communities or energy systems for modernization. Aggregate funding sources that can be allocated to selected projects to be undertaken by the producers and project partners. Identify adjacent opportunities for infrastructure enhancements to share the costs and benefits of grid modernization (automation of community water and sewer treatment facilities, for example).
- Years 3-5 deploy grid modernization enhancements to pilot community/communities and document and refine the process to serve as a template for additional communities. Each implementation should be continuous from inception to completion.

Expected Results:
- Improved grid reliability.
- Faster response and restoration times for outages.
- Improved operating efficiencies.
- Improved operations and maintenance of rural system to reduce preventable or catastrophic failures.
- Improved communications platforms that can be co-purposed to meet other community needs
- Provide opportunities to cost-share for other community infrastructure modernization initiatives.

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STRATEGY E-1: STRENGTHEN STATE-FEDERAL COORDINATION AND INVESTMENT

ACTION ITEMS:

E-1.1 Develop an implementation strategy for federal energy funding opportunities, including to align with State-level investments.

• AEA, other state agencies, and local and tribal governments, are responding to a diverse range of federal opportunities, as well as implementing awarded projects. This effort requires matching funds and increased capacity, as well as continued awareness of opportunities ahead. The State should increase its ability to maximize the benefit from these activities by 1) identifying relevant opportunities for Alaska, 2) coordinating competitive responses to discretionary grants, 3) providing sufficient matching funds for response, 4) increasing overall capacity to respond to grant opportunities, including to track and bundle implementation, and 5) apply State-level funds where gaps occur.

E-1.2 Establish a clean energy and transmission line land use designation on state and federal lands.

• Alaska's land ownership make-up is notorious for complexity, with little privately owned land and more than two-thirds of the State in federal hands. Federal lands access is critical to future clean energy development. The AESTF recommends that federal land managers more proactively identify areas where clean energy and transmission could occur, consistent with State and local priorities, and that a working group establish prioritization of these land use designations in cooperation with the Congressional delegation.

E-1.3 Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or an Alaska Energy Transition Fund

• Overcoming the tyranny of distance in a State that experiences the lowest population density in the nation means that economies of scale to achieve affordable project delivery must be overcome by public investment. The federal government can help the state address this with a dedicated funding mechanism that helps offset those inherent disadvanages. This could come as formula funding instead of competitive funding, and the opportunity to pool funds between state, local, and tribal governments would be additionally beneficial. Ultimately, this mechanism can provide a more efficient way to increase investment into clean energy and transmission projects that have the potential to dramatically lower the cost of energy in Alaska communities.

E-1.4 Ensure that criteria for state and federal project investments are weighted toward affordability goals, among other priorities consistent with the AESTF.

• Federal priorities are currently focused on beneficial electrification and clean energy goals, which in Alaska's circumstance may not lead to addressing greatest need or result in lower-cost energy. The State can continue to advocate for federal programs to respond more directly to the needs of Alaska communities and to work with the State to achieve affordable energy, even as together state and federal agencies can identify local and reliable transitions.

E-1.5 Utilize DOE LPO Title 17 Clean Energy Financing Program and/or Tribal Energy Loan Guarantee Program, USDA, Rural Utility Service programs and other applicable federal programs.

• There are multiple federal programs that could help to increase affordability for Alaska energy projects. Similar to the State's approach to grant identification and pursuit, these programs provide financing that may be part of a solution for project delivery. Technical assistance and navigation through these systems would increase utilization, and should be supported by State-level implementation.

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STRATEGY E-2: REDUCE THE BARRIERS TO PRIVATE SECTOR INVESTMENTS

ACTION ITEMS:

E-2.1 Improve and further implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs and evaluate the future adoption of an R-PACER program.

- The goal of C-PACE is to increase the tools available for clean energy adoption and now resilience improvements in commercial development. These programs are adopted at the local level, and to date only Anchorage has implemented a program. The AESTF encourages increased outreach to other local governments to assist in the establishment and implementation of C-PACER programs, accelerating the potential benefits of the program. Where needed, the State can introduce additional mechanisms to lower the burden of implementation, including through centralized support or technical assistance. A similar program for residential development would have benefits, potentially, and the State should introduce R-PACER programs as options for communities and provide corresponding support for implementation.

E-2.2 Establish a standard integration tariff and reduction of interconnection and/or wheeling tariffs.

- Barriers to integrating clean energy into existing generation or transmission should be removed, including through standardizing integration tariffs. The RCA can identify current interconnection and wheeling tariffs and work to establish a system of standard access.

E-2.3 Adopt a Clean Energy Standard with incentives to facilitate reaching diversification goals.

- The State can address its energy diversification goals by adopting a Clean Energy Standard that includes incentives for adoption. Avoiding "sticks" that ultimately end up being passed on to ratepayers, an incentive-based approach will lead to stronger mobilization of private sector capital investment and utility adoption.

E-2.4 Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

- New generation projects face obstacles with securing competitive debt terms for projects in Alaska. Debt interest rate and term (duration) significanty affect project economics and ultimately the energy price paid by consumers. Providing a reliable debt source for generation projects that diversify power generation will increase the number of successful projects, reduce the energy cost to consumers, and ensure that returns maintain administration and sustainability of the program. Given the funding scale of these projects, it's important that this capital support from the state is structured as a loan and not a grant. The State can achieve this by augmenting the Power Project Fund or implementing new or similar, with the goal being access to low-cost capital available over a longer-term duration. The State may choose to implement a loan forgiveness portfolio based on other energy goals, like clean energy or reliability.

E-2.5 Conduct pre-development permitting, surveying, engineering, and/or environmental within principal energy zones.

- A large part of project development occurs prior to construction, and the longer it takes to conduct pre-development work, the more expensive a project is. The State and federal government, as well as others, have a role in helping to reduce these costs. Agencies can do this by streamlining process and making more efficient the ability for developers to move from proposal to construction. In some areas of the state, prioritization of generation or transmission can result in State investment into taking on some of the pre-development activities, including to complete processes like surveying or environmental studies ahead of time, or to assist with permitting and overcoming regulatory hurdles.

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STRATEGY E-2: REDUCE THE BARRIERS TO PRIVATE SECTOR INVESTMENTS

This is similar to the program at DNR, in the Office of Project Management and Permitting, whose responsibilities could be extended to energy generation and transmission at varying scales.

E-2.6 Anticipate and plan for strategic demand increases, or pooled asset investments, including through project bundling and beneficial electrification.

• The rate and scale of current infrastructure investments may result in increased demand for energy, or facilitate delivery thereof. The State should have in place the capacity to anticipate future needs, including that of beneficial electrification, and increase its ability to support bundling project delivery, achieving efficiencies on the supply side.

E-2.7 Conduct an evaluation of state and local government's capacity to increase incentive programs or make investments that lead to lower cost energy.

• The State and local governments have multiple programmatic, operational, and capital investment programs that contribute to current energy investments. The State should conduct an evaluation of these for total currently utilized and the potential for delivering more efficiently or differently to maximize reduced barriers to investment that result in lower energy costs. This evaluation should consider the State's debt capacity, available financing tools, ability to match federal grant awards, and an allocation of available State capital budgets. This process should result in the ability to track and benchmark state and local energy-related expenses, including to assess the relative benefit from state and local incentive programs. These can be evaluated based on whether they result in lower cost energy, and not necessarily from a revenue perspective. This evaluation should consider the ability of the State or local government to forego revenue as part of incentive program, such as through an income or property tax exemption or credit, which should advance the state or community towards its long-term goal of significantly diversifying power generation with an emphasis on local, reliable, and affordable energy. Implementing exemptions based on this may be particularly important for multi-jurisdictional projects.

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STRATEGY E-3: MAINTAIN RESIDENTIAL SUBSIDY FOCUSED ON EQUITY, WHILE REDUCING NEED ACROSS COMMUNITIES

ACTION ITEMS:

E-3.1 Ensure that PCE funds are available at the right scale over the correct time period.

• There should be a clear commitment from the State that the role of and intent behind the Power Cost Equalization Fund should never be diminished. To be clear, the historic and long-standing goal to alleviate the energy burden of high-cost communities to the extent that PCE is designed for remains a priority for the State. However, the State should develop robust models for the future of the Fund that include scenarios analysis of what will be needed over a sufficiently long time horizon, similar to an actuarial analysis conducted for other long-term investments, such as the State pension system. This modeling will identify future need and how investments at the community level have the potential to reduce that need, and what targets should look like in the decades to come. The principle behind this is that the PCE Fund is not the goal; the goal is lowering the energy burden for Alaskans.

E-3.2 Implement a strategic approach to lowering costs according to highest use communities.

• A follow-on to 3.1, this action evaluates all current PCE communities based on a variety of factors, including current experienced costs, PCE contribtions, population, and opportunity for projects that would reduce the cost of energy. Based on this evaluation, modeling would result in prioritization of communities where State investment would 1) lower the cost of energy below the current PCE threshold – achieving reduction of energy burden, and 2) result in a long-term savings to PCE. This latter is important if PCE funds were to be considered for these kinds of investments, but clearly the process would have to be evaluated as a whole for feasibility. The State could similarly mobilize other state or federal investments to achieve this same goal, and maximizing PCE funds for future use, as determined to be needed based on system modeling.

E-3.3 Increase the use of PCE funds available to community facilities, ensuring the full utilization of the current allocation.

• Under PCE, currently, community facilities are eligible for an allocation of subsidy. However, in some communities the allocation isn't fully utilized. A study of these gaps should result in identified additional available resources that could be available for debt service, grid resilience, utility maintenance and operations, or other types of investments that lower costs for ratepayers.

E-3.4 Enact a provision in law to provide a modest annual payment to PCE-eligible communities/utilities who are producing at least 50% of their annual electric energy from a renewable energy source have incurred debt to support this investment, and as a result are no longer receiving any or only nominal amount of PCE payments.

• The annual cost tradeoff for a significantly reduced amount of diesel fuel compared to the annual debt cost for the renewable energy facility creates an inequitable cost situation with the current PCE regulations. As additional PCE-eligible utilities diversify into renewable energy, and likely incur substantial debt to do so, this annual renewable energy debt payment factor would help to mitigate the loss of PCE funds. Such a provision would only stay in effect until the outstanding amount of debt principal specifically for a renewable energy facility is less than $500,000.

E-3.5 Increase utilization of community-based IPPs that sell power to utility for PCE reimbursement.

• Utilities that make investments in clean energy or more efficient generation utilizing some portion of grant funds may experience their PCE reimbursement reduced by the PCE-eligible fraction of the utility's reduced fuel cost, which reduces the overall benefit to community residents by 25%. If a community-based IPP makes the same investment, and sells the power back to the utiity at the lower cost, there is no change to the PCE-eligible reimbursement. In this model, residents receive 100% of the benefit. While the efficiency of both models should be further evaluated – and there is benefit to investment under both models – IPPs may have some role in working around this current PCE structure to increase affordability.

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STRATEGY E-3: MAINTAIN RESIDENTIAL SUBSIDY FOCUSED ON EQUITY, WHILE REDUCING NEED ACROSS COMMUNITIES (CONTINUED)

E-3.6 Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

- Some would argue that PCE has not been as effective as it could have been, and even lowering the cost of energy in PCE eligible communities has not truly brought parity to the State. This variation and remaining high cost results in continued energy burden for non-residential customers, high costs of goods and services, higher costs for doing business, and higher costs of living overall. A potential solution that would have to be evaluated further is to implement a postage stamp rate instead. The basic model for this is that every Alaskan would pay the same rate, assumingly established by the RCA, based on the pooling of all utility rates. This means that for many Alaskans, rates would go up, for many communities rates would go down, and further analysis would have to be conducted for distributional impact. Such an approach really focuses on the ability for investments that lower the cost of energy anywhere in the state to benefit all Alaskans. Guardrails would have to be in place to avoid the risks of additional shared liability, too. A postage stamp rate would replace the need for PCE, and a strategy would have to be developed for how the Fund could support the transition from one mechanism to another.

DRAFT

STRATEGY E-4: IMPROVE THE ECONOMICS OF PROJECT DEVELOPMENT

ACTION ITEMS:

E-4.1 Establish a green bank for financing of community scale energy efficiency projects.

- A Green Bank increases the ability of the State to receive private and public funding, manage the fund and arrange affordable financing for defined sustainable energy developments to suit Alaska's unique energy needs, particularly with regard to addressing urban and rural energy requirements. This program would be established to make loans, provide credit enhancement structures, purchase loans, provide development funding and other forms of financing for sustainable energy development in Alaska's residential, commercial, and industrial market sectors. It would make capital more accessible to borrowers for clean energy projects and incentivize co-investment in Alaska's emerging clean energy sector between the public sector, Alaska's financial sector, and private investors.

E-4.2 Ensure adequate workforce training and skills development alongside job creation goals of State.

- Expand and inventory available technical assistance, training and workforce development programs to identify gaps, increase capability and capacity building activities. A Sectoral Strategy delivered through AWIB should result in increased training of an energy workforce able to meet the needs of clean energy and beneficial electrification. Models for apprenticeship could be effective, for instance, as well as leveraging current university and trades programs. Workforce development increases the availability of a capable workforce, which lowers operational costs and increases energy efficiency and utilization.

E-4.3 Increase the ability of the State to encourage efficiency of sunk costs and investments, while implementing financial tools (arbitrage, bonds, etc.) that facilitate decommissioning high-cost utilities and aging plant securitization.

- The ability of utilities to invest in new clean energy or more energy efficient projects is limited by costs they've already incurred in existing generation and transmission facilities. These "sunk" costs are liabilities that are difficult to overcome if a utility were then to consider a new investment, limiting its access to new capital. The State should implement a program of technical assistance and analysis that increases the ability for utilities to leverage potential financial tools to assist with decommissioning or securitizing aging power plants. AEA can implement this process through its current powerhouse evaluation, helping to detmermine high-potential assets that would benefit from technical assistance. This could be accomplished in cooperation with AIDEA and AHFC, as well as with the Municipal Bond Bank.

E-4.4 Establish an opportunity for pooling of RECs for system optimization and improving economy of scale.

- A renewable energy certificate (REC) is a tradeable, market-based instrument that represents the legal property rights to the "renewable-ness"—or all non-power attributes—of renewable electricity generation. A REC can be sold separately from the actual electricity (kilowatt-hour, or kWh). The REC owner has exclusive rights to make claims about "using" or "being powered with" the renewable electricity associated with that REC. A REC is issued for every megawatt-hour (MWh) of electricity generated and delivered to the electric grid from a renewable energy resource. The owner of the RECs associated with the renewable energy project's electricity output can sell these RECs to another party. In doing so, they forfeit the ability to make any claims about "using" renewable energy, but generate a new revenue stream. The revenue is a function of the system's kWh output and the market price of RECs. The pooling of credits allows for the ability to access higher levels of capital at more competitive prices. REC arbitrage may be a feature of such pooling, and simply refers to the near-simultaneous buying and selling of commodities in different markets in order to take advantage of differing prices for the same or similar assets.

E-4.5 Reevaluate the role of anchor institutions and develop new models for economies of scale, such as through beneficial electrification.

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STRATEGY E-4: IMPROVE THE ECONOMICS OF PROJECT DEVELOPMENT (CONTINUED)

- Traditionally, economy of scale challenges have been addressed through an anchor tenant model. There is increasingly an opportunity to include new models of development that include the access and utilization that comes with beneficial electrification. Essentially, increasing usage across a community, including through electrifying heating, expands the market sufficiently to act in the same was as an anchor tenant would. Increased power use should have the result of lowering the price per kWh. AEA can

E-4.6 Resurrect the Emerging Energy Technology Fund (EETF) in order to promote investment in energy technology demonstration and deployment programs.

- The EETF was administered by AEA in consultation with a seven-member advisory committee, and was utilized to make grants to eligible applicants for demonstration of technologies that have a reasonable expectation to be commercially viable within five years and that are designed to: (i) test emerging energy technologies or methods of conserving energy; (ii) improve an existing energy technology; or (iii) deploy an existing technology that has not been demonstrated in the state. "Energy technology", as per AS 42.45.375(j)(2) was defined as "technology that promotes, enhances, or expands the diversity of available energy supply sources or means of transmission, increases energy efficiency, or reduces negative energy-related environmental effects; "energy technology" includes technology related to renewable sources of energy, conservation of energy, enabling technologies, efficient and effective use of hydrocarbons, and integrated energy systems." For every state dollar invested under the EETF, the projects received an additional $0.62 and $1.05 in federal and grantee match, respectively, for a total leverage factor of $1.67 for every state dollar expended. The State should reenact the EETF and make it available for clean energy demonstration projects that contribute to lowering the cost of energy in Alaska.

DRAFT

STRATEGY E-5: INCREASE STATE PROGRAMMATIC INVESTMENTS

ACTION ITEMS:

E-5.1 Increase the capacity for and streamlining of regulatory and permitting action within state agencies and at the federal level.

• The State of Alaska has multiple departments with diverse missions and responsibilities. Developing energy projects in Alaska requires developer coordination with competing agencies with differing priorities and willingness to assist a project developer. This lack of unity of effort can lead to uncoordinated permitting and diminishes the ability to execute energy projects and transmission beteween differing state agencies. There is a need for a navigation coordinator and assistance for Alaska communities and Alaska renewable energy developers to coordinate among the differing State Agency requirements. The State should establish an AEA-sponsored in-state working group/ oversight body between the Governor's Office, AEA, and State agencies to find common ground and purpose to streamline renewable energy, transmission, and energy project interconnection permitting, regulations, and State of Alaska authorizations. The focus is to "promote" and develop clean and affordable energy projects and related transmission lines to accelerate permit processing.

E-5.2 Leverage and strengthen AEA's ability to execute their circuit rider program or provide other means to allow utilities to address the maintenance and operation needs of Alaska power systems by encouraging public, including public-private-partnerships for energy projects.

• One of the more significant costs of delivering energy to Alaskans is maintenance and operations. These day-to-day costs add up, especially for aging systems. The State should increase the ability for AEA to provide technical assistance through its Circuit Rider or similar program. At the same time, the State should consider implementation of a maintenance matching fund to provide additional layers of support for utilities who lack sufficient access to maintenance workers, including a second utility operator. Private sector delivery of energy projects, or public-private delivery of energy in communities, may increase the ability for financing of maintenance and operations.

E-5.3 Increase availability of resources for weatherization, energy efficiency, and building retrofits.

• The State's programmatic investments into weatherization, energy efficiency, and building retrofits has the effect of reducing ratepayer costs, either through reducing their total bill or increasing the amount of power they can use at the same cost. At the same time, lowering energy usage may impact the utility's ability to keep rates low, if their rate evaluation determines a reduction to the economy of scale they are responding to. The State can assist by conducting a community-level rate study that evaluates the impact of energy efficiency and conservation measures on rates, and determines a strategic approach to providing these types of programs.

E-5.4 Coordinate recruitment and retention of staff resources at local and state level, including to provide technical assistance.

• The state and local governments – and employers across Alaska – are struggling with high vacancy rates and challenged by recruitment and retention. The State should implement a collaborative approach to workforce recruitment in the energy sector, including to determine where investments – hiring bonuses, increases salary and benefits, etc. – have the potential to attract sufficient and trained workers. Access to workforce is critical for reducing costs and delivering efficient and effective utility operations and project development.

E-5.5 Strengthen state and local procurement policies to provide preference for affordable and clean energy projects.

• State and local procurement laws and policies affect how investment choices are made by the State and its political subdivisions. An evaluation of these policies should be conducted by the State and a collaborative effort should result in the identification of ways in which to align procurement with delivering affordable, local, and reliable energy projects. The State can offer an incentive program for local governments to improve their procurement practices, including to update these to meet the State's goals.

DRAFT

STRATEGY F-1: IMPROVE ELECTRICAL TRANSMISSION SYSTEM

ACTION F-1.1:

Prioritize state investment in electric infrastructure and leverage federal funding opportunities. Identify state matching funds necessary for all federal funds available for transmission.

Background:
Electric infrastructure is the bedrock of the state's economy and the operation of the daily lives of Alaskans. The Alaska legislature must leverage every federal dollar available that benefits infrastructure with a strong emphasis on electric infrastructure – generation, transmission, and distribution. The legislature should direct the appropriate state agencies to work with electric utilities statewide to determine where funding can best serve Alaskans through investment in electric infrastructure, including renewable energy technologies and digital communications infrastructure.

Concurrently, the legislature should call on Congress to focus on funding for electric infrastructure when passing spending bills and when funding federal agency operations. Many areas of the United States continue to benefit from long running federal power marketing administrations (PMAs) that have brought low-cost power to vast reaches of the country. Alaska has not been afforded such federal programs.

Benefits:
Through robust state and federal investment in electric systems, Alaska would strengthen its economic health.

How Do We Get There?

Implementation Timeline:
2023-2035

Expected Results:

DRAFT



ACTION F-1.2:
Clarify state statute AS 09.65.86 on Utility ROW wildfire liability

Background:
Alaska's electric utilities work hard to maintain their rights-of-way for transmission and distribution lines but have no control over vegetation that grows outside their rights-of-way. This creates a scenario in which trees or other vegetation outside the right-of-way -- but tall enough to fall into the right-of-way -- can cause damage, such as a wildfire.

Alaskans already pay some of the highest costs for electricity in the country. Making Alaska utilities, and ultimately their customers, responsible for damages caused by vegetation outside of utility control will drive those costs even higher. This could raise the prospect of financial difficulty for utilities themselves, as has happened in California.

Benefits:

How Do We Get There?
The Alaska legislature can protect electric ratepayers by making clear in statute that electric utilities can only be held liable for damage, death or personal injury from contact between vegetation and the utility's facilities if the vegetation is located entirely within the boundaries of the utility's right-of-way. The state can help mitigate fire risk by continuing to provide funding for the mitigation of spruce beetle-killed trees, which are a significant problem in many parts of the state.

Implementation Timeline:
Begin in 2024

Expected Results:
Protect Alaska utilites and their rate-payers from liability and financial risk due to vegetation outside of their control.

DRAFT

STRATEGY F-1: IMPROVE ELECTRICAL TRANSMISSION SYSTEM

ACTION F-1.3:

Review 17 AAC 15.131. Utility accommodation on controlled-access highways and associated DOT policies and practices in order to minimize costs to Alaska utilities and ratepayers with regard to the use of DOT right-of-ways for electric transmission and distribution lines.

Background:
Urban growth has necessitated the buildout of transportation and utility infrastructure, frequently in several overlapping and sometimes conflicting phases. While many of the larger road construction projects are primarily federally funded, in many instances, DOT has required the local utilities to bear the costs of moving electrical infrastructure that is associated or conflicting with the road projects.
Sharing rights-of-way can often be the most efficient means of timely supporting demand driven development. DOT should adopt a practice of including electrical infrastructure costs within the rights of way as part of the federally funded road project.

Benefits:
Reduce utility costs for electrical infrastructure within DOT right of ways.

How Do We Get There?
Review DOT policies and improve collaboration and practice between DOT and the utilities. Adopt improved regulatory guidance as appropriate.

Implementation Timeline:
2024

Expected Results:
Reduce utility costs for electrical infrastructure within DOT right of ways.

DRAFT

ACTION F-1.4:

Establish a State/Municipal planning effort to focus on future transmission and distribution siting and ROW's to facilitate efficient buildout of Alaska's infrastructure.

Background:
One of the most significant barriers to cost effective expansion of electrical transmission infrastructure is the cost of right-of-way acquisition. Project planning delays, permitting delays, and opposition from private land owners all result in increased costs and project schedules.

The State should stand up a specific planning team, perhaps within an augmented Alaska Energy Authority, to identify future transmission and major distribution infrastructure needs, including those that might facilitate a variety of future renewable generation technologies and locations. The location for this infrastructure should be coordinated with local utilities and other state agencies. Rights of way should be edentified, included in land use planning, and acquired where necessary.

Benefits:
Reduce the future costs of transmission system buildout and improve Alaska's ability to timely espond to changing electrical generation technologies.

How Do We Get There?
Direct the appropriate State agency to stand up a specific future electrical transmission and distribution system planning effort.

Implementation Timeline:
2024

Expected Results:
Reduce the future costs of transmission system buildout and improve Alaska's ability to timely espond to changing electrical generation technologies.

DRAFT

STRATEGY F-2: ENCOURAGE ENERGY AND GENERATION DIVERSIFICATION

ACTION F-2.2:

Monitor and evaluate third party development of carbon capture and sequestration technologies and pass legislation establishing a regulatory framework for the geologic storage of carbon.

Background:
During 2022, approximately xx% of Alaska's electrical generation came from fossil fuels, including petroleum distillates, natural gas, and coal. While diversification of energy sources is encouraged and will occur, under all likely scenarios fossil fuels will remain critically important for electrical generation and space heating in Alaska for the forseeable future.

To ensure Alaska retains full optionality with respect to continued use of fossil fuels for electrical generation and space heating and to ensure that Alaska avails itself of every practical alternative to reducing emissions from fossil fuels, the technologies that are being developed to capture and sequester carbon must be tracked, monitored and evaluated.

Benefits:
Timely utilization of carbon capture technologies or techniques that offer practical application in Alaska will offer an opportunity for Alaska to optimize utililization of its abundant fossil fuel resources.

How Do We Get There?
AEA should designate a specific department with the responsibility to monitor technological advances in carbon capture and to timely report developments with applicability in Alaska. Support passage of SB 49 and HB 50 to pro-actively establish a framework to support carbon storage.

Implementation Timeline:
Begin in 2024.

Expected Results:
Ensure that Alaska is timely positioned to implement carbon capture technologies.

DRAFT

STRATEGY F-2: ENCOURAGE ENERGY AND GENERATION DIVERSIFICATION

ACTION F-2.3:

Encourage development of cost effective hydropower projects throughout Alaska, including ensuring that state funds are appropriated for timely investment in the Dixon Diversion hydroproject as project feasibility warrants.

Background:
The foundation of Alaska's most cost-effective energy lies in its legacy hydropower infrastructure, some of which dates back decades or even a century. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once the hydropower project's initial debts are settled, they yield consistent, renewable, and lowest-cost power, benefiting multiple generations of Alaskans and commerce today and well into the future.

Historically, Alaska's economic vitality is due directly to its hydropower assets. Whether the small local hydropower systems that powered early mining and fishing sectors or the subsidized projects like Bradley Lake and Snettisham Hydro and the hydropower investments from the era of the Four Dam Pool, these assets have consistently provided low-cost energy, driving Alaska's prosperity.

Both in Alaska and across the U.S., the National Hydropower industry is expanding to include river hydrokinetics, tidal, and marine power projects as hydropower projects. As these technologies evolve, Alaska's extensive coastline and lengthy rivers — greater than all other states combined — position it to capitalize on these innovations and benefit from these advancements to provide energy security and lower the energy cost for Alaska.

Today, hydropower accounts for 29% of Alaska's electricity. This reliable power source underpins vital sectors of the Alaskan economy: mining, fisheries, military, and tourism, ensuring energy security and economic stability for the state.

Benefits:
Investing in hydropower is our Alaska commitment to Alaska's proven energy model, where hydropower assets exist for a brighter, more affordable, energy-secure future for Alaska.

How Do We Get There?
Evaluate and execute adaptive investment practices from the Bradley Lake and Four Dam Pool model and combine them with some of the prudent practices of BC Hydro to create a public-private State of Alaska corporation to develop, invest, own, and oversee operations of new hydropower facilities in Alaska.

Provide and fund AEA the authority to identify and invest in regional hydropower and hydropower transmission and distribution assets for the public benefit, like the Dixon Diversion project that has the potential to increase Bradley Lake power generation by 50%.

Encourage utilities to financially participate in ownership and long-term offtake arrangements to provide energy security and growth in service areas or to allow utilities to service new large industrial loads-mining and cruise industry shore power.

Combine federal tax incentives, grants, and loan programs to optimize lower-cost financing and equity costs to lower the cost of power now and over the life of the assets.

Establish a State of Alaska Power Fund to own and operate Alaska hydropower assets that can provide regional benefits.

Establish State of Alaska administered and supervised investment mechanisms and equity ownership for utility, tribal, and local community investments, combining local equity with federal financing through existing or new federal programs.

DRAFT

STRATEGY F-2: ENCOURAGE ENERGY AND GENERATION DIVERSIFICATION

ACTION F-2.3 (CONT.):

Encourage development of cost effective hydropower projects throughout Alaska, including ensuring that state funds are appropriated for timely investment in the Dixon Diversion hydroproject as project feasibility warrants.

Seek federal legislation to provide funding for a State of Alaska Power Fund to help Alaska provide energy security for Alaska military bases and installations for the benefit of Alaska support for Alaska-based military and Coast Guard operations for national security.

Identify, support, and fund to build local and regional hydropower to serve Alaska communities and multiple transmission interconnected communities at economies of scale, providing lower-cost power. Alaska Energy Authority (AEA) and Alaska Industrial Development and Export Authority (AIDEA) financially support through existing programs and investments any executable-ready hydropower project (permitted/licensed, designed, economically feasible) that will provide lower-cost electricity over the project's life.

Identify, seek, and support the construction of hydropower assets to export power to provide economies of scale for hydropower projects to lower the energy cost for Alaskans by selling export power to finance and economically enhance a hydropower project's economic viability.

Develop and support economically and with regulatory approval intertie connections and transmission corridors to strategically place transmission to interconnect current and future transmission to provide transmission corridors to known and undeveloped hydropower locations.

Establish a State/Federal Power board, through Congressional legislation, to cooperatively have the Federal government land owners actively assist the State of Alaska in developing hydropower assets on federal lands. Review, refine, and amend Sec. 42.45.350. Licensing for water-power development projects and enacting state regulatory control over small hydropower development with Alaska interdepartmental coordination to support hydropower projects with abbreviated regulatory permitting.

Governors Office and AEA work with the Congressional delegation to craft legislation to ensure that FERC-exempt or state-licensed hydropower projects qualify for all eligible federal Production Tax Credits (PTC) and Investment Tax Credits (ITC).

The Governor's Office and AEA work with Alaska's Congressional delegation to craft and support legislation identifying hydropower as a renewable carbon-free energy source for all federal legislative, regulatory, taxation, incentive, and national security purposes.

AEA provides an option for Renewable Energy Credit (REC) participation through a statewide pool. This pooling approach aims to achieve economies of scale when selling RECs. By doing so, both state-owned and other hydropower projects can maximize the value of Alaska's hydropower RECs. The ultimate goal is to reduce the cost of electricity for Alaskans.

These action steps have statewide applicability for other regions of Alaska where critically important hydropower development assets exist.

DRAFT



ACTION F-2.3 (CONT.):

Encourage development of cost effective hydropower projects throughout Alaska, including ensuring that state funds are appropriated for timely investment in the Dixon Diversion hydroproject as project feasibility warrants.

Implementation Timeline:
This action item has a blend of Immediate for execution-ready hydropower and short-term, mid-term, and long-term tasks for hydropower in earlier analysis and development stages.

Expected Results:
The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, energy security, and economic prosperity by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure safeguarding Alaska's energy future with an Alaskan tried and proven energy model.

DRAFT

STRATEGY F-3: UTILITY REGULATION

ACTION F-3.1:

Provide budgetary support for the Regulatory Commission of Alaska (RCA) sufficient to improve the RCA's ability to respond timely and appropriately to the complex energy production, generation, and transmission challenges in Alaska.

Background:
The RCA is responsible for regulation of public utilities and pipeline carriers in Alaska. Most of the statutes and regulations that govern RCA authority were developed during a period of time when the electrical generation and transmission utilities in Alaska generally operated islanded systems primarily built around baseload generation. However, as Alaska has grown and the technology for generation, transmission, and storage has advanced, the responsibilities of the RCA have grown more complex.

The Alaska Energy Security Task Force (AESTF) did not conduct a review sufficient to be able to recommend a comprehensive overhaul of the statutes or regulations that govern the RCA. Anectodely, it is understood that there are some improvements that could made to facilitate more efficient utility regulation. It is also understood that the RCA is evaluating its own process and regulations to identify potential efficiencies.

However, the AESTF did find that within all expected scenarios, the RCA must be provided sufficient budgetary support to be able to attract and retain the highly skilled technical, legal, and administrative staff necessary to help adjudicate the complex and rapidly increasing pace of decisions that are necessary in today's to support Alaska's continued access to affordable, reliable, and resilient energy.

Benefits:

How Do We Get There?
Executive branch collaborate with RCA to incorporate staff budgetary recommendations into 2024 operating budget.

Implementation Timeline:
2024 Alaska operating budget.

Expected Results:
Reduced casefile processing time by a highly skilled RCA will support Alaska's transition to a more integrated and technologically advanced energy utility landscape.

DRAFT



ACTION F-3.2:

Preserve Power Cost Equalization Endowment, using the Endowment only for its statutory purposes, ensuring all eligible communities can maximize costs reimbursable by the PCE program, and provide full funding the PCE program.

Background:
The PCE program provides economic assistance to communities and residents in rural areas of Alaska where, in many instances, the kilowatthour charge for electricity can be three to five times higher than the average kWh rate of 19.10¢ (7/19) between Anchorage, Fairbanks and Juneau. The PCE program was established to assist rural residents at the same time state funds were used to construct major energy projects to assist more urban areas. Most urban and road connected communities benefit from major state-subsidized energy projects such as the Four Dam Pool, Bradley Lake, and the Alaska Intertie. Rural communities not on the road system that are dependent on diesel fuel do not benefit from the large subsidized energy projects, and PCE is a cost-effective alternative to provide comparable rate relief to rural residents.

All Alaskan's therefore share to some degree in investments that lower energy costs and lower energy costs must remain a key objective.

The Power Cost Equalization (PCE) Endowment must be preserved and maintained to provide certainty for 200 Alaska communities.

The statutory purposes of the PCE program must remain focused on the statewide objective of lowering energy costs.

When communities invest in conventional or renewable generation projects that drive local electricity costs lower, the state should examine the disparity between the amortization and depreciation schedules to assess impacts on the cash flow of the community and/or local utility. Perhaps the state should allow some flexibility within the PCE program so as to encourage such investments that result in lower local costs (and thus also lower PCE costs).

However, to keep all Alaskan's focused on the goal of driving overall costs lower where possible, whether urban or rural, in no cases should Independent Power Producers be allowed to generate and sell lower cost power to the local utility with a margin, only to have that local utility in turn seek PCE payment based inclusion of that margin or something higher than the direct cost of generation.

Benefits:

How Do We Get There?

Implementation Timeline:
The Legislature should fund the PCE program from the PCE Endowment earnings at 100 percent for FY 2024.

Expected Results:

DRAFT

STRATEGY F-3: UTILITY REGULATION

ACTION F-3.4:

Modify 3AAC 46.270 (f) to reduce the ambiguity surrounding avoided cost standards as they apply to new generation assets.

Background:
When Alaska regulated utilities receive RCA approval for construction of new generation assets, the costs of construction and operation of those new assets, when placed in service, are allowed to be recovered over time by the utility from their ratepayers. In some circumstances, utilities have built new generation necessary and approved for their ratepayers, but have overbuilt generation when viewed from an interconnected grid perspective. Statutes and regulations have evolved over time to encourage an interconnected perspective and to regulate large new generation additions generally on an "avoided cost" or less than marginal cost basis.

As utilities plan for the future, including consideration of new renewable generation technologies, decisions will have to be made years in advance of construction and commissioning of the new generation.

If the utilities might receive RCA approval only for new generation that is projected to come online in the future at an avoided cost based upon current generation costs, (for example using Cook Inlet natural gas at $8/mcf), there are likely fewer new generations technologies that could be approved compared to a scenario where avoided cost were based upon projected future generation costs, (for example using imported natural gas at $12/mcf).

While current regulations provide for submission of an Integrated Resource Plan (IRP) that allow utilities for frame proposals in the context of future generation needs and costs, it can take several years to develop and submit an IRP for approval.

Benefits:
Strike the right balance between making well supported decisions and finding the flexibility to make timely decisions so that new generation achieves lower costs for Alaskan's in the long term.

How Do We Get There?
With utility/RCA/public involvement, evaluate and recommend any specific statute(s)/regulations changes that may be appropriate related to RCA review of the timing of utility generation decisions compared to IRP completion.

Implementation Timeline:
2024

Expected Results:
Strike the right balance between making well supported decisions and finding the flexibility to make timely decisions so that new generation achieves lower costs for Alaskan's in the long term.

DRAFT

ALASKA ENERGY SECURITY TASK FORCE
WRITTEN PUBLIC COMMENTS

PUBLIC COMMENT # 1 from Becky Long

I listened to the April 25, 2023 first meeting of the Task Force. Both the Alaska Energy Authority Director Thayer and Chair Dahlstrom asked the question should the state move forward with this project. I respectfully submit that the state should NOT move forward for 3 basic reasons.

1. It is highly questionable that there is enough water in the Susitna River system to generate 300 MW or more of hydropower.

According to the National Oceanic Atmospheric Administration, the arctic is warming more than twice as fast as the rest of the world.
The Susitna glaciers mass loss affects the water resource. A new study by lead scientist David Rounce of Carnegie Mellon University along with our very own Regine Hock of the University of Alaska Fairbanks Geophysical Institute has shown that glaciers will be affected under the global temperature increases of 1.5 degrees C to 4 degree C. Losses are found to be one quarter to nearly one half of their mass by 2100. This new study shows glaciers melting faster than has been anticipated. At our current rate of global warming 2/3 of earth's glaciers could be entirely gone by 2100.

Of course, how fast and how far Alaskan glaciers will retreat is unclear. Glaciologist Mike Loso of the National Park Service in Wrangell Saint Elias National Park is partnering with scientist Rounce to refine their survey model for specific observation changes in Alaska glaciers.
At the very least, the Glacier and Runoff Changes for Susitna River watershed glaciers need reevaluation using up to date scientific methods.

2. Greenhouse gas emissions (GHG) from dam reservoirs, dam infrastructure and permafrost melting shows that hydropower facilities do NOT produce clean zero-carbon energy.

In fact, as a result of a petition of over 100 groups, the Environmental Protection Agency is adding dams and reservoirs as a source category under their Greenhouse Gas Emissions Inventory Program.

Numerous scientific studies over the past 2 decades have shown that dams and reservoirs produce and emit substantial amounts of carbon dioxide, methane and nitrous oxide including significant emissions in the northern latitudes. Regulators, policy makers, utilities and the public have frequently overlooked these emissions and incorrectly assume that hydropower facilities produce clean, zero-carbon electricity. We can no longer afford this lack of awareness that leads to mistaken assumptions about hydropower as a renewable resource category.

With a proposed Susitna Dam reservoir of 40,000 acres inundated and substantial permafrost deposits at the exact site of the dam, the GHG emissions greatly offset any potential carbon reduction benefits.

3. Prohibitive cost of FERC licensing studies to complete the license process must be recognized.

It will take substantially more than $100 million to complete the studies. $100 million was an AEA estimate from 2015.
What this stated cost does not include is the following.

- The 58 FERC approved study data was from 2012-2014. There was no study implementation in 2015-2017. The data is stale and much over a decade old. FERC more than likely will require more recent baseline information.
- 17 study modifications were mandated by the FERC Director.
- 3 of the studies that AEA says are complete have mandated modifications. So they are not completed.
- FERC has stated that the water quality data, ice processes in the sloughs and side channels, river flow access, recreation resources, and river transportation to name just a few have no completed baseline data.
- Also former project Director Wayne Dyok stated in 2014 that on top of the $100 million to complete the studies, $230 million will be needed for detailed engineering and geotechnical information to take to the construction phase.

Taken all this into consideration plus many more factors too numerous to comment here, the State needs to move beyond considering this project.

PUBLIC COMMENT #2 from Joel Groves, Polarconsult Alaska, Inc.

I've reviewed minutes for the the Energy Security Task Force's April 25th meeting. In contemplating the magnitude of the Governor's charge and resultant impacts to the state's energy infrastructure / industry, it occurs to me that low-power HVDC / MVDC (high-voltage / medium voltage direct current) electric transmission technology that was advanced by an R&D project that the Denali Commission funded, ACEP managed, and Polarconsult performed about a decade ago merits consideration by the Task Force.

I think any practical path to achieving 10-cent energy in our villages will need to include (a) increased subsidy beyond PCE and/or (b) significant transmission build to achieve economies of scale and consolidate operations. This is not to exclude the importance of other significant contributing efforts such as local energy solutions, but it is hard to see how the 10-cent goal is achieved absent major subsidy and/or transmission components. If transmission is to be part of the solution, HVDC / MVDC should be part of the transmission discussion as it holds significant promise as a lower-cost solution for interties between rural Alaska communities and / or the Railbelt bulk electric system and rural communities.

Relevant take aways from the Denali Commission-funded R&D project that pertain here include:

1. Low power (500 kW to 5 MW) HVDC / MVDC transmission in remote AK applications holds promise to be more economic than conventional AC tie lines for lines over ~20 miles in length. 20 miles does not get you very far in Bush Alaska.

2. The basic technology is not a barrier to this solution. Suitable commercial converters are probably still not commercially available but they could be developed with capital commitment for R&D - either from government or private investment depending on the market potential / interest.

3. Adapting low power HVDC / MVDC to conform with telecom submarine cable manufacturing practices / capabilities would be a key innovation that holds promise to reduce the capital / installed cost of low-power HVDC / MVDC submarine cables. This is because the comm sub cable manufacturing and installation industry is larger than the power sub cable industry, and offers lower costs. If successful this effort could have profound implications for the economic viability of low-power village interties in southeast Alaska and other coastal regions of our state. Dual-purpose cables (power transmission and broadband fiber) is an obvious synergistic opportunity here.

4. Principal barriers to low power HVDC / MVDC implementation are:

A. Regulatory. National codes adopted by the state and managed by the DOL do not anticipate the unique conditions of remote AK and do not allow elements of HVDC / MVDC installations that would maximize tie line economics. The principal issue here was the "single wire ground return" operational mode of monopolar DC circuits.

B. Industry. The electric utility industry is conservative by nature and advancing this technology from R&D to commercially accepted and financeable (RUS financing vehicles, etc.) merits scrutiny and a holistic strategy / roadmap to success. A robust supply chain for manufacture / life-cycle support of the power converters is a key need as well.

C Advocacy. An appropriate advocate within the utility or state realm needs to be identified if the potential benefits of HVDC / MVDC are to be realized. This Task Force seems well-positioned to identify that advocate and facilitate it being charged with the appropriate mission.

I was Polarconsult's project manager for the prior HVDC R&D project and am available to answer questions about that prior effort. Robert Venables and Gwen Holdman are both current task force members with some direct knowledge of the prior HVDC R&D project.

I've also copied Bill Stamm on this email for general awareness as AVEC was a key supporter of the prior HVDC effort back in the Meera Kohler / Brent Petrie days. Also AVEC perhaps best-understands the economic benefits of village tie-lines generally.

Details on the prior project are available at: http://energy-alaska.wikidot.com/high-voltage-direct-current-transmission

PUBLIC COMMENT # 3, June Okada, Susitna River Coalition

We write with comments in response to the Alaska Energy Security Task Force's subcommittee meeting on September 14th, 2023 as well as the first public meeting on April 25th, 2023.

With Cook Inlet's natural gas contracts ending, reaching the Governor's 10 cents/kWh goal undoubtedly requires the diversification of local energy generation that is local, reliable and affordable as you all collaboratively concluded. We believe developing a sustainable, reasonable, and resilient energy system plan is of the utmost priority for our state. However, including the Susitna-Watana Hydroelectric project in such a plan would be of grave oversight.

The price tag of the proposed project is enough reason to shelve it. The project would cost an estimated total of $5.6 billion ($7 billion 2023 value). However, according to a cost analysis study by Erickson & Associates, this is a serious underestimate. New transmission lines and facilities needed to connect the power from the dam to the existing grid would cost an additional $880 million ($936 million 2023 value). On top of that, the costs to lease or purchase Native Corporation lands that the dam, the reservoir and the transmission lines would exist on have not been calculated or negotiated.

AEA's statement about the FERC licensing costing another $100 million to finish is misleading and inaccurate. According to a letter to FERC on 10/2/2015 from James Balsiger, NMFS Administrator to the Alaska Region, "AEA has stated that at least $100 million in funding would be necessary to complete the

FERC ordered study plan. This amount does not include modifications in study plans, additional study requirements or additional information requiring that NMFS, FERC and their licensing participants may require." Furthermore, former AEA Susitna Project Manager Wayne Dyok stated that there will be an extra $230 million needed for detailed engineering and geotechnical information to take the state to the construction phase.

Inaccuracies of the FERC Licensing Status (slide 10 of AEA's presentation) include:

- '*58 FERC-approved studies; Implemented 2012-2017*': The studies were actually done in 2012-2014. This means they were done almost a decade ago.
- '*19 studies completed*': The 2017 FERC Determination states 3 of those studies have modifications, which indicates non-completion.

Inaccuracies of FERC Study Plan Determination Outcome (slide 11) include:

- '*Confirmed adequacy of environmental studies*' and '*Validated quality of work completed to date*': However, FERC stated (re: the water quality study 5.5) in their 6/22/2017 Director's Determination: "...we find that in its current state, the data are largely unusable, and we are also unable to determine the adequacy of the data to characterize the baseline water chemistry, water quality, water temperature, and groundwater of the Susitna River." Some of the most important studies of water quality and instream flow are incomplete and useless.
- '*Rejected nearly all study modification requests*': There were 37 modification requests and 17 were actually granted by the Director's determination.
- '*Confirmed data gathered thus far is representative of baselines*': The water quality data is futile. There is no completed baseline data for ice processes in the sloughs and side channels, river flow access, recreation resources, river transportation, side slough habitat for the lower river to name a few. FERC also determined that AEA's assertion that the dam will have no effect on lower river flows is premature.

There are many reasons why the Susitna Dam should not be built. A massive 705 ft dam, almost as tall as the Hoover Dam, would undoubtedly cause more harm than good, including severe impacts to 40,000 acres of salmon and caribou habitat, and diminish the local tourism, fishing and hunting businesses. This type of load-following dam releases water from a reservoir to meet energy demands. This hydrological change would adversely impact and could ultimately destroy wild salmon populations. Water released from the reservoir would severely alter the river's flow, causing detrimental effects to salmon spawning and rearing habitat. To understand more about the great risks the dam would pose on our watershed, take a look at this film.

Putting all our renewable energy dependence into one giant project is dangerous. "A mega-project like Susitna Hydro brings grid risk — if it drops offline, abruptly leaving the rest of the grid to make up the difference, a major disaster might occur to the entire system," warns Bob Butera, an engineer who worked on the project in the 80's, in a recent 2023 ADN article. Relying on one mega hydro project that cannot easily shift in response to fluctuations in demand is precarious and potentially disastrous.

Hydroelectric dams are incorrectly labeled as clean carbon-neutral energy sources based on assumptions with poor information. Though categorized as "sustainable" energy facilities, dams emit methane - a harmful greenhouse gas 25 times more potent than carbon dioxide. This greatly offsets the potential carbon emissions that AEA touts the dam will reduce. The EPA now includes reservoirs in their greenhouse gas reports.

The proposed Susitna-Watana project would be an economic disaster, environmentally harmful, and would not help Alaska reach emissions goals. We believe that state and energy policy-makers can and should come up with better solutions to solve the current gas shortage in Cook Inlet and still be able to reach our renewable energy goals for a cleaner, safer and more reliable energy future.

We are happy to share additional resources besides the listed below. Please reach out if you have any questions.
Additional Resources:
Please find attached the following documents to support our opposition to the proposed Susitna-Watana Dam:

Dreams, Risks and Realities: An Economic Analysis of Plans to Dam the Susitna River by Greg Erickson / Erickson & Associates

Susitna-Watana Hydroelectric Project Fact Sheet by the Susitna River Coalition

OPINION: A path forward for Alaska's energy security published in *ADN*, written by Bob Butter / Feb 23, 2023

United States Includes Dam Emissions in UN Climate Reporting for the First Time published in *The Revelator, an initiative of the Center for Biological Diversity*, written by Tara Lohan / Feb 3, 2023

The Super Salmon, a film by Ryan Peterson in partnership with the Susitna River Coalition and supported by Patagonia.

PUBLIC COMMENT # 4 from Katya Karankevich, Alaska Native Health Consortium
I am writing to express support with your draft as it relates to rural initiatives. We most desperately need state financial match in the form of 20-50% so that we can harness the federal dollars for remote communities. Action C-1.1 and C-1.3 are very important. But C-1.2: "developing public/private partnerships for financing" has not ever produced results and will likely never produce results for the vast majority of remote communities. This point should be removed or restated. The factors that make private capital interested in infrastructure projects is generally a financial environment that rural Alaska does not meet. The energy projects that are cost effective at such a small scale usually save as much over their lifetime as they cost, giving them a cost benefit ratio of around 1. This would be a 3% return on a lifetime of a project, given a 25 year life like in the case for solar systems. Returns under 10% do not interest private capital investors, as local private capital sources have told me that they don't choose projects below 14% annual returns. Even the state revolving loan fund is at 6.25% currently. Our investment in making remote community's power more affordable will not come from private capital. The returns are too low and the performance risk is too high compared to larger scale projects on the railbelt. To put effort into finding funding partnerships with funders who want these expected returns will be wasted effort. More effort should be put on local match sources, forgivable loans and state derived match sources, which unlock millions more than they cost in federal dollars.

In our statewide work lowering the costs of providing water and sewer to remote communities through energy projects, we have experienced these hurdles acutely. Please let us know if there is another version of this document that we could provide input on.

PUBLIC COMMENT # 5 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

The Alaska Public Interest Research Group (AKPIRG) is writing today concerning the rescheduling of the Energy Security Task Force's October 24th meeting from its originally scheduled time of 2-4 p.m. to a new time of 5-6 p.m. AKPIRG, established in 1974, advocates on behalf of public and consumer interests. To our knowledge, we are the only non-governmental organization focused on addressing Alaska-specific consumer interest issues.

We appreciate the decision to move the public comment period to a time when more people may be able to participate, and the Task Force's willingness to listen to public feedback on this issue. We are concerned, however, by the decision to only slightly adjust the time to right at the end of many Alaskans' work day and also reduce the meeting's length by half. We understand that attendance to the first public comment session on October 10th was low (6 commenters). However, this was likely the result of several factors—the relatively short amount of time people had to read the lengthy report (it was released to the public in full on October 4th, less than a week before the public comment opportunity); the lack of robust publicity around the opportunity on the 10th; and the difficult time of day when the initial public comment opportunity took place.

There is every reason to believe that public participation on October 24th will be much higher. By the 24th, people will have had more time to read and consider the voluminous draft. News of the opportunity for public feedback is spreading, and the time change will likely allow more people to attend.

We therefore urge you to extend the time scheduled for people to testify on the 24th back to the original two-hour length (optimally from 5 to 7 p.m.). If, for some reason, you are still convinced of low public turnout on that date, at a minimum you should commit to holding the meeting open until all members of the public wishing to speak have been heard.

We understand that the Task Force is also accepting written feedback; however, there are good reasons why the Task Force and other state bodies accept comments in both formats. Many people are more comfortable speaking and asking questions in real time. Oral testimony also allows for a wider range of emotional expression and frequently makes a stronger impact on listeners. Furthermore, it allows citizens to hear what others have to say.

While the decision to move the meeting on October 24th to a later time is a good decision, we urge you in the strongest possible terms to extend that meeting back to its original two-hour length to accommodate as many Alaskans as possible.

PUBLIC COMMENT # 6 from John Neary, Juneau, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.

It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Your draft plan also suggests making better use of existing energy data which is scattered, sporadic, and inconsistent. Better organizing it could also help utilities, agencies, and power producers seek federal funding.

Please also support a pair of Renewable Portfolio Standards (RPS) bills currently in front of the state legislature to require Railbelt utilities to become 80% renewable by 2040. It's great that your draft plan calls for the adoption of an RPS but please don't recommend a weakened Clean Energy Standard (pg. 89) that could include loopholes such as counting waste heat recovered from gas turbines as "clean."

Your recommendation to allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate, analogous to a stamp on a letter, is a very good idea and worthy of support.

Net metering reform (pg. 52, pg. 101) is also a positive recommendation as it will help incentivize smaller investments in solar or in-stream hydro on private lands.

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers.

Unfortunately, your draft mentions only three specific energy projects by name (as in pg. 16, pg. 96):

- Susitna-Watana dam, a $7 billion plan to dam the Susitna River north of Talkeetna. I'm concerned about habitat destruction from this mega-dam that won't necessarily decrease carbon emissions.
- The 807-mile, $44 billion AKLNG natural gas pipeline proposed from the North Slope is another project I oppose as it would lock in our gas reliance and increase our carbon footprint a lot.
- A proposed Dixon Diversion would divert more water into the Bradley Lake dam. Is this really a renewable energy boost that compares to better investments in wind or solar opportunities.? This needs more research and disclosure.

You also recommend (pg. 67) the state create and distribute community outreach and education programs to promote extractive energy projects in rural areas. This program would research how projects "have successfully navigated opposition mounted by local communities and environmental NGOs." What an unfortunate and divisive use of words to describe legitimate opposition to certain projects, and the state should not position itself to deliver what seems like corporate messaging.

Lastly, it is also unnecessarily divisive to recommend skirting the federal roadless rule for development in national forests such as the Tongass and Chugach, especially considering that every exemption to the rule for a renewable energy project has been granted!

In conclusion, good work on your draft plan but please make some changes to improve the details. Renewable Energy is something everyone supports regardless of party affiliation or political leanings. Please operate within that spirit of unity on such an important document.

PUBLIC COMMENT # 7, from Thom Ely, Haines, Alaska

I support renewable energy projects such as wind, solar, geothermal and tidal. I oppose the proposed mega projects for dams and gas pipelines. We must ween ourselves off of fossil fuels to curb global warming. It's time to chart a new course for energy independence.

PUBLIC COMMENT # 8 from Zach Brown, Standford University, Living & Working on Traditional Tlingit lands of Huna Kaaw

Thank you for your hard work in creating a Master Plan for meeting Alaska's statewide energy needs.

I applaud your inclusion of a Renewable Portfolio Standard for Alaska's electricity generation, a Green Bank (aka Alaska Energy Independence Fund), net metering reforms, and workforce development investments.

However, we must drop the AK LNG mega-project. It is 2023, and the world is moving rapidly to renewable energy. Alaska must be a leader, not a laggard in this transition. If we continue to invest in the fuels of the past, our state will be hollowed out by falling demand and left behind as the world moves on.

The only way for Alaska, and America, to achieve true energy independence is to use our abundant renewable energy resources, and ***end the fossil fuel era***. Fossil fuels go on a globalized commodity market over which Alaskans have virtually no control – being dependent on fossil fuels for energy and for revenue leaves us at the whims of petro-dictators like Vladimir Putin and Saudi Princes.

Thank you for your consideration. Please push Alaska toward our energy future, not our energy past!

PUBLIC COMMENT # 9 from Becky Long, Talkeetna, AK

1) The public comment period needs to be extended due to inadequate public outreach.

- Page 16 has listed the proposed Susitna Dam as one of 3 projects that should be decided whether to move forward. This proposed project would affect Trapper Creek, Talkeetna, and Sunshine communities. Their way of life based is based on the natural resources of the Susitna River watershed. The task force should have made outreach to the community councils there.
- The public comment period is too short for a massive subject that affects the whole state. I find myself wanting to understand and comment on many plan components. The short comment period means I cannot do a thorough job.
- The public has been presented with a draft to comment on when the draft is still evolving. The 10/17/23 Railbelt Transmission, Generation and Storage Subcommittee meeting showed that the draft was not complete at that time. The final draft was to be out hopefully by the end of that week. But there was already a public comment hearing based on an early version. This seems sloppy or unnecessarily rushed.

2) Comment- Section 4 Priority A Railbelt Transmission, Generation, and storage.
Action item A-2.3 Progress Known Energy Generation Diversion Projects to a Go/No Go Decisions
The proposed Susitna Dam is one of three projects to consider for a go/no go decision. Details about that proposal are found in Appendix III PRIORITY A. RAILBELT TRANSMISSION, GENERATION, AND STORAGE Appendix III - 8 Action.
The proposed Susitna Dam is NOT a renewable, sustainable clean energy resource.
I respectfully submit that the state should NOT move forward for 3 basic reasons.

    1) It is highly questionable that there is enough water in the Susitna River system to generate 300 MW or more of hydropower.

According to the National Oceanic Atmospheric Administration, the arctic is warming more than twice as fast as the rest of the world. Glaciers provide a significant portion of the total runoff in the Upper Susitna River drainage. It is well documented that these glaciers are currently retreating.

The Susitna River headwater glaciers' mass loss will affect the water resource of the whole Susitna River. In 2013, an AEA literature review study stated that Alaska glaciers exhibit the highest glacier wastage rates on earth. But there are few studies to quantify those glacial impacts on Alaskan rivers. Much of the literature review was based on old studies from the 1980s. A 1981 Alaska Power Authority study showed that the gauging stations on the Maclaren River near Paxson and the Susitna River near Paxson covers 20% of the basin area. And that glacier runoff accounted for 34% of the runoff in the basin. We need updated information from more than 2 gauging stations.

A new study by lead scientist David Rounce of Carnegie Mellon University along with Regine Hock of the University of Alaska Fairbanks Geophysical Institute has shown that glaciers will be affected under the global temperature increases of 1.5 degrees C to 4 degrees C. Losses are found to be one quarter to nearly one half of their mass by 2100. This new study shows glaciers are melting faster than has been anticipated. At our current rate of global warming 2/3 of earth's glaciers could be entirely gone by 2100.

Glaciologist Mike Loso of the National Park Service in Wrangell Saint Elias National Park is partnering with scientist Rounce to refine their survey model for specific observation changes in Alaska glaciers. How fast and how far will Alaskan glaciers retreat can be modeled.

2) Greenhouse gas emissions (GHG) from dam reservoirs, dam infrastructure and permafrost melting shows that hydropower facilities do NOT produce clean zero-carbon energy. In fact, as a result of a petition of over 100 groups, the Environmental Protection Agency is adding dams and reservoirs as a source category under their Greenhouse Gas Emissions Inventory Program.

Numerous scientific studies over the past 2 decades have shown that dams and reservoirs produce and emit substantial amounts of carbon dioxide, methane and nitrous oxide including significant emissions in the northern latitudes. Regulators, policy makers, utilities and the public have frequently overlooked these emissions and incorrectly assume that hydropower facilities produce clean, zero-carbon electricity. We can no longer afford this lack of awareness that leads to mistaken assumptions about hydropower as a renewable resource category.
With a proposed Susitna Dam reservoir of 40,000 acres inundated and substantial permafrost deposits at the exact site of the dam, the GHG emissions greatly offset any potential carbon reduction benefits.

3) Prohibitive cost of FERC licensing studies to complete the license process must be recognized. It will take substantially more than $100 million to complete the studies. $100 million was an AEA estimate from 2015. former project Director Wayne Dyok stated in 2014 that on top of the $100 million to complete the studies, $230 million will be needed for detailed engineering and geotechnical information to take to the construction phase.

What the AEA's stated cost does not include is the following:

- The 58 FERC approved study data was from 2012-2014. There was no study implementation in 2015-2017. The data is stale and much over a decade old. FERC more than likely will require more recent baseline information.
- 17 study modifications were mandated by the FERC Director.
- 3 of the studies that AEA says are complete have mandated modifications. Thus, they are not completed.

- FERC has stated that the water quality data, ice processes in the sloughs and side channels, river flow access, recreation resources, and river transportation to name just a few have no completed baseline data.

Large hydropower projects like Susitna disrupt ecosystems of the entire watershed.

3) Comments on Susitna Dam Action plan in Appendix III

The stated 2014 cost in the appendix for construction is estimated to be $5.6 billion in 2014 dollars. What is the estimate in 2023 dollars?
By some reckoning, the cost appears to me to be at least $8.26 billion in current costs. This includes $936 million for two redundant transmission lines planned and at least $330 million in 2014 dollars to complete the studies to get to the licensing stage.

The project has been in indefinite abeyance since 8/14/2016, not 2017, at the request of Alaska Governor Walker due to budget shortfalls. The state was shutting the project down due to the budget crisis.

4) Large hydro projects are not necessary to achieve a renewable portfolio standard goal.

Preliminary findings of an upcoming in-depth National Renewable Energy Lab (US Department of Energy) study were presented recently at the REAP wind conference. The study examines the potential costs of an 80% renewable target by 2040. This is the renewable energy portfolio standard proposed. The upcoming study concluded that the most cost-effective option for the railbelt to add renewable energy is to be at 78% renewables by 2040. This could be achieved with just wind and solar and with no large hydro.
This would result in an average savings of $6 per member owner per month across the railbelt.

I would hope that the task force members would pay attention to this study and its conclusions and incorporate the data into the Final Plan.

PUBLIC COMMENT # 10, June Okada, Susitna River Coalition

The Susitna River Coalition (SRC) supports the 312-mile free-flowing Susitna Watershed. The Susitna River is fundamental to the lives and livelihoods of our residents. We are committed to protecting a vibrant river and the fishing, hunting, recreation, and tourism opportunities the region provides. We are commenting on behalf of our more than 14,000 individuals, groups, and businesses who support our work.

We are specifically commenting about two sections in the draft plan. A-2.4.1 and E-2.3 in the Alaska Energy Security Task Force's Statewide Energy Master Plan Draft.

Re: Alaska Energy Security Task Force Report Draft (Alaska Statewide Master Plan Draft 100223) *A-2.4.1 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision - Susitna-Watana (pg. 40)*

The Susitna-Watana Hydroelectric project (Su Dam) should not move forward for feasibility assessments, and should not be built.

It's expensive: The Su Dam is estimated to cost $7 billion dollars (2023 value) according to a presentation earlier this year by the Alaska Energy Authority (AEA). This is a gross underestimation as it does not consider the new costly transmission lines that would have to be built, nor does it include the costs associated with purchasing or leasing Native Corporation lands the dam would exist on. In addition, State funds would also be required to mitigate damages to the Susitna salmon fisheries. These would all add a significant amount to the already hefty price tag.

It's not clean energy: Mega-dams are not carbon-neutral, and can not be considered clean energy. Reservoirs release methane, and the EPA now includes dams in their greenhouse gas reports including disparaging claims that large hydro projects reduce carbon emissions.

It's risky: With our rapidly changing climate, Alaska's glaciers are melting at an alarming rate and causing river flow pattern changes, extreme floods and droughts are more frequent, and water availability fluctuates unpredictably. Without an accurate understanding of the timing and magnitude of deglaciation, a dam this size and scale has uncalculated risks and is inadequately reliable and unsafe.

It's damaging: Above all, the Su Dam would embody the collapse of Southcentral Alaska's river life, its economy and ecology, the eradication of its unique ecosystems, the destruction of one of Alaska's most valued salmon spawning and rearing habitats, and the flooding of 40,000 acres teeming with wildlife.

Re: *E-2.3 Adopt a Renewable Portfolio Standard (RPS) (pg. 73)*
The SRC supports passing the RPS. This bill would enhance energy security, reduce fuel prices, and promote local job growth. According to a new National Renewable Energy Laboratory (NREL) economic wind study,, we can achieve 78% renewables by 2040 by relying solely on new solar and wind infrastructure and no large-hydro projects. We support the RPS over the Clean Energy Standard (CES). This watered-down version of the bill includes unproven technologies such as carbon-capture, and waste heat recovery, which is already widely generated by utilities and relies on natural gas.

Lastly, the two public comment opportunities nor this report draft has been widely publicized . If public input is to be accounted for and seriously considered, which it most certainly should, there should be more effort to notify the general public about these important decisions and give them sufficient time to respond.

Thank you for taking the time to read and consider our comments.

PUBLIC COMMENT # 11 from Mary Burtness
First off I am in favor of moving away from an increase fossil fuel dependency. This plan should consider the move towards renewables in an orderly and timely manner. It is the future, and although our state depends on fossil fuels, we do not need to be using them here in this polar region, where the impact of the climate change is happening here faster than anywhere else

I believe at CES is not going to move us in that direction. We need at Renewable Portfolio standard to give us a road map to take advantage of the cost effectiveness future of renewables.

Drop the AKLNG as is it is not a short term expenditure of money when your goal is to make sure these do not hinder the longer term expenditures. This cost will lock us into more fossil fuel and not help in diversifying our energy use, a focus of the plan.

I am very glad you are including a Green Bank to help expedite financing renewable projects.

Workforce development is a necessary component for future jobs that will keep our youth in the state, as well as re-tool the fossil fuel industry workforce.

I hope you will extend the time to finalize this plan as you only gave yourself a few days to go over the public comments (as well as gather public comment). With this small amount of time, it feels like public comment is not very important to you.

Thank you for this opportunity to comment.

PUBLIC COMMENT # 12 from Pamela Hays, Cindy Atcheson, Katie Tongue, Kelsey Shields and Laura Rhyner, Kenai Peninsula, Alaska

We the undersigned are writing regarding the Statewide Energy Master Plan.

We are a group of Alaskans from communities across the Kenai Peninsula who care deeply about our state. We look forward to a future in which the pollution of our air, water, and land has stopped.

As you know, Hilcorp is not renewing any of its contracts with our electric utility Homer Electric Association. Given the dwindling supply of oil and gas, it only makes sense that the state increase investment in alternative energy sources. Affordable energy options would benefit many Alaskans, as would training and jobs in the alternative energy sector. We strongly support clean energy alternatives and encourage you to do so too.

PUBLIC COMMENT # 13 from Connie Markis, Anchorage, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.
It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Your draft plan also suggests making better use of existing energy data which is scattered, sporadic, and inconsistent. Better organizing it could also help utilities, agencies, and power producers seek federal funding.

Please also support a pair of Renewable Portfolio Standards (RPS) bills currently in front of the state legislature to require Railbelt utilities to become 80% renewable by 2040. It's great that your draft plan calls for the adoption of an RPS but please don't recommend a weakened Clean Energy Standard (pg. 89) that could include loopholes such as counting waste heat recovered from gas turbines as "clean."
Your recommendation to allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate, analogous to a stamp on a letter, is a very good idea and worthy of support.
Net metering reform (pg. 52, pg. 101) is also a positive recommendation as it will help incentivize smaller investments in solar or in-stream hydro on private lands.

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers.

Unfortunately, your draft mentions only three specific energy projects by name (as in pg. 16, pg. 96):

1. Susitna-Watana dam, a $7 billion plan to dam the Susitna River north of Talkeetna. I'm concerned about habitat destruction from this mega-dam that won't necessarily decrease carbon emissions.
2. The 807-mile, $44 billion AKLNG natural gas pipeline proposed from the North Slope is another project I oppose as it would lock in our gas reliance and increase our carbon footprint a lot.

3. A proposed Dixon Diversion would divert more water into the Bradley Lake dam. Is this really a renewable energy boost that compares to better investments in wind or solar opportunities.? This needs more research and disclosure.

You also recommend (pg. 67) the state create and distribute community outreach and education programs to promote extractive energy projects in rural areas. This program would research how projects "have successfully navigated opposition mounted by local communities and environmental NGOs." What an unfortunate and divisive use of words to describe legitimate opposition to certain projects, and the state should not position itself to deliver what seems like corporate messaging.

Lastly, it is also unnecessarily divisive to recommend skirting the federal roadless rule for development in national forests such as the Tongass and Chugach, especially considering that every exemption to the rule for a renewable energy project has been granted!

In conclusion, good work on your draft plan but please make some changes to improve the details. Renewable Energy is something everyone supports regardless of party affiliation or political leanings. Please operate within that spirit of unity on such an important document.

PUBLIC COMMENT # 14 from Terry Johnson, Anchorage, Alaska

I recently moved from Massachusetts to Anchorage and am shocked and surprised that Anchorage's future energy needs are at risk. We need a comprehensive plan to meet our short term and long term energy goals using renewables as much as possible. Thank you.

PUBLIC COMMENT # 15 from Connie Markis, Anchorage, Alaska

I would like to comment on the Statewide Energy Master Plan that is currently being reviewed. I agree with it in general Two things need more improvement in my opinion. One is a stronger focus on building an infrastructure to generate power through renewable technologies immediately. We only need to look at Typhoon Merbok in western Alaska last year to confirm that climate change is real and not going away. And we need to realize that continuing to burn fossil fuels only adds to the problem. Second is I disagree with unifying all of the different electric transmission systems along the Railbelt under the ownership of a single entity. Monopolies do not always act in the best interests of the people they are supposed to serve and diverse voices need to have input so we move away from continuing to rely on oil, gas and coal instead of turning to renewable energy sources that don't contribute to carbon pollution.

PUBLIC COMMENT # 16

Thank you for taking the time to read my comments concerning the proposed Statewide Energy Master Plan for Alaska.

There are number of provisions in this document that are amazing.

Please continue to support a Renewable Portfolio Standard, not a Clean Energy Standard (which is a misleading and inaccurate name).

Please invest in tidal energy. Cook Inlet alone has enough potential tidal energy to power ALL of Alaska, so if we can make that work, we could still be energy exporters (think electrolysis and green hydrogen).

There are also several that are deeply concerning. The continued investment in fossil fuels is a large mistake.

I ask for a No-Go Decision on the AKLNG Project and North Slope Natural Gas Bullet Line. A recent study by NREL has shown that the most economical way forward for Alaska is to have 78% renewables by 2040. Investing in the AKLNG and North Slope gas line will make that nearly impossible to achieve; further, investing in those WILL hurt our economy.

I ask that AIDEA (and AEA members who are also on the AIDEA board) not be involved whatsoever. AIDEA has a history of making very bad investments that benefit oil and gas companies while detrimenting Alaskans. Having AIDEA involved will likely have the same exact outcome.

PUBLIC COMMENT #17 from Gail Heinman, Anchorage, AK

I oppose any further consideration of construction of the Susitna-Watana Dam.

On pages 16-17 your report says "the Subcommittee supports taking these projects through feasibility such that a "go/no-go" decision can be made.", where one of those projects is the Susitna-Watana dam. The Susitna-Watana dam has already been extensively studied, shown to not make economic sense, and to be extremely harmful to the environment.

I am a long-time Alaska resident, since 1981, and plan to stay. I do not want to pay the higher electric rates, and lose the salmon and caribou and bear, to the destructive Susitna-Watana dam. I don't want the threat of a huge dam collapsing in a big quake (more faults have been discovered in the area recently). I don't want the methane emissions from the reservoir (a recently discovered global problem).

I don't want any more State money, or any money, spent on studying the dam yet again. And I do not want it built, study or no study. The cost is too high, both economic and environmental.
And chances are, the cost of construction would be twice what is estimated (Ansar, A. et al., 2014. "Should we build more large dams? The actual costs of hydropower megaproject development." Energy Policy. University of Oxford.).

PUBLIC COMMENT # 18 from Lisa Behnken, Alaska Longline Fisherman's Association

The Alaska Longline Fishermen's Association (ALFA) strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the reinstating of the Alaska Energy Security Task Force. This proactive step towards a comprehensive statewide energy plan is critical to meet the challenge of climate change while safeguarding community resiliency in Alaska.

The Alaska seafood industry is an economic pillar of our state's economy, especially in coastal Alaska. It is the largest private sector employer in Alaska and generates $5.7 billion annually in economic activity while contributing 60% of the United States' wild seafood production. Alaska' seafood industry includes over 100 large seafood processing plants in 40+ of Alaska's coastal communities, supporting a fleet of 9,000 vessels using more than 200 million gallons of diesel and gasoline fuel annually.

Our industry depends on energy to operate, and ALFA is eager to lead the nation's seafood industry to fuel efficiency and decarbonization. We recognize the threat climate change and ocean acidification pose to our industry and our State, and we are actively pilot testing hybrid equipment while researching next generation renewable energy. We recently received a Department of Energy award to convert two commercial fishing boats to hybrid propulsion and one mariculture boat to full electric. ALFA is committed to fleet decarbonization, and we recognize the need for shoreside infrastructure to co-evolve in support.

In many coastal communities, the seafood industry serves as an anchor buyer of utilities, which justifies large-scale capital investment in power generation and lowers electrical prices for coastal residents. That investment supports harbors and fishing fleets, providing the primary employment and economic opportunity in most coastal communities. Harvesting and processing go hand and hand, and the evolution to renewable energy must support both through a strategy that is also compatible with the remote and isolated locations characteristic of Alaska's coastal fishing communities.

Given the considerable energy consumption and the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, ALFA strongly recommends that the seafood industry be a stronger focus and better represented in the Task Force's deliberations and recommendations.

Our recommendations for the Task Force's consideration include:

1. Elevate Alaska's Seafood Industry:
    - Welcome a representative from the Alaska commercial fishing sector onto the Task Force to provide nuanced insights from our complex and diverse industry.
    - Facilitate presentations from key stakeholders within our industry to describe how energy impacts costs, profitability, and investment decisions.
    - Research and describe the significant role of the Alaska seafood industry in coastal communities within the energy discussion framework.

2. For Priority B: Coastal Generation, Distribution, and Storage – Action Tracking Sheet: • Highlight the importance of initiatives B3.1, B4.4 & B4.5 to the seafood industry.
    - Advocate for the exploration and establishment of public-private partnerships to bolster energy infrastructure.
    - Offer guidelines on leveraging local, state, and federal funds for financing new renewable energy projects.
    - List vessel and processing plant decarbonization and efficiency as a long-term goal in the energy plan draft.

ALFA anticipates that these considerations will enrich the statewide energy plan while also securing robust alignment with the needs of coastal communities, supporting community resilience, and fostering a sustainable economic trajectory for Alaska's maritime sector. We are eager to work with the Alaska Energy Security Task Force and believe you will find the fishing sector to be among the early adapters of renewable energy options.

PUBLIC COMMENT # 19 from Louis Dupree – Homer, Alaska

Every flat roofed building on the rail belt (Costco, Sams club, Outdoor World, and all the school buildings should have solar panels.

PUBLIC COMMENT #20 from Hannah Wilson, Alaska Fisheries Development Foundation, Inc.

The Alaska Fisheries Development Foundation (AFDF) strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the Alaska Energy Security Task Force. This proactive step towards a comprehensive statewide energy plan is critical for Alaska's sustained economic growth and community resiliency.

The Alaska seafood industry is a significant pillar of our state's economy, especially in coastal Alaska. It is the largest private sector employer in Alaska and generates $5.7 billion annually in economic activity while contributing 60% of the United States' wild seafood production. The industry's operations across 100+ large seafood processing plants in 40+ of Alaska's coastal communities, and a fleet of 9,000 vessels using more than 200,000,000 gallons of diesel and gasoline annually, underscore its substantial role in our state's energy landscape.

Our industry serves as an anchor buyer of utilities in coastal communities, which justifies large-scale capital investment in power generation and drives down electrical prices for coastal residents.

Given the considerable energy consumption and the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, we believe that a more pronounced representation and consideration of the seafood industry in the Task Force's deliberations and recommendations are both necessary and beneficial.
We look forward to the opportunity to contribute to the meaningful discussions and actions of the Alaska Energy Security Task Force. Your consideration of our recommendations is highly appreciated.

PUBLIC COMMENT #21 from Joel

Hi, my comment is to think global and act local, i.e. to align the overall goal of the plan with the Paris agreement and UN Sustainable Development Goals. I can provide more detail if needed. Thanks for your time and consideration in this planning process!

PUBLIC COMMENT # 22 from Chris Rose, REAP

Renewable Energy Alaska Project (REAP) respectfully submits the following abbreviated comments to the draft recommendations made by Governor Dunleavy's Energy Security Task Force (Task Force).

REAP was founded in 2004 to increase the development of renewable energy and promote energy efficiency in Alaska through collaboration, education, training and advocacy. REAP has more than 65 dues-paying member organizations and is governed by a 21-member board elected by that membership.

Priority A: Railbelt Transmission, Generation and Storage

1) The Railbelt Reliability Council (RRC) has been formed via state law and certificated by the Regulatory Commission of Alaska (RCA) to develop Integrated Resource Plans (IRPs) for the Railbelt. Those IRPs will determine the best "value" for Railbelt consumers through an economic and technical feasibility analysis. Unfortunately, the Task Force has not had the time or resources to do the thorough technical and economic analysis required to determine which asset investments have the best benefit-to-cost ratio.
2) The goal of 10 cent/kW power is unattainable with the current structure of four coops and their respective overhead and fixed costs unless and until those fixed costs can be spread over many, many more kWh sales. Strategies to increase the electric load in the Railbelt is so far underdeveloped, and in any case would likely take decades to achieve.
3) All new generation and transmission project decisions in the Railbelt moving forward should be based on sound and thorough technical and economic analysis through an IRP to ensure that Railbelt consumers do not have to pay for more infrastructure than necessary, and to protect consumers from the volatility of the world fossil fuel markets.
4) With the importation of expensive LNG looming in as little as five years, diversification of the Railbelt generation portfolio needs to be a short-term, not a long-term, objective.
5) A study currently being done by the National Renewable Energy Laboratory to analyze the currently proposed Railbelt Renewable Portfolio Standard (RPS) is expected to demonstrate that a combination of solar, wind and energy storage is the least-cost pathway going forward for Railbelt consumers. It is anticipated that the study will be published in December 2023.
6) With the rapid adoption of electric vehicles and air-source heat pumps around the world and in the United States, the Railbelt's ground transportation and space heating needs are likely to increasingly be met by those electric-based technologies, which could also be powered by local, fuel-free renewable energy.
7) As the Railbelt's renewable energy sector grows, it will create a host of new job opportunities that would not be created if the region continues to rely on natural gas to generate electricity.

8) More than two-thirds of the Railbelt's population lives in either Chugach Electric Association (CEA) or Matanuska Electric Association (MEA) service territories. There a very few, if any, transmission constraints between those two service territories that currently prevent a more rapid uptake of renewable energy for more than half the state's population. The RCA has ordered those two utilities to operate in a "tight power pool", something that would improve the efficiencies in the Railbelt and save consumers money.
9) If transmission assets are pooled into a new entity, that entity should be independent, not a current asset owner like the Alaska Energy Authority (AEA).
10) If a new transmission entity is formed, either it or another new entity like an independent system operator (ISO) must assure that the grid is operated on the basis of merit-order, economic dispatch. Without merit-order economic dispatch, Alaska consumers will not reap the benefits of unified transmission.
11) If new natural gas resources are brought to the Railbelt market through any size of pipeline from the North Slope, there is no guarantee that the price of that gas will be attractive for Railbelt consumers. That gas price risk, along the fact the Alaskans have been waiting for a gas line for decades, makes future reliance on natural gas for Alaskan consumers a riskier proposition than instead aiming at a future where Alaskans are able to rely on local, stably-priced renewable energy for their electric, heating and transportation needs.
12) A plan to rely on renewable energy is much more likely to attract new investment to the state than a plan to rely on natural gas from the North Slope. It is clear that there are more unknowns with a natural gas future. A renewable future would likely include attracting industry to make carbon-free hydrogen and synthetic fuels, which could increase the region's electric load and drive down consumer prices.

Priority B: Coastal Generation, Distribution and Storage.

1) REAP agrees with the Task Force's objective of integrating and promoting more air source heat pumps to reduce the heavy energy burden currently put on consumers in coastal Alaska by relying on imported heating oil.
2) REAP also supports the objective to electrify the Alaska Marine Highway fleet to stabilize prices and reduce emissions.
3) REAP is not sure what "light" integrated resource planning is.[1] Integrated Resource Plans will deliver more to Alaskans if the technical and economic analysis is thorough, and the there is some type of requirement to follow through with the IRP's action plan.
4) Hydropower must be compared on an "apples to apples" basis with other generation alternatives in IRPs.

Priority C: Rural Generation, Distribution and Storage

1) REAP believes there should be more of an emphasis on lowering costs through energy efficiency programs, incentives and subsidies
2) Another important way to reduce energy costs in rural Alaska is by reducing operations, repair and maintenance costs, and REAP supports state investments in workforce training and local capacity building to ensure that projects are fuel efficient, and have high availability rates.

Priority D: State Energy Data

1) REAP agrees that better data acquisition, analysis and sharing is one key to the success of future energy projects in Alaska. REAP believes the state should invest in ensuring that that data is centrally located and managed to make it useful. Without measuring current energy

projects, it will be much more difficult to improve and optimize them over time, or to build projects that are based on past learnings. This investment could include mandatory instrumentation of all projects funded by the state through the Renewable Energy Fund (and other sources) to collect and deliver data for a period of at least 10 years. REAP also agrees that it is in the state's best interest to improve data acquisition, coordination, analysis and sharing among other energy related programs and agencies of the state, including the RCA and PCE. Finally, REAP supports a statutory requirement to annually update the Alaska Energy Statistics report.

Priority E: Incentives and Subsidies

1) REAP believes the disparities in power costs can be alleviated with heavy investments in energy efficiency. This can be done through state and federal grants, as well as through affordable loans from a proposed state green bank.
2) PCE rules should be aligned with the Renewable Energy Fund so that communities with successful renewable energy projects are not penalized through lower PCE subsidies.
3) REAP supports the establishment of a "new and improved" Emerging Energy Technology Fund (EETF). There are many new energy technologies being researched and developed today that could benefit Alaska, especially in rural communities where energy costs are so high. Subsidizing technologies that are not yet commercial, but could be within five years, could be a sound state investment if done thoughtfully.

Priority F: Statues and Regulations

1) Please see REAP comments under Priority A, above.
2) REAP supports a budget for the RCA that reflects that agency's need for highly competent technical analysts that typically command high wages in the private sector.
3) REAP supports the preservation of the PCE endowment fund.

4) REAP supports the establishment of an RPS, with a focus on rapidly advancing renewable energy projects in the Railbelt to displace expensive natural gas, rather than a clean energy standard.

PUBLIC COMMENT # 23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

On behalf of the Alaska Public Interest Research Group (AKPIRG), we submit the following comments on the draft Statewide Energy Plan. We appreciate the work this Task Force has done to centralize and move forward energy planning for Alaska, and for taking public comments. However, we have concerns about the Task Force's ability and appetite to deliberately incorporate any public feedback while revising this draft plan, given the rushed timeline and opaque public notice. To that end, the action numbers in this comment refer to the Oct. 3 draft, since it was not feasible to re-do our analysis for the Oct. 20 draft.

AKPIRG, established in 1974, advocates on behalf of public and consumer interests. To our knowledge, we are the only non-governmental organization focused on addressing Alaska-specific consumer interest issues. Although we are seated as the small consumer advocacy member on the Railbelt Reliability Council (RRC), this comment is AKPIRG's alone and does not represent the views of the RRC or its Board of Directors whatsoever.

I. Open and meaningful public process

AKPIRG advocates for open processes that allow Alaskans to meaningfully participate in the decisions that determine their futures, and with this concern we have serious misgivings about the Task Force's planning process. This public comment opportunity and the previous one on Oct. 10 were communicated to the public only via the state online public notice system on Oct. 4 and the Alaska Energy Authority's social media on Oct.6, allowing barely a week for the public to read, digest, and create comments on the complex, vague, and incomplete 130 page draft plan. For such a far-reaching report, rationalizing that minimum publication requirements were met or expecting everyday people to have been tracking the minutiae of all Task Force meetings is a disservice to Alaskans. Robust publication of the report and multiple public comment opportunities could have included supplemental notice in newspapers, on local radio, via press releases as with the Task Force's creation, or even social media accounts created specifically for this Task Force and public engagement efforts.

The plan document itself has also undergone piecemeal editing during the period when the public is meant to be considering their response to it. Notably, the second draft version – posted with no public notice 1 on Oct. 20 (the Friday before the upcoming comment opportunity) – replaces Action E-2.3, "adopt a renewable portfolio standard" in the Oct. 3 draft, with a recommendation for a similar but substantively different "clean energy standard" in the Oct. 20 draft. The call for a Renewable Portfolio Standard is nowhere in the Oct. 20 draft. With the Task Force already making such sweeping and under-the-radar decisions on the contents of the report, public comments are rendered meaningless.

Per the slides presented at the Task Force's Oct. 3 meeting, the group intends to vote on final recommendations from the subcommittees in 7 days, on Oct. 31, so that consultants can prepare a final draft by Nov. 10 for board approval on Nov. 17. If the Task Force expects substantive public comment on this lengthy and complex document and seriously intends to incorporate public feedback into the final plan, it has given itself a very short window to work in. The Task Force hasn't allotted sufficient time for either soliciting useful public feedback or for using that feedback in any meaningful way. The fact that edits to the plan are already well underway after minimal comment on Oct. 10 shows a lack of real intent to involve Alaskans in consequential energy decisions.

II. Omissions & Further Considerations

The Railbelt-relevant sections of the plan have an unwarranted and glaring omission: there is no explicit mention in the Oct. 3 draft of the Railbelt Reliability Council (RRC) or its own ongoing Integrated Regional Planning (IRP) process, and only passing mention in the Oct. 20 draft without real consideration. The RRC's IRP is an open and transparent effort to evaluate with depth and technical rigor the best energy options for the Railbelt. Moreover, the RRC was established with particular safeguards 2 to ensure that directors act independently from users, owners, and operators of the Railbelt grid; there is reasonable notice and opportunity for public comment, due process, openness, and balancing of stakeholder interests; avoidance of undue amplification or attenuation of stakeholder interests; and consideration of whether certain stakeholder class members stand to profit from construction of new facilities used to provide electrical service, among other protections—directly in contrast to the creation of the Task Force, which is largely composed of similarly situated private industry members or state agencies but not consumer or environmental interests as in the RRC. The legislature mandated that an Electrical Reliability Organization carry out the IRP process in SB123, and in 2022 the Regulatory Commission of Alaska certified the RRC as the organization to do it.

In creating the IRP, the RRC would compare the economic trade offs of different options for meeting our transmission and generation needs -- an already-existing mechanism that could avoid the danger of bad investments being made in an absence of public oversight. In contrast, the draft Statewide Energy Plan was created through an opaque and politically influenced process and contains particular actions that risk spending public resources on poorly conceived energy projects if no transparency and accountability measures are included or are simply performative. Action B-1.4, which would create a transmission fund within the Alaska Energy Authority; B-3.1, which calls for, among other things, a public/private hydropower investment 2 AS 42.05.765; 3 AAC 46.060. fund; E-5.1 and E-5.4, creating an energy incentive program; and E-5.5, creating tax exemptions for generation and transmission investors; all require definite mechanisms for public transparency.

In the Oct. 20 draft, the existence of the RRC IRP is mentioned in Action F-3.4, which only notes that the process may take several years and recommends the RCA review time considerations. F-3.5 recommends modifying a section of the RRC's underlying statute, AS 42.05.760, "to ensure alignment with unified Railbelt transmission authority." It does not specify how the current RRC is misaligned or incompatible with unified transmission.

III. Items of concern

Action A-2.3 recommends continuing public investment in the Susitna-Watana dam (for which the plan recommends $50 million to $100 million for finishing the FERC process), AKLNG Project, and Dixon Diversion. These potential investments should also be considered alongside alternative options in a rigorous and open planning process such as the IRP mandated under SB123. We support state investment in projects that are economic, low-impact, and do not lock Alaskans into further dependence on finite and high-cost natural gas. Firm transparency and accountability measures are essential to ensuring that publicly funded energy projects meet these criteria.

Action C-3.3, a "community outreach and education program to combat NIMBYism in energy projects in rural areas" is an activity that the state should not subject its citizens to or spend its resources on. Studying and imitating the tactics of projects "that have successfully navigated opposition mounted by local communities and environmental NGOs," as recommended in Appendix II is neither an appropriate activity for the state nor an impactful solution for our energy problems. Community engagement and power in difficult decisions -- such as the hydropower or mining activities specifically mentioned in association with this action in Appendix II -- is a necessary function of civil society in a democracy. The urge to "combat" it with state-delivered propaganda is a fundamentally authoritarian one that has no place in any plan in Alaska.

IV. Endorsed recommendations

Among the recommendations that AKPIRG would like to see adopted in the final plan and executed by the legislature or executive branch are those in Action B-1.5, especially the establishment of a Data Department at the Alaska Energy Authority and a data governance committee for establishing data collection protocols. Having easy access to a body of consistent data on our energy system not only enables better decisions, but would help utilities, agencies, and IPPs seek federal funding for their projects, and allow researchers and the public insight into the energy options that best meet our needs. These benefits depend on the data collected and organized by AEA being open to the public, and we urge for language to this effect to make this explicit in the Statewide Energy Plan. 3 Action F-1.6 (F-3.1 in the Oct. 20 draft), "provide budgetary support to the Regulatory Commission of Alaska," should be a high

priority for decision makers acting on this plan. A lack of staff capacity likely contributed to the RCA's inattention in this summer's 400% rate increase for the residents of Aniak, which the RCA commissioners unanimously approved in May. Though the Commission later mitigated the impact on Aniak residents, it could have avoided subjecting them to the increase in the first place had there been more capacity devoted to the case and to the underlying problem with Aniaki's utility. Currently the RCA is considering whether to grant the Alaska Power Company a 25% rate increase, which deserves a degree of regulatory scrutiny the RCA does not seem to be currently equipped for. Future regulatory matters emerging from our changing energy system will require even greater capacity.

V. Conclusion
Thank you for considering our comments. We expect future energy decisions will be made with more substantial outreach to the public and a more meaningful consideration of feedback.

PUBLIC COMMENT # 24 from Tim Hinterberger, Anchorage, AK
Thank you for this opportunity to comment on the Alaska Energy Security Task Force Statewide Energy Master Plan. I'm sure my thoughts align with those of many other concerned citizens you're hearing from. **The draft plan contains both proposals that are highly beneficial to the energy future of Alaska and ones that should be avoided.**

TO AVOID:
1. Susitna-Watana dam. In addition to habitat destruction, mega-dams may not lead to a net decrease in carbon emissions. Instead, organic matter that builds up in reservoirs decomposes and emits the powerful greenhouse gas methane, potentially hurting the climate more than would the fossil fuel carbon emissions prevented.
2. The AKLNG pipeline from the North Slope, which would lock in our gas reliance and substantially increase Alaska's carbon impact on the world.
3. The Dixon Diversion hasn't received adequate public scrutiny.
4. Community outreach and education programs to promote extractive energy projects in rural areas are not an appropriate part of an unbiased, science-based energy policy.

HIGHLY BENEFICIAL:
1. Renewable Portfolio Standards (RPS) will be a strong motivator for Alaska utilities to invest in clean energy.
2. Green Bank state financing institution for sustainable energy as considered in SB 125 and HB 154.
3. Making better use of already existing energy data to guide decisions with a full and consistent picture of how Alaska uses energy, and better equip utilities, agencies, and power producers to seek federal funding (pg. 31, 106-108).
4. "Postage stamp" transmission rates that would allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate.
5. Net metering reform (pg. 52, pg. 101).
6. Training the growing renewable energy workforce (pg. 67, 77, and 110).

The Task Force has an enormous responsibility not only for the future of Alaska, but for all the occupants of the planet. I urge you to take an extremely long view and to think about what we owe to the many generations that will follow us.

PUBLIC COMMENT # 25 FROM Erin Mckittrick
Please consider these comments on the draft task force report:

This task force process seems explicitly designed to discourage and ignore public feedback. The draft plan is a very long and complex document, released with inadequate explanations of many of the actions, minimal public notice, little time for review, and only two public meetings. If that wasn't bad enough, the 142 page draft was modified on October 20 -- 4 days ago -- on the Friday before a Tuesday meeting. I suspect many commenters haven't seen the latest draft, and no one has had the opportunity to review it in the depth that it deserves.

Given that, I'm going to focus my comments on a key piece of math that seems to be ignored in this plan. The stated goal is to reduce costs to Alaskans. Many of the actions involve spending large amounts of Alaskans' money. Clearly, this should require thorough cost/benefit analyses to ensure that the chosen subsidies provide the largest net benefit to Alaskans -- or indeed -- to ensure they provide any benefit at all. This was not done. Several of the top line actions in the Railbelt section (Actions A 2.1-2.4) involve putting money towards projects that would require multi-billion dollar state subsidies to be built: the $8.8 billion bullet line and the Susitna dam that was estimated to cost over $5.6 billion in 2014 -- certainly much higher now with inflation and supply chain issues.

We need to compare the net benefit of those projects to the net benefit of building other large energy projects like wind farms, batteries, or transmission. But we also need to compare that to the benefit of spending the same billions of dollars on subsidizing home energy efficiency and heating, or on directly supporting consumers' energy bills (like we do for PCE communities). And, critically, we need to compare it to billions of dollars of basic state services and permanent fund dividends, and potential tax increases needed to pay for state services if we spend the money on unwise energy projects. Anything we do has to pencil out for Alaskans holistically, not just on their electric bills.

As presented, the idea of subsidizing large industries to promote load growth (Action A 3.1) would be costly and dangerous to Alaskan consumers. While it is true that load growth can help reduce costs by spreading fixed costs among consumers, it is only true if those new customers are willing to pay the entire variable cost of power, as well as a large enough portion of fixed costs to provide benefits to others. The Marathon refinery pays the lowest energy costs in the Railbelt today -- roughly 10-11 cents/KWh, which equates to the entire variable cost of power, plus around 2-3 cents extra. 10-11 cents/KWh is cheap for the Railbelt, but not nearly cheap enough to be competitive with industrial electricity prices in places like Iceland, or elsewhere in the U.S. Marathon also doesn't do much to reduce fixed costs to other consumers, because the fixed costs paid are so low. To be competitive, Alaska would need to subsidize industry enough such that the *overall* cost of power was in the 3 to 6 cent/KWh range. This would mean that regular Alaskans would bear *all* the fixed costs, and much of the variable cost of the industries' use -- at a time when dwindling Cook Inlet gas is making those variable costs rise. None of the generation projects suggested in this report are close enough to construction that we can determine when or if they'll be built, what they would cost, and whether they could possibly save enough money to make up the cost of subsidizing these industries.

Alaska has gone down the path before of pinning our hopes on giant and impractical projects, and I hope we can do better.

There are many good things in this report. I urge the task force to focus on the initiatives that are proven, relatively low-cost, and remove regulatory barriers to using resources we already have in place. Action A1 would allow our existing transmission to better support energy diversification by removing pancaking wheeling tariffs. Several of the actions mentioning using what money the state can bring to bear to match

federal grants -- which is a great way to multiply our impact, in both rural and urban Alaska. Action F2.4 would allow the RCA to consider factors beyond short term avoided cost in looking at contracts -- which is critical in an environment where we need to conserve local natural gas supplies for heating needs, and are expecting long term avoided costs to be much higher. The data provisions in section D would allow utilities and communities to better plan for cost-effective energy and efficiency projects, and to apply for outside grants using this data. The Renewable Energy Fund supports many feasibility studies that would be difficult-to-justify risks for small utilities and communities, but lowers risk and maximizes benefits to Alaskans by limiting the total for any one project and applying cost savings as a major criterion. Expanding it would be a good use of state money.

Finally, I urge the task force to expand the timeline and to actually consider public comments. The many instances of "PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION" in the report do not reflect reality.

PUBLIC COMMENT # 26 FROM Study of Environmental Arctic Change (SEARCH)

The Study of Environmental Arctic Change (SEARCH) is a collaboration of Indigenous Knowledge holders, scientists, and public and private decision makers with the goal to provide a deeper understanding and inform decisions related to the drivers and consequences of environmental Arctic change. These consequences include the impacts of environmental changes on human-well-being, as well as on international collaboration and economic decision making. This collaboration is funded by the U.S. National Science Foundation and more information can be found at www.searcharcticscience.org.

Increasing energy security, affordability, and reliability for every Alaskan is a critical priority for the entire state, but those goals remain particularly difficult to achieve for any rural, remote or coastal community not connected to the Railbelt Grid or near locally sourced hydroelectric power. These communities continue to primarily rely on economically and environmentally costly diesel generation. This dependency severely limits these communities' ability to have secure and affordable heat and power, and exposes the individual community, and the state more broadly, to a multitude of compounding and cascading environmental hazards.

Our co-produced comments integrate perspectives and examples from Indigenous Knowledge holders, scientists, and public and private decision makers. We focus on the sections of this draft Energy Master Plan that relate to rural communities now relying on Power Cost Equalization (PCE) to help make residential electricity rates affordable, but many of our comments apply more broadly to energy systems throughout the state.

Comment 1: Definitions need to be revised.

The Draft Plan broadly groups the state's energy Priorities, Strategies, and Actions by Railbelt, Coastal, and Rural areas. However, many of the state's most challenged communities are both rural and coastal. Rural coastal communities in many parts of the state experience double jeopardy: they face the same energy affordability challenges that most off-grid communities face, but their energy infrastructure is also experiencing severe environmental damage due to permafrost thaw, coastal erosion, and increased exposure to wave and sea spray.

The term Rural is defined differently at federal, state, and local levels, and within specific programs, and it is important that the Plan provide a broad definition of the term, particularly given that it recommends policy changes at all levels of government.

Recommendation: Given these different conditions, we encourage the Task Force to recognize the three different types of energy conditions in Alaska as Railbelt, and two rural situations as Coastal non-PCE, and PCE communities. It is important to make clear that the current "coastal" definition is only for developed coastal communities with existing access to resilient energy infrastructure and renewable generation sources (e.g., hydropower).

Comment 2: Electricity generated by renewable sources (wind, solar) is less costly, more reliable, and more secure than diesel-powered electricity.
The stated aim of this Energy Master Plan is to ensure that energy for all Alaskans, including those in PCE communities, is affordable, secure, and reliable. While the Railbelt section, and to a lesser extent the Coastal section, emphasize the need to diversify power generation sources and to provide economic incentives for reducing both residential and business energy costs, no such considerations are provided for existing PCE communities. The Plan needs to consider a non-diesel energy future for PCE communities so they too can have affordable, secure, and reliable energy.

There are clear advantages for renewables over diesel power for each of the Plan's three goals (please also see the diagram at the end of this letter).

Security. Diesel fuel is subject to both the variability of commodity pricing and the vulnerability of Alaska's complex supply-chain. Locally-sited renewables and power storage (e.g., batteries) are inherently more secure. Fuel storage, generation and transmission infrastructure is increasingly vulnerable to climate related environmental risks such as wildfire, flooding, erosion, permafrost thaw, wind storms, ocean spray, fallen lines from heavy or freezing rain in winter, and permafrost thaw. Transmission lines that span long distances are costly to install and maintain, and may expose communities to increased energy insecurity due to changing environmental conditions.

Savoonga provides a case study. Fuel is primarily provided to Savoonga via barge. Barge service, however, is limited by weather and ocean conditions, including when shorefast ice is present in winter during which time barges cannot be used at all. Fuel is airlifted into Savoonga when barge service is not possible. This method, though, is similarly limited by weather as, among other concerns, Savoonga (like many other remote Alaskan villages) does not have multi-directional runways. Naturally, airlifted fuel is more expensive than fuel transported by barge. Just this autumn 2023, there was a plan to airlift several thousand gallons of fuel to keep Savoonga's airport garage operable. Despite the need, however, the $19-per-gallon price of airlifted fuel led to the plan not receiving approval. Similarly, when Savoonga's local store ran out of gas, fuel was airlifted in, nearly tripling the price.

Loss of power on all scales is a security risk for rural Alaskan communities. For example, many communities (such as Chevak) are required to travel dozens of miles for wood to fuel wood stoves. These necessary labors, which often only yield minimal amounts of firewood, further increase communities' reliance on diesel energy, thereby exacerbating insecurity.

Reliability. Most rural communities in Alaska lack redundancy in their power generation infrastructure. If diesel fuel becomes unavailable due to supply-chain issues, or power generators fail, rural communities lack the redundancy and diversity that most urban communities have. Locally sourced renewables like wind and solar can provide power independently, and rapid advances in storage technology will help increase redundancy and reliability by diversifying energy sources. Rapid advances in electricity storage

technologies are reducing the need for backup power generation, but diesel generation capacity is still necessary in many parts of the state to backup renewables.

See also: https://alaskapublic.org/2020/03/19/village-of-savoonga-contends-with-power-outage□as-region-is-hit-with-heavy-storms/

Affordability. The high cost of diesel in rural Alaska results mainly from long transport distances (i.e., no local sources), and although the market for diesel is competitive the requisite barge service to rural communities is not. This problem is compounded by unpredictable and volatile markets, which is an energy security problem. Locally-sourced renewables help alleviate these problems and provide lower-cost energy once established. Because of the way electricity prices are regulated by the RCA, the regulated price of electricity generated by renewables may be higher for an initial startup period (1-3 years), although the long-term cost is lower.

Current state policy associated with PCE, given the way that utilities are regulated by the Regulatory Commission of Alaska (RCA), prevents utilities that invest in renewable power from receiving PCE subsidies for any return on their initial equity investment. Because renewable sources typically have much higher initial capital costs, but much lower operating costs that are eligible for PCE assistance, this amounts to a crippling disincentive for moving to renewable power. The argument that the short-term cost of renewables is higher than diesel is like saying buying a house is more costly than renting, even when your monthly mortgage payment would be lower than the rent. However, this current policy can be changed, without compromising the objectives of the PCE program.

In some communities, existing renewables do not adequately serve as backup energy sources. In Savoonga, a majority of the power generated by their two wind turbines is being used to offset the costs of the community's power generators.

Additionally, businesses and service providers in PCE communities do not have access to PCE payments and consequently continue to suffer increasingly unaffordable energy until there is an investment made in truly affordable power generation.

Recommendation: Transition to renewable energy sources is the most robust energy strategy, especially for PCE communities, and needs to be prioritized. To help support this transition, PCE statutes should be revisited to allow for a fair rate of return on capital investments targeted at bringing renewable power generation infrastructure online, reducing the reliance on diesel fuels, and lowering the necessity for equalization subsidies in the longer term.

Comment 3: Risks to community energy infrastructure are increasing, and will continue to increase without diversified alternative energy sources that provide redundancy, storage, and reliable backups.

Diminishing sea ice is increasing coastal erosion and the changing climate is raising precipitation levels - both snow and rain - in other areas of the state. Flooding, snowfall and freezing rain can directly impact transmission lines and cause power outages. Recently, for example, areas of the Fairbanks North Star Borough suffered extended power outages due to downed transmission lines.

The isolation of many northern Alaskan communities further increases their vulnerability to weather-related energy disruptions. Many of these communities do not have the resources (especially linemen) in-

village to repair energy infrastructure following outages. Often, outages are caused by storms which then delays linemen and resources being flown in, thereby prolonging outages. Linemen for rural Alaskan communities do not live in the communities in which they work, instead traveling to dozens of villages when their services are needed. This prolongs outages and delays repairs. For example, earlier this year, a storm affected 20 homes, the preschool, and tribal offices in Savoonga. While Savoonga does have certified electricians, there are no linemen in the community. In this case, it took two days for the lineman to come in and for power to be restored.

In Savoonga, the last few years have seen high winds affecting the power plant with the community experiencing unscheduled power outages from strong winds and precipitation during the winter. Similarly, permafrost thaw in Savoonga causes energy setbacks by shifting transmission poles. Maintenance resources, however, are limited, meaning that once workers fix poles in one community, the poles have moved again before they are able to return.

Recommendation: The Draft Plan should explicitly consider the increased vulnerabilities Alaska's energy infrastructure will be facing due to weather-related hazards, especially for communities in northern areas. This will require a focus on diversifying energy sources within local systems and grids, to include incorporating battery backup and storage, and other emerging technologies. Such an approach will not only make energy more reliable and secure, but also more affordable than being dependent on the supply of diesel via barge and storage in fuel tank farms vulnerable to coastal erosion and permafrost thaw.

Comment 4: This plan does not adequately consider the needs of non-residential energy users in PCE communities.

A stated goal of the Plan is to make energy more affordable to drive economic growth, yet current regulations for PCE inhibit that in a variety of ways. The regulations stifle business and commercial enterprise, and they restrict many aspects of overall development that contribute to and support human wellbeing and economic prosperity. For example, diesel power is very expensive for transportation services such as airport and freight operations, and for municipal infrastructure such as water, sewer, and broadband internet. The high cost of diesel energy also makes the operation of medical and educational facilities more difficult.

Recommendation: PCE as currently operated reduces the energy cost for residential users; it does not do the same for businesses and commercial facilities. Reduced cost for reliable energy in these communities, however, is needed to support economic growth. While we understand the safeguards against misuse by power companies from this policy, we recommend that PCE statues be revisited to support community assets including small businesses and commercial enterprises.

Comment 5: The current process that created this Draft Statewide Energy Master Plan has not adequately considered the energy security, affordability, and reliability of PCE communities.

As noted, and as evident from the brevity and content of the Rural Section of the Plan, this process has not adequately considered the current conditions, limitations, and options for PCE communities, nor has it adequately consulted with PCE community members. As such, many of the proposed strategies fail to address their energy security, affordability, and reliability realities and future needs. These realities all need active strategies to transition to renewable energy sources, to allow PCE to support capital investments for renewable and weather-resilient energy infrastructure, and to receive direct input from PCE communities from the beginning stages of these planning efforts.

Recommendation: We recommend substantial in-person consultation with PCE communities prior to finalization and implementation of the plan. Without such input the Plan as drafted cannot achieve energy affordability, reliability, security, and equity for rural Alaskans living in PCE communities.

We appreciate the opportunity to comment on this Draft Plan and look forward to seeing how these comments will be reflected in the final draft version. We are certain of our agreement with your Task Force that creating a new Statewide Energy Master Plan is a tremendous opportunity to transition the State to a more robust, reliable, affordable, and environmentally responsible energy infrastructure. As has been shown in many other regions and states, these goals are best met by transitioning to renewable energy sources and supporting its transmission, storage, and use. This will directly benefit Alaskans while simultaneously establishing Alaska as a leader in our urgent national and global need to reduce, prevent, and mitigate the increasing environmental hazards many of our residents are experiencing, especially as they relate to affordable power.

PUBLIC COMMENT # 27 from Pacific Seafood Processors Association

The Pacific Seafood Processors Association (PSPA) represents seafood processing companies with operations throughout coastal Alaska and Washington. PSPA's corporate members are twelve major shoreside and mothership seafood processing companies, each with multiple facilities, that purchase, process, and market billions of pounds of seafood from just about every commercial fishery in Alaska, including wild Alaska pollock, salmon, cod, crab, halibut, and rockfish, among others. PSPA member companies have made significant investments in the future of Alaska seafood, spending hundreds of millions of dollars in rural infrastructure, facilities, processing technology, and, in some cases, energy generation

The Alaska seafood industry is a significant pillar of our state's economy, especially in coastal Alaska. It generates $5.7 billion in total economic activity and $2.2 billion in labor income annually in Alaska, including spending for energy, capital reinvestments, regulatory compliance, payroll, innovation, and other costs. This industry supports more than 31,000 commercial fishermen and 27,000 processing workers in 160 shore-based plants, and onboard 9,000 registered commercial fishing vessels, including 52 catcher-processor vessels, and 30 floating processors in Alaska. The fishing fleet alone uses more than 200,000,000 gallons of diesel and gasoline annually, which underscores its substantial role in our state's energy landscape. This industry also serves as an anchor buyer of power from utilities in coastal communities, which helps justifies large-scale capital investment in generation and drive down electrical prices for coastal residents.

PSPA strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the establishment of the Alaska Energy Security Task Force by Executive Orders #344 and #345, and by hosting annual Alaska Sustainable Energy Conferences. These proactive steps toward an abundant energy future are critical for Alaska's sustained economic growth and community resiliency. Additionally, some international markets are beginning to require carbon footprint accounting throughout their supply chain as companies and countries aim to implement net zero sustainability goals. This could prove challenging for Alaska's seafood industry which is still highly dependent on diesel to power vessels and, in some cases, shoreside operations.

The Task Force has held numerous meetings toward the future of Alaska's energy security. The Task Force drafted a Statewide Energy Master Plan (Plan) and has asked for comments from the public. Members of PSPA commend this significant undertaking and offer our recommendations to help make this Plan as

effective as possible, given a particular eye toward the unique needs of the Alaska seafood industry. Respectfully, PSPA's offers the following recommendations for consideration by the Task Force:

General – Elevate the Alaska Seafood Industry in the Plan and the Process

Given the considerable energy consumption, the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, its unique needs and requirements, and the interdependent nature of Alaska's coastal communities and seafood industry, we firmly believe that a more pronounced representation and consideration of the seafood industry in the Task Force's deliberations and recommendations are both necessary and beneficial to the State. The Plan should include a description of the significant role of the Alaska seafood industry and its unique challenges and needs in securing energy. For example, seafood processing companies must generate their own power in some remote areas, such as Bristol Bay, because community facilities cannot meet peak energy demand.

Additionally, representation by the Alaska seafood industry is missing from the Task Force, although oil, gas and mining are included. Therefore, moving forward, we recommend additional outreach to and inclusion of the seafood industry in both the Task Force's Plan and implementation process. For example, the Task Force may benefit from presentations by key seafood industry stakeholders to describe unique needs, challenges and considerations for investment decisions, such as the potential for geothermal energy in Unalaska and its connection to future industry investment decisions.

Specific - Priority B: Coastal Generation, Distribution, and Storage

Below, we offer some specific recommendations for the Plan related to Priority B – Coastal Generation, Distribution, and Storage:

- Highlight the importance of initiatives B-1.6, B-3.1, B-4.4 & B-4.5 to the seafood industry.
- Add a strategy to advance adoption of geothermal where appropriate.
- Add actions to B-4 Alaska Market Initiatives, including:
    - Plan, finance and support the execution of shore power for fishing vessels converted to electric or hybrid
    - Consider and support technical assistance for alternative energy sources and solutions for vessels of all sizes (fishing vessels, support vessel, maritime shipping, ferries, cruise ships)
    - Technical assistance to right-size community and industry needs with new renewable energy technologies, such as technologies being demonstrated in Alaska by the U.S. Dept. of Energy's Advanced Research Projects Agency – Energy (ARPA-E)
- List vessel and processing plant decarbonization, efficiency, and energy solutions as a long-term goal in the Plan.
- Reduce emphasis on distribution in coastal Alaska, where sparse populations and geography in many cases make distribution economically unfeasible.
- Advocate for the exploration and establishment of public-private partnerships to bolster energy infrastructure.
- Offer guidelines on leveraging local, state, and federal funds for financing new renewable energy projects

We look forward to the opportunity to contribute to the meaningful discussions and actions of the Task Force.

We appreciate your diligent work on a topic of extreme importance to all Alaskans. Thank you for your service to Alaska.

PUBLIC COMMENT # 28 from Bridget Maryott, Cook Inletkeeper

Cook Inletkeeper is a community-based nonprofit dedicated to the protection of the Cook Inlet watershed and the life it sustains. Since the most populated parts of the watershed are connected to the Railbelt grid, most of our comments will focus there. We hope the Task Force will seriously considers this feedback during its short revision period, despite having already started to revise the draft of the plan it released on Oct. 3.

Where our comments refer to specific actions, the reference is to the Oct. 3 draft. Since the Oct. 20 draft became public only three working days prior to the comment deadline, we haven't thoroughly reviewed it.

Inletkeeper opposes energy actions that would sacrifice the health of our watershed, the climate it depends on, and the economically vital salmon runs it supports. The most blatant such action is A-2.3, which recommends appropriating $50 million to $100 million to finish FERC process licensing of the Susitna-Watana Dam, as well as the AKLNG project. In addition to the damage that Susitna-Watana would do to our watershed and AKLNG to our climate, these projects are fundamentally uneconomic red herrings rather than actual energy solutions.

In 2011 Cook Inletkeeper's board resolved to oppose "any Susitna-Watana Dam project that significantly alters flow regimes, ice patterns, fish habitat, and temperatures that support wild Alaska salmon." A dam on the scale of the Susitna-Watana project would inevitably have these impacts, potentially without creating a net reduction in climate impact from our energy system. Flooding the area upstream of a hydropower reservoir traps organic matter, the decomposition of which releases methane, a greenhouse gas with a more powerful heat-trapping effect than carbon dioxide, into the atmosphere. Globally, hydropower reservoirs accounted for 5.2% of human-caused methane emissions in 2020, according to research published in Nature.

Before commenting on responsible hydropower development, we must mention the other bad idea recommended in A-2.3, the AKLNG project. Though the plan recommends progressing these projects to a "go/no-go" decision, the choices that could actually bring AKLNG to this stage aren't Alaska's to make. The viability of AKLNG depends on commitments from gas buyers that have never materialized. With the global gas market returning to equilibrium after the shock of the Ukraine invasion and LNG facing long-term competition from wind and solar generation, there is little reason to believe this will change anytime soon – and certainly no reason to bet our own energy security on it. If the resources invested in AKLNG were put into smarter projects that Alaskans could choose to work on here and now -- such as wind, solar, and responsible hydro -- our energy system would be far better off.

AKLNG and Susitna-Watana have long histories of stagnation, huge price tags, and damaging side effects that should already be enough to warrant "no go" decisions without sinking further time, money, or attention into them. The alternative North Slope "bullet line" gas pipeline, which must be almost entirely state-financed to deliver economical energy, locks in the climate impact of natural gas without lowering current prices and is likewise a poor energy choice for Alaskans. The Dixon Diversion, also recommended in Action A-2.3, may be a poor investment of AEA funds in comparison to other renewable prospects, and we believe it should be analyzed alongside other options in a Railbelt-wide planning process.

Responsible hydropower deployment means strongly considering how changes in water temperature, flow rate, and variability affect the abundance and genetic diversity of downstream fish populations, and prioritizing fisheries in the development and operation of projects. Any measure to promote hydropower

– such as Action B-3.1 in the Oct. 3 draft (F-2.3 in the Oct. 20 draft), which includes revising AS 42.45.350 and creating a state fund and a public/private hydro development corporation – must have these priorities.

The Oct. 20 draft's Action F-1.6 also calls for unspecified changes to 11 ACC 93.120, the code that governs permits for the appropriation of water. Cook Inletkeeper would strongly oppose certain changes to this code, such as weakening part (e), allowing the Department of Natural Resource to put conditions on permits to protect water quality, fish and wildlife habitat, or any other purpose DNR determines is in the public interest.

Though the Task Force has given itself only a week to consider public feedback on this packed document before voting on final subcommittee recommendations on Oct. 31, we hope you will take seriously these comments and others from Alaskans who depend on good energy decisions and a clean environment.

PUBLIC COMMENT # 29 from Kelsey Schober, The Nature Conservancy

The Nature Conservancy in Alaska (TNC-AK) is encouraged to see a draft of the Statewide Energy Master Plan, a plan to find ways to lower power costs and ensure electric reliability across the state in the coming decades, available for public comment. Within this draft plan, we are pleased by the focus on renewable energy in pursuing a vision for a secure and affordable energy future for Alaskans.

On average, Alaskans currently pay about 23 cents per kWh for electricity. The draft plan outlines a goal to harness the vast resources in our state to reduce the price of electricity in Alaska to 10 cents per kilowatt hour (kWh) by 2030. From the perspective of TNC-AK, highlights of this draft plan include the policy recommendation to develop and sustain renewable energy efforts throughout the state, the proposal to establish a green bank, and the promotion of use of heat pumps in individual communities. As such, we have organized our comments under these three general areas of focus, with specific attention given to actions we support.

Develop and Sustain Renewable Energy Development Efforts

Actions: A-2.1, E-2.3

In July 2021, McKinley Research Group (formerly McDowell Group) prepared a report entitled *Alaska's Renewable Energy Economy: Progress and Possibility* for TNC-AK. This report reviews the status of renewable energy deployment across Alaska while highlighting the increasing opportunities presented by renewable energy in our state. Notable impacts from investing in these opportunities include reduced energy costs for consumers, job creation, and increased community resilience.

TNC-AK supports the adoption of incentives to facilitate reaching energy diversification goals. An overall increase in adoption of renewable energy will create substantial benefits for communities and people across Alaska. For additional material highlighting the economic opportunities created by renewable energy adoption, please refer to the aforementioned report.

Establishing Entity to Finance Community-Scale Energy Efficiency

Action: E-4.3

In September 2021, McKinley Research Group (formerly McDowell Group) prepared a report entitled *Resilient Homes: Alaskans Building for Climate Change* for TNC-AK. This report summarizes the relationship between energy efficiency investments and cost savings. Notably, it specifically states that a financing mechanism like a green bank "would be the most comprehensive way to make financing available statewide" for sustainable energy deployment, with "[s]tate and federal efforts to capitalize the institution" being critical to this effort (pg. 21).

TNC-AK supports the creation of a green bank entity to finance community-scale energy efficiency. Between 2010 and 2020, more than $750 million in public and private investments were made across Alaska for sustainable energy efficiency, integration, and deployment – with Alaska Housing Finance Corporation (AHFC) playing a substantial role in facilitating the State's investment in many of these programs, particularly at the residential level. Establishing a financing mechanism like a green bank with the AHFC as the lead would build off their record of success in deploying sustainable energy development programs. As well, it could allow the State to leverage funding and economic opportunities created by the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) pertaining to the financing of clean energy and technology.

Historically, energy efficiency investments in Alaska have resulted in an estimated $444 million reduction in residential energy savings and $320 million in health and safety benefits between 2008 and 2018, as well as increased employment opportunities due to the deployment of energy efficiency programs. Creation of a green bank would continue to build on these successes and TNC-AK strongly supports the implementation of this recommendation.

Promotion of Energy Efficiency and Conversion Measures in Buildings
Actions: B-4.1, E-6.3

The mentioned report, *Resilient Homes: Alaskans Building for Climate Change*, contains information pertinent to building energy efficiency and fuel reduction measures in buildings across Alaska. This report specifically notes that these measures result in reduced cost burdens for households, additional opportunities for employment, and health benefits.

TNC-AK supports the implementation of Action B-4.1 to promote heat pumps as an alternative energy and heat source in coastal Alaska. We also support the Task Force in exploring successful case studies in order to further implementation in Alaska, as identified in Action B-4.1. The aforementioned report, *Resilient Homes*, identifies examples of residential heat pump integration by Tlingit-Haida Regional Housing Authority in Petersburg and Baranof Island Housing Authority in Sitka as two heat pump integration projects (see pg. 14). It also identifies the installation of combination heat pump and solar array systems in Ambler as an example of deployment that utilizes integration as a way to address overall high energy costs (see pg. 14).
Given the additional identified risk of exceeding monthly PCE limits as a barrier that could slow adoption of heat pump technology in regions with high electricity costs (see pg. 2), we encourage the Task Force to take into account successful examples of deployment from across Alaska in order to ensure equitable rollout of any heat pump deployment-related efforts.

Additionally, TNC-AK supports the implementation of Action E-6.3 which seeks to increase availability of resources for weatherization, energy efficiency, and building retrofits. Energy efficiency and weatherization efforts from 2008 to 2018 under the Home Energy Rebate Program

(HERP) and weatherization programs translated into "a combined $444 million in residential energy savings over the decade" with participants of the program seeing an average annual savings of $1200-$1300 in their energy costs (pg. 14). As Alaskans face high energy costs and a high cost of living, savings from these programs is not only an economic boon but also supports community sustainability and resilience.

Thank you for your work to call attention to the importance of affordable and renewable energy for Alaskans. As supporting material, we are submitting the two reports referenced throughout these comments. We ask that the task force to review these supplementary materials to inform future development of the report and we encourage robust outreach to the public as the task force works to review and finalize this plan

PUBLIC COMMENT # 30 from Matthew Clarkson, Chugach Electric Association

I am the Chief Legal Officer at Chugach Electric Association, Inc. (Chugach), and I would like to provide the following comments on the Energy Security Task Force's October 20, 2023, Draft Report.

Chugach shares the Governor's vested interest in securing safe, sustainable, affordable, and reliable energy resources for Alaskans. The desire for a comprehensive statewide energy plan is understandable and the Governor's leadership in this regard is commendable.

As most are aware, the energy industry in general, and the electric utility industry specifically, is undergoing significant transformation. Decarbonization and decentralization of the grid are two key disruptors challenging the historically centralized electric utility model. In that vein, Chugach believes a statewide energy plan-if properly considered, formulated, and executed-would provide the coordination and direction necessary for successful statewide navigation of this uncertain path forward.

The Task Force's Report has six priority areas with numerous strategies and discreet action plans underlying each priority area. The breadth of issues raised and addressed in the 142-page report first released on October 2 and recently updated on October 20 are too numerous for Chugach to meaningfully respond to at this time. While Chugach has several high-level, conceptual concerns regarding certain Task Force recommendations that are set out below, Chugach expects, and specifically reserves its right, to provide additional detailed commentary and analysis on the Task Force's recommendations prior to any formal adoption or implementation of such recommendations. For now, Chugach's comments will focus on Priority A of the Task Force's Report. Chugach has significant concern regarding any required conveyance of utility transmission assets to the State of Alaska or another third-party. Indeed, such recommendation implicates significant legal, operational, and financial challenges and complexities that should not be ignored or considered in haste.

First, from a legal standpoint, Chugach is a private not-for-profit member-owned electric cooperative utility. State law and Chugach's governing documents currently require supermajority member approval prior to disposal of any significant portion of its utility assets. Thus, depending on certain asset thresholds, Chugach's member approval prerequisite could prevent such a transaction from occurring. Regardless, even if this hurdle could be overcome, Chugach is not able to affirmatively support such a recommendation and would likely oppose any unprecedented State action to condemn its private utility business assets for such a purpose.

Second, from an operational standpoint, Chugach does not believe unified ownership is necessary for coordinated transmission system operations and long-range planning. As the Lower 48 electric grid has demonstrated for decades, neighboring transmission systems can be jointly operated without being singularly owned. Further, transmission system coordination is conceptually flexible and can be shaped to fit Alaska's unique circumstances if given adequate consideration. Chugach is working

through the process of considering alternative approaches to coordinated Railbelt transmission system operations and intends to provide opinions and recommendations in the future. Ultimately, any recommendation in this regard should be vetted for clear demonstration of positive economic benefit to end consumers prior to implementation.

Third, from a financial standpoint, substantially all of Chugach's tangible assets, including its transmission assets, fall under the lien of Chugach's Indenture of Trust. The conveyance of Chugach's transmission assets, and corresponding release of the Indenture's lien on those assets, could jeopardize Chugach's credit ratings, increase its cost of borrowing, and significantly undermine Chugach's ability to issue long-term secured debt to fund future system capital improvement projects. Such financial limitations could also impact Chugach's ability to manage costs and provide sustainable, affordable, and reliable power to its members in the future.

In conclusion, Chugach again wants to express its appreciation to the Governor for his leadership and focus on securing affordable energy for Alaskans, and to the Task Force for its efforts in considering so many important issues on such a truncated timeline. Chugach remains optimistic about Alaska's energy future and looks forward to thoughtfully participating in ongoing public discussions regarding the future of Alaska's integrated electric system. We share in the goal of operational efficiency and a competitive cost structure for the benefit of all Alaskans, both rural and urban alike.

PUBLIC COMMENT # 31 FROM Ky

I have the opportunity to review the draft Statewide Energy Master Plan. The task force does not appear to have delivered the initial plan required in May under the Executive Order, and it seems this plan is not on track to be completed by the end of October when the task force is set to sunset. I would appreciate an update on what is planned since this draft appears to be missing a substantial amount of what might be in the final plan, so it isn't easy to offer much in the way of comments. I do not want what I do offer considered comments on a final plan. I do not feel that what has been proposed in this draft is adequate for a master plan for the state.

Overall, it's clear the plan is nothing more than a restatement of current plans and policies of the state and offers little to change the trajectory of our energy use or supply or achieve any cost containment, much less cost reduction. (e.g. Redundancy is nice for transmission, but only increases capital carrying costs.) In fact, many sections are missing strategies and details or, offer lofty thoughts but little in tangible results, or recommend more AEA staff.

e.g. "...Benefits: The ability of the state to achieve a *moonshot goal* [emphasis added - what "moonshot"?] requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end. Expected Results: [blank]..." page 57. or
e.g. "Strategies" B-1 to B4 that are not strategies but seem to be titles for a group of actions that follow.

Others seem to be self-serving plans by the AEA to add staff and take over control/ownership of transmission capability with the MLP-CEA-inspired dreams of buying out assets "at book value" to save money... I hope we are not fooled twice with this shell game of refinancing our existing infrastructure and giving greater control to an agency with more than enough time and money to buy worthless oil leases.

Some sections seem to be just not connecting the dots, such as Priority areas A, which never mentions the planned demand on gas for a Donlin Mine (14" gas line from cook inlet), and then in A.3 suggests we need to increase demand in an area that has excess electrical generation capacity and a shortage of natural gas that we want to give away to a large industrial user. Why isn't the Donlin mine considered for

some of the additional demand, or better yet, solve some of the gas shortage by giving Alaskans access to lower-cost electricity and incentivizing them to ramp up the use of electric gas, returning their homes to electric head etc. (My home was initially heated with electricity on the hillside in the 70s. It is still installed and could pull electrical power today if there was an intelligent metering system to allow me to use excess electrical energy at a rate competitive with the potential cost of natural gas-supplied heating energy.

Another set of dots not connected is that we don't need a gas line AND the Wantana dam. Our plan should not be promoting more energy demand on one hand and then at the same time burdening us with fanciful expensive projects on the other hand that could lead us to even more excess production capacity and the capital burden of the projects. The plan reads more like a wish list for the construction industry than a thoughtful determination of a plan and hard decisions one what we should actually do next to address our energy needs.

And my list could go on, but I don't have time to start untangling this plan, particularly when it is clearly in a form that is not quite ready for public review with a strong and well-accepted set of goals and strategies to start with.

I'd suggest if the Task Force is extended that it back up and get clear on the goals of this plan rather than lots of fluffy words, including a goal to monitor and reduce Alaska's greenhouse gas emissions with specific targets rather than vague references and address the monster in the room of gas supplies in south-central. I'd also like to see a focus on engaging our youth and university on energy challenges, including the long-promoted but never-supported Alaska Energy Prize (Allan Johnston). Further, the plan should start with a number of objective goals and real targets, potentially tied to 4-5 scenarios for the Alaska's future.

The plan reads like a recipe to keep the gas line dream alive and to keep doing all the other work being done, and there is a lot of good work being done. It is well past time to set the pipeline aside and think about a state master energy plan without the line distracting us from the many other opportunities we have for energy and exports and see what it looks like. Or if you want to keep that dream alive, I'd build the master plan based on a set of scenarios that might be something like:

1. Gas Dreams - A gas line is built and running by 2035, perhaps with a bridge of imported gas... (that will never help our energy costs...)
2. Transformer - There is no gas pipeline and no sufficient supply of southcentral gas for the Anchorage or Donlin needs but instead, alternative energy systems, storage, and smart demand controls are used to accelerate a transformation for the railbelt and Donlin goes ?Nuclear? or uses an ammonia pipeline feed by the Alutians geothermal or Mightypipelines' proposal to bring blue ammonia down the existing TAPS line.
3. Slow Drain - Alaska continues to do nothing to invest in its economy and we have a declining population reliant on federal subsidies and stagnant/flat natural resource development.
4. Climate Winner - Alaska chooses to think and act like a potential climate change winner and make 10c power a reality and invests in being a global leader in energy systems and economic transformation (See Calgary and Iceland examples).
5. 1987 - Disaster strikes and the oil industry collapses in the next 10 years, while the federal funding drys up due to deficits and conservative politics.

If you'd like help with scenario planning, let me know!

The current plan offers nothing of a "master plan", but I agree one is needed, and the remarkable work at ACEP, the H2 and CCUS working groups, RPS legislation, the meetings this week in Iceland on energy transformations, the national energy hubs all point the way to amazing future if we choose to create a plan to move in that direction vs. keep the status quo, give AEA more control, and hope someone will buy our gas.

PUBLIC COMMENT # 32 from Santa Claus

Thank you for the opportunity to testify, regarding the Alaska Energy Security Task Force Statewide Energy Plan's 'Draft Report'.

I am a former Councilman and Mayor Pro Tem of the City of North Pole.

Having reviewed your plan's 'Draft Report', I share the views of the Fairbanks Climate Action Coalition (FCAC) and also note the following:

The AESTF organization appears to resemble AIDEA in a few respects:

- Board members and organization leaders appear to either lack requisite experience or are directly aligned with the oil and gas industries and have little or no experience in the alternative energy field. Also, one person is identified as a member of both the AESTF and AIDEA Boards.

- There appears to be no accountability mechanism for Alaskans to regulate AESTF.

I support a No-Go decision on AKLNG Project and North Slope Natural Gas Bullet Line (TF Strategy A-2) and the enaction of a Renewable Portfolio Standard (RPS), rather than a misleading and ineffective 'Clean Energy Standard' (CES) (TF Strategy E-2).

An 800+ mile LNG pipeline project is unlikely to secure Alaska's energy future (A-2.3); instead, the AKLNG project or bullet line project would require heavy subsidies and constitute a carbon bomb that would put Alaskans at risk.

It seems likely that a proposed AESTF 'community outreach and education program' will be designed solely to counter local opposition to mining and hydroelectric projects (C-3.3).

The various forms of the CES presented to date fail to meaningfully increase renewable energy generation or to decrease carbon emissions. A Renewable Portfolio Standard is better.

I agree that, "The revival of the Susitna-Watana hydroelectric dam project, a project that many Alaskans are opposed to, would only marginally reduce greenhouse gas emissions, because of the high amount of cement needed for the project. And, the flooding event caused by a dam releases a lot of methane and other greenhouse gasses." ~FCAC

The state of Alaska’s history in terms of forcing through costly and damaging energy development projects (such as many of AIDEA's) immediately causes alarm, especially considering the treatment of indigenous people.

I trust that my public comment, as well as those of other Alaskans calling and Zooming in this evening will be considered during your Alaska Energy Security Task Force Board meeting scheduled for tomorrow morning.

PUBLIC COMMENT # 33 from George Donart, Anchorage

I'd like to thank you for the chance to comment on the Alaska Energy Security Task Force's Statewide Energy Master Plan.

I've been impressed by the breadth of the draft Plan document and diversity of actionable priorities. It's a pretty big document, so I've only been able to review parts of it, mostly reading the "ACTIONS" sidebars.

First, I will address those items that I feel are incompatible with our citizens' best interest, even harmful for our state to pursue:

STRATEGY A-3: Increase Demand -
If we were to put out an RFP to increase our demand, we may end up building much larger generation facilities than we need prematurely. Demand for electricity will increase as more parts of our economy electrify, but counting on a large new demand may only drive new generation without closing old, expensive, polluting generation facilities. Alaska's focus must be on reducing reliance on fossil generation sources and moving rapidly to clean energy. When we have cleaned up our generation, that is the time to start enticing large new demand centers, not before. We're not in the same situation as Iceland was in the mid 90's.

STRATEGY A-2.3 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision -
Both the Susitna dam and a gas pipeline from the North Slope are at least a decade away - if everything goes smoothly, both are extremely expensive, and both have major negative impacts locally and globally. It doesn't take any more study to determine that there are plenty of other affordable viable options for new, renewable generation in the Railbelt. Waiting for yet further analysis of either should not be used to hold up an ambitious clean energy transition on Alaska's biggest grid.

STRATEGY C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas -
Simply put, this strategy needs to be changed substantially by dropping the "to combat NIMBYism in energy projects in rural areas" focus. Community members - all residents of the state of Alaska - should be involved early on in permitting and citing decisions, and they need to be listened to. People living in Alaska love the land they live on; the state must respect its citizens and should not be running a propaganda operation or trying to pit Alaskans against each other.

PRIORITY C Rural Generation, Distribution, and Storage
This section of the Plan seems particularly weak. Though there are some decent, action-sounding strategies and actions, most were undeveloped in the appendices.
Also, I'd like to suggest setting an Action of investment and research into standardizing technology for "diesel-off" operations during extended periods of low load and/or high renewable output in small rural communities.

ACTION C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects - AND
ACTION C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities -
Again, these two actions seem to be putting a large cart before the horse. These are 2 of the few Plan

actions in Priority C with any description at all. These actions, and a lack of detail for other Plan actions, appear to prioritize large industrial sites over the needs of rural Alaskans, perhaps holding rural communities hostage until large development operations begin.

Next, I would like to commend the numerous forward looking proposals in the Plan that I believe serve the best interests of Alaskans:

ACTION E 2.3 Adopt a Renewable Portfolio Standard followed by a Renewable Energy Credit -
The experience of regions in the lower 48 and Hawai'i, shows that Renewable Portfolio Standards save ratepayers money and bring on clean energy resources faster than they would otherwise. This is partly due to the clear focus on a doable goal. An RPS precludes a constant re-examination of direction and pace of energy development. A strong RPS also stabilizes energy costs and provides certainty for both ratepayers and power producers.
One concern here, though. It seems that the "Clean Energy Standard" is very vague, as is the oft used term "diversification". A lot of emphasis is put on diversification and it seems to be the standard that a CES is measured by. Including more coal, for instance, might make the railbelt more diverse. So a diverse portfolio isn't necessarily what we need -- reliable, renewable and affordable is. "Diversify" is so common in the Plan that it should be clearly defined. Using the term "renewable" is a lot clearer.

PRIORITY E: INCENTIVES AND SUBSIDIES
I feel this Priority is especially strong; the actions recommended are broad, effective and efficient.

STRATEGY E 3:
I agree that a flatter rate across Alaska improves the mobility of residents, increases local economic opportunities, and improves the quality of life for Alaskans overall.

STRATEGY E 4: Improve the economics of project development - is important, especially in these Actions:
E-4.2 Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines -
E-4.3 Establish a green bank for financing of community scale energy efficiency projects -
E-4.4 Ensure adequate workforce training and skills development alongside job creation goals of State -
The state should partner with the Anchorage School District which has recently established new "academies" in its high schools some of which could focus on workforce training for the renewables industry.

STRATEGY E 5: Evaluate and implement State policy, tax, and other incentives -
This part of the Plan is fairly vague and needs much more clarification.

In closing, I'd like to point out that we have a lot of existing generation sources, but we need to move as quickly as we can to renewable generation throughout the entire state. There are many reasons to do this. Costs of renewable technology continue to fall. Renewable energy is price stable once in operation. In Alaska, we've already shown ourselves to be leaders in renewables innovation, and we can continue that path. The rest of the world has already started imposing penalties on fossil fuel generation and use, and that will continue to accelerate. Solar and wind, especially, are relatively quick to build and bring into operation. We've seen reports that indicate the lowest cost way forward is to retire fossil resources and replace them with renewables.
This plan would be greatly improved if it were to reflect a move to renewable generation more explicitly.

Thank you for all the hard work and good thinking that have gone into the Statewide Energy Master Plan by the Alaska Energy Security Task Force team members. I appreciate the chance to comment on the Plan.

PUBLIC COMMENT # 34 FROM Tom Atkinson, Kotzebue Electric

My name is Tom Atkinson. I am the General Manager / CEO of the Kotzebue Electric Association a Rural electrical cooperative located in Kotzebue, Alaska. Our power is 70% diesel generated and 30% renewables generated.

Priority "C" for Rural Generation, Distribution, and Storage. We need more capital and investment. KEA has several shovel ready renewable energy projects. If funding were available, it would take us from 30% to 50% renewable energy. We need to up fund the Renewable Energy Fund which allows us to seek funding in a less competitive arena.
Increasing renewable energy will lower operational costs. The required maintenance is much less with renewable energy than with diesel generation. Development of more renewable energy will displace more diesel which is the greatest annual cost to our cooperative.

The greatest economic burden in our community is using diesel for home heating. Development of renewables will allow us to use electricity to heat our homes at a much-reduced cost. This creates the greatest economy of scale by using clean energy for most of our power needs.

KEA has a close relationship with the Alaska Center for Energy and Power. They are working on projects with KEA that will help us with data to make the best decisions for energy generation.

We are working with other entities on a regional energy plan, but the distance between communities in this region makes shared and/or connected infrastructure unfeasible at present.

Priority "E" Incentives and Subsidies. The PCE is not a subsidy. The PCE is a negotiated agreement. We ask that we not be penalized for our development of renewable energy by making energy created with it not eligible for PCE. You are de-incentivizing the development of renewable energy by not giving PCE credit for renewable energy that cooperatives create.

PUBLIC COMMENT # 35 from Doug Woodby, Juneau, AK

Thank you for this opportunity to comment on the draft energy security plan.
Please accept these comments despite being a day late. The public notice for this comment opportunity was minimal and well outside of what is expected of transparency in a democratic system.

My comments:

I support

- the adoption of a Renewable Portfolio Standard.
- the creation of a Green Bank to help fund renewable energy projects, especially small scale local projects.
- a definitive decision to stop supporting the notion of the LNG pipeline.

I oppose the apparent bias towards funding the Alaska LNG pipeline, even if it is a line just to the railbelt. There are more worthy projects that will have lasting positive impacts for the people of Alaska that do not have an outsized carbon footprint that the LNG pipeline has.

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #12
TUESDAY, OCTOBER 31, 2023, 9:00 AM – 4:00 PM

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, October 31, 2023, 9:00 am – 4:00 pm

Alaska Energy Security Task Force Meeting, Tuesday, October 31, 2023, 9:00 am – 4:00 pm

Please note the Alaska Energy Security Task Force will hold a meeting on Tuesday, October 31, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business will continue in session until recess or adjournment.

The Task Force Meeting will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Join on your computer, mobile app or room device
Click here to join the meeting
Meeting ID: 238 339 982 449
Passcode: 68u7kT
Download Teams | Join on the web
Or call in (audio only)

+1 907-313-5807,,651754139# United States, Anchorage
Phone Conference ID: 651 754 139#

The Agenda for the Alaska Energy Security Task Force is available below, or by visiting the Alaska Energy Security Task Force schedule web page.

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-465-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.10.31 Alaska Energy Security Task Force Agenda.pdf

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, October 31, 2023
9:00 am to 4:30 pm
Teams Meeting:
Click here to join the meeting
Meeting ID: 238 339 982 449
Passcode: 68u7kT

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom) ***(9:00 am)***
2. Roll Call
3. Prior Meeting Minutes – (October 3, 2023)
4. Public Comment (***9:15 am – 10:00 am***)
5. Review Draft Report Action Items by Subcommittee (vote yes/no to forward the action) ***(10:00 am – 4:00 pm)***
    a. Railbelt Actions (Tony Izzo and Jenn Miller Co-chairs)
    b. Break ***(10 Minutes)***
    c. Coastal Actions (Duff Mitchel and Robert Venables Co-chairs)
    d. Rural Actions (Andrew Guy and Clay Koplin Co-chairs)
    e. Lunch ***(12:00 pm – 1:00 pm)***
    f. Data Actions (Dan White Chair)
    g. Incentives and Subsidies Actions (Nils Andreassen and Isaac Vanderberg Co-chairs)
    h. Break ***(10 Minutes)***
    i. Statutes and Regulations Actions (Karl Hanneman and Robert Venables Co-chairs)
6. Summary of Forwarded Actions ***(4:00 pm – 4:15 pm)***
7. Next Meeting Date/Closing Remarks
    a. Tuesday, November 17, 2023, Teams
8. Adjourn

Alaska Energy Security Task Force
DRAFT MEETING MINUTES
Tuesday, October 31, 2023
Anchorage, Alaska

1. Welcome and Introductions

Chair Lieutenant Governor Nancy Dahlstrom called the meeting of the Alaska Energy Security Task Force (AESTF) to order on October 31, 2023, at 9:00 a.m.

She thanked Task Force members for their participation and time commitment throughout this whole process. Because she is participating remotely via Teams, she asked Vice Chair Thayer to facilitate the meeting today.

2. Roll Call

Members present: Chair Lieutenant Governor Nancy Dahlstrom; Vice Chair Curtis Thayer; Clay Koplin; Joe Burns for Commissioner John Boyle; Jason Olds for Acting Commissioner Emma Pokon; Nils Andreassen; Andrew Guy; Karl Hanneman; Tony Izzo; Jenn Miller; Duff Mitchell; John Sims; Isaac Vanderburg; Robert Venables; Daniel White; Ex Officio: Senator Click Bishop; Garrett Boyle; Commissioner Keith Kurber; Erin Whitney.

A quorum was present to conduct business.

3. Prior Meeting Minutes - 10/3/23; Public Comment Meetings on 10/10/23 and 10/24/23

Vice-Chair Thayer asked Task Force members to review the minutes in the packet and if there are no changes, he will entertain a motion to approve the minutes.

MOTION: Robert Venables moved to approve the Minutes from October 3rd, October 10th, and October 24th, 2023, as presented to the Task Force. Jenn Miller seconded the motion.

Discussion:
Vice Chair Thayer opened the floor for discussion. Hearing none. He asked for a roll call vote.
The motion passed (yes-13; no-0)

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4. **Public Comment**

Vice Chair Thayer stated that we had two public comment meetings, one during business hours and one in the evening. We extended the deadline to receive written comments as well. The Task Force received over 40 written comments and 20 comments through public testimony.

Public comments received before the deadline have been sorted by subcommittee topic to assist Task Force Members in making their decisions. Comments received after the deadline were not sorted, but they are included with the packet.

Vice Chair Thayer opened the floor for any additional testimony from the public. There were no additional public comments from the room, from Teams, or from the telephone. Vice Chair Thayer closed the public comments. Vice Chair Thayer mentioned the following numbers, which are highlighted throughout the report.

By the numbers -
71 - number of times the Task Force has met since April.
156 - number of meeting hours by Task Force Members.
20 - number of comments received from the public either in person or by calling in.
40+ - number of written comments received from the public (including 8:35 a.m. today)
Priceless - the time commitment from Task Force members to attend meetings, research their topics, reading, doing their homework, asking questions, and listening to each other and the public with courtesy and respect.

5. **Review Draft Report Action Items by Subcommittee (vote yes/no to forward the action)**

Vice Chair Thayer explained that the Co-Chairs for each subcommittee will present for their committee. Questions and round table discussion will follow. Then Task Force members will vote to move the action forward as written, amend it, reject it, or table it for further discussion before voting. Vice Chair Thayer also mentioned that the Task Force can meet next Tuesday, November 7th, if they don't finish up today.

There was discussion among Task Force members about the process and clarification that most subcommittee co-chairs did receive public testimony either in real-time, after the public testimony closed, and even up until this morning. With this input, they made amendments to their actions as they and their subcommittee felt appropriate.

They also discussed the fact that this Alaska Statewide Energy Plan is the first version of a living document. It is anticipated that there will be annual reviews to update the plan according to new information, technology, and actions taken by the Governor and/or the State Legislature.

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a. Railbelt Action - Tony Izzo and Jen Miller, Co-Chairs

Ms. Miller stated that the Railbelt Subcommittee had three high level strategies. The first is to unify and upgrade transmission and storage assets. The second is to significantly diversify generation. And the third is to strategically increase load to drive down energy costs.

She wanted to address the public comments received concerning one of their action items. Unfortunately, there was an error in the report that was issued on October 24 where one of our action items related to looking at Alaska LNG bullet line and other ways to diversify our heat sources. Unfortunately, that was issued as the strategy for diversified generation. So, we received a lot of comments in that space because they thought, yeah, this is it, this is your recommendation. That was not our intent. We have several action items under diversified generation. The report is now updated to correctly reflect all the action items within that strategy. There was just a miscommunication and some of the public comments reflect that.

STRATEGY A-1: Unify & Upgrade Transmission & Storage

ACTION A-1.1

Ms. Miller stated that for background, if we want to diversify our generation and suppress energy prices, we really need base infrastructure, similar to highways and roads, to do that. This is our top priority action item where we think it's critical that by unifying that transmission system, we can have a single postage stamp rate to transmit electricity across the transmission system. That's currently a hurdle right now for tying in new generation. If it is unified, it can operate more efficiently where dispatch decisions can be made. Also by unifying, we can apply for federal or state grant programs as one unified body and go after as many federal dollars as we possibly can so we can split the bill and look at upgrading our transmission assets and our storage assets so we can integrate new generation sources.

Mr. Izzo stated that based on public comments, he wanted to clarify that unify, and the ultimate goal of transferring ownership, does not mean that it occurs overnight. It does not mean a taking, it does not mean violation or putting a utility in a situation where they're violating their debt covenants. The ultimate goal would be to transfer ownership of transmission over some appropriate period of time, whether that be by lease or by sale, such that we had an electron highway from one end of the rail belt to the other, serving some 70% of the state's population.

This would eliminate the security constraints on the system--the limitations from the Kenai Peninsula to the Anchorage and MatSu Valley, as well as the constraint from MatSu Valley to Fairbanks. This would facilitate merit order dispatch or economic dispatch, which would allow the lowest cost generator to be online serving that large population in order of lowest cost. Also, as you mentioned, facilitates the ability to bring on renewables or clean energy projects anywhere along the grid. I would recommend, subject to questions, that this be approved and adopted by the task force as a whole.

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MOTION: Tony Izzo moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*

A-1.1 - *unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer asked if there were any questions or comments from Task Force Members.

Mr. Honeman stated that he appreciates Mr. Izzo's response to Chugach's comments and other public comments on the long-term goal to integrate with increasing opportunity for competitive generation to come online. This is supported by many public comments we received. So, thank you.

Ms. Whitney asked if any of the language or terminology needed to be changed to address Chugach's comments. Ms. Miller responded that the subcommittee did discuss the verbiage and were careful to use the word unify rather than more financial terms to convey ownership to a new entity because we wanted to leave it as open as possible to work contractually. In his comments earlier, it was good that Tony clarified our intent, and so I don't think we need to make any changes.

The question was called A roll call vote was taken.
The motion passed (yes-13; no-0)

REVISED ACTION A-1.1

Mr. Izzo asked the Task Force members to revisit Action A-1.1 and revise the language to eliminate the phrase "for the net book value" and the word "convey". Making these changes will provide clarity as to the intent and will not result in a taking or causing a utility to violate its debt covenants. Further, it does not in any way diminish the priority of the fact that the unification of transmission across the railbelt would facilitate all the benefits that we discussed earlier. Vice Chair Thayer asked for a motion to make these changes to Action A-1.1.

MOTION: Clay Koplin moved that the Task Force reconsider and approve the new language in Railbelt Transmission, Generation and Storage ActionA-1.1 as follows*:*

A-1.1 - *Unify all existing transmission assets along the railbelt and Bradley Lake under AEA or a new not-for-profit regulated utility.* **Karl Hanneman seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion. There were no questions or comments. Jen Miller called the question. Robert Venables second. No objection. Roll call vote was taken.
The motion passed (yes-13; no-0)
STRATEGY A-2: Diversify Generation

ACTION A-2.1

Ms. Miller stated that we're now in the diversify generation strategy and this is our second highest priority recommendation. The first action under this strategy is to adopt a clean energy standard and incentives to diversify generation. First I'll say, the subcommittee fully supports setting diversification targets because in 20 years we don't want to be in the same position we're in now with all our eggs in one basket. So, the subcommittee is fully aligned in that we need to significantly diversify generation, and we should set target goals for the state to drive that. For additional context, the subcommittee spent quite a bit of time just discussing the pros and cons of a clean energy standard versus a renewable portfolio standard.

First, we preferred a clean energy standard as opposed to a renewable portfolio standard (RPS) because it allows for more technologies. We said, let's not limit what technologies can play, and let's let them all compete to, again meet the ultimate goal of driving the cost of energy down. Second, with the renewable portfolio standard, as currently proposed, it includes penalties for not meeting diversification targets. Given Alaska's co-op structure across the railbelt, if there's a penalty imposed, it will be passed on to rate payers, which drives up rates--the opposite of our objective. So we discussed a carrot versus stick approach and what's the right one.

We decided to recommended incentives to drive that diversification for positive reinforcement. We are recommending three incentives for the legislature to consider.

1. Direct payment to utilities for achieving diversification targets, which would pass on to co-op members and lower rates. A reward payment.
2. Augment renewable energy fund to get more companies proposing new generation projects, which is a high risk for them. The Renewable Energy Fund is important to help share that risk and incentivize more companies to get more projects moving forward.
3. Augment power project loan funds because loan interest rates really drive what that energy price is. If you can get more attractive debt terms, in both an interest rate and longer time to pay back the loan, that will also drive down energy costs.

Mr. Izzo added that he thought it was important to us, as a subcommittee, to look at transitioning away from natural gas while recognizing that natural gas is baseload power and that the utilities are looking at alternatives such as large scale wind projects and solar projects--with two recently brought online that I know you're familiar with. In addition, we're implementing battery storage in different regions, that availability, supply chain, logistics and costs associated with firming up the non-dispatchable renewable power was going to represent a significant negative impact on reliability. And that reliability was a key along with affordability.

So as we looked at a clean energy standard versus a renewable portfolio standard, we asked does an RPS apply to all utilities in lower-48. The answer was with investor owned utilities; the penalties can drive shareholder behavior. However, with cooperative utilities, penalties can increase rates. The other distinction I would draw is that we have seen discussion around renewable portfolio standards in Alaska that sometimes exclude hydro and nuclear. We believe that those baseload power sources represent a significant potential to match the reliability that we have with natural gas.

MOTION: Tony Izzo moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*

A-2.1 - *Adopt Clean Energy Standard and Incentives to Diversify Generation*. **Karl Hanneman seconded the motion.**

Discussion:

Mr. Vanderburg appreciates the subcommittee's work on this item and as a member of the Incentives and Subsidies Subcommittee, he is interested in hearing about incentives from other subcommittees. While he is familiar with the renewable energy fund and the power project loan fund, he asked Ms. Miller or Mr. Izzo for a deeper diver in the direct payment to utilities and how that would function, e.g., where the payments would come from, the mechanics of this item, etc..

Ms. Miller responded that the subcommittee doesn't have a detailed bill with the details of how that would work. Basically there would be a fund or state dollars set aside that as utilities reach a certain diversification target, that incentive dollars would be passed on to that utility. And then what gets a little bit tricky is how those dollars are used. Will they be used to pay down a debt or passed through to their members. We didn't want to specify that at this stage.

As a pass through to members, it could show as a fund with a credit on their monthly bill There are a lot of different mechanisms, and it would depend on how the utility is structured or what their current financial status is. The utility would make the decision. We did leave it open as far as the mechanics with the intent is that this money would pass through directly to members to reduce monthly bills. Mr. Izzo confirmed that the intent of this incentive is to be a direct pass through, that there would be no overhead or payment of utility costs with whatever incentives were to come back, that it was to be 100% passed through in whatever form it actually takes.

Mr. Vanderberg asked how the fund will be capitalized. Is it by the state through some sort of revenues that have yet to be identified. Any thoughts there? Ms. Miller responded that the subcommittee did not specify the funding source details. It may be similar to the power project fund or the renewable energy fund or other incentives that are listed in the Subsidies and Incentives section. We didn't work the details to that level, as our primary intent was to get the concept out there.

Mr. Izzo stated that from a high level point of view, we have the strong belief that we're headed into some difficult times, which is driven primarily by the uncertainty around local gas supply and the reasonable certainty that prices will go up in the near term. And so, as we make the transition, we're looking at any possible means we can to alleviate the pain that will be experienced by ratepayers involved at every level.

Mr. Hanneman stated that, in light of the numerous public comments received about RPS, it's really important that this task force speaks out and supports the clean energy standard with incentives, realizing that all the details aren't worked out. That's the responsibility of the

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legislative body. But we can help guide the policy. We think it's very important that the policy be standards with incentives, not criteria with penalties. And that is a very different shift in our current thinking and attitudes.

It's important that we identify and encourage people to make that shift so that we don't penalize and be punitive with respect to this changing environment or changing the situation in our generation assets on the railbelt. I think this recommended action is important and goes far enough in that regard of establishing what our overall policy should be, realizing that the details need to be built out by the legislative body. Thank you.

Mr. Koplin stated that he strongly supports a clean energy standard over a renewable portfolio standard. I think Jenn and Tony did a good job of articulating some of the reasons. Another nuance is the advent of next generation nuclear and where that lands. While it's not specifically a renewable energy, it is a carbon free and considered a clean energy resource. So that gets pulled into the fold.

Also to help you out a little bit, Isaac, recently in hydropower incentives, for example, at the federal level, because the municipals and co-ops are not taxable entities, they were excluded from tax incentives. But the federal government did structure a direct payment in lieu of those tax credits that would allow them to invest in renewable projects. So that was a model that was very welcome by tax free organizations and helps manage the costs for customers.

Another nuance is the deployment of hydro or community solar, for example, by municipals, who are better positioned to aggregate local demands for solar even if the price point is a little higher. Those participants can direct purchase share of a solar farm and they are making the investment in reaping the renewable benefits, without passing those costs on to customers that may be more cost focused or not have the internal business drivers behind their move to renewable. I recognize the public comment received on this subject, but I think the clean energy standard is more flexible and inclusive and is a better model for managing the cost of making investments.

Mr. Andreassen stated that he wanted to chime in on this item because we did receive a lot of public comment on the topic of RPS, and this parallels a recommendation out of the Incentives and Subsidies Subcommittee. My takeaway from the public comment is a preference for an RPS. But I didn't see anything bad noted about a clean energy standard. And it sounds like there's lots of good things that come with a clean energy standard. So I can be really supportive of this recommendation, even as I acknowledge the public perception that an RPS has different benefits, that somewhere down the line might also be worth considering. So I can be supportive of this for now.

Mr. Vanderburg just wanted to add on that my questions for clarifying are just to really understand how this would work because I really want it to work. So just trying to get a little bit detail on the mechanics. But I agree. When I read some of the public comments in support of the RPS, I think I take those as also supporting a clean energy standard (CES). I wasn't seeing a

lot of comments against the CES. Maybe folks don't understand that the CES is really just about being more inclusive of other technologies, but the structure of the RPS, with its timelines and emissions targets and move towards zero carbon sources of energy really remain the same. So I'm supportive of either an RPS or a similarly aggressive CES.

To go back to the direct pay to utilities, so I can understand a little bit better. My understanding of the way an RPS or a CES would work is that essentially by encouraging or requiring that we move towards more low cost renewables, we save money because we're not buying what will become more and more expensive natural gas. So that savings will be passed on to ratepayers because we're using lower cost of generation. And that works. That model makes sense to me.

I'm still trying to understand where this other bucket of money, or if there even is another bucket of money, comes from for additional payments to utilities above and beyond what they will be saving, if we move aggressively towards large scale renewables. I'm still trying to understand where this other bucket of money might come from to make those additional payments. Are the savings somehow capitalizing a fund that turns into a pass through payment to the ratepayer.

Mr. Sims responded because he assisted in developing the language. It's a challenge and you want to be very prescriptive on how that revenue is going to be coming to the utilities. But at the same time, if you suggest, for example, well, we should implement an income tax to pay for this, right then it's dead on arrival. So I think it's important for the legislature to have some flexibility on how they might do that.

The rationale on why there needs to be an incentive is I challenge the statement that switching to renewable powers is going to be cheaper. There's no question that natural gas costs in the near term are going to increase. But over the long term we're not sure. And so implementing new power generation, as we know is expensive, and how expensive that's going to be in the future, especially for base power, I think is a really big question. So I think there needs to be some incentive for electric utilities beyond what their board has identified as a 2050 goal, for example, or a 2040 goal. Throw that incentive in there so that there's a benefit to ratepayers from moving in that direction, beyond the diversification which we as a subcommittee thought was incredibly important and worth the incentivization.

Commissioner Kurber stating that he is a non-voting, ex-officio member of this body. But as a potential implementer of policy here, I just wanted to weigh in on this. At this time in my commission, there is no, for lack of better term, enforcement ethos. And I think that's important to note. Things that require us to inspect, analyze, et cetera. That's going to be a corporate culture change. If that's the will of the legislature and the government for us to do, we'll salute and move out smartly. But I am very grateful for the work done on the incentive side because it reminds me of something I heard often as a young kid, and that is you get more bees with honey than vinegar. And so I just wanted to say thank you to the subcommittee for going in that direction. Because I also noted coincidentally, with having to go into enforcement, we would need to add personnel in an area where we've already looked at the reality of in the short

term where costs are going to go--to government, more staff or however you want to look at it. I just wanted to say thank you for adding that as an incentive. I really appreciate it.

Mr. Izzo responded that he wanted to add on to the thought, provide some input regarding cost. As we look at, certainly reasonably, that natural gas is going to go up substantially in the near term. I would point out a couple of things from Matanuska Electric, for example, uses 6 billion cubic feet of gas per year. If current RPS legislation around the House and Senate were to be passed as they are, and we were able to accomplish 80% renewable as defined in the bill, by 2040, we would need 3 billion cubic feet of gas. That's from six down to three in 2040. And that's to regulate the non-dispatchable renewables like wind and solar.

We have seen significant cost increases in the industry. Availability is backed up. The Tesla battery that Homer Electric installed, 40 megawatts, approximately 40 ton million. The combination two deck MEA battery, around 40 plus megawatts, 70 million. So it's gone up almost 100%. The other data point we looked at was the long duration energy Storage project that US Department of Energy (DOE) is working with Golden Valley. That's approximately ten-hour battery. DOE determined that to be a non-commercially viable technology. And so the idea here is to invest in projects anticipated to cost well over $300 million and that represents some uncertainty. And in the electric business, there can't be any uncertainty, or you have rolling blackouts.

So the idea that we can replace natural gas baseload power with something that has a capacity factor, much less we think is going to be challenging. Now, that said, we are absolutely committed to diversifying the fuel supply portfolio, and we'll get on to the next goal here, or the other goals around diversification of fuel supply and wanting to get to a clean energy eventually net zero at a lower cost. But it is going to be a much longer term and more expensive effort to set the foundation today so that we can get to that future down the road.

Ms. Miller wanted to clarify something for Isaac. Because the RPS, as previously proposed, came with penalties, and that was seen as, okay, here's the accountability mechanism that forces us to diversify. We said, okay, we don't think penalties make sense, but we need something else that actually will drive it. And that's where we made the recommendation for this incentive program, that as the utilities diversify, there's a reward. And so it is intended to be something separate from what the individual projects, as they're implemented, do to rates. This is intended to be a separate fund to again incentivize that behavior and drive taking on more projects.

And in response to Commissioner Kurber's comments, we talked a lot about how penalties would distract both the utilities and the commission from actually working on new generation projects. We have limited resources in those spaces. And rather than debating penalties or talking about deadlines, we would have staff spend time on doing projects because those are going to be challenging in themselves. So just wanted to provide that additional context. That specific subsidy is intended to be the opposite of the penalty and it is intended to drive behavior.

Mr. Venables stated that he supports the motion. You'll notice in the Southeast Integrated Resource Plan, we have references. There's no silver bullet. We seek the diversification, the silver buckshot. However, there's a couple of clarifications worth noting because we're adopting also what goes along with the verbiage. In the benefits section, I believe that "will" is supposed to be a "may". Because diversification does not guarantee low cost energy. It may, but it also may not. So I would ask that that clarification be made because my question goes to the bottom of the first page here. If you thought that it would always lower the cost, you wouldn't be asking the Regulatory Commission to be empowered to value generation diversification in addition to price.

And I was curious, should this go forward, and legislature do what they're supposed to do, what does that equation really look like? Because while those good folks at the railbelt may be able to take a few pennies to the rate here or there for the value proposition, the ripple effects of rural Alaska with the floor of the power cost equalization (PCE), that's an impact that I think we should at least articulate and be aware of as we make the choices. I was curious if Chair Kurber could speak to what that consideration looks like.

Commissioner Kurber commented that's a great observation, Robert. I think your comment about "will" versus "may" is appropriate because what we just heard literally moments ago from Tony, in the way that the cost has changed literally overnight, I think that we have to be careful that as we go about it, that there's a firm guarantee that this is going to happen. Even in terms of the aspirational aspects of the task force itself in endeavoring to get all Alaskans into a more affordable electric regime or energy regime. I think that when I read statute, statutes are done by the legislature--by the gentleman sitting to your left and his colleagues.

We would be standing by to respond. And of course, we would probably be asked to do a bill analysis, a fiscal one at that. And that's where I think it would get into the bigger detail. Because at this point, the only thing I can think of, is it's a subjective valuing as opposed to an objective one. And maybe it's not. But we're pretty much focused on cost when we look at the matters that come before us. We economically regulate. We don't go and visit and say, hey, shut that down, whatever. So to the extent that I can see it in here, that's my understanding of it. And I think that, as was already said earlier, there was a caution of being super precise and just sort of noting a potential policy direction, but allowing the actual policymakers to have their leeway as they work through it. And John, you want to speak to that?

Mr. Sims commented that I think that's a great change. And one of the reasons for this, we had a lot of discussions at our subcommittee about the impact, for example, of an AKLNG project. What if AKLNG came down and it was $4 gas as it's been kind of forecasted? Well, the motivation to change and diversify would be pretty slim because now we're receiving gas for cheaper than that. But there's still a desire and long term goal of wanting to diversify power generation. And so I think that's an appropriate change because it could be, as I was making the point earlier, it could be more expensive. And so there does need to be that incentive to encourage that kind of diversification.

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Mr. Izzo stated that, for the record, I will accept Robert's recommendation that under benefits to change the word "will" to "may" as a friendly amendment. Karl, as the second of the motion, do you have any objections to that friendly amendment. Mr. Hanneman had no objection.

Mr. Mitchell stated that, for the record, he wanted to point out for the public comments that came on this, this has been good deliberation. This has been outstanding wisdom and explaining what was the background, what was the discussions and what was the give and take of where this evolved within the Railbelt Committee. And if there is no further comments, I would call for the question. A roll call vote was taken.
The motion passed (yes-13; no-0)

ACTION A-2.2
Mr. Sims stated going back to our discussions on diversity, we had a lot of discussions about the Commission's role in this. Obviously, they play a major part in what gets approved by individual utilities. And so I was reminded of some past legislation, the Cook Inlet Recovery Act, which was enacted to ensure that the Commission understood or considered the ramifications of rejecting a gas supply contract. This is similar in that this gives flexibility to the Commission to consider the long term ramifications of new power generation along the railbelt. And to address one of Andrew's comments, I think this is something that could easily be applicable statewide. As these types of projects come on board, should the Commission be approving if, for example, in 20 years MEA is proposing a brand new natural gas power generation, is that in line with our long term goals of diversification for power generation?

So this would give the flexibility, even though it may be at a cheaper cost, to understand the ramifications of locking in that investment over the long term. So we made some specific changes to statute. This actually was very prescriptive and was proposed language that we reviewed.

Mr. Izzo stated that we are in an unusual time where some of us in the business have foresight to what costs might look like in the future. And as you mentioned, I believe it was back in 2009, legislature gave direction to the Regulatory Commission that not only price was to be a consideration in fuel supply contracts, but the reliability of the supply was a priority. And I think we're doing something similar here in that with diversifying fuel supply for a clean energy standard, for example, that might initially look to be more expensive than current generation, that the Commission has the latitude to approve such a thing based on those diversification or clean energy standard goals.

MOTION: Tony Izzo moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*
A-2.2 - *Modify existing statute(s) requiring the Commission to consider long term diversification goals when approving additional/new Railbelt power generation.* **Jenn Miller seconded the motion.**

Discussion:
Vice Chair Thayer asked if there was any discussion on this motion.

Mr. Guy stated that he supports this, especially considering the recent news that I read about the $200 million redundancy project. If there's going to be a major expenditure, there's going to be a condition that new energy be produced, too. And I didn't see any new energy being produced by this redundancy project. In that respect, I think this call is really good. Thank you.

Vice Chair Thayer thanked Andrew for his comment and wanted to clarify that the line you referred to is the grip application for $206,000,000, which is total project of $413,000,000. We have a lot of line loss off the last two lines off the Kenai Peninsula, and so we're unable to move additional power out of Bradley or do an expansion for any type of renewables off the Kenai without having, what we assumed at the time, was an upgrade to the existing line with a secondary line. And then with the grip application, the feds decided to fund the undersea cable as opposed to upgrading the lines. But that is to move more power and to have projects, like the Dixon diversion project, be more seriously looked at, now that we have a line that can handle the capacity. We were very limited before on the railbelt in general.

Commissioner Kurber stated that, for the record, he wants the public to understand that Keith Kurber doesn't speak for the Regulatory Commission of Alaska (RCA). Keith Kurber is one of five commissioners. Being the chairman doesn't mean I have a superpower to make unilateral decisions for the organization. That being said, one of the things that I was brought up to speed on by a colleague was that he came aboard during the times when the gas contracts were at a challenging point and was, I think, at the risk of overstating that point. I think he was a very helpful person in getting that off. And so we stand ready. The specificity in the language is great. And that allows the policymakers, I believe, to have a start. But we will wait and see, of course, what really comes out. Anytime there's a bill that implicates the RCA, we're required to provide analysis and input.

I was in the room last week with Curtis and Clay Koplin during the public testimony. I saw with my own eyes that there was an intensity of emotion like we had never seen in some of the other public comment meetings I've attended. Sometimes it's hard to convey emotion with a written comment. But, in a way, you give a better comment because you're doing it dispassionately. You're trying to be more reasonable in the situation. But that being said, I think that our task force has elicited a lot of public interest and public comment and the fact that we're trying to be very careful and not step on people's toes, who are the policymakers, but to offer policy prescriptions that can either be gaveled down positively or negatively. But in the case of when we get to the implementing actions, there's specificity, which is good because it gives people a better place to start. I've never crafted a bill, but I've commented on them. And I'll tell you what, as hard as it must be to write them, because they have to pass constitutional muster, they're not that easy to comment on either. And you want to be very careful how you do it. So I just want to say, as a recipient of those, I'll anticipate looking at something about this in the future, if that's a fair statement. So anyway, thank you.

Mr. Mitchell stated that I think this is wise to have this plan for a couple of reasons. The state is ripe for natural disasters--earthquakes, landslides, floods and diversification of supply helps on the natural aspects that we deal with. We don't think about it, but they come up more often than we would like. Secondly, I was reading the public comments for Snettisham when Senator Gruening held public testimony in Juneau. There was an argument that investing in Snettisham would be ludicrous because oil was so low and only a fool would go forward with Snettisham because it would raise costs. And the wisdom of that, that now we have less than four cent kilowatt hour puts things, allows the RCA to look at things on a different horizon than just the here and now. And I think this speaks to that. The question was called. Roll call vote was taken.
The motion passed (yes-13; no-0)

ACTION A-2.3.1
Progress Known Near Term Energy Diversification Projects to a Go/No-Go Decision: 2.3.1: Dixon Diversion

Ms. Miller stated that the next three recommendations out of the railbelt subcommittee are all related to progressing known energy diversification projects to a Go/No Go decision. And that last part is incredibly important. And so the railbelt subcommittee considered projects that have been debated, discussed, and studied for long periods of time. We decided that we don't want to be two years from now and we're still debating these projects. We're not saying, go, do this project. We want to complete their studies, understand what the costs and benefits are, and make a Go/No Go decision so that we're actually in a position of action that is in the best long-term interest of the state. Or if we find out that it's not a good project or not competitive, we can pursue other alternatives. We don't want to wait to make the decision any longer.

The first project is the Dixon Diversion project. The second is Susitna-Watana. And then the last one is looking at our gas source, heat source and baseload power. And it's considering multiple options for the AKLNG the bullet line and alternatives. She asked Vice Chair Thayer to provide information on the Dixon Diversion project.

Vice Chair Thayer stated that Dixon Diversion is a project that is on the Bradley Lake footprint. Bradley Lake is the state's largest hydro project of 120 megawatts. It's owned by the Alaska Energy Authority (AEA). It's located about 28 miles from Homer and provides about 10% of the power on the railbelt. Bradley Lake is a glacier, a lake, and a river. About five miles from Bradley Lake in a very similar geographical area, is the Dixon Glacier that feeds into a lake and the Martin River. The Dixon Diversion project is to do a directional drill 5 miles, eleven foot borehole over to Bradley and putting the water into Bradley. There's not a need for an additional powerhouse nor for any upgrades to it. We do need to raise the dam level at Bradley, probably about 14ft.

This project is one of the most economical ways that we could increase a hydro project. Our analysis shows it could increase by 50%. Where Bradley currently electrifies 54,000 homes. The Dixon Diversion project would add an additional 28,000 homes to it. Right now, AEA has received $5 million from the legislature. There is a second request for another $7 million. For

the last two years we have studied the project, and to figure out the economics. Right now, the early phase, it has proven up that there's more water coming out of Martin river that could be diverted. And actually there's some cost savings by eliminating a road and also, the bore tunnel looks to be cheaper than previously anticipated, and one might say a five mile bore over to Bradley.

Thirty-two years ago, that's what we did for the powerhouse to take it from the lake down to the powerhouse. A similar borehole, except it was actually about a mile and a half. And so the technology is there. This is something short term. And also it needs a modification to a perf license. You don't need a perf license. So it's kind of in our backyard, and it's something that would potentially lower the cost and provide more renewables to the railbelt. Vice Chair Thayer stated that Matanuska Electric Association (MEA) is a participant in the Bradley Lake Project and the Dixon Diversion. He asked Mr. Izzo if he had anything to add.

Mr. Izzo responded that Curtis didn't miss anything. I would just point out that this is a renewable baseload power source. Fifty percent increase to Bradley Lake. That is relatively short-term in the scheme of the utility business that is long lead time and capital intensive. The grip funding will facilitate the efficient ability to move this power north into the railbelt without the cost of that transmission impacting or having an increase in rate. Overall, I would comment on these near term energy diversification projects, as well as long term energy diversification projects. And maybe on a personal note, it would be nice to make a decision and move on.

Many of us in the task force expressed concern that over decades sometimes having a looming megaproject like this can influence decision makers to think that the solution or silver bullet solution is right there. From the utility manager's perspective, sometimes that represents frustration, because we've seen decades of these projects basically stalling. So there is a sentiment about let's update it, let's make a decision, and let's move on one way or another. I would add another aspect of this, that as we looked at the governor's goal of 10 cent energy, that large scale and economies of scale was going to be critical to achieving that goal. And that applies not only to the railbelt, but statewide. A robust transmission system in the railbelt. Larger scale projects would facilitate, for example, connection of rural communities with transmission. Today's transmission system and generation is too limited. It would represent a decline in reliability if we were trying to expand beyond what we have today.

MOTION: Tony Izzo moved that the Task Force approve Railbelt Transmission, Generation and Storage Actions*:*

A-2.3.1 - *to progress known near-term energy diversification project, Dixon Diversion, to a Go/No-Go Decision; and approve to progress known long-term energy diversification projects.*

A-2.4.1 - *Susitna-Watana Project and Action 2.4.2 Alaska LNG, Bullet Line and Alternatives to a Go/No-Go Decision.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion, questions, comments.

Mr. Venables clarified that the motion is to get to a decision on these projects. It's not to endorsement any or all three of them. Mr. Izzo responded that Robert is correct. The subcommittee looked at, for example, is there a desire to move Susitna-Watana Project forward. The sentiment I thought was unanimous, including myself, was that prior to authorizing state expenditure on license, that we should update the project cost and make a decision one way or another and move on. So it was in that order. I hope that clarifies.

Mr. Venables thanked Tony for his clarification. He stated that he supports the motion because as one that was appointed by two different governors to be on committees for the stranded gas or the pipeline project, we get it so far and then we don't get to decision. I watched the same thing happen to the Susitna Project. So I don't want to prolong this. And I have no further comment.

Mr. Guy stated that Action A.2.4 Alaska LNG Project is going to be a major, major expenditure. And considering that, is there a plan to not just be railbelt? That's my question.

Senator Bishop responded to Andrew by stating I just looked at Susitna-Watana for 618 megawatts. I looked at excess capacity and I know there's a project in your region, Andrew. And I look at a map and I don't know if you were in my office, but I think you were. And I got a topo map out and I drew a line from the Parks Highway to Dalton Highway. It's maybe 140 miles. That could be excess power that could be done to create more economic development. And then you look down the river system. How much more does it take to get a line down there? That's how I roll at 50,000 foot level view, and it's renewable power.

I want to add one other thing. You guys have done a fantastic job. I have a quote on, then it was a big project, that I would like to read into the record. And this project was first perceived in 1930 and it goes along with the Ernest Gruening comment made earlier. And I think it's very relevant. And the conversation was about piping geothermal water to the city of Reykjavik to heat a school. One of the council members said, *I don't think I've ever approved such a completely ludicrous idea as to think that water can be brought all the way to town* (We're talking, I think it was like 30 miles), *and it'll still be hot enough when it arrives to heat entire buildings. You will never get me to believe that this is feasible, no matter what you can calculate.* So anybody has any knowledge of Iceland, you can see this guy was completely wet.

Mr. Guy commented considering that information, should we just go for Action 2.4.1 or 2.4.2? I think that would be a fair direction for the committee to provide. If that's the case, then I would move to amend the motion and remove Action 2.4.1 Susitna-Watana from the original motion. This amendment died due to lack of a second. Mr. Guy asked if the Task Force is recommending that we pursue both the Susitna-Watana and the gas line projects? Vice Chair Thayer stated that the motion is not to pursue them, but to recommend that we get to a Go/No-Go decision to proceed with the projects.

Mr. Guy commented that's we should make a definite recommendation considering the senator's response. Vice Chair Thayer commented that Senator Bishop stated the Susitna-Watana Project benefits Donlon. Mr. Guy responded that it would not just benefit Donlon but would also benefit the rest of Alaska.

Senator Bishop stated that was my point. In theory, down the line it could be expansion of clean energy to the lower Kuskokwim, to Donlon down to Bethel. But that's miles down the road. I've been 35 years waiting for Susitna.

Vice Chair Thayer asked if we have more discussion on the original motion that included Actions 2.3.1 Dixon Diversion, 2.4.1 Susitna-Watana, and 2.4.2 AKLNG bullet line and alternatives.

Mr. Izzo wanted to acknowledge there was a lot of public comment related to really both Susitna-Watana and Alaska LNG. Specifically, I'll speak to Susitna-Watana. If a decision is made to update the cost analysis, it's going to be critical for the state to engage the community councils and to speak to Alaskans in that region. While I want to acknowledge the public comments that are not in favor of this, I've seen presentations at the regulatory commission that talked about how dams can facilitate or avoid things like flooding.

I don't have a personal stake in this project. MEA is going to provide power either way. But we wanted to acknowledge the fact that these have been on the table a long time. I would distinguish that the AKLNG bullet line is really a statewide export project that we might benefit from and the Susitna-Watana would be renewable large scale base power that would eventually deliver lower cost rates. Thanks.

Mr. Hanneman wanted to get clarification from Andrew Guy when he was suggesting that we bifurcate 2.4.1 and 2.4.2 as to which one that he was recommending would survive. I understand that there was no support. But I think there was confusion on which one he was recommending survive consideration, at least within the report, and whether it was going to be 2.4.1 Susitna-Watana that remained in the report or whether he wanted 2.4.2 Alaska LNG and the bullet line to remain in the report. Because I was confused on that point.

Mr. Guy responded that I didn't do anything regarding the main motion to adopt A.2.3.1 and A.2.4. I was only addressing to amend the motion regarding 2.4.1 and 2.4.2 to delete 2.4.1 as an option and keep 2.4.2. Mr. Hanneman responded that is understandable. So your recommendation, although I realized that we voted on it, but your recommendation was to keep Alaska LNG bullet line. Mr. Guy responded, yes. Thank you.

Mr. Hanneman stated that, as a follow up to that, I'm not sure in the final drafting that resulted in the text that's in the appendices to the report, if the discussion that the committee had with regard to the bullet line came through and that the recommendation is not to pursue specifically the bullet line, rather it's to pursue Alaska LNG as aggressively as is reasonable for a recommended period of time of about two years. And then if that does not proceed, make sure that in the meantime we've studied the bullet line and have the cost updated appropriately and

the execution plan updated appropriately so that in approximately two years' time, while we've studied other alternatives to make sure that we're not moving ahead foolishly or moving ahead contrary to what current available other alternative technology might indicate.

If we've done all that study and review and the bullet line seems appropriate, seems it's currently permitted and executable, then we make a decision in about two years' time to make sure that Alaska does not run out of natural gas for either the necessary baseload generation or the space heating that we assuredly will need for the period of time while we're furthering diversification of our energy supply. And so that's what the recommendation is, is actually to ensure that we are prepared to make a go or no go decision on the bullet line in approximately two years.

Ms. Miller wanted to respond to Karl and clarify that for Action A.2.4.2 we don't have the latest version of this action item in the report. But it's mostly there, Karl. The intent of this is to pursue three options in parallel. And the title reflects that. And so, first and foremost is Alaska LNG, which would provide significant economic development, gas export and also a cost competitive local source for Alaska. So that is the primary option. But because we don't know if that project will go or not and we don't want to, like we said earlier on, we don't want to be two years from now and say, okay, now what? We want to say, now what, now.

So in parallel with that, we want to further analyze and complete project development for the bullet line so that we can understand what the cost of that project is. A key component of that analysis is to understand what the financing structure is. And so we want to do that in parallel. And then third, we want to pursue, looking into what are our alternatives are for heat and baseload power. That could be something like geothermal. It could be looking at converting homes from natural gas heat to electric heat, such as a heat pump. So we're looking at different state support for different projects, we want to understand what our costs are, we want to do a broad look at what our options are so we're making the best choice for Alaska long term. To clarify for the public, it should be those three paths in parallel. And we do have an updated version of this that will get included in the final report. Thank you.

Vice Chair Thayer asked Task Force members if it would be easier to break up these three action items into separate motions and we would have three separate votes. Mr. Izzo, as the maker of the motion, supported that idea. Mr. Sims as the second also supported the suggestion.

MOTION: Karl Hanneman moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*

A-2.3.1 - *to progress known near-term energy diversification project, Dixon Diversion, to a Go/No-Go Decision.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer asked if there was any discussion on this motion.

The question was called. Roll call vote was taken. **The motion passed (yes-13; no-0)**

MOTION: Jenn Miller moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*

A2.4.1 - *to progress known long-term energy diversification project Susitna-Watana, to a Go/No-Go Decision.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer asked if there was any discussion on this motion.

Mr. Koplin stated that he supports this project and will vote in favor of the motion. We did receive substantial public testimony. A lot of it was project specific. And I just want to point out first to Duff's points that my organization has been developed with community, has been involved with hydro developments, where there were arguments that would be cheaper to just use diesel fuel for power needs. We had opposition from local stakeholders, environmental groups.

Most of them, especially all of them at the organizational level, ultimately supported the project after it was built, and they recognized the benefits. The benefits to rural Alaska and reducing railbelt costs and the positive impact that has on the PCE contribution. Again, the opportunities, all of the suite of services that a hydro can provide in terms of long duration energy storage that other renewables rely on for efficiency and affordability, the ability to mitigate flooding and drought cycles that could have impact on downstream aquatic resources, fisheries, so forth, and the long term levelized cost of energy once the debt is paid off. And my community, for example, enjoying the benefits of less than eight cents a kilowatt hour power, despite our tiny economy of scale and the ability to extend transmission loops, whether it's the railbelt or electrify other portions of the state, are very compelling. And I definitely support moving this forward to Go/No-Go and ultimately look towards developing this project. Thank you.

Mr. Hanneman wanted to follow up and support the previous comment that the recommendation here from the group, from the committee was actually to update the cost estimates for Susitna-Watana first, because now they're a fair bit stale, and this could be done at a relatively low cost. And then check back in to assess whether the then protected cost structure still meets the objectives of the collective Alaskans. So that's the first step.

And I don't want the public or others to misconstrue that this is a recommendation to proceed with FERC licensing, which is a major hurdle. So we should update the cost structure first.

And also, I think I appreciate splitting these into buckets because we know from the public comments that a project like Susitna-Watana would be challenging, and we may not have the collective will to execute it, and we don't want it continuing circling the drain. So let's do the low cost step first and then reassess. So, thank you.

Vice Chair Thayer stated that he agrees with Karl. An important component is knowing the cost but also checking with FERC, so we know what studies are so good and which ones are not good and how stale they are, which has to be part of that cost estimate. Because cost is one thing, but obviously we need to make sure that what work is still to be done through FERC. And so I agree 100% with your comments.

Mr. Guy added that if the project clearly meets the goal to diversify, be reliable, cheap and everything. But when you look at the costs associated with this and look at the history, and the reality is that project like this would only be local, it would not extend to benefit other parts of Alaska. And that's where I'm coming from. If we're going to spend a lot of money on a project, it has to benefit every part of the state. And this does not meet that standard in my mind, just because we have history to look at when the major projects occurred in the Southeast. And here we got PCE, yeah, but with a promise that we'd get the later development. But the way the legislature is structured, how the state is structured, they're able to decide, hey, we're not bound by that past legislature, we're not bound by that past administration. Easy to say that what we're doing is right, even though it's not right. So that's where I'm coming from. Thank you, Mr. Chairman.

Mr. Mitchell stated that as someone who's been heavily involved with hydropower development, I want the public to understand that this is to get to a Go/No-Go. The public input will be long, and it will be considerable on all the benefits that go through the environmental impact statement (EIS) process. So, you know, what we are right now is in purgatory. Are we going to heaven or are we going to go the other direction? And I think we need to make a stop on whether we keep spending money or we update. We make a decision. And that's what I'm voting on, is to decide.

So we could wisely put this completely on the table or we completely put in the fourth gear and move it forward. And I think that's what we're voting on. So I really appreciate all the comments that have come in on this issue. I'm a person that you shouldn't build hydropower unless it can be fish friendly. So I'm not at that decision point here. I'm just trying to get to a decision point whether this is a go or no go.

And I think that Alaskans can make fish friendly hydropower. People say dams are unnatural, and I would just say, look at a beaver. That's how man learned how to build a dam. So I don't want to get into the debate on whether this is a good or how it can be done. I think that's in the engineering and in the design. I'm going to vote in favor just to move this project forward to a go and no go decision. To Andrew's point, this thing would produce so much power that you could electrify the railroad. If you got a gift from the federal government to run to Donlin or you got a gift to 80% match to run power like other states have. And I've looked at what other states have. We are so poor in transmission. North Dakota, Wyoming, and Puerto Rico--well John Sims said that Puerto Rico has much more population, which is why they get more. So I looked at population based states. North Dakota and Wyoming have twice the load of transmission line than we do, and yet we're one-sixth of America.

And to your point, I think in 1936 they should have been running lines to all over rural Alaska we wouldn't be having these debates anymore. But I think that is a point in time where we go forward and say, yes, we need to have low cost power, where it can be moved from if we have a big project or even a small project, energy diversity, to move power to things. That's not going to happen overnight, but I think we have to make a step. I'm going to support the motion.

Ms. Miller stated that she wanted to reemphasize what others have already said. But the context from the subcommittee, we talked a lot about this recommendation and really what we wanted to do is say, okay, what's the smallest amount of spend we could do to get to a decision point before taking on just another option was, okay, let's go straight to FERC licensing and pursue that. That was a price tag of maybe $100 million. We said, well, that doesn't make sense. We first need to go back to feasibility and say, is this project cost competitive? What does the permitting process look like? And then make a Go/No-Go decision before taking in that bigger spend. So I just want to clarify, especially given the public comments on this, is that this is a understand the cost, understand the permitting, and understand also the feedback from the public, and then make a Go/No-Go decision. I would like to call the question.

Vice Chair Thayer recognized Mr. Guy. Mr. Guy stated that he appreciates Duff's comments and I do now realize that it can be brought to many areas. But when I consider economic development, business development, that would start to happen with lower cost energy. That means other factors have to be considered. Consider just the Donlon project machinery, field machinery. Although they can be run by electricity, many will not be able to be totally run by electricity. So that means an energy source that can be a lot more reliable like LNG. So looking far ahead and looking at the challenges that would be there, I still have to say the dam project would still be more local in terms of its impact. So thank you. The question was called. Roll call vote was taken.

The motion passed (yes-13; no-0)

MOTION: Jenn Miller moved that the Task Force approve Railbelt Transmission, Generation and Storage Action*:*

A-2.4.2 - *to progress known long-term energy diversification project Alaska LNG, Bullet Line and Alternatives to a Go/No-Go Decision.* **Karl Hanneman seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Clay Koplin had a point of order and asked about how the task force was voting on these three action items. Vice Chair Thayer explained that task force members decided to break up the three action items in the original motion. So instead of one motion, we now have three motions to vote on.

Ms. Miller stated that for clarification, we do have an updated version of this action item for the report. This current draft report indicates that the Alaska LNG and bullet line are in parallel.

There's actually three parallel paths where the recommendation is to look at Alaska LNG, the bullet line and alternatives for baseload, power and heat to reach a Go/No-Go decision.

The question was called Roll call vote was taken. **The motion passed (yes-13; no-0)**

BREAK (10 minutes)

STRATEGY A-3: Increase Demand

ACTIONS A-3.1.1; A-3.1.2; A-3.1.3

Vice Chair Thayer called the Task Force back to order. John Sims has stepped out of the room, but he will be back. We still maintain a quorum. Our next item is the last action item under Railbelt Transmission Generation and Storage, Action 3.1 significantly increased load to drive down energy rates. I will look for a motion. Ms. Miller stated the Erin Whitney did the legwork on this action item. So, I will turn it over to her to introduce it, and we can make a motion from there.

Ms. Whitney from the Arctic Energy Office stated that this action is based on results that we saw out of Iceland. And this was a presentation given by Glen Holdman in one of the many public meetings that were held as part of this process. Essentially what Iceland did 20 years ago is strategically increase their load alongside their generation as a way to lower their costs. And that's a very sort of simplified explanation of it. The intent of this action is to encourage further evaluation of that path for the Alaska railbelt. Because the railbelt followed a very similar pathway to Iceland's electric system in size and capacity generation up until the time that Iceland made this decision to increase its load. And then you see sort of a bifurcation behavior.

So what I do want to say with regard to this action is that the intent is to reduce the cost of energy for all customers. To issue an RFP or something similar for a large enough industrial load so that you would bring down the cost for all customers. I also have to acknowledge there would have to be sufficient generation for this and that it still needs further evaluation and study. This is not saying go out and do this tomorrow. This is saying, consider this alternative with sufficient analysis and evaluation to do this in a way that's prudent and responsible and doesn't endanger anyone's electrical service or rates.

But it is a very intriguing action and result that has been undertaken by Iceland. I think it's worth consideration by the railbelt. We had considerable discussion among the committee about this step. And I would invite my fellow subcommittee members to add their thoughts as well.

Mr. Izzo thanked Erin and wanted to add some emphasis to the sufficient analysis of rates and acknowledge that we did receive significant comments in this area regarding concern that somehow there would be rates going up and that it would be subsidized by residential ratepayers. And that's not the case at all today.

The way the current rate structure is set up, if a large enough load were to come in, it actually would result in potentially lower rates for that commercial entity without a cross subsidy from other rate classes such as residential and commercial. That principle is in place today and we anticipate that it's the basis of this goal. So simply put, by expanding the number of kilowatt hour sales, it would help spread costs across a larger demographic and reduce rates for all.

MOTION: Jenn Miller moved that the Task Force approve Railbelt Transmission, Generation and Storage Actions:

A-3.1 - *Significantly increase load to drive down energy rates to include Action 3.1.1 - RFP for Industrial Customers***.**

A-3.1.2 - *Energy Tax Credit for New Industrial Customers; and Action 3.1.3 - Identify "Load Friendly" Areas Already In-Place.* **Tony Izzo seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion. He wanted to clarify that the motion does include all three action items listed under 3.1. Ms. Miller replied that is correct. Similar to the clean energy standard and diversification incentives. We had multiple incentive programs within that one recommendation, and this one is similar to that where the broad recommendation is to significantly increase load to drive down rates.

And then we have three bullets within that action areas. One is RFP for industrial customers to try and drive up interest and say, hey, Alaska is open for business. We want to increase both our economy and our electricity demand. And again, this is all driving towards increase in the denominator to spread out fixed costs. Secondly, 3.1.2 is an energy tax credit for new industrial customers. And then 3.1.3 is to identify load friendly areas that are already in place that we could take advantage of today that don't need additional generation or infrastructure, and we could start increasing this denominator now. And so it's all rolled up into A-3.1. And I would propose that we vote on these as a collective.

Mr. Venables asked Ms. Miller to elaborate a little bit more on 3.1.3 already in place consumers, how that's going to lower the rate, which is our primary charge. Mr. Izzo responded that although we talk about the fragile transmission system that doesn't meet the lower 48 standards, there are places where we don't have constraints on the system today. And so rather than waiting, for example, until those constraints are gone, you have a robust system from Homer to Fairbanks to elicit potential economic development. And the subcommittee believes that there are zones today that would be easier to access for, say, large renewable generation or wind projects that would not require the kind of inner tie and potentially maybe less regulation if they were located in certain places along the transmission system. And so the suggestion here is let's identify where those are and provide those as marketing opportunities for potential development.

Mr. Venables stated that, for clarification, you're talking about future loads. You're not talking about lowering your revenue from current loads. Mr. Izzo responded that's correct.

Mr. Hanneman stated that he was a member of the Railbelt Subcommittee and wanted to share my perspective for the other members of the task force. I was a bit of a skeptic on this approach because I really feel that until we get our whole generation house in order and provide some certainty as to some ability to provide baseload power, that our ability to attract new customers to Alaska will be very difficult. But yet through the discussion, I was led to believe that a couple of things.

One is that getting the debate out there that says increased load will help all of us in the long run is very important and will improve our understanding. I also think we need to provide an opportunity to see the art of the possible. If there's a belief that we could execute some of these projects that might help incentivize economic development in exchange for lower rates or defined rates for a period of time, which then ultimately helps the whole rate base, I'm willing to take that chance. Also understand that there's not a lot of risk here for identifying this as an opportunity. So for that reason, I vote to support it.

Mr. Vanderburg stated that I support this. And just adding on an interesting data point from Iceland where I think their total load, the percentage of it is industrial, is around 78% of their entire load in the country. And another 10 or 12% area, you might have the exact numbers, commercial or other commercial uses, and the residential is the last 5% to 7% total load for the country. So really a remarkable achievement where the industrial load in that country is really driving their sub-ten cent power as the main kind of demand. I also think this action reinforces some of the other actions the railbelt came up with around transmission. You've got to do both things. If you want to support increasing industrial load, you need time to build out transmission. So it's additive and complementary of other actions we've already approved. I'm giving my approval for this one.

Mr. Guy stated that I do support this by any other name. It goes well with the rural anchor tenant goal. I guess my only kind of comment or concern is that the kind of industrial customer that we'd be wanting to attract because a lot of, well, a major factor in those kind of customers is distance, the placement, and where we are. Alaska is a big place, and a lot of the resources are out of the railbelt. But there are other industries that can be easily accommodated in the railbelt. But in that respect, it'll be very good for us.

Ms. Miller expressed her support for this recommendation. Through Gwen Holdman's presentation on Iceland and seeing what their journey was. I think a lot of times it's really easy to get stuck in the chicken or the egg type conversation. Okay, well, do we add more generation to prepare for industrial customers or do we let them come? But maybe we won't be able to attract them if our rates are too high. And so you just kind of get stuck. And I think something that was really inspiring about Iceland is they said, let's go big and let's go for both at once. Economic development, increased load and what that resulted in. And so I think a body like this task force, it is our job to look strategically and think big. And I really appreciate Erin and Gwen Holdman for bringing this idea forward. And I think we don't have the answers, but I think looking at an example of Iceland and memorializing that recommendation is really

important for Alaska to both increase our economic development and have the potential to lower rates. So I support this.

Mr. Koplin stated that he wanted to share a little bit closer to home. When Cordova overbuilt our hydroelectric plant and worked with our seafood industry, the industrial load that was added generated substantial additional tax revenues for the state. And it's allowed us to keep the residential and large power rate classes, community facilities, so forth, flat for 20 years. So this can work. And so specifically, item 3.1.2. When you're generating new business, there is an opportunity to not cannibalize either your electric rates or your tax base. You can take a little bit longer view and ultimately generate more taxes and reduce energy rates. So I'm strongly in favor of this action and all the sub actions.

Mr. Mitchell stated that a lot of hydropower built in the state was with mines and fish plants. And they continue to operate today. And now they're fueling other purposes rather than the original mines and the original fish plants. And it's dotted all over the state where that exists. And so if there's not any further discussion, I'd like to call for the question. The question was called roll call vote was taken.

The motion passed (yes-12; no-0)

c. Coastal Actions - Duff Mitchell and Robert Venables, Co-Chairs

Vice Chair Thayer stated that this subcommittee met 13 times, which is the record so far. Total hours meeting was over 14.5 hours, but the Railbelt Subcommittee beat them with 22 meeting hours.

STRATEGY B-1: Alaska Market Initiatives

ACTIONS B-1.1; B-1.2; B-1.3; B-1.4; B-1.5

Mr. Mitchell stated that we had a robust Coastal Generation, Distribution and Storage subcommittee. We did have public input at our meetings. We had NGOs that supported air source heat pumps, a commercial dock developer support dock electrification, we had written comments. I reached out to President Richard Peterson of Tlingit and Haida Central Council on one of our recommendations to seek his input. So we tried to reach out and get as much input as we could as we were forming our strategies and action initiatives. We broke it down to four Alaska marketing

As we were forming our strategies and our action initiatives. We broke it down into four strategies: 1) Alaska Market Initiatives, which is similar in some respects to what we just passed with the railbelt, with increased demand; 2) Alaska Policy Recommendations, which is more internal, reflective of what the state could do better with streamlining; 3) State of Alaska coordination with federal agencies and federally and state recognized tribes' recommendations: and 4) Alaska Hyder Power Generation Recommendations. I've read all the public comments that have come in. We have integrated some of those comments and I can

speak to them when we come to an exact case where we may have modified some of our action items.

In Alaska Market Initiatives, we had integrate and promote heat pump technology and systems. This includes air source heat pump, seawater heat pump, ground source heat pump as alternative energy source in coastal Alaska. B-1.2, plan finance and support the execution of shore power at public and private cruise docks to sell excess energy to cruise ships. This not only reduces emissions, but it also provides, like that market initiatives that industrial customer that can help take care of excess electricity when communities might have excess in the summer. Beneficially electrify the Alaska Ferry fleet to lower the cost of transportation, emissions and assist in reducing the cost of power in coastal communities. This is to supplement what is already coming from the federal government. I think there's like $250,000,000 coming to our DOT to start the process of electrification of the ferry systems. You obviously need to shore power them.

B-1.3, identify and support co-location of industrial load data servers with Alaska hydropower facilities for synergies and cost energy costs. B-1.5, identify assist battery energy storage systems and other energy storage systems for successful integration into coastal communities to increase energy security, grid resilience and to lower energy costs. Because I believe that the public comments were generally supportive and these are what I would call non-controversial, I would ask for a motion to approve the market initiatives in a block, B1.1 through B-1.5, if that is the will of the task force.

DRAFT

MOTION: Duff Mitchell moved that the Task Force approve Coastal Generation, Distribution and Storage Actions:
B-1.1 - *Integrate and Promote Heat Pump technology and systems (ASHP, SWHP, GSHP) as an Alternative Energy Resource in Coastal Alaska.*
B-1.2 - *Plan, finance, and support the execution of Shore power at Public and Private Cruise Docks to Sell Excess Energy to Cruise.*
B-1.3 - *Beneficially electrify the Alaska Ferry Fleet to lower the cost of transportation, emissions, and assist in reducing the cost of power in coastal communities.*
B-1.4 - *Identify and support the colocation of industrial load (e.g. data servers) with Alaska hydropower facilities for synergies to lower energy costs.*
B-1.5 - *Identify, assist, and fund Battery Energy Storage Systems (BESS) and other Energy Storage Systems (ESS) for successful integration into Coastal communities to increase energy security, grid resilience and to lower energy costs* as a block. **Robert Venables seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Mr. Venables stated that we had public input. But appreciate my co chair's move on effectiveness and efficiency. And he represents the Southeast Conference, which covers everything from Metlakatla to Skagway. And people have remarked, well, Southeast Alaska, you're one unified block. Well, someone who grew up there, we're like Greek city states. We don't agree. We play basketball against each other, baseball and football. We don't ever agree together unless the Persians are coming over the Hill. So I think that we have good support on our recommendations.

Ms. Whitney asked if the subcommittee saw any significant objections to any of these particular market incentives? Mr. Mitchell replied not in B1, Alaska Market Initiatives. In fact, the seafood industry supported it and said, hey, we're already doing this. There were a lot of comments in favor of this action.

Mr. Venables added what this is looking at is what resources do you have right around you. We have air, water, and ground. Beneficial electrification is one of the key things that we're looking to champion. So we're putting it into our marine transportation, putting into our homes and our businesses, et cetera. We're using storage techniques to support that dispatch. So these were very non-controversial. No brainers.

Mr. Hanneman asked about 1.3. I was looking in your fact feed or in the action items, for more validation of the costs and economic benefits or feasibility, really, of conversion of the Ferry fleet to electric. Can you share some of the information specifically about the British Columbia (BC) fleet and what their experience is and what the cost of power that they're using is to operate? Because I also know that the Seattle area has looked at electrifying their ferry fleet and have found it to be something that they're not able to pursue because of technical issues. So can you just elaborate a little bit?

Mr. Mitchell stated that it's a great question, and it happens to be one of my favorites. So, yes, Washington state set aside a billion dollars to initiate their modernized electric fleet, and they're working through those issues. The electrified marine transportation has fewer moving parts because of no combustion. And so the costs, even with battery banks, are lower to operate. And one of the things that we're seeing is that the relationship between the Marine transportation and the terrestrial side has very interesting synergies. And there's actually a report that Southeast Conference did on our website for what we call the low No E for low no emissions ferry. One of the really exciting things to me is to see where the whole number of initiatives that are happening, the green corridor, the cruise ships are pursuing, what DOT is pursuing, what communities are doing, what National Electric Vehicle Infrastructure (NEVI) Formula Program is doing across the state and eventually down to the Southeast. We can't have redundant systems, so we have to have similar technologies that work well together. So what we do for the ferry system needs to be something source side. Those battery banks, in my mind, need to be compatible with being the cornerstone for terrestrial EV distribution, especially in our rural communities. We, of course, hope that's always dispatched renewable energy. But even in communities that are still reliant on diesel, most of that spending reserve is just half aisle during the night, so you can do time of day charging, which helps to lower the entire community's electrical rate because of the additional sales.

There's a lot of different things that converge as these strategies come together to modernize the fleet. And so while you're going to have to have some serious propulsion with the mainliners, what we're seeing for a lot of the point to point day boats or commuter ferries is something that can be more of what I call the Prius style. So routes less than 25 miles, they can be all electric. The ones that extend have a number of roads that are 90 miles or thereabouts. Those can be electric while they're in force, leaving, approaching, and then go into, hopefully something with a greener diesel or LNG or some other type of cleaner fuel that would then propel during their journey. So we see a lot of really cool things coming together that we have to recreate the marine highway system, because we can't create what worked in the 60's and the 70's, was breaking down in the 80's, fell apart in the 90's, and the last 20 years has been painful.

So having an opportunity with these federal funds to modernize the fleet, take advantage of the renewable energy that we have in coastal Alaska is a good thing. I go back to my no brainer, but there's still a lot of good questions to be asked and answered in this process that we're just getting into. But we've been able to take a look at where it's working. There's a number of us that went to Norway last summer. These are things that they are doing left, right, and center. And so there's a lot of knowledge transfer that can happen and lessons that we can learn that we don't have to recreate for ourselves painfully and constantly. So we're excited about what we see on the near term horizon.

Mr. Venables added that British Columbia is one model of many around the world. They're on diesel hybrid ferry systems, and I think they dropped their operating cost of fuel down something like 80%. I'd like to see the numbers to really reflect that, but it's coming. Like my co-chair stated, Norway, Sweden, Finland, they've all gone to battery electric hybrid or battery electric pure technologies. We forget that our submarines in World War II were diesel electric

propulsion. They had batteries, but they were generated with diesel electricity. So all we're doing is taking American technology and putting it in Alaska, where the world is kind of like eclipsed us a little bit. We're going back to our roots here.

The benefits of growing our electric fleet, or beneficially electrifying the fleet with the federal dollars helps us reduce the risk out of state budgets. And I want to key in on a point. We have had ferries down because that particular engine was built in Germany and they didn't have the parts for it, and then they had to go make the parts. And so a diesel electric hybrid ferry system might have 400 parts, where an internal combustion engine diesel ferry may have 2,200. So you also simplify the maintenance aspects dramatically with the move. This isn't a silver bullet, Carl. I think that this gives DOT an option, and they have smart people working on this. I think Robert's worked on the Marine advisory committees. They know what the problems are. We have a ferry fleet that was built over several generations with different parts and models. If you were a military, you'd say, this doesn't work. I think we've concluded what our ferry system needs, and this is the step in the right direction for the future.

So I support this, and I think we've done some homework on it, and we're going to be able to move forward with this in lowering the cost, not only providing more affordable transportation, but as the shore power systems come into these smaller communities, you're going to have to naturally accrue a battery energy storage system that can help with electric vehicles and other things. So there's a lot of ancillary benefits that will probably grow from this matter.

Commissioner Kurber stated I look at this section and appreciate your detail. I see RCA implicated in B-1.1, B-1.2, B-1.4 and B-1.5. I just want to briefly go through those. Just again, I'm not speaking on behalf of the RCA, but just as a member of the RCA. What I see on B-1.1, the utility building integration on the heat pump loans, some of this stuff doesn't look controversial to me. On B-1.2, encouraging communities, I'm going to speak to something that was very recent history for me. In January, when I think one of our first public meetings, Brian Hickey came and talked about the grip funding proposals that we're going through. And essentially we did a sense of the RCA motion. It was nothing super amazing. And to the extent that it helped in securing that grid funding, great, but encouraging. That doesn't seem particularly controversial.

Then we go to B-1.4, again, it's more encouraging. Not quite sure exactly how that may manifest in your life, but things like we did, where people come and present, we're like, we're supportive. We'll look at this as they come up and we'll be open minded to helping these things go forward. And then when it comes to the B-1.5, the Battery Energy Storage System (BESS) and the regulatory structures in place. BESS are not new to Alaska. They're getting improved. We also understand they're getting more expensive. So to the extent that we can do this, it seems very reasonable. So again, not speaking for the whole team, but I'm saying that my initial review of these are very supportive. So I'm not a voter, but I just think offering that as support and encouragement.

Mr. Venables responded that to speak to Chairman Kurber's point. We put the RCA in there because we know that you can't just arbitrarily do something and that may impact the rate. So if you do shore power in one community, maybe it's going to create a new rate class. Maybe it's means we have to do something, so we don't negatively impact the residents. We're adding new generation and maybe guiding at a higher rate or a different rate class. And so that's one of the reasons why RCA is included because as these things go forward, and we do these great things, RCA is going to have to be involved to make sure that the rate issues are resolved. The question was called Roll call vote was taken.

The motion passed (yes-11; no-0)

d. Lunch (20 minutes)

Vice Chair Thayer called the meeting to order. We're going to pick up where we left off.

STRATEGY B-2: Alaska Policy Recommendations

ACTIONS B-2.1, B-2.2, B-2.3, B-2.4, B-2.5 and B-2.6

Mr. Mitchell stated that this is Alaska Policy Recommendations. For the Task Force situational awareness, it's real easy to throw a rock at the federal government. The federal government's in our way toward developing resources and other things. And sometimes that's true. Sometimes it's just the way the process and the laws are. But this is a recommendation for internal reflections. What can we do better, smarter, within our own control, with our own state government, with our own regulatory regimes. And so let me go through these, and then we can decide whether we bunch it all together or we break them out. Mr. Mitchel read the strategies and recommended that task force members vote them in as a block, but he was open to the will of the task force. Task Force Members briefly discussed voting this as a block or individually.

MOTION: Robert Venables moved that the Task Force approve Coastal Generation, Distribution and Storage Actions:

B-2.1 - *Establish, require, assist and implement a community integrated resource plan (light) to forecast energy demand and generation for community and regional future energy needs to lower energy costs.*

B-2.2 - *Strengthen Alaska's net metering energy framework, tariffs and regulations for Alaska's diverse stakeholders to promote net metering renewable energy investments.*

B-2.3 - *Strengthen and streamline the state of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and to lower energy costs.*

B-2.4 - *Strategize and prioritize state of Alaska funding to match federal funding and federal financing to build and expand transmission and distribution lines in Alaska to bring Alaska on par with US transmission systems for Alaska energy security and lower energy costs.*

B-2.5 - *Establish and provide valuable energy planning and modeling metrics from state data sources where available and requested, such as DMV electric vehicle registrations and air source heat pump installations by individual communities.*

B-2.6 - *Recruit, train and enhance Alaska workforce with technical skills and training for advancing beneficial electrification to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Robert Venables stated that most of these action items are things that we already do or do to some extent. The intent is to spotlight and focus on actions we can do at an accelerated rate or are more streamlined. The data supports the idea that you need to have a plan. Again, going back to the silver buckshot analogy, the diversity and the objective, but it's with a target. That's what the intent of the integrated resource plan (IRP) is. We don't just do diversity for diversity sake, renewable for renewable sake. We do it with purpose and with strategy. Action 2.1 is IRP light, so we have a plan with community solutions, regional solutions that help lower the cost of energy to Alaskans.

Mr. Sims had a question on Action B-2.4 where we're talking about building and expanding transmission and distribution lines. One of my challenges that I have, looking back historically on the investments that the state has made, we do a lot of fantastic investments in the infrastructure, but often we don't consider the operating and maintenance expense of the new infrastructure. Is there language we could add about operating and maintenance. Would that upset anyone? Because I think it's really important to consider the ongoing maintenance and operating costs of those assets. I don't know if these specific assets would be in sort of utility cost of service or exactly how that would work. So I just like to address that somehow, and maybe it's unnecessary. Mr. Venables responded that he is open to highlighting operating and maintaining this infrastructure. And I'm open to highlighting that. Action 2.4 speaks to the lowering of energy costs. Transmission lines are not assets, they're liabilities. So unless you're moving energy across those, they shouldn't be built. You're not moving energy across there for an incremental thing, you have to have scale, which that's where you lower the energy cost. So it's inherent in there. Mr. Venables responded I'm open to wordsmithing that if that adds awareness and definition. But I'm sure my Co-Chair will add to that because he spent a lot of time thinking about this particular topic. But I agree.

Mr. Mitchell added that John, you make a good point. You do not build transmission lines, and they will come. You build transmission lines knowing that you have an anchor tenant, or you have a minimally viable transmission project that now has capacity to grow. If you don't have that capacity to grow, you don't add on future projects, or they're tapped out. And it's like, hey, you got a great wind project, you got a great solar project, but there's no room for you, even though that there's a demand at the end of the pipe or the transmission line. So that is baked in with this idea. We're not trying to say, hey, let's go fund something and then have a white elephant.

In our region, there is a southeast inner tide plan with a $384,000,000 authorization. It actually had partial appropriation, which actually built a Ketchikan-Wrangell-Petersburg transmission line. CIPA pays through that transmission wheeling rates. They cover the operational costs, the upkeep, the maintenance. So we're not trying to BOLO or go off of that model where if you build it, you have to incorporate that in there. However, there is opportunities for transmission and distribution over time. This isn't like a big bang theory where you're going to build everything. But as it can be incrementally brought forward in an economic fashion, I don't think we're trying to propose anything that would be business wise.

Mr. Sims stated just to be clear, I'm not opposed to this initiative. I would like to go a little bit farther and consider the operating costs. How are those are going to be paid for. Who's purview are those are going to be under, whether it's AEA or the local utility. Because when you're talking about transmission and distribution lines, there's a lot there. So I just want to have some thought around that.

Mr. Mitchell stated that I think that goes to whoever the owner of the line is, whether it's AEA or it's a utility or it's another agency. That implies no difference in pipelines. It implies that operational cost and that maintenance upkeep that's necessary into baking into the tariff rate that eventually goes to the RCA for that transmission. They're going to look at making sure that you're getting enough for that transmission expense for upkeep and maintenance.

Task Force member added ack to your original question. I might be totally wrong, so I'll ask it back to you. I thought where you were going with your original question is, is this going to have like a sinking fund component or a capex replacement fund component in it? So 30 years from now you're not back looking for more money. Mr. Sims responded that's kind of how I'm reading this. I think we need to consider what those costs are going to be and make sure we're including that part of the strategy and analysis. I think it's well worthwhile, but I'd like to consider a full package on this.

Mr. Mitchell stated I think the word sustainability implies all of the above of what you're saying. Where you say to build and expand sustainable transmission and distribution lines in Alaska is going to imply that replacement, avalanche, anything else, the contingencies that are necessary. But I do agree with you that operational expenses need to be included. You can't just build it. You can't buy a car and then not change the oil.

Mr. Izzo asked for clarification on B-2.2. You talk about the expected results at the bottom and just part of a sentence that reads, "while ensuring net metering advances are addressed collaboratively, openly, transparently, sustainably and economically." My own utility does not put a cap on the percentage of net metering. There's a 1.5% of your annual load that you're required to do by statute. We're well over double that. But at some point net metering results in people leaving the system. They save money, which is why we support it. But they're not contributing a fair share to base rates. If you were to speculate the proliferation or increase of net metering, one could easily speculate that you would end up with the poorest or low income

remaining on the system without net metering but having to bear a much larger percentage of the baseload cost through the energy charge. When I read economically, I want to confirm that, for example, my utility will likely look to a rate design change where there is a demand charge for those that are leaving the system so that those that remain on the system are not subsidizing unfairly.

Mr. Mitchell responded that's where the economically comes in. If we're going to do a net metering in any way, shape or form, it's going to go through the RCA. Hopefully it's going to ensure those considerations that you're raising are protected. And it's just maybe looking at that net metering. We haven't done it for many years. It's a retooling, looking at it, what's the best of breed in other states. This is not trying to say here's a lightning bolt. This is how it's going to be.

But I think you're wise and astute to the issues that you raise so that it stays economically not just for the person that's investing in the net metering, but for the whole system. Net metering does increase reliability and diversification and some other benefits as well. But your point is well taken, Tony. And that's where that economically is. You're not going to do any net metering unless you get it approved with the RCA's concurrence at any rate, unless you're a Muni utility, that's completely exempt. And then you've got your city council to take up with.

Mr. Hanneman stated that overall I'm in favor of voting for these action items as a block. But I would have to say that this begins a discussion where we've all addressed similar topics in different ways. And I don't really find that's a bad thing overall from the perspective of the report. I'm talking about streamlining regulations and improving transmission and things like that that we see in various other sections of the report. So I as long as they don't conflict with other recommendations, we don't need to scrub these duplicative topic.

I don't find that any of yours directly conflict. But when we get into the details of B-2.5 and the data collection required, I would have a hard time voting to approve all those specific data points just because of the burden that's placed on the agency to do that. But yet, the idea of collecting data and having better data available is obviously a good thing. So, with that caveat, I would vote in favor of this block. I would also like to see some sort of operating cost issue identified in B-2.4 so that as we talk about doing these things, we talk about doing them in a cost effective and sustainable manner. Thank you.

Mr. Koplin stated that to help flesh out B-2.4 record, sometimes examples can help. As a committee, we talked a lot about holistic thinking and energy development and so forth, But developing transmission lines to some extent, and distribution lines in state right-of-ways, if that's done strategically and carefully, you can actually reduce the operations and maintenance costs not only of the power lines, but also the state highways. For example, siting underground lines and future conduit corridors and stuff, highways being paved and resurfaced. So it's hard to capture all the details in these high level bullet points.

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And then back to net metering, that was one that I struggled with a little bit as well. But I think a lot of these action items are not so much about going out and aggressively gathering all this but developing templates and so forth. So I know my community struggled with net metering because we didn't have any requests for several years. So to the extent that other utilities, other communities, have good templates and develop good ways to provide that balance between not stranding investments to existing ratepayers, while still providing a path for net metering are all productive. So I support all of these in block, and I just wanted to find out a little bit more detail behind the action items.

Commissioner Kurber stated I'm just checking with the committee co-chairs, because when I went through this and specifically saw RCA implicated in B-2.1, B-2.2, and B-2.5, I want to make sure I didn't miss anything. Even though I won't be voting, I don't see any issue with doing it in a block. And we'll stand by to see what the details are, should they actually go into implementation. But they all seem very reasonable, and I'll leave it at that.

Ms. Miller stated for Action B-2.1 related to the Integrated Resource Plan (light), one thing I have concern about IRPs on the railbelt is just having another stage gate for a project to go through. Could that slow down projects from happening? So, I was just kind of curious if you guys talked about that at all. With this IRP light concept, what does project approval look like and how do we make sure that we're not implementing another work process that slows things down. So, curious to hear your thoughts.

Mr. Venables stated that the devil's always in the details, right? At the very minimum, there are economic development strategies that cover the state, cover the nine Alaska Regional Development Organizations (ARDORS), the four economic development districts. There's a level of planning, and so the bar is fairly low, but it exists. And so we just have to meet some threshold of planning that shows that the impacts are, again, it's community solutions, regional solutions, and part of an economic development plan that makes sense.

Mr. Mitchell added that, as someone who wants to see projects go forward, we're not trying to add another rock in the wheelbarrow. This is certain utilities in the state either have to do an IRP or the railbelt's looking at an IRP at the RSV. This is not complete. This is going back to communities that wouldn't fall into that network where they have the public meetings utility generators, tribal folks, and the city in the room to talk about the forecast and the demand and the generation. This public conversation also helps when you apply for federal grants. One of the checkoff box, I always ask is, did you have any public discussion on your grant application for a generation project or a transmission project or whatever. It's a nicety to have.

We're not intending this to be a requirement. This is a nice to have. It helps move things forward. When we bring a project to the RCA, the RCA is going to want to know if you had some kind of community involvement and backing. Does the public support this project? So, it's not a hurdle. And it's not to be confused with a full IRP, which is in itself an onerous process. We definitely made this an IRP light, meant to be an easy to implement model. It's like a template that can be initiated and supervised by Alaska Energy Authority. Regulatory Affairs

and Public Advocacy (RAPA) section can be involved. We're trying to make it easy. That's the concept here.

Ms. Miller thanked committee chairs for that context. I like the idea of having a vision, an energy plan for a community. It's really helpful to know where we're heading. My concern was around, is there going to be an exhaustive individual project approval process. But it doesn't sound like that's the intent. So just wanted to clarify that. Thanks.
Mr. Venables stated that for the most part, many of these projects go after public funds many, many times. Policymakers at the local, state, or federal levels are going to know that it fits into a plan. That is really what the assurance is here.

Hearing no further discussion, Vice Chair Thayer moved to call the previous question. John Sims seconded. There were no objections.
Roll call vote was taken. **The motion passed (yes-11; no-0)**

STRATEGY B-3: State of Alaska Coordination with Federal Agencies and Federally Recognized Tribes Recommendations

ACTIONS B-3.1 and B-3.2
Committee Co-Chair Duff Mitchell pointed out that we did have input from the largest tribe in the coastal area, the Tlingit-Haida Central Council. They asked that the Strategy title be shown as *Federal Agencies and Federally/State or Federally and State Recognized Tribes* because our State of Alaska has recognized the 229 tribal entities in Alaska. We'll change the title there, but I want to reflect the input that we received from tribes.

MOTION: Robert Venables moved that the Task Force approve Coastal Generation, Distribution and Storage Actions:

B-3.1 *- Establish an Alaska/federal Renewable Energy Policy Force to develop, collaborate, and prioritize State energy, plan, goals, and rights to optimally advance renewable energy and transmission on federal lands.*

B-3.2 *- State of Alaska partners and collaborates with Federally and State recognized Alaska Tribes and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.* **John Sims seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Mr. Sims asked how the subcommittee defined renewable. This seems like it's statewide and not just focused on coastal. We had this discussion a lot in our subcommittee about how you define that. And I'm wondering if we want to restrict the options to the State of Alaska and the rural communities along with coastal areas as well to what some people define as renewable. And

getting into that whole discussion. So is there an opportunity to expand that so that we have more flexibility, or what was the subcommittee's thought there?

Mr. Venables responded that from my perspective, that's what exudes around us in Southeast. So that's what comes to mind as I reflected on what the task force in general was doing across the state. I've already written down here the word clean. And in my mind we could add it or replace renewable with clean if we want to be consistent with our verbiage throughout. So I'm open either way on that. But just that we have water coming at us from all four directions in Southeast 364 days a years and it's all renewable. Mr. Mitchell added that I'm in agreement with my co-chair here. I would like word use to be consistent. And so if we want to supplement clean or just transfer renewable to clean, I'm good with that. But as someone in Southeast Alaska, you won't find a person in Southeast Alaska that doesn't think hydropower is not renewable.

Mr. Venables accepted the friendly amendment to change the word renewable to clean for consistency throughout the report. Mr. Sims concurred. Co-Chair Thayer asked if there was any further discussion.

Mr. Guy commented regarding the federal aspect of this, they can be very good partners because they recognize the need for affordable energy often everywhere. When we were progressing with the Supplemental Hydropower Project from a region that would initially intertie 14 villages on the Kuskokwim, we had to deal with the BLM and the Fish and Wildlife Service. And through discussions with them, they became supporters of that project because we'd have to go through their lands in order to complete the project. But through that particular exercise, I learned that federal government agencies can be real good partners for development. Thank you.

Mr. Hanneman asked if the co-chairs considered adding the ANCSA corporations regional village to this collaboration. It seems with their large land base, that they might be a critical piece in discussing the integrated transmission. Task Force members discussed adding ANCSA corporations to the strategy as well, since they own and control surface areas.

Mr. Venables stated that in our discussions, it didn't come up because if you sit in southeast Alaska and you look around you, I think 95% of the land is tied up in Tongass National Forest or the federal government. So we weren't even looking that direction. So, the major focus of B-3.1 is the Forest Service and other federal agencies, such as the Department of Interior. And I fully support and welcome ANCSA corporations' perspective in this. Under Forest Service rules, they carve out input for the federally and state recognized tribes. But I believe that we should have all public input.

Co-Chair Thayer asked if Mr. Venables wanted to amend his motion, which he did.

Mr. Venables moved to amend his motion for Task Force Members to approve:

B-3.2 - *State of Alaska partners and collaborates with Federally and State recognized Alaska Tribes, Alaska Native Corporations and federal agencies to develop mutually beneficial Energy Development and Transmission/Distribution to advance the State Energy Plan to lower the cost of energy.* **John Sims, as second, agreed with the amendment.**

Senator Bishop added I think Carl's comments are timely, and the two co-chairs can correct him, because I think there could be two more ANCSA corporations come out of Southeast Alaska here if things prevail in the right direction. Mr. Venables added, just for everyone's gratification, when ANCSA came about, there were certain villages in Alaska that were called left outs. They received nothing. That has been a long fight for justice, land justice. It's not a question of if, it's a matter of when and hopefully sooner than later, because some of these people who initiated it are getting pretty old. So I just want to defer to your wisdom on that. We could have some other village ANCs.

Co-Chair Thayer asked if there are any other comments or questions from the group?

Ms. Whitney had a general observation on this section, and I don't even know if it's important, but I noticed that all the other strategies are worded as action statements, and this group, the action statements are worded more as a recommendation. Is that a concern to the group for consistency sake. Mr. Hanneman agreed with Erin's observation.

Mr. Venables responded that I see establish and also partner and collaborate as reasonable actions. Since the strategies are overarching, and the action items have a task and purpose, particularly in 3.1 and 3.2. it involves lots of parties. It's a collaborative effort and you need to get everyone around the table to get the discussion going to resolve issues. That's the thought pattern behind that wording.

Co-Chair Thayer asked if there any other comments or questions? Ms. Miller moved to call the question. Tony Izzo seconded. There were no objections.
Roll call vote was taken. **The motion passed (yes-12; no-0)**

STRATEGY B-4: Alaska Hydropower Generation Recommendations

ACTION B-4.1
Mr. Mitchell stated, for hydropower, as Don Young once said, southeast Alaska is the Saudi Arabia hydropower. I can't remember the exact statistic, but it's a profound amount of our renewable energy portfolio in Alaska is hydropower. So Coastal B-4.1 is to
As background, there is no cheaper energy form in Alaska than old hydropower. And Alaska cannot achieve old hydropower without proactively supporting and investing in new hydropower. Hydropower is a tried and proven Alaska energy resource. With proper maintenance, these hydropower systems have a life expectancy of over 100 years. Once financing debt is paid, the hydropower project yields consistent, sustainable, renewable and

lowest cost power. And I would also add firm benefiting multiple generations of Alaskans and economic prosperity well into the future.

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MOTION: Duff Mitchell moved that the Task Force approve Coastal Generation, Distribution and Storage Action:

B-4.1 - *Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Mr. Sims stated that he wants to be cognizant of the comments that we received from the public on their concern for Susitna-Watana and how this is worded. This is specifically for the subcommittee of Coastal Regions. And do we need to add language along those lines? Right now it's saying fast track Alaska hydropower. I'm asking the task force, are we going to have a messaging challenge there? Or have a separate one for the railbelt. I'm just raising the question.

Mr. Venables responded that we don't want to overthink it or be dismissive, but at the same time, just to clarify what Duff said, there is no energy cheaper than hydro where the debts been retired. The lowest cost of energy we have in the state is where we've got the legacy hydropower projects that have been paid for. We've already addressed the Susitna-Watana saying we don't know what those costs are, we don't know what the final anything is. So we're going to get to a decision on that. If that decision were to go forward, it would be because if it was paid for, it would also produce the lowest cost. So I think the verbiage is consistent. You have to make sure that you don't get emotional and go off on a tangent by picking just a thread out the sweater. So I'm open to suggestions. But I think what's stated is true as long as you understand the context of what we're doing as a group and as the state works towards developing renewable energy that is paid for and very inexpensive.

Mr. Guy stated that he reads this strategy as for all of Alaska. We have hope to restructure the projects.. (inaudible--audio cut out)

Ms. Miller stated that she supports this being a statewide initiative. I think it's important what John pointed out about Susitna-Watana that it has a lot of history at a different decision point or stage gate. And I think we've clarified that with its own standalone recommendation. But I'm fine with this being a statewide initiative to advance clean energy that is cost effective. Thanks.

Mr. Koplin stated that this is a statewide initiative and I think it's important to foster hydropower as a really important piece of this report--particularly looking very closely at all the public comments. One good action I'd like to see come out of this is on the foster a project side to pull together stakeholder groups and have a very candid discussion about the current state of technology of hydro, Alaska's deep past experiences with Hydro, and all the value streams and benefits of hydro. In addition, discuss the risks and how to offset potential or real negative impacts of hydro. I think that would do a lot. I think there's a lot of misconceptions and a lot of

gaps in knowledge concerning the state of fishery passages. The benefits and safety of hydro development are many. But I see this as a statewide initiative.

Mr. Vanderburg was looking to see if the definition section was included in this document. It may be and I just haven't found it. I just wanted to confirm the group's understanding that hydropower includes tidal under river as well. Then, does development include redevelopment or upgrades of existing infrastructure. Mr. Venables responded that it is all of the above. So, yes, hydropower is hydrokinetic. It's rivers, it's in stream. It's the way of the tidal. Traditionally, we know where that is. And my analogy is Alaska is an Arctic state. Sometimes Ketchikan has a hard time understanding that. But Alaska is also a hydro-state, so all forms of hydro is available to us. Co-Chair Thayer added, as an interesting data point, there are over 60 active hydro sites in Alaska. Some are just the small ones. And the oldest one is 1905 and it's still in operation.

Mr. Hanneman wanted to follow up on Clay's encouragement that we follow this action to foster and support the proved awareness of the importance of hydropower in Alaska and its potential. I'd have to say that one of my disappointments from reading the public comments was one recognized mention from a utility, but not much encouragement for any specific projects. A lot of angst against a certain hydro project, but no recommendation. For example, these are the ones we would support, that want to support, need to support. So that's really the first element of this action. Is to try to improve awareness about the benefit that hydro has brought us and can bring us in the future.

Mr. Mitchell stated I would just like to close. I was a commercial fisherman for 25 years. And Alaska has a love for our seafood and for our fish. And we're fish friendly, or we're fish first. And I believe the EIS process resolves any particular one project's issues. That doesn't mean we don't support hydropower, like what this is trying to do. If you have a bad project, trust me, you're not going to get through the EIS, through the public process. And so there's that safeguard that I want to mention to the public and the public comments that you have to look at each case, any hydropower, and each aspect of a hydropower project individually. So I just want to throw that out there for the public's understanding.

Commissioner Kurber shared an observation about the volume of public comments with respect to a certain hydro power project. And it strikes me as very similar to an advanced nuclear project with some of the strongest views and positive views I've heard. So, however this goes, however any of these things tumble past our sending the report forward, it's just a clear indicator to me that public information programs are going to need to accompany this so that people understand all sides of the story.

Ms. Miller moved to call the question and unidentified Task Force member seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

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e. Rural Actions - Andrew Guy and Clay Koplin, Co-Chairs

STRATEGY C-1: Increase Capital Availability

ACTIONS C-1.1, C-1.2 and C-1.3

Committee Co-Chair Andrew Guy stated, as background, rural Alaska is in a different place. It still operates with last century technology, very old technology, basically. And , as a child, I watched the electrification of rural Alaska when ANCSA was enacted. ANCSA forced our communities and our people to electrify because ANCSA mandated the creation of the corporations that had to do business. And to do business, they had to have electricity to run the stores, to power the refrigerators, everything. So it was actually the village corporations that began that process. But it was with the understanding that in order for assets to be fully implemented, we would need the basic infrastructure in place, and that would entail the feds and the state to do their part. Well, 50 years later, we're still waiting for the state and feds to do their part. And in order for us to fully realize the governor's goal of ten cents, plus or minus, per kilowatt hour, we need action from the state and feds. The recommendations that we have are aimed at getting that promise fulfilled so that opportunity will be fully realized through the enactment of ANCSA for us, as native shareholders, tribal citizens and Alaska citizens. Thank you.

Mr. Koplin followed up by providing additional background. Rural Alaska, and its energy needs, have been studied and a lot more invested in over the last few decades because of the high costs and remoteness and so forth. And to agree with my co-chair, Andrew, I think our focus in these recommendations are how do we gather what we know and fill the gaps and actually start making some progress. And it's a big elephant and we may just have to bite it off one piece at a time for the communities that have resources available and have capacity. Some of these recommendations will speak to ways to get the energy systems upgraded in some of these areas. Just like the other subcommittees, we also received some rural public comments late this morning. They were very good comments. So, on a break, I touched base with Andrew, as co-chair, about these comments. Based on our discussion, I'm going to propose a couple of small edits to our section. In general, strategies in C are access to capital. It's very challenging for very small communities where you don't have the economy of scale to come up with funding.

C-1.1 - Identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.

This speaks to leveraging the infrastructure funding that's available now and driving in state and other partners. I will say I've noticed in the last few months a real rising interests from philanthropies who are very interested in various investments in Alaska and remote regions for different reasons, whether it's combating climate change or promoting new and available and commercial grade technologies. So that might be an opportunity there.

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C-1.2 - Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.

This is holistic thinking, that when we do any kind of a project in a remote community, to look for opportunities to partner and share the cost and the benefits of projects, whether it's a DOT project or others. That also speaks a little bit to the integrated resource planning light that the coastal community mentioned.

C-1.3 - State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.

We've had the renewable Energy Fund program. It's been highly successful. And just that signal to rural communities helps them in the early planning stages and so forth, knowing that there's dedicated funding mechanisms to pursue these projects when they get through the concept and early phases of project development. As co-chairs, we recommend that the task force accept these actions and vote on them as a block.

MOTION: Clay Koplin moved that the Task Force approve Rural Generation, Distribution and Storage Actions:

C-1.1 - *identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.*

C-1.2 - *Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.*

C-1.3 - *State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska.* **Andrew Guy seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Mr. Sims proposed a friendly amendment to separate and vote on Action C-1.3. Without any details in the strategy, I'm struggling with this action. Both Mr. Koplin and Mr. Guy agreed to this request.

AMENDED MOTION: Clay Koplin moved that the Task Force approve Rural Generation, Distribution and Storage Actions:

C-1.1 - *identify a Funding or Financing Mechanism for Rural Communities including a "Local Match" for Federal Grants.*

C-1.2 - *Identify opportunities for Public Private Partnerships to finance/fund energy infrastructure projects in rural Alaska.* **Andrew Guy seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Mr. Hanneman, asked about the organization of the actions. He saw action papers in the back of the report. Is something missing that might help answer questions for John. Mr. Koplin responded that the committee selected the two highest priorities and focused on those. Mr. Hanneman stated his committee did that too, so he understands the approach.

Mr. Venables called the question on the motion. John Sims seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

MOTION: John Sims moved that the Task Force approve Rural Generation, Distribution and Storage Actions:

C-1.3 - State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska. **Andrew Guy seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Mr. Sims stated that there is wording in this action that concerns him. While he supports additional capital funding for energy projects in rural Alaska. Words matter to me. What is the definition of sufficient capital--$10 billion, $200 million? Just looking for a definition with some meat on it that we can all agree on. So, can the co-chairs elaborate on this action item C-1.3.

Mr. Guy responded that my late uncle was part of the legislature during the time some of these discussions, so I've had an opportunity to talk to him and other legislators of that time. During those legislative sessions there were major railbelt energy projects being discussed and approved. One of the items that rural legislators back then were fighting for was for the state to commit to projects for their areas as well. That's how the PCE program came about. To basically make it also equal for rural areas to benefit from the projects that the railbelt was benefiting from. But like I said, the structures of the government is that you're not bound by previous legislatures, and that was, I guess, used as an excuse for not meeting the legislative agreements. But totally disregarded the main agreement. And that's what's been the situation from 1980s to today. And Senator Bishop can add more to this because he's had discussions with current legislative folks, representatives that hail from rural Alaska and that know history, too. Thank you,

Senator Bishop stated that State of Alaska commits sufficient capital. And I spoke to this in the June when we discussed AKLNG. The senate passed an amendment that 20% off the top of the AKLNG project would go into the Alaska Energy Fund for rural Alaska. Now, my numbers are dated, but off of those cost estimates and returns that would have generated about $200 million a year would go into a capital working fund, per se. So that's one revenue stream that's potentially still out there. It's in statute, Just a little background there.

Mr. Koplin stated that he hears where John is coming from. Back in June, we were given a list of projects, and the only thing stopping us from doing those projects is cash flow rate. As an example, we've got almost a billion dollars just in deferred maintenance on fuel tank replacements in villages. That's just one area. But when you look at that capital budget list from AEA, those projects are there. It's just we can't get to them. The list is a footnote in the report.

Mr. Sims suggested adding "State of Alaska, commit to sufficient capital budget funding for AEA projects in rural Alaska." That gives more definition rather than an open book.

Vice Chair Thayer added as far as AEA is concerned, we're required by statute to come up with a list of powerhouses and bulk fuel, top 25. But when you actually look at it, there's $800 billion in deferred maintenance in fuel tanks and $300 million in deferred maintenance in powerhouses. And the interesting thing is all the IIAJ dollars and all the IRA money and all the sub dollars, zero qualifies in rural Alaska to help them with their powerhouses and in their bulk fuel. AEA has done an inventory and assessment of all the powerhouses needs. And we're working with the Coast Guard to do that in rural Alaska. And the fact we have to work with the Coast Guard in rural Alaska should make us really nervous because that means these fuel tanks are built next to a river where there are erosion problems. It takes just one tank going into the river and we've got a problem.

Mr. Sims stated that was his point about what is a sufficient amount. Vice Chair Thayer responded that these projects total $1.1 billion as of today. We can augment for the committee a list of the communities in ranking order. The top 25 are identified and given to the legislature. But we do have the ranking of 400 bulk fuel tanks and 197 powerhouses.

Mr. Venables stated that he understands John's concerns. But at the same time, having worked in and around and through legislative processes, I have a lot of confidence in the public process. Those things do sort themselves out. Senator Bishop mentioned the 20% fund that was put there. Senator Stedman set up a Southeast fund at one point. I haven't got a dollar on that yet. There are mechanisms in places. I've seen millions of dollars go out when there's a time of plenty, and I've seen a dollar go when they said that's sufficient. So I think it's clearly vague or vaguely clear, but I'm comfortable with this, even though I agree with you 100%.

Mr. Mitchell commented that he'd like to help move this question forward. We have AEA with approved lists of whether it's in rural Alaska, whether it's any kind of Fund X through Z. Is there anything wrong with state of Alaska commit to sufficient capital budget funding for any projects in rural Alaska as determined or as approved by AEA?

Task Force members further discussed making a friendly amendment to the action item to address concerns raised about it being too broad by including AEA and the legislature in the action item.

DRAFT

AMENDED MOTION: John Sims moved that the Task Force approve Rural Generation, Distribution and Storage Action:

C-1.3 - State of Alaska commit to sufficient capital budget funding for energy projects in rural Alaska as identified by AEA communities or the legislature. **Andrew Guy seconded the motion.**

Mr. Venables called the question on the amended motion. Ms. Miller seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

STRATEGY C-2 Infrastructure Investment

Actions C-2.1, C-2.2, C-2.3, C-2.4, C-2.5, C-2.6, C-2.7, C-2.8
Vice Co-Chair Thayer asked the committee co-chairs to introduce these action items and decide if they will be voted as a block or separated out.

Mr. Guy stated that these recommendations mostly go toward forming grids because that's proven technology. In rural Alaska, we have so many communities that are 1 mile to 20 miles apart. They're not even interconnected. And many of the factors for the high cost of energy are because of the lack of grids.

Mr. Koplin stated that he was scanning through the actions to see if there was any reason not to vote them as a block.

Vice-Chair Thayer commented that C-2.8 evaluate micronuclear and other emerging underutilized technologies throughout the state of Alaska. That one does seem more of a statewide perspective as opposed to rural. We would like to use that technology outside of rural Alaska if it proves up.

Mr. Koplin stated that based upon public comments received, he wants to amend C-2.8 to include "evaluate micronuclear, natural gas, hydrogen, and other emerging underutilized technologies." As an example, while a large scale nuclear power plant site would be objectionable or wouldn't work in a rural setting, a siting in a remote area is an opportunity to both expand the grid and extend power regionally and potentially tie into the grid. So, in that sense, it would be statewide and would underscore that rural investments can have statewide impact and even ultimately tighter grid.

DRAFT

MOTION: Clay Koplin moved that the Task Force approve Rural Generation Distribution and Storage Action as amended:

C-2.1 - *Promote a regional planning approach to connected energy, transportation, and broadband infrastructure.*

C-2.2 - *Identify gaps by leveraging studies done by regional ANC corporations, Economic Development Districts, Denal Commission, and other organizations as well as state and federal agencies.*

C-2.3 - *Replace or appropriately displace community-focused aging infrastructure in rural communities of Alaska.*

C-2.4 - *Invest in pilot projects using appropriate technologies that demonstrate a regional approach to supplying affordable and reliable power to multiple communities.*

C-2.5 - *Fund and construct opportunities to connect rural communities through transmission lines and other shared energy projects.*

C-2.6 - *Invest in critical repairs and resilient infrastructure that may be at high risk to current and future natural hazards (wildfire, extreme cold, storms, etc.) to avoid energy disruption and preserve continuity of operations.*

C-2.7 - *Invest in expanding the railbelt grid to rural areas.*

Invest in expanding the rail belt grid to rural areas.

C-2.8 - *Evaluate micronuclear, natural gas, hydrogen, and other emerging/underutilized technologies throughout the State of Alaska.* **Andrew Guy seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Ms. Miller had a question about C-2.5, which is fund and construct opportunities to connect rural communities through transmission lines and other shared energy projects. And then there's C 2.7, which is invest in expanding the grid in rural areas. And so just wondered if those are redundant or if they have a unique intent. Both read as creating more of a grid or transmission lines. So just want a little context there. Thanks.

Mr. Koplin responded that C-2.5 does have more information in the appendix data sheet. For C-2.5 through transmission lines or other shared energy projects. We were really thinking in terms of intra-community, which is connecting between communities and not only transmission lines, but maybe centrally or regionally located energy projects. Where C-2.7 we were looking at actual transmission ties, expanding the existing railbelt grid to rural areas where new transmission line sightings or existing ones make sense to expand the grid. So 2.5 is inter-grids between communities. While 2.7 is expanding the railbelt grid into rural areas where it makes sense.

Ms. Miller thanked Clay for that clarification. Would the co-chairs be open to clarifying that in the action title? Mr. Guy responded that's how I remember too, and that's a really good way to clarify. So I'm open to that clarification language.

Mr. Koplin stated how about for C-2.7, Invest in expanding the rail belt grid to rural areas. Mr. Izzo stated that he supports all of these actions, and I like the improvement with the added language in C-2.7.

Mr. Hanneman asked if there was any further detail in 2.7 with respect to evaluating the feasibility for extending the railbelt grid out into rural areas. Is this referenced somewhere in the report that Clay was reading from. Mr. Koplin responded that he was reading C-2.5, which was referenced at the bottom. For context, and to help share some of the discussion and thinking, we were thinking of extending the railbelt grid to anchor tenants who can also connect rural communities along the way or near the site for remote site developments. And also if there's new transmission line extensions that are adjacent to small communities or disconnected remote communities, that would be an opportunity to tie those. But really it's about great expansion to connect those rural communities to economies of scale.

Mr. Vanderburg had a general question across subcommittees. I'm seeing a lot of invest and fund things, but I'm operating from a context where we're running a huge state deficit, $900 million over the next two years. And I'm just wondering, are we saying the state is going to invest in this? How are we thinking about that issue? What pot of money are these investments coming from.

Mr. Koplin responded not at all. And Andrew may want to weigh in on this as well. But that's a great question. In invest, words do matter. Invest implies that there's a return on investment. So the funding sources can be different. The return on investments can be different. But the idea is if you have anchor tenant that's developing a mine, and instead of developing an onsite energy project, can collaborate with the state, for example, or the state and federal government to build a transmission line to that site, and maybe they still invest in energy generation that can feed back onto the larger grid. But the biggest parts of the state budget are health and human services and education. Opportunities to reduce costs in their own areas are huge returns on investment, and energy is core infrastructure, particularly in rural communities, and investing in electrifying or improving the platform can take many forms.

So I think from our discussions, we're really looking at private sector investments and state investments. But a lot of the discussions really revolved around building rural economies. I mean, once you have a local economy and have abundant, reliable, affordable energy, that is the biggest barrier to rural development. And so it isn't about building, I would say, and I'd really like Andrew to weigh in on this, because it's what I heard from him throughout, is that we don't want to build energy projects. We want to build rural economies. And I can say for my community, once you get the energy problem solved and you attract businesses and industry, you start having programs where you can start investing in your own local infrastructure, your health care, your schools. So that was a lot of the thinking and discussions.

And because you asked the question, we also talked a lot about the evolution of technology. So on C-2.8, we mentioned natural gas. But part of the discussion around that is there are technological advancements that are starting to make smaller scale, localized natural gas

production more feasible. And that was some of the comments that I received this morning as well around natural gas.

Mr. Guy added that we had a missed opportunity for low cost energy with one of our biggest projects 20 years ago. Then when you look at all of the smaller potentials that we know about, that can never become feasible just because low cost energy is not available. We need something big to happen in energy, not just for that major anchor tenant, but for all of the other smaller projects that can start coming online with that opportunity to connect and take advantage of low cost energy. Thank you.

Commissioner Kurber stated I really appreciate C-8.1 because it expands the options that we need. I think that while public comment maybe against this project or for that one, we want to make sure that we have every possible tool available in our toolbox for energy. And members like Clay and Duff bring a lot of knowledge about hydropower to the table. But I was at a nuclear conference not too long ago, and Clay was there as well. And he brought up something that really got my attention. In Alaska, we know we have natural gas, we know we have oil, we know we have rare earth minerals up around the road area, but we also apparently have radium. And that's an issue that's going to be required if there's going to be an advanced nuclear renaissance surge. Andrew commented that we need to build economies, not energy. But you need energy to have economies. So the fact that they're thinking along these lines, I just applaud it, and especially the way it's been expanded already with the edit.

Mr. Izzo went back to Isaac's question, which he appreciated. I don't view this as excess funds that we're limited to, I view this as investing in a future. Identifying or investing in the time and capital, human capital, and understanding what it takes to get some of these things done. Then prioritizing them and finding a way. If the money were sitting around, they'd already be done. So it's a matter of just doing the work to figure out a way to make them happen. That's how I view it.

Vice Chair Thayer wanted to comment on Isaac's point, too. We are in a unique time with all these federal dollars coming in. And granted, I already spoke to the fact that powerhouses and bulk fuel do not qualify for these federal dollars, but there's a lot of opportunity and there's also matching opportunities. And the federal government is usually in the 80/20, 85/15 matching with the state, coming up with the smaller of the amounts. The time is now to invest in rural Alaska during these next five years, to help identify those opportunities with the federal government that we can partner together and where they're going to take the lion's share to do this. One thing we're finding out here at AEA with the Renewable Energy Fund, the Power Project Fund is communities can borrow money at long-term capital rates. They leverage that for 80% more from the feds. There are programs where the communities are borrowing some money from the state. They're paying the state back at below market interest rates, but it's benefiting them because they're getting an 80% return on that dollar. There are federal dollars that are readily available that we need to apply for and work with, not just rural, but all Alaska communities to apply and maximize these funds. And thank you to Erin and Department of Energy for this assistance.

Senator Bishop asked for clarification on the powerhouses, which don't qualify for IIJA and IRA funds. What if it's a carbon neutral project powerhouse? Vice Chair Thayer responded repair, maintenance and replacement of existing facilities doesn't qualify. However, renewables do qualify. Senator Biship stated that the amendment mentioned earlier for AKLNG, we applied the same amendment to the carbon credit bill the Governor passed for above-ground trees. I'm going to apply the same amendment for below ground sequestration piece on the floor space. More to come on that. But I'm looking at all ways to raise money.

Ms. Miller called the question on the motion. Duff Mitchell seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

BREAK (10 minutes)

STRATEGY C-3: Lower Operational Costs of <u>electricity, heating and transportation in Rural Alaskan Villages</u>

ACTION C-3.1, C-3.2, C-3.3, C-3.4
Vice Chair Thayer called the Task Force meeting back to order and he asked the co-chairs of the rural committee to continue.

Mr. Guy stated that much of the high operational costs that face our communities in rural Alaska have to do with the fact that they have to operate individual systems on their own, and they have a lot of turnover in their employees, which means they're having to hire and retrain new people all the time. These recommendations look to address that aspect of operating in rural Alaska.

Mr. Koplin added that he wanted to quickly go through the Actions to provide a little bit of context. And thank you, Andrew. He encapsulated the high level thoughts there. So expand in inventory technical assistance. The idea there is that there's a lot of great training and technical assistance and workforce development going on with the trade unions, the AEA, the State of Alaska. However, different utilities take different approaches. It's particularly tough with power generation systems because each one is different, and they require different levels of expertise. So it's hard to have one kind of overarching training program. But there are some great accredited online programs. We can and probably should do more to get into our schools, even at the elementary level, and to provide a little background of basic energy and some of the opportunities in the industry. So that was the thinking behind C-3.1 is to not try to duplicate any training that's been available, but try, as Andrew said, to assist with maybe institutionalizing and creating better onboarding systems to manage turnover in workforce.

C-3.2 Identify innovation in logistics transportation to improve supply chain reliability. Many rural communities rely on a single or very limited number of fuel deliveries a year. That also speaks to why they have to carry such huge tank farms that require operations and

maintenance. So the idea is that there's innovations happening. I'm hearing there's one firm saying they're going to have helium assisted airships. They're going to have amazing capacity on the market here in the next few years. So we do look to innovation to create new opportunities over the coming years, and we want to be sensitive to those and see how we can apply them to rural energy challenges.

C 3.3. Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural Alaska. Many times there's a lot of opposition to a project before it's fully explained, or the community has been engaged. And in my experience, at least, it's much more productive to have Alaskans working with Alaskans before you try to implement something community, maybe have another community share their experiences, and that can be expanded far beyond rural areas of the state.

C 3.4. I know the AEA has done a lot of work helping utilities automate their systems. You can dramatically improve the efficiency and the reliability and somewhat limit your exposure to your local human resources by using some of the new technologies that are available. And many of these can be remotely monitored and advised. And that's why you'll see other comments regarding broadband. This is one area where, under the purpose of this section, we recognize that many times, heat is actually a higher energy cost than electricity in rural areas. And based on some public feedback we had, we like to just revise this purpose from lower operational costs of power electricity, we would add, heating and transportation in rural Alaskan villages. Those are all high costs, and some new technologies can actually develop economies to scale around electricity and transportation and heating.

MOTION: Clay Koplin moved that the Task Force approve Rural Generation, Distribution and Storage Actions:

C-3.1 - *Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production.*

C-3.2 - *Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.*

C-3.3 - *Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas.*

C-3.4 - *Grid modernization and automation.* **Andrew Guy seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Vice Chair Thayer asked about the term NIMBYism in C-3.3. I know what it means, but in the context of the report, we might want to find a different word to use. Mr. Koplin responded that, yeah, we struggled with that word. Mark Lucan with Michael Baker mentioned that, if you will recall, the committee did come up with different language if you will recall. *C-3.3 Create and implement a community outreach and education program to encourage stakeholder adoption of energy projects in rural areas."*

Mr. Koplin stated you're refreshing my memory. Vice Chair Thayer asked if Clay, as the maker of the motion, and Andrew, who seconded the motion, agree with this friendly amendment. They both agreed.

Mr. Sims had a comment on C-3.1. We're seeing this type of language for workforce development in a number of different subcommittees. And just thinking back to the concept of having sort of a recommendation that's in the executive summary, I would just make the comment that I think this is also included in another one that we're going to be discussing here in the future. So would just be supportive of moving that in the executive summary as one of the main focuses and initiatives through this recommendation.

Mr. Mitchell stated that for C-3.4, I don't like the broad grid modernization and automation. And after reading the fact sheet, I can understand how you're trying to condense it into something shorter. So I would just offer as a friendly amendment something like *procure, install and improve grid modernization and automation.* So it's just not a blanket statement.

AMENDED MOTION: Clay Koplin moved that the Task Force approve Rural Generation, Distribution and Storage Actions:

C-3.1 - *Expand and Inventory technical assistance, training and workforce development to identify gaps, increase capability & capacity building activities for Training a Rural Energy Workforce. i.e. apprenticeship programs for energy production.*

C-3.2 - *Identify Innovation in Logistics Transportation to Improve Supply Chain Reliability.*

C-3.3 - *Create and implement a community outreach and education program to encourage stakeholder adoption of energy projects in rural areas.*

C-3.4 - *Procure, install and improve grid modernization and automation.* **Andrew Guy seconded the motion.**

Duff Mitchell called the question on the motion. Jenn Miller seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

STRATEGY C-4: Improve Economies of Scale

ACTIONS: C-4.1, C-4.2, C-4.3, C-4.4,
Vice Chair Thayer asked Clay or Andrew to discuss improving economies of scale, which is a C 4.1 through 4.5. Mr. Guy stated that these recommendations are very basic and don't require much of an explanation.

MOTION: Andrew Guy moved that the Task Force approve Rural Generation Distribution and Storage Action:

C-4.1 - *Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.*

C-4.2 - *Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.*

C-4.3 - *Identify ~~a~~ Funding or Financing mechanism**s** for Rural Communities including a "Local Match" for Federal Grants.*

C-4.4 - *Identify and complete a regional pilot project to demonstrate economies of scale.*

C-4.5 - *Invest in rural beneficial electrification.* **Tony Izzo seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Unidentified Task Force member stated that he had a very minor edit to C-4.3 to strike the "a" and add an "s" to the end of mechanism. So we're not just looking for just one something, we're looking for several funding mechanisms and financing mechanisms. Mr. Guy agreed with the friendly amendment.

Mr. Izzo also had similar friendly amendment for C-4.5. I would like to add develop and invest in rural beneficial electrification. Vice Chair Thayer asked if there any objections to this friendly amendment from the maker of the motion or the second? There were no objections.

Mr. Koplin had no objections to these amendments. He did refer back to C-3.4 in the previous section just to point out that this was one of two priorities that we had in the planning documents in the recommendation. So the committee might consider that. I think grid modernization has implications for all of Alaska. And I would just say most of the grid modernization efforts around automation, better sensors and deriving better grant efficiencies out of hydro, diesel and other technologies have a very short payback. So I just wanted to plant that seed. I don't have any other comments on this section. I think they are pretty self-explanatory.

AMENDED MOTION: Andrew Guy moved that the Task Force approve Rural Generation Distribution and Storage Action:

C-4.1 - *Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects.*

C-4.2 - *Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities.*

C-4.3 - *Identify Funding or Financing mechanism**s** for Rural Communities including a "Local Match" for Federal Grants.*

C-4.4 - *Identify and complete a regional pilot project to demonstrate economies of scale.*

C-4.5 - *Develop and Invest in rural beneficial electrification.* **Tony Izzo seconded the motion.**

Mr. Izzo called the question on the motion. Jenn Miller seconded. There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

STRATEGY C-5: **Improve Data-Driven Decision Making**

ACTIONS: C-5.1, C-5.2, C-5.3

Vice Chair Thayer stated that this is the last item under rural and will turn it over to Clay or Andrew, if they want to discuss. Mr. Guy stated that considering the scope of the area covered by rural Alaska and different geographic conditions, we lack and need information that can help us make very good decisions for successful energy projects.
All of these recommendations go toward that goal.

MOTION: Andrew Guy moved that the Task Force approve Rural Generation and Storage Action:
C-5.1 - *Locate and catalog existing energy studies, and update and collect data necessary to make informed value decisions related to energy generation, distribution, transmission, and storage in rural Alaskan villages.*
C-5.2 - *Leverage critical local knowledge provided by residents in coordination with and complement ongoing and planned projects*
C-5.3 - *Explore and leverage existing and new data capture tools including artificial Intelligence tools to quickly analyze existing and new data collected in rural Alaska to provide potential energy solutions.* **John Sims seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion. He also added that as a point of information, AEA has been working in rural Alaska for 45 years and we are ready to go live in the fourth quarter with the data library of all the reports that the legislature has paid for over the past years. It's not to replace any of these recommendations, and as long as it's not security related, these reports will be available for public viewing and usage by the end of the year. We'll let everybody on the task force know when that happens.

Mr. Venables commented that he knows AEA facilitated a regional energy plan which listed hydro projects. But if there's one that may not be on there, this would be a great time to update it so that it reflects both the prioritization of plans and moves your projects forward.

Mr. Mitchell stated that in reading C-5.1, C-5.2, and C-5.3 they dovetails nicely into some of the recommendations we made in Southeast, but also on the energy data, where it says, establish a data department with the Alaska Energy Authority using statute as necessary. Now, I like the C documents because they're really clear and they're really deliberate of what they're trying to aim for. And I like to aim so you can get a bullseye. I would like to know Chancellor White's thoughts on how these tie in together, because these are very energy or data driven pieces and parts of moving forward.

Chancellor White responded that I appreciate each one of these, C-5.1, 5.2 and 5.3 because I think they dovetail nicely with the data group's conclusions and strategies. I don't see anything that is contradictory or at cross-purposes. So I think approving this group of actions will support and be supported by the data actions that we will come to next. So I think it's all good stuff.

DRAFT

Tony Izzo called the question on the motion. John Sims seconded. There were no objections. Roll call vote was taken.

The motion passed (yes-13; no-0)

f. Data Action - Dan White, Chair

STRATEGY D-1: **Establish a Data Department within the Alaska Energy Authority (AEA),using statute as necessary**

Vice Chair Thayer introduced this strategy and actions and asked Chair Dan White to discuss. Chancellor White first wanted to acknowledge and express his appreciation for his fellow committee members, Commissioner Boyle and Erin Whitney. Their insight and input were invaluable. He also wanted to acknowledge Connor Erickson (ph) who contributed a lot. We had a lot of work to do with a lot of stakeholders in data and understanding data and how data is used and the needs. Brittany Smart, who is the Energy Transitions Initiative coordinator for the Alaska Center for Energy and Policy, stood up as our technical advisory committee chair. So early on, we formed a technical advisory committee with broad stakeholder membership from business and industry, state, feds, NGOs. Brittany led that ably and we very much appreciate the work of that group. And I'll also like to acknowledge Maggie King for her help with that.

As was previously mentioned, in order to have good, informed decision making, you need good data. Data that's well organized, that's up to date, also continuous records of data, data that's curated and accessible and has what we call metadata associated with it, which is context. So essentially, we came up with these four strategies. One, around where the data will be housed and how. Two, how data will be governed. That is, who decides what data and what data to collect it and how it should be collected. Three, what kind or how much capital is needed to actually collect the data. That is, who and what departments. Fourth, what data will be included and what's the gap analysis to figure out what we need.

So, in this first strategy, there was a discussion about whether any statute would be needed at all to establish a data department within the Alaska Energy Authority. But it was believed that AEA is the right place for a data department and if necessary, statute be used to create that. So this bundle of actions is to establish the Data Energy Department and then to fund and develop a technical and needs assessment, a capital asset plan, a continuous operating maintenance budget, particularly for the software, the platform in which the data is houses, and then staff the department based on technical needs and assessments.

MOTION: Daniel White moved that the Task Force approve State Energy Data Actions:

D-1.1 - *Institute or update statutory requirements for AEA Data Department.*

D-1.2 - *Fund, develop, and implement a technical and needs assessment.*

D-1.3 - *Fund, develop, and implement a capital asset plan.*

D-1.4 - *Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.*

D-1.5 - *Appropriately staff the department based on the technical and needs assessment.* **John Sims seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Ms. Miller had a friendly amendment to the motion. In reading through all four strategies, she didn't see anything controversial and would like to amend the motion that in addition to Actions D-1.1 through D-1.5, include Actions D-2.1 through D-2.2 and D-3.1. So, it would be all the actions presented within the State Energy Data strategies.

Vice Chair Thayer noted there were a couple of other questions, and then we'll consider the friendly amendment, as proposed.

Mr. Vanderburg was wondering if this proposal is specifically talking about bringing the Alaska Energy Data Gateway into the Alaska Energy Authority and consolidating those two resources under AEA or is that not contemplated here as an action? Chancellor White asked Brittan to respond to that question. Ms. Smart stated that is a possibility, but not necessarily a requirement. Let me start with D-1. (Ms. Smart had some technical difficulties. So, the motion was amended while she was troubleshooting)

Vice Chair Thayer asked for an amended motion from Chancelor White, per the friendly amendment.

AMENDED MOTION: Daniel White moved that the Task Force approve State Energy Data Actions:

D-1.1 - *Institute or update statutory requirements for AEA Data Department.*

D-1.2 - *Fund, develop, and implement a technical and needs assessment.*

D-1.3 - *Fund, develop, and implement a capital asset plan.*

D-1.4 - *Develop and fund an operating and maintenance budget, to include the identification of potential funding sources and mechanisms.*

D-1.5 - *Appropriately staff the department based on the technical and needs assessment.*

D-2.1 - *Form a technical advisory committee to draft recommendations on where the data governance committee should be established, supported, staffed, membership composition, scope of duties responsibilities, and other issues that may need to be addressed.*

D-2.2 - *Fund a long-term data governance strategy based on recommendations made by the Technical Advisory Committee.*

D-3.1 - *Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible, and liaising with the AEA Data Department.*

D-3.2 - *Provide professional development and/ or skills training opportunities for staff and other agency partners as it relates to data collection and analysis.*

D-4.1 - *Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what is and would be needed for data-informed decision making.*

D-4.2 - *Revitalize, fund, and maintain energy data platforms and services so as to ensure the long-term availability and accessibility of data.*

D-4.3 - *Conduct a data audit of the Regulatory Commission of Alaska (RCA) to include recommendations.*

D-4.4 - *Expand the Power Cost Equalization (PCE) report and the extent of such data reported.*

D-4.5 - *Expand the definition of "energy data" by adopting the TAC definition, ensuring the definition is inclusive of heat/thermal and transportation fuel data.*

D-4.6 - *Understand how heating and transportation fuel is delivered and used.*

D-4.7 - *Re-establish annual updates to the Alaska Energy Statistics report.* **John Sims seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion of this amended motion.

In response to Mr. Vanderburg's question, Ms. Smart stated that while it's possible the Gateway could move to AEA, it was not necessarily the intent that it do so. The idea was that when people or investors look for energy data as it relates to the state, they first think of an energy authority as having that information. So really, the idea is that this department is responsible for helping find all of the energy data sources, find a way to house them, and help put them in formats that are accessible, with the idea that it's possible that the Gateway could be part of that task, but not necessarily clearly stating that. So it was contemplated, but not clearly defined.

Vice Chair Thayer stated that at this point, Chancellor White explained actions D-1.1 through D-1.5. Would you go through the rest of your Actions through D-4.7. Chancelor White stated that the first strategy is what is the body that will house the data and how do we fund that body. The second strategy, Strategy B-2, what is the data governance. Who decides and how do they decide what data goes in, what the form is, and what the composition is. So D-2.1 was to form a technical advisory committee to make recommendations on this data governance. And then D-2.2 is funding the long term data governance strategy based on recommendations made by the Technical Advisory Committee (TAC).

Then Strategy D-3 is how do we support data collection, recognizing that individuals in other departments will have that responsibility. So there may be individuals in DNR, DGGS, for example, that may be collecting, have a responsibility for collecting some of the data. So these two actions, Action D-3.1 establish dedicated data collection and analysis positions in the state agencies that are responsible for collecting, analyzing, hosting and distributing data in formats accessible, liaising with the AEA Data Department; and then D-3.2 to provide professional development or skills training opportunities for staff in other agencies as it relates to this data collection and analysis.

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So we have where we're going to house it, how it's going to be governed, and then the D-3 was who's going to collect it, and then D-4 is about the data gap analysis, kind of what is the data that is to be collected. So this was funding a gap analysis of energy data, including existing data, accessibility, quality, et cetera. I'm reading D-4.2. Revitalize, fund and maintain energy data platforms and services so as to ensure the long term availability, accessibility of data. So these are other platforms that may be being maintained to make sure that that data that's feeding in is maintained. Conduct a data audit of the RCA. This is to learn about what data might be available through the RCA. And then D-4.4 expands PCE reporting because there's a lot of data there. Action D-4.5 we've talked about this in the task force a fair bit of expanding the definition of energy data to include heat, thermal and transportation fuel data. Action D-4.6 talks specifically to the heating and transportation fuel delivery and use. And then Action D-4.7 to reestablish annual updates to the Alaska Energy Statistics Report.

And I have gone through all of the comments that were submitted. There were a couple that supported the recommendations. I didn't specifically see any comments in the public comment that were not already addressed in the data report. So I'll conclude there and happy to entertain questions or pitch them to Brittany.

Vice Chair Thayer asked if there were any questions.

Mr. Venables knows that in AEA's practice whenever there's a publicly funded project to collect data ongoing for a number of years, sometimes it's requirement, sometimes it's optional, sometimes it's not. I was wondering if the subcommittee contemplated the policy of requiring all publicly funded projects to provide data. How was that discussed or contemplated in your data horizon?

Chancellor White stated that's part of the data governance task, to figure out how to understand what data is available. It's also captured a bit in D-3 and D-4 in elements, particularly D-4 what data platforms are out there and what can be accessed. I'll ask Brittany if there was a specific comment related to specific data sets. Publicly funded data sets. Ms. Smart stated that she thinks Dan captured it well. It was discussed, and that is where the governance committee came in, because we also recognize that how the information comes in, privacy concerns, security concerns, all of that, are issues that need to be considered. And so it didn't feel appropriate to just have a blanket requirement. And that is how we came up with the recommendation that it makes sense to have a governance committee to help set up industry standards on how some of that data is collected, managed, stored, shared, all those aspects related to energy data.

Mr. Mitchell stated in looking through the actions, and since we're doing a blanket approval of D-1.1 through D-4.7, it kind of tailhooks onto my last question. We have C-5, which is the data for decision making in rural Alaska. We also have Coastal B-2.6, which is establish and provide valuable energy planning and modeling metrics. What I would like to do is add *D-4.8, or wherever we end, that says incorporate data requests or data needs based on other task force committees*.

I may not have the wording right, but I'm trying to ensure that we're not going in three directions. I think the last comment you had, Chancellor White, was that this is good, and we'll integrate that. I'm just trying to look at it from the public's view and how we're integrating it within a recommendation. So I'm open to how it gets done.

Commissioner Kurber stated on D-4 section where the RCA is implicated and thank you, Chancellor White, for the clarification on what it means to audit the RCA for data. Speaking for myself, I don't think that's really an issue as far as creating or adding that to the mix. We do a lot of things--not just with the regular dockets, but also with iDockets where we gather information, and that is a valuable tool for assessing energy issues writ large. We have a ton of stuff that's been gathered over the years. Lots of bytes of information and data. And to the extent that those things can be worked out for transfer and stuff, it seems reasonable to have everything housed under one place. And in general, I think this is a noble effort to capture in one space the information needed for future efforts of this nature. And to also update information we've gathered from the past, as appropriate. So that's what I wanted to offer.

Ms. Miller stated this is in reference to Duff's comment, which is similar to John's comment about how we've had multiple subcommittee strategies related to workforce development, and John recommended that workforce development and training would be one of the top recommendations in the executive summary. And I think data is another similarly important theme. I think to address Duff's comment, it would be helpful to roll that up in the executive summary as a key recommendation around data. So food for thought.

Senator Bishop asked if the committee was talking about warehousing all the data in one central location? Because I'm thinking of the DGGS and the core shack across town. Will there be a link to where you can go to the core shack and look at geology, etcetera, et cetera? So somebody help me understand that. Chancellor White responded that the intent is for AEA has a data department that you can get to electronically for information. AEA maintains a platform and all of that data would be accessible through this platform. We were talking about how data sits with different agencies, like the RCA, and it would be accessed through the AEA data department.

Mr. Koplin stated that it may be implied throughout the data section, but I really like the idea of having a data element in the executive summary. And I think it would be good to tie it to energy costs, kind of the overarching role of the task force. And again, it's implied that data driven decision making should result in, hopefully, lower development costs, better informed decisions, and ultimately projects that have better benefit, cost and performance. I think we should capture and highlight that.

Mr. Hanneman wanted to respond to Senator Bishop's inquiry, he wanted to support Clay's response as well. I think the data capturing and storage initiative we're talking about here is related to the energy and electrical consumption, production costs and wouldn't attempt to replicate, or in fact, probably reference at all things like the core storage or division, oil gases and all the other data needs and facilities that the state has.

Vice Chair Thayer wanted to add that at AEA, when I first started here, we had a gentleman that came and wanted to know about a project that we had invested in prior to 1985. However, in 1985 the decision was made that we weren't going to go forward with that project. He inquired about it. We had the files downstairs, dusty, whatever. It had low RAM-C coordinates, which as we know, there are no more low RAM-C coordinates. But we had all that information and we put it on a thumb drive and gave it to him. And now he's pursuing it in the Aleutian Islands as a viable project. He's having conversations with the Department of Energy.

That's where we came up with the concept of AEA at least doing a data library and making sure we take all those dusty old files that we spent tens of millions of dollars on 40 years ago and actually make them available to the public and not through a public records request or anything like that. It's public information, public dollars that were spent on them, and they should be available to the public. Right now we're up to 8,000 documents that must then scanned by the end of the year so we can make it go live. So at a point, if you want to know about the Susitna-Watana, it will all be there in its own data room, so to speak.

For this, AEA stayed out of the conversation even though Connor was involved in it. But this is something I think is a great idea because there's so much information out there. We need to have it in one location because an example of an idea of 1985, fast forward 38 years later, it might be a reality, but we wouldn't have known unless we had that information and if it was available to the public even sooner. Now, we at AEA also understand there's information that, for security reasons, can't be shared. But I think this is a great idea from AEA's perspective because we have spent tens if not hundreds of millions of dollars and we should make this stuff forward facing for people.

Jenn Miller called the question on the motion. Unidentified Task Force member seconded.
There were no objections. Roll call vote was taken.
The motion passed (yes-12; no-0)

g. Incentives and Subsidies Actions - Nils Andreassen and Isaac Vanderberg, Co-Chairs

DRAFT

STRATEGY E-1: Strengthen state-federal coordination and investment

ACTION E-1.1

Vice Chair Thayer introduced this item and asked either Nils or Isaac to discuss. Mr. Andreasson , as background, I will go through each of these strategies. I do think there's additional detail for each of these starting on page 47 of the plan. And a lot of the how do we get there items found in those pages describe what I would consider sub-actions for each of these strategies. Having listened to each of the other subcommittee reports, strategies and actions, there's a lot of overlap and cross-benefits that I've heard already today.

Action E-1.1 is focused on strengthening state/federal coordination investment. The action at the high level is working group or collaborative efforts that identify and work toward improved access on federal lands, funding that accelerates local, reliable, affordable energy, and the ability to leverage investment opportunities between state and federal programs. And some of the pathways to getting there that are referenced for this action starting on page 47 in Appendix 3 include having an implementation strategy for federal energy funding opportunities that align with state level investments. So that's really thinking about the competitive response that we have to federal grant opportunities and making sure that we've got available match for these projects. Other pathways include 2) establish a clean energy and transmission line land use designation on state and federal land to facilitate activity therein. 3) Establish a state and/or federal Alaska Clean Energy and Transmission Line Fund or something like an Alaska Energy Transition fund to help advance that transition. 4) ensure that criteria for state and federal project investments include affordability consistent with this task force mission. 5) optimizing utilization of the clean energy financing program at the federal level. 6) increasing the capacity for streamlining regulatory and permitting actions within state agencies at the federal level.

So overall, the actions for this strategy, E-1, all kind of dedicated to facilitating engagement at the federal level, with the state at the table, and fostering collaboration and leveraging, especially federal funding opportunities.

MOTION: John Sims that the Task Force approve Incentives and Subsidies Action:

E-1.1 - *Establish a state/federal working group that identifies and works toward 1) improved access on federal lands, 2) funding to accelerate a local, reliable, and affordable energy transition, 3) the ability to leverage investment opportunities between state and federal programs.* **Chancellor Daniel White seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion. There were no questions or comments. The question was called. Jen Miller seconded. A roll call vote was taken.

The motion passed (yes-11; no-0)

STRATEGY E-2: **Reduce the barriers to private sector investments**

DRAFT

ACTION E-2.1
Vice Chair Thayer asked if one of the co-chairs would like to provide background and discussion on their action item.

Mr. Andreassen stated that Action E-2.1 is to establish a strategic approach to policy, tax and program development that stimulates and incentivizes private sector activity that leads to lower cost, local and reliable energy. More information on sub-actions for this action are found on page 49 of Appendix 3. There's a lot that could be done in this space by the state, including improve and implement Commercial Property Assessed Clean Energy and Resilience (C-PACER) programs, and to evaluate or add the adoption of a residential R-PACER program. 2) is to establish an open access transmission, integration, tariff and reduction or elimination of internet connection and or wheeling tariffs. 3) is similar to other recommendations around a clean energy standard that helps to facilitate reaching diversification goals. 4) implementing a low interest loan program that includes concessionary capital similar to that offered by the Power Project Loan Fund to facilitate affordable energy development and infrastructure improvements. 5) conducting pre-development, permitting, surveying, engineering and or environmental within principal energy zones, which is really just doing some of the pre work necessary to make sure that projects don't have to incur those costs on our own. 6) to conduct an evaluation of the state government's capacity to increase incentive programs or make investments that lead to lower cost energy. 7) leveraging the state's tax system to implement a state corporate income tax deduction or credit or reimbursement program based on the property tax expenses that are incurred by clean energy generation transmission distribution projects.

So seven sub actions under that broad action of strategic approach to policy, tax and program development at the state level.

MOTION: Nils Andreassen moved that the Task Force approve Incentives and Subsidies Action:
E-2.1 - *Establish a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy.* **Duff Mitchell seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

Mr. Mitchell read Sub-action 7, "Implement a state corporate income tax deduction or credit..." I don't believe this is strong enough. I ask that this sub-action in 2.1 be stricken and we can address it in a stronger action under a new Action E-6.1. That would be my recommendations.

I don't believe that there's one more single effort that can attract -- we're not talking about reducing barriers, we're talking about incentivizing private investment to the state and eliminating property tax on any private investment that comes in for -- eliminate property tax and exempt property for any new generation, transmission and distribution. Whether we call ourselves Second World, Third World, or the technically correct world underdeveloped, we need

to track private capital in this state to help us help ourselves. The mill rate by moving from one borough or one Muni to another and the transmission lines and the generation and other aspects is just too big of an issue to kind of bury in.

I believe that we need to draft and enact legislation to eliminate property tax and exempt property taxes for new generation, transmission and distribution assets for the dual purpose of attracting private capital and energy development to deliver and lower the energy cost for Alaskans. What I do like in Seven is some of the explanation that this mechanism is in place to lower the cost for rate payers that are appropriately applied. I think that that's wise in some of the discussion points of the action.

But I think we need to be bold and as a background, 27 states recognizing the economic contribution of renewable energy, and I'm going to use the word clean energy investments have progressively exempted clean properties from property tax. Furthermore, nearly half of all these states, specifically 13, go the even extra mile of exempting any sales tax on solar generation. Significantly, taxation directly or inadvertently elevates the cost of energy to consumers. By exempting new energy infrastructure from property taxes, these states deliver lower cost energy, energy security and energy investments that pay long term economic job creation and emissions benefits, ensuring long term energy security and benefits for their citizens.

I think we should be a leading beacon in this approach. Alaska is committed to all forms of new energy, diversifying its energy portfolio, and is invested in fostering all types of new electrical energy ventures. I attended the governor's energy conference. There was $1.3 trillion that was remarked at that conference, waiting to invest in our state. We need to open this state up for business. And there is not one thing that we can do that will have a more immediate impact in my mind of attracting that, because these investment funds could park their money in Oklahoma, they could park it in Louisiana, or we can make it attractive in Alaska.

So with that, I'd like to strike Sub-action 7, make it its own action item "*E-6.1 draft and enact legislation to help eliminate property tax and zone property taxes for new generation transmission and distributions for the dual purpose of attracting private investment in energy development to deliver a lower energy cost for Alaskans.*"

Ms. Miller had a comment to add to Duff''s motion. As an independent connection provider (ICP) building generation projects, currently, the way we structure our projects is we need to come in more competitive than the utility's current cost of generation, which is a good model because it's driving prices down. One thing that I will say we struggle with is utilities do not pay property taxes on their generation projects or transmission distribution assets. And so by exempting ICPs from property taxes, and that creates a level playing field and allows us to compete. Mr. Sims stated most utilities, as we're one of the largest taxpayers.

Mr. Venables stated that as it's drafted currently, it's income tax deduction or credit, sole proprietors, partnerships and LLCs do not pay an income tax, and the credit that would be

derived is infinitesimal to the amount of property tax that would be paid if you prorated out that credit.

Vice Chair Thayer asked if the maker of the motion agrees with the friendly amendment to eliminate sub-section 7 from E-2.1 and make it a new Action E-6.1. Mr. Andreassen responded that he does not. Vice Chair Thayer asked Mr. Andreassen if he could provide more background on this.

Mr. Andreassen stated that for the task force this has been discussed many times over the last few months. And I think from how we've talked about it in the past, I can appreciate the maker of the amendment's position on this and the way that I have approached it and thought about it more broadly is that one, I think, just about all of the other work that we've done. We focus on actions at the state level. What can the state take responsibility for, and what are the impacts to the state, including to the state's budget? And this is one of the few that I can see where actually we're taking away a tool at a different level of government. And, yes, the state can change its statutes to do that, but it will leave less of a partnership at the local level to actually be able to deliver other types of benefits into a community. And for a state that's one of the lowest tax in the nation or has the lowest taxes in the nation. And even as I think was commented, for an industry that doesn't pay corporate income taxes, asking for more deductions didn't make sense to me.

I think the other way I would approach this is that when I'm looking at everything that's in the incentives and subsidies, recommendations and action items, I'm thinking about it very broadly about the types of investments that we're already recommending, the types of other types of exemptions and grants and subsidies and so on that we're offering, and this one very specific one that would reduce the capacity and ability for local governments to be good partners with the state, with utilities and with ICPs is a step in the wrong direction.

Vice Chair Thayer asked for Mr. Vanderburg's thoughts as co-chair.

Mr. Vanderburg stated, as Nils said, we discussed this back and forth and I think it's still something that we continue discussing as it isn't necessarily a settled issue. I appreciate Nils' perspective on it. I supported this as something that I thought was an effective action that we should take. But I do appreciate my co chair's perspective on it. Watching the experience of Jenn and also looking at other ICPs in the state who are trying to develop projects. The property tax exemption can be a fraction of a penny, or a penny and a half per kilowatt hour. And that can make all the difference for a project to get it financed and get it approved by the RCA. And so it seems like a small thing, but if our goal is to see more utility scale generation in the state and more ICPs are producing projects, it's going to have a major impact. So an issue that our group has discussed, gone back and forth on, and there's some disagreement, but it is what it is.

Task Force members discussed their next steps with a motion on the floor and a proposed amendment. It was decided to move forward with an amended motion reflecting the proposed changes.

AMENDED MOTION #1: Duff Mitchell moved that the Task Force approve Incentives and Subsidies Action:

E-2.1 - *Establish a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy with paragraph Sub-section 7 on page 50 of Appendix III* ***removed****.* **Jenn Miller seconded the motion.**

Discussion:

Vice Chair Thayer asked if there was discussion on striking paragraph Sub-Section 7 from Action E-2.1.

Mr. Venables asked for more clarity on why we're throwing out the subcommittee's work on this Action. Mr. Mitchell responded that this issue has been discussed going back to the first meetings, so there has been input put forward. We also had an incentive committee meeting with the Rail Belt Committee, where this issue was taken up and addressed. So it's already been outside the committee, and it's an issue where it's becoming more black and white. It's either you're for it or you're against.

So, you know, the discussion points are, the governor, not only is Alaska open for business, which is one of his mottos, he's trying to track private capital. We're underdeveloped, and we're trying to bring this in. One of the catalysts is to exempt property tax. The state has the authority to exempt property tax. And this takes out where, if you have a transmission project or you have a generation project located in Kenai, but it's trying to reduce the cost of power in Golden Valley, that it has a lower cost that isn't taxed in one borough, where it may be delivering property in the other, or maybe it's being delivered in Kenai, but now it's competing on a minimally economically viable project with a nonprofit or a tax exempt entity. And this is nothing more than a level playing field action.

Mr. Andreassen stated we have talked about this ad nauseum at the subcommittee level. I can appreciate that this could help lower costs of energy for ratepayers. I also have an obligation to other components of the state's obligations, like public safety and public education. I think it's important for us all to recognize what property tax funds is, all those other pieces. And I think for a lot of these things, we should be thinking about, what are we giving up achieving this goal. And I don't want to give up my kids' education. I don't want to give up my community's public safety. I don't want to give up all the other facilities that local governments deliver. I don't want to have to make choices between very real and hard priorities that communities and residents face across Alaska. So I think it's just worth recognizing that there are tradeoffs to this discussion, that if we're attempting to mandate a property tax exemption for a small group of communities who have it in a state that's one of the lowest tax in the nation, what we're giving up is investment into those other obligations of the state.

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Mr. Koplin stated first point is ANCs are federally recognized tribes, and they are taxable corporate entities. And I think they're one of the biggest opportunities for partnering with ICPs and other land developers. I mean, the big landowners in the state of Alaska are the state and the federal government and ANCs, of which only the ANCs and their land is taxable. So I think it does matter to them if they can have a tax break to develop local resources. So I would be opposed to removing item seven. However, I'm more strongly opposed adding a property tax exemption. The state does have property tax exemptions for senior citizens, for veterans. Those used to be funded by the state. Now they're funded by local communities. And that property tax and sales tax are really the only revenue streams that local government staff have to fund their communities. So I'm not in favor of a blanket property tax exemption that then puts that whole property tax burden on the year round businesses and citizens who invest in property in those communities. And I'll leave it at that.

Chancellor While asked if the co-chairs or Mr. Koplin wanted to discuss any public comment that came in on this particular topic. Mr. Vanderburg responded that I read all the public comments we received due to the kind of quirky financial nature of our group, I really didn't see any, especially on this topic, maybe Nils saw some comments, but I really didn't. And I think these are all really good comments everyone is making. If I can just add another point to consider. The Center for Economic Development did some great analysis several years ago, just talking about how energy is the base of economic development anywhere, but in particular in rural Alaska. And I'm generally against property tax exemptions for most sectors. But I just think energy is special. If you have a low cost of energy, that that can lead to all sorts of other economic development communities that then can be taxed. And that's what we're trying to do. We're trying to kind of get out of the gate by having low energy that then leads to businesses and economically viable investments. If you have high energy costs, it's really hard to get anything else going. And so I think that's why generally in property tax debate, I'm aligned with Nils and just kind of view that we need to fund local government. We need to find ways to do that in this specific area. Energy just feels like we need to make some sacrifices to bring other types of energy.

John Sims stated that he is on the Incentives and Subsidies Subcommittee. I think it's important for the Task Force to understand that this came to this body without unanimous agreement. So it was important to us because of the discussion that we have it here amongst everyone. And that was kind of our approach to this one is let's have this conversation with the group because we couldn't come to an agreement. So to address your point there, this was not a unanimous recommendation from the subcommittee. I think it's important to understand we're talking about projects that do not exist today and we're hoping they do tomorrow. And so we're already funding the schools, we're already funding health care with existing measures there. We're trying to make the costs in those communities lower by passing and getting this type of infrastructure in those communities. So that's why this type of exemption, to Isaac's point, just these energy projects is so critical. We can reduce the costs of those communities. Everyone's admitted it, right. This is a cost reduction, and all those costs will flow through to the community. It's a benefit to the community to do this kind of measure. And so I'm definitely supportive of it, and hopefully we can get there.

Ms. Miller wanted to follow on a similar point to what John pointed out. We have our existing generation systems in place, and those were done by not for profit co-op utilities. But I just wanted to point out that we didn't have a tax base off of those projects. And then as we're looking to build new projects, this is income that the boroughs are not currently getting. And so it's not that we would be taking something away, but it's a way of incentivizing new projects. And I can say that when we worked on a property tax exemption here at Kenai Peninsula Borough, we ran the numbers for our solar project, what would the power purchase price be with and without a property tax exemption? And we were able to lower our PPA price. And then when you look at that passing, the lower electricity costs passed on to all the members, it more than paid for that exemption. So it was a net positive to the community. And then, especially once you add in the jobs and local spend to do the project, it more than paid for itself. And so overall, it was a net positive.

And one thing I'd like to offer up, we're having a lot of discussion about this, and I would propose that we settle what recommendation seven is now, rather than bringing this back up and revisiting it again, just because we're having all the discussion right now and we have some momentum with context. And so my proposal would be to amend recommendation seven and get either passer or fail that, and then go back to the full 2.1. So for consideration.

Vice Chair Thayer stated what you're recommending is amending Seven to include language that has a property tax exemption in it? Ms. Miller stated yes.

Ms. Milled added that way people would know what we're voting before we just remove something. Maybe it's saying, well, what would we want instead? So that people know what they're voting on. And so my proposal specifically would be to amend seven, the language of seven, to implement a statewide property tax exemption for new generations.

Vice Chair Thayer stated we do have a motion on the floor, and we have a second. So we need to deal with that one.

Mr. Venables stated he would like to hear from Nils. I'm kind of agnostic. What I don't want to do is not have this corrected. And so one way is to clean it up and just take it all out. But I'm amenable to Jen's suggestion, if we can go that route. Like John said, this has been discussed. I want to emphasize the point that attacks on something that doesn't exist is zero. This is not for old generation, not for existing transmission that's been here for 100 years. That may be in a tax base that someone is counting on. This is new. And new brings jobs. We talked earlier about attracting industry. We heard the stories of Iceland.

This is the catalyst. In fairness, we have entrepreneurs in this state that put hundreds of thousands of dollars into developing a solar or wind or hydropower project. And they get no income tax benefit the way this is drafted because they're a sole proprietorship. And so I'm trying to also be fair to all Alaskans so that we rise up from our bootstraps and invigorate Alaskans, Alaskan Native corporations, villages, other people to put down their rift money to

develop energy projects. And they are struggling with every fraction of the cent to sell to the utilities, which also want lower cost power. So we're all cutting and rowing the canoe together. So I will rest there. I would like to hear from Nils.

Mr. Andreassen stated I think if we look at Sub-action 6 and 7 under Action E2.1, item six is saying the state is going to look at its tax system and see what it can do to make incentives and investments that lead to lower cost energy. Seven is again up to the state to figure out how it wants to adjust. If there were a property tax exemption to occur at the local level, could the state pick up some of the burden of that? I think those stand on their own. It sounds like what the interest is, is adding something either under this section, under incentives and subsidies, or under statutes and regulations to mandate a property tax exemption at the state level or have the state mandate that.

And I would offer that we had an earlier recommendation that said, keep that exemption local. That, if Jen, you're right, that economics bear out. And there's a benefit to the region and community. Local governments are going to make decisions about exemptions that are benefiting their region and community. The earlier recommendation had been to encourage local governments to add an exemption where it makes sense to achieve these goals. But having that local control, having that local decision making around budgets that in the future they're going to be depending on, I think there's a lot of merit to that. I do think six and seven stand on their own or get rid of them. And separately, if there's going to be a recommendation for a property tax exemption, and I think the way to craft that is around encouraging that to occur at the local level as decided upon by local government officials.

Mr. Vanderburg stated the only comment I would provide is having local decisions. Again, I find myself, usually I'm in favor of that. And with these projects, just watching Jen's teamwork or just watching some of the work that the entrepreneurs are doing, you end up having to visit communities, go to several hearings, which adds cost to the project, and also just kind of disincentivizes those project developers from even pursuing these things in the first place. So if we're trying to send a signal like, hey, ICPs, come hither, because we have a great environment for you, this isn't it. It's saying, hey, ICPs, come to Alaska, and you'll have 20 projects of 20 local presentations on your hand. It just adds cost. But interesting conversation.

Chancellor White stated that this is the report that the public had to comment on that I had asked earlier about public comment on this, if there's a substantive change. I mean, if we're talking about a blanket exemption that has not been commented on by the public. Just a note. Thank you.

Mr. Koplin added one little extra piece. A not for profit cooperative pays the dividends, the margins back to their customers. It's $1.8 million over the last five years at Cordova. So it's not a level playing field. My concern is that you provide an incentive, but what's to say that that incentive shows up in the profit margin instead of on the ratepayers meter? So I'm prepared to vote for these the way they're presented, but I just can't get my head around changes at this point.

Ms. Miller stated Duff and I have discussed this, and we're both okay with moving forward with a motion to amend Sub-section 7.

AMENDED MOTION #2: Jenn Miller moved that the Task Force approve Incentives and Subsidies Action:

E-2.1 - *Establish a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy with paragraph Sub-section 7 on page 50 of Appendix III* ***amended. Remove Sub-section 7****, which reads* "Implement a State corporate income tax deduction or credit, or reimbursement program, based on the property tax expenses incurred during development of clean energy generation, transmission, and distribution projects that result in lower-cost energy in the near or long term". ***Insert as new language,*** "Draft and enact legislation to eliminate property tax and exempt property taxes for new generation, transmission and distribution assets for the dual purpose of attracting private investment and energy development to deliver and lower the energy cost for Alaskans." **Duff Mitchell seconded the motion.**

Discussion:

Vice Chair Thayer opened the floor for discussion.

Mr. Mitchell wanted to state for the record that there was public comment on this and there were remarks made and it came from the independent power producers who are most impacted by this. So thank you. Vice Chair Thayer added that those comments were received yesterday.

Mr. Guy stated that currently, once ANCs start to be built, we're taxable and we pay the taxes. So with this amendment, we wouldn't. Mr. Mitchell responded that with this amendment, you would be tax exempt for your generation transmission lines.

Mr. Venables confirmed that state corporate income tax is no longer an issue of you striking, that there's no value in that. Ms. Miller responded that because ICPs are organized differently as whether they're an LLC or a C Corp, they have different tax structures. So we think we recommend that just a property tax exemption based on the project rather than a state tax exemption.

Mr. Venables stated if the property tax exemption is good policy going forward, why wouldn't it be good policy going backwards for ratepayers? Mr. Mitchell stated out of respect for the committee chairman's point, that that is already in the tax base and it's already funding schools or funding programs. And so this is to attract new as opposed to go back. We could do that, but that's not with this motion. Mr. Venables stated that'd be for anything that's not even got feasibility. So it's just new calls, new projects going forward. Mr. Mitchell responded well, if it gets to commercial operation date, it doesn't have a taxable event until it becomes an asset that's taxable.

DRAFT

Mr. Mitchell called for the question. Ms. Miller seconded. No objections were made. Roll call vote was taken.
The motion passed (yes-10; no-3)

Vice Chair Thayer stated we are back to the original motion, per below.

MOTION: Nils Andreassen moved that the Task Force approve Incentives and Subsidies Action:
E-2.1 - *Establish a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy.* **Duff Mitchell seconded the motion.**

Discussion:
Vice Chair Thayer opened the floor for discussion.

The question was called and seconded. There was an objection to call the question. Roll call vote was taken.
The motion failed (yes-0; no-13)

Discussion:
Vice Chair Thayer opened the floor for further discussion on Action E-2.1.

Ms. Miller thanked everyone for continued debate. I wanted to acknowledge that Action E-2.1, Sub-action 3 (Page 49, Appendix III) is adopting a clean energy standard. And Sub-action 4 talks about low interest loans through the power projects under something else. And I just wanted to elevate those for consideration for the executive summary. We've actually had quite a lot of discussion on the Clean Energy Standard, Power Project Fund and the Renewable Energy Fund and just how strategic those incentives are. And so I just wanted to share my support for those.

And then I did want to provide a comment or recommendation regarding Sub-action 5 where it talks about having the state conduct predevelopment, permitting and surveying, engineering and environmental work in the principal energy zones. And one thing I just wanted to bring up for debate is I think we talked about at the railbelt level for the renewable Energy Fund to use that to incentivize, to share the cost and the risk of developing new projects with private industry. And I think rather than the state going out and preemptively completing project development in these energy zones, I think private industry might be better suited to lead that effort because they know their project, they know their finance hurdles. And I think rather than us going and spending money on our ideas, I think we should let private industry lead that and risk those dollars and we can match them through the renewal energy fund. But I wouldn't recommend that we solely go out as a state and do that by ourselves. And so I just wanted to bring that up for debate and discussion. So thank you.

DRAFT

Mr. Vanderburg stated just to be clear, I think the concept here was to look at different regions in the state where we could look at the permitting requirements, look at the best places to interconnect with the grid or the transmission line and do some kind of predevelopment. I wouldn't call it development work, Jenn, I would say it's predevelopment. And just saying here are zones known to have a favorable kind of setup and know have the lowest permitting requirement where you're not going to run into a bunch of environmental issues. And as a state, maybe we even do a little bit of work looking at almost running like pilot projects or straw man projects to test how the permitting process, how burdensome it would be and to clear kind of regulatory pathways so that by the time an ICP comes in, they have confidence that if they actually perform due diligence on a project, that it's not going to be derailed by permitting or environmental or other issues. So it's a best practice I think we've found in other states are trying to do some of that early pre-community engagement and clearing of permitting to allow projects to move forward with greater likelihood of success.

Ms. Miller stated thanks for that clarification, Isaac. And is it really just kind of trying to screen different areas? It's just that engineering is listed, surveying those are kind of starting to get further along in the development process. And so I would be supportive, and I appreciate the context from the screening level, identifying zones that could have potential, kind of like we talked about for the load growth, certain energy areas that would easily have load growth. I would support something where we think there could be new projects and highlighting those areas and see if we can get developers to come in and look at them further. I just don't know that it's appropriate for the state to fully take on engineering and serving and those kinds of activities.

Vice Chair Thayer added that he can provide a little bit of context. I understand your point, and I agree with your point. Because I would probably say, and Jennifer can confirm, I probably meet no less than a dozen to 18 different individuals a month that have an idea about doing business in Alaska. And then we complicate it or not. And you add on what people that do business with the governor's office and reach out to them and out of those very few move forward once we do it. So if we were prestaging some of these, we would have spent a lot of time, money and resources that are a lot of tire kickers as opposed to real developers. I'm saying we've had some of the $1.3 trillion, we've had some of those people, and we spent time with them, and I meet with everybody. But it does mean that there's just a lot of people from across the world that think about doing business in Alaska.

But once we have that, once they kick the tires a little bit and it might take two or three times, either there's a good project there or there's not. And the majority of the time they're looking for us to advance $3- $4- $5 million to test their project. So that is a concern that we have. I know from my experience, and I think that kind of gets multiplied around the state, that we want to be a good partner. We want to be open for business, but we can't be the one providing the project money to get them off the ground.

DRAFT

Mr. Hanneman stated isn't that, in part, Jen's point, though, that the project money, the engineering, the surveying, the project details is what we should be cautious about the state? Vice Chair Thayer stated I'm agreeing with her.

Mr. Hanneman stated I like the idea of pre-planning, and there's several recommendations from different subcommittees about planning, identifying transportation transmission corridors and pre-planning. That is a necessary kind of element. But you can't permit a conceptual project.

Vice Chair Thayer state we have a lot of inventory on resources. We know where the wind is. We know where the better tidal is. Those things are information we can provide as a broad spectrum to anybody coming into the state. But we have people that are very specific that, oh, I'm going to build a solar farm in Wasilla and all I need is $5 million to do the feasibility study. But look how many jobs I'm going to employ. Those are some of the tire kickers that we get, as opposed to some of the larger ones going, okay, tell us about this area of Alaska in the sense of state property, mental health trust, and what is available for wind resources. And that's where we can help and say, this is the way to DNR, this is the permitting, this is the land that's identified. These are state resources. And we can have that conversation. But it's more of a broader to everybody than to each specific group.

Ms. Miller stated I'm open to suggestions. I just wanted to bring up the concern and what's the right level of diligence that the state does to help. I think what Curtis is bringing up, having the state have the energy data, really, or resource assessments and making those publicly available, I think that's great. And I think I hear what you're saying. How do we grease the skids. I just want to make sure that we put the risk on private industry. That they at least share the risk of developing that project. But I would appreciate any, I guess Isaac and Nils, if there's any openness to an amendment or modification, let me know what you think.

Mr. Andreassen stated that this is one of the purposes of the Power Project Loan Fund. And I like the concept of a reimbursable or low interest path or forgivable loan, if the project's developed, or maybe more productive paths. Make sure the developer keeps skin in the game on the front end.

Mr. Mitchell stated principal energy zones is my community a principal energy zone? Is Anchorage a principal energy zone. And I'm trying to reach into the recesses of my mind as we discuss this and incentive subsidies, but I'd like to bring that term onto the table of what we mean by principal energy zones. My secondary comment to the chairs is that I could see adding in front of conduct on Sub-action 5, encourage public private developers to conduct private. In other words, we're assigning the responsibility. So we're not saying, hey State, hey governor, this is a good idea, but help me help myself because I'm going to encourage and I'm going to go out or public private partnership or a utility that's a private nonprofit or an ANC. So I like the words encourage public private developers to conduct predevelopment permitting. So I just throw that out as a possible additive. But I want to go back to the chairs where because it's when this was drafted. I want to get in your mind for the rest of the task force what principal energy zones are and whether that's all the state or just selected parts of the state.

Mr. Vanderburg responded that the concept was certain regions of the state that had just the right attributes for large scale development of energy projects that we need and primarily generation but could also be off takers. Visiting Iceland recently, they have a certain part of the country that has an excellent geothermal resource. And so what has happened there is they've said basically any off taker, any kind of industry that would like to use some of this resource can be co located there with one of the large geothermal plants called on. And they've seen several other large industrial plants develop in this region because they've identified it as just a great region for generation and off take. And it's attracting more and more projects or more and more developers to come in because it's kind of said this is an area where this kind of an industrial park or a principal energy zone makes sense. That's the idea. I'm just trying to think of creative ways to get real project developers, as you say, Jen, greasing the skids to get them developing projects in parts of the state.

Mr. Mitchel stated I'd like to make a friendly amendment and ask for the motion maker and the chairs to agree. And under Action E-2.1, Sub-section 5, I would like to add the following words:

> *Encourage public private developers to conduct predevelopment, permitting, surveying engineer and or environmental within high resource energy zones*. Strike the word principal from "principal energy zones"..

I want to pull on to what Isaac's saying. If we're in a resource rich or a high area, I want to clarify the energy zones. High resource energy zones, period. That is the only change that I'm asking for because I think it helps clarify our discussion in a consensus way of what we were discussing. Thank you.

Vice Chair Thayer asked if Nils as the maker of the motion accepts that friendly amendment? Mr. Andreassen stated I don't know that changes anything. I think it's about the same. Duff you're the one who had proposed principal energy zones. We've talked about this before. I feel like we're rehashing stuff that we went through quite a bit at the subcommittee level. It's a national best practice. I can point to international examples where Sub-action 5 works, and it's aligned with a public private partnership for delivery consistent with project. I don't know that we're getting anything new or different from this edit. Mr. Mitchell responded I'm ready to drop it. I'm just looking from the public's point of view and principal energy zones is not defined. I was just trying to help with Jenn's thing to encourage private developers. So that's all I was trying to do, but I can move forward without it.

Vice Chair Thayer asked Jenn if she had any other comments on Sub-action 5 or Sub-Action 6, as they were raised? Ms. Miller responded and wanted to thank the task force for the discussion. Appreciate it. We can move on.

Robert Venables called the question. The motion was seconded. Are there any objections for calling for the question. Hearing none. We'll do a roll call vote on the motion re-stated below.

DRAFT

MOTION: Nils Andreassen moved that the Task Force approve Incentives and Subsidies Action:
E-2.1 - *Establish a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity that leads to lower cost, local, and reliable energy. Sub-section 7 was amended per the previous motion.* **Duff Mitchell seconded the motion.**

The motion passed (yes-13; no-0)

The balance of the Strategy Action items were postponed to the next Task Force meeting.

i. **Statutes and Regulations Actions - Karl Hanneman and Robert Venables, Co-Chairs**

This agenda item was not discussed.

7. **Next Meeting Date - Tuesday, Friday, November 17, 2023, 2:00 p.m. via Teams or in the conference room.**

8. **Adjourn**

Robert Venables moved to adjourn the meeting. John Sims seconded.

Vice Chair Thayer adjourned Alaska Energy Security Task Force meeting at 4:10 p.m.

DRAFT

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #13
TUESDAY, NOVEMBER 7, 2023, 2:00 PM – 5:00 PM

Alaska Energy Security Task Force Meeting, Tuesday, November 7, 2023, 2:00 pm - 5:00 pm

Alaska energy Security Task Force meeting, Tuesday, November 7, 2023, 2:00 pm - 5:00 pm

Plese note the Alaska Energy Security Task Force will hold a meeting on Tuesday, November 7, 2023.

The Alaska Energy Security Task Force will convene at 2:00 pm to conduct task force business and will continue in session until recess or adjournment.

The Task Force will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

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Join on your computer, mobile app or room device
Click here to join the meeting
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Passcode: w4SvmA
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Or call in (audio only)
+1 907-313-5807,,970636797# United States, Anchorage
Phone Conference ID: 970 636 797#

The Agenda for the Alaska Energy Security Task Force meeting is available below or by visiting the Alaska Energy Security Task Force schedule web page.

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Person requiring special modifications should contact 907-465-3500 to make arrangements.

Attachments, History, Details

Attachments
2023.11.07 AESTF Agenda.pdf

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Tuesday, November 7, 2023

2:00 pm – 5:00 pm

Teams Meeting:
Click here to join the meeting
Meeting ID: 265 355 005 830
Passcode: w4SvmA

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom)
2. Roll Call
3. Public Comment
4. Review Draft Report Action Items by Subcommittee (vote yes/no to forward the action)
    a. Incentives and Subsidies Actions (Nils Andreassen and Isaac Vanderberg Co-chairs)
    b. Statutes and Regulations Actions (Karl Hanneman and Robert Venables Co-chairs)
5. Discuss actions notable for inclusion in Executive Summary
6. Next Meeting Date/Closing Remarks
    a. Friday, November 17, 2023, Teams
7. Adjourn

ALASKA ENERGY SECURITY TASK FORCE
TASK FORCE MEETING #14
MONDAY, NOVEMBER 20, 2023, 3:00 PM – 4:00 PM

Alaska Energy Security Task Force Meeting, Monday, November 20, 2023, 3:00 pm - 4:00 pm

Alaska Energy Security Task Force meeting, Monday, November 20, 2023, 3:00 pm - 4:00 pm

Please note the Alaska Energy Security Task Force will hold a meeting on Monday, November 20, 2023.

The Alaska Energy Security Task Force will convene at 3:00 pm to conduct task force business and will continue in session until recess or adjournment.

The Task Force will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Phone Conference ID: 727 057 292#

The Agenda for the Alaska Energy Security Task Force meeting is available below or by visiting the Alaska Energy Security Task Force schedule web page.

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Person requiring special modifications should contact 907-465-3500 to make arrangements.

Attachments, History, Details

Attachments
None

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Monday, November 20, 2023

3:00 pm – 4:00 pm

Teams Meeting:
Click here to join the meeting
Meeting ID: 215 511 685 129
Passcode: NzvDcy

Agenda

1. Welcome and Introductions (Lt. Gov. Dahlstrom)
2. Roll Call
3. Public Comment
4. Review Draft Report joint recommendation from Incentives and Subsidies Subcommittee and Statutes and Regulations Subcommittee by Subcommittee regarding PCE. (vote yes/no to forward the action)
5. Review and consider Final Report to be submitted to Governor.
6. Closing Remarks
7. Adjourn

STRATEGY E-3: : MAINTAIN RESIDENTIAL SUBSIDY FOCUSED ON EQUITY, WHILE REDUCING NEED ACROSS COMMUNITIES

ACTION E-3.1:

Continued commitment by the State to ensure residents have access to Power Cost Equalization funds where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms, 2) strategically deploys PCE funds to advance low-cost energy solutions, and 3) expands the ability of PCE to lower costs across sectors within communities.

Background:

The value of PCE cannot be overstated – it has proven to be a lifeline to Alaskans who bear the brunt of high costs. This equitable distribution of State funding, relative to and based on project investment in some parts of the state, has lowered costs in communities where otherwise more residents may have chosen outmigration. However, PCE has not equalized costs in any way, and it remains true that this high-cost burden falls on some Alaskans and not others. At the same time, the overall goals of the state can encompass reducing the need for this subsidy by actually lowering costs in communities.

Benefits:

Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment. Offsetting upfront costs and increasing the utilization of low-interest public capital will strengthen project economics while including strong public benefit criteria. Finally, this process envisions increasing the overall economy of scale, which will contribute to reducing barriers.

Working toward a flatter rate across Alaska improves the mobility of residents, increased economic opportunity, and overall improved quality of life for Alaskans.

How Do We Get There?

1. Ensure that PCE funds are available at the right scale over the correct time period.
   - There should be a clear commitment from the State that the role of and intent behind the Power Cost Equalization Fund should never be diminished. To be clear, the historic and long-standing goal to alleviate the energy burden of high-cost communities to the extent that PCE is designed for remains a priority for the State. However, the State should develop robust models for the future of the Fund that include scenarios analysis of what will be needed over a sufficiently long-time horizon, similar to an actuarial analysis conducted for other long-term investments, such as the State pension system. This modeling will identify future need and how investments at the community level have the potential to reduce that need, and what targets should look like in the decades to come. The principle behind this is that the PCE Fund is not the goal; the goal is lowering the energy burden for Alaskans.

2. Implement a strategic approach to lowering costs according to highest use communities.
   - A follow-on to 3.1, this action evaluates all current PCE communities based on a variety of factors, including current experienced costs, PCE contributions, population, and opportunity for projects that would reduce the cost of energy. Based on this evaluation, modeling would result in prioritization of communities where State investment would 1) lower the cost of energy below the current PCE threshold – achieving reduction of energy burden, and 2) result in a long-term savings to PCE. This latter is important if PCE funds were to be considered for these kinds of investments, but clearly the process would have to be evaluated as a whole for feasibility. The State could similarly mobilize other state or federal investments to achieve this same goal, and maximizing PCE funds for future use, as determined to be needed based on system modeling.

3. Increase the use of PCE funds available to community facilities, ensuring the full utilization of the current allocation.
   - Under PCE, currently, community facilities are eligible for an allocation of subsidy. However, in some communities the allocation isn't fully utilized. A study of these gaps should result in identified additional available resources that could be available for debt service, grid resilience, utility maintenance and operations, or other types of

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STRATEGY E-3: : MAINTAIN RESIDENTIAL SUBSIDY FOCUSED ON EQUITY, WHILE REDUCING NEED ACROSS COMMUNITIES

ACTION E-3.1: (CONT.)

Continued commitment by the State to ensure residents have access to Power Cost Equalization funds where and for as long as lower costs are not achieved, even as the State actively works to 1) consider alternative mechanisms, 2) strategically deploys PCE funds to advance low-cost energy solutions, and 3) expands the ability of PCE to lower costs across sectors within communities.

investments that lower costs for ratepayers.

4. Evaluate the impact of changes in statute that create incentives for – or remove disincentives to – local investment that leads to lowering the cost of energy for residents to the maximum extent possible.

- Changes to the PCE program have the potential to lead to unintended consequences. All opportunities that propose changes to PCE should be evaluated for the multiple levels of impact that might occur. Such a review should include an economic analysis of the potential to maximize benefits to residents, including and especially as it relates to lowering the cost of energy in a community. At the same time, changes would need to consider sustainability of the PCE endowment, other uses of those funds, and ability of the program to meet the needs as intended by statute.

5. Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

- Some would argue that PCE has not been as effective as it could have been, and even lowering the cost of energy in PCE eligible communities has not truly brought parity to the State. This variation and remaining high-cost results in continued energy burden for non-residential customers, high costs of goods and services, higher costs for doing business, and higher costs of living overall. A potential solution that would have to be evaluated further is to implement a postage stamp rate instead. The basic model for this is that every Alaskan would pay the same rate, assumingly established by the RCA, based on the pooling of all utility rates. This means that for many Alaskans, rates would go up, for many communities, rates would go down, and further analysis would have to be conducted for distributional impact. Such an approach really focuses on the ability for investments that lower the cost of energy anywhere in the state to benefit all Alaskans. Guardrails would have to be in place to avoid the risks of additional shared liability, too.

DRAFT



STRATEGY F-3: UTILITY REGULATION

ACTION F-3.2:

As Alaska works toward achieving a goal of $.10 cents per kw/hr the Task Force recommends maintaining and expanding the PCE Program until all Alaskans benefit from actual equitable and lower cost energy.

Background:
The Task Force recognizes the Power Cost Equalization Program and its Endowment as established remains an important though inadequate measure to provide all Alaskans with equitable and low energy costs. Long-term the PCE Program must be replaced with low cost power However, until energy/power projects are implemented for realization of actual equitable and low cost energy to all Alaskans, the PCE program must, in the interim, be expanded to achieve its original intent. Any reduction or replacement of the PCE Program must be paired with the planning and construction of proven methods that attain actual equitable and low cost energy as exemplified by the Southeast and Railbelt communities

The PCE program provides financial assistance to households and some community facilities in rural areas of Alaska where, in many instances, the kilowatt hour charge for electricity can be three to five times higher than the average kWh rate of 19.10¢ (7/19) between Anchorage, Fairbanks and Juneau. The PCE program was established to ensure rural residents and households had the same energy rate basis at the same time state funds were used to construct major energy projects to assist the development of more urban areas of Alaska. Most urban and road connected communities have directly benefited from major state-subsidized energy projects such as the Four Dam Pool, Bradley Lake, and the Alaska Intertie. Rural communities not on the road system that are dependent on diesel fuel do not directly benefit from these large subsidized energy projects.

All Alaskans therefore share an obligation to support investments that lower energy costs on an equitable basis for all Alaskans, rural as well as urban. This must remain a key objective. The State of Alaska's obligation is further cemented by the statutory agreement enacted by Congress between the State and the Natives for the development of all Alaska and the economic well being of its residents, rural and urban. The Alaska Native Claims Settlement Act (ANCSA) mandated the creation of Alaska Native Corporations to lead the development with the State leading on the construction of appropriate infrastructure, including energy, to ensure the success of economic development.
The Power Cost Equalization (PCE) Endowment must be preserved with added investment and expanded flexibility of use to provide certainty for 200 Alaska communities. The statutory purposes and regulatory application of the PCE program must remain focused on a statewide objective of lowering energy costs.

Under existing RCA guidance, the PCE program has allowed operation and maintenance costs of renewable generation (whether locally funded or acquired by grant) to qualify as allowable non-fuel costs. However, the RCA has not allowed the capital costs of granted assets (either conventional or renewable) to qualify toward PCE reimbursement. The capital costs of locally funded generation assets (whether conventional or renewable) do qualify toward determing PCE reimbursement. This committee believes that all of these practices are consistent with the statutory purposes of the PCE program.

When communities invest their own funds in conventional or renewable generation projects that drive local electricity costs lower, the state should examine any disparity between the amortization and depreciation schedules for generation assets to assess impacts on the cash flow of the community and/or local utility. The State should continue to allow flexibility within the PCE program so as to encourage such local investments that result in lower local costs (and thus also lower PCE costs).

In order to keep all Alaskans focused on the goal of driving overall power costs lower where possible, not higher, whether urban or rural, the RCA should ensure that Independent Power Producers will not be allowed to generate

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STRATEGY F-3: UTILITY REGULATION

ACTION F-3.2: (CONT.)

As Alaska works toward achieving a goal of $.10 cents per kw/hr the Task Force recommends maintaining and expanding the PCE Program until all Alaskans benefit from actual equitable and lower cost energy.

and sell power to a local utility, only to have that local utility in turn seek PCE payment based on something higher than the direct operating cost of generation. Moreover, generation assets acquired by grant should remain ineligible for PCE costs. These practices are necessary in order to maintain transparency, equity, and the overall integrity of the PCE program. When reduced power costs in a community result in reduced PCE reimbursement to that community, especially when it is a result of granted renewable generation assets, (and considering that the reduced power costs benefit businesses and larger users that are not included in PCE calculations) that should be viewed as a success for all of Alaska. PCE should remain for its purpose, Power Cost Equilization. It should not become a municipal funding mechanism.

How Do We Get There?
All stakeholders involved (Communities, Legislature, Executive Branch, AEA, RCA, Native organizations, utilities and non-utility generators) work together to insure the integrity and full funding of the PCE Endowment while energy/ power projects are implemented for realization of actual equitable and low cost energy.

Implementation Timeline:
The Legislature should fund the PCE program from the PCE Endowment earnings and other funds at 100 percent for FY 2024 and beyond. Full funding that actually implements the intent of the PCE program and expanded to all rural power consumers.

Benefits and Expected Results:
Provide funds to ensure equitable power costs and expand the PCE Program to all users until infrastructure investments and technology upgrades provide equity and bring the cost of energy down in rural areas. Maintenance of financial support to communities with high costs of energy generation while working on initiatives to bring the costs of energy down statewide.

DRAFT

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

Railbelt Transmission, Generation and Storage

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold a meeting on July 25, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meeting on Tuesday, July 25, 2023, 3:00 pm – 4:00 pm.

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend, please use the following instructions:

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments

Details

None

Revision History

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Project/Regulation #:	
Publish Date:	7/18/2023
Archive Date:	7/26/2023

Events/Deadlines:

NANCY DAHLSTROM
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lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Railbelt Transmission, Generation, and Storage

Tuesday, July 25, 2023
3:00 pm to 4:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Kickoff Facilitation – Subcommittee Framing
    a. Clarify Purpose, Goal, and Roles
        i. EO – Task Force Purpose
        ii. EO – Task Force Duties & Responsibilities
        iii. Subcommittee Purpose
    b. Subcommittee Deliverables
        i. Define milestones for deliverables
    c. Subcommittee Information Needs
        i. Data/resource needs/file sharing
        ii. Identify preferred name for report section
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
4. Next Steps
    a. Member Assignments

b. Support & Contractor Assignments
c. Meeting Date, Tuesday, August 8, 2023, 3:00 pm
    1. **Reschedule due to Task Force meeting conflict**

5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

Created 8/1/2023 1:49:42 PM by jlbertolini
Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
Modified 8/1/2023 2:23:32 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold a meeting on August 30, 2023, 1:00 pm.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meeting on Wednesday August 30, 2023, 1:00 pm – 2:00 pm.

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

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Meeting ID: 248 813 554 652
Passcode: zq2Xqp

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/22/2023 8:36:55 AM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/22/2023
Archive Date:	8/31/2023
Events/Deadlines:	

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Railbelt Transmission, Generation, and Storage

Wednesday, August 30, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Subcommittee Deliverables Recap
4. Proposed Workplan
5. Schedule
6. Subcommittee Feedback
7. Next Steps
8. Adjourn

STATUS: Future

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 19, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 17, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

Microsoft Teams meeting

Join on your computer, mobile app or room device

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Meeting ID: 248 813 554 652
Passcode: zq2Xqp

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mbakerintl@m.webex.com

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/22/2023 11:08:42 AM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023

Events/Deadlines:

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Railbelt Transmission, Generation, and Storage

Tuesday, September 05, 2023
3:00 pm to 4:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    1. Review of Preliminary Action Recommendations
4. Coordination with other subcommittees:
    1. Proposed Report Template of Strategy/Actions that Coastal Subcommittee is considering.
5. Discuss Preparation for All Day meeting on September 14th
6. Next Steps
    1. Member Assignments
    2. Support & Contractor Assignments
    3. **Next Meeting: Thursday, September 14, 2023 9AM – 4pm**
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 14, 2023, 9:00 am - 4:00 pm
- Tuesday, September 19, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 17, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 248 813 554 652
Passcode: zq2Xqp

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Join with a video conferencing device
mbakerintl@m.webex.com

Video Conference ID: 117 917 081 4
Alternate VTC instructions

Or call in (audio only)
+1 412-634-6334,,104254297# United States, Pittsburgh
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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/22/2023 11:08:42 AM by jlbertolini
Modified 9/13/2023 2:23:11 PM by jlbertolini

[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023

Events/Deadlines:

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Railbelt Transmission, Generation, and Storage

Thursday, September 14, 2023
9:00 am to 4:00 pm
Alaska Energy Authority
813 W. Northern Lights Blvd. Anchorage, AK

Teams Meeting:
Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Overview of objectives and purpose of the meeting **(9:15am – 9:30am)**
4. Generation/Storage Metrics Presentation – B&V **(9:30am – 10:15am)**
    a. Discuss scenario modeling approach and assumptions.
5. Identifying Strategies/Actions (ongoing) **(10:15 am – 12:00pm)**
    a. Identify & confirm strategies (high-level categories)
    b. **BREAK (10 minutes)**
    c. Further refine individual actions in action sheet
6. Lunch **(12pm - 1PM)**
7. Advance Executive Summary of Actions **(1pm – 3:30pm)**
    a. Discuss and assign members to relevant actions to assist with providing high-level write-up for each action. *(Template will be provided by MBI).*

b. Discuss details related to actions subcommittee considers high priority.
c. **BREAK (10 minutes)**
d. Initial Feedback on Prioritization Metrics (draft metrics shared by MBI)

8. Next Steps **(3:30pm – 4:00pm)**
    1. Member Assignments
    2. Support & Contractor Assignments
    3. **Next Meeting: Task Force Meeting, Tuesday, September 19, 2023 9AM – 4pm**
9. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/8/2023 2:53:48 PM by jlbertolini	
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Modified 9/14/2023 11:52:39 AM by jlbertolini	[Details]
Modified 9/14/2023 1:08:31 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 14, 2023, 9:00 am - 4:00 pm
- Tuesday, September 19, 2023, 3:00 pm – 4:00 pm
- Monday, September 25, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 17, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 248 813 554 652
Passcode: zq2Xqp

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History

Created 8/22/2023 11:08:42 AM by jlbertolini	
Modified 9/13/2023 2:23:11 PM by jlbertolini	[Details]
Modified 9/18/2023 8:37:34 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023

Events/Deadlines:

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www.ltgov.alaska.gov

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Railbelt Transmission, Generation, and Storage

Monday, September 25, 2023
12:00 pm to 4:00 pm
Alaska Energy Authority Denali Room
813 W. Northern Lights Blvd. Anchorage, AK

Teams Meeting:
Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Marc Luiken	Facilitation - Michael Baker International
Malia Walters	Facilitation - Michael Baker International
Lauren Culhane	Facilitation - Michael Baker International

Agenda:

1. Welcome/Introductions
2. Roll Call / Attendance
3. Overview of objectives and purpose of the meeting
4. Review Action Completed Action Item Summaries **(12:30pm – 2:30 pm)**
    a. Further refine individual actions in action sheet
    b. **BREAK (15 minutes)**
5. Review Strategy Executive Summaries **(2:45 pm – 4:00pm)**
    a. Identify & confirm strategies (high-level categories)
6. Next Steps **(3:30pm – 4:00pm)**
    1. Member Assignments
    2. Support & Contractor Assignments
    3. **Next Meeting: Task Force Meeting, Tuesday, October 03, 2023 9AM – 4pm**
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 14, 2023, 9:00 am - 4:00 pm
- Tuesday, September 19, 2023, 10:40 am - 12:00 pm
- Monday, September 25, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- ~~Tuesday, October 3, 2023, 3:00 pm – 4:00 pm~~
- -Friday, October 6, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 17, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.

Anchorage, AK 99503

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 248 813 554 652
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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments

None

Revision History

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Modified 9/13/2023 2:23:11 PM by jlbertolini	[Details]
Modified 9/18/2023 8:37:34 AM by jlbertolini	[Details]
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Modified 9/26/2023 7:48:49 AM by jlbertolini	[Details]
Modified 10/2/2023 10:13:36 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 14, 2023, 9:00 am - 4:00 pm
- Tuesday, September 19, 2023, 10:40 am - 12:00 pm
- Monday, September 25, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- ~~Tuesday, October 3, 2023, 3:00 pm – 4:00 pm~~
- -Friday, October 6, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 17, 2023, 3:00 pm – 4:00 pm
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.

Anchorage, AK 99503

Microsoft Teams meeting

Join on your computer, mobile app or room device

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Meeting ID: 248 813 554 652
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The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments

None

Revision History

Created 8/22/2023 11:08:42 AM by jlbertolini	
Modified 9/13/2023 2:23:11 PM by jlbertolini	[Details]
Modified 9/18/2023 8:37:34 AM by jlbertolini	[Details]
Modified 9/18/2023 9:07:07 AM by jlbertolini	[Details]
Modified 9/26/2023 7:48:49 AM by jlbertolini	[Details]
Modified 10/2/2023 10:13:36 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023

Events/Deadlines:

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Railbelt Transmission, Generation, and Storage

Friday October 6, 2023
12:00 pm to 4:00 pm
Alaska Energy Authority
813 W. Northern Lights Blvd. Anchorage, AK

Teams Meeting:
Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda:

1. Welcome/Introductions
2. Roll Call / Attendance
3. **Railbelt Working Group Summaries-** Group discussion on what to do with these
4. **Final Comments on Summary & Action Sheets**
    a. Overall Railbelt Intro
    b. Transmission & Storage
        i. Action Sheet
        ii. Summary
    c. Diversify Generation
        i. CES & Incentives Action Sheet
        ii. Regulatory
        iii. Go/no-go for existing projects
            1. Susitna-Watana

2. Dixon Diversion
3. AKLNG

iv. Review section Summary

d. Demand
   i. Demand Action Sheet
   ii. Summary

5. **Aligning Railbelt Recommendations Across AESTF Report** (other Subcommittee Recommendations)
6. **How to efficiently work future edits**
7. **Next Meeting: Task Force Meeting, Tuesday, October 10, 2023 2 pm – 4pm**
8. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

Please note the **Railbelt Transmission, Generation and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings between September 5, 2023 and October 31, 2023 as follows:

- Tuesday, September 5, 2023, 3:00 pm – 4:00 pm.
- Tuesday, September 14, 2023, 9:00 am - 4:00 pm
- Tuesday, September 19, 2023, 10:40 am - 12:00 pm
- Monday, September 25, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 3, 2023, 3:00 pm – 4:00 pm
- ~~Tuesday, October 3, 2023, 3:00 pm – 4:00 pm~~
- Friday, October 6, 2023, 12:00 pm - 4:00 pm
- Tuesday, October 17, 2023, 1:00 pm - 3:00 pm ~~3:00 pm – 4:00 pm~~
- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Railbelt Transmission, Storage and Generation Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Anchorage, AK 99503

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Attachments, History, Details

Attachments
None

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STATE OF ALASKA
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Alaska Energy Security Task Force
Subcommittee: Railbelt Transmission, Generation, and Storage

Tuesday, October 17, 2023
1:00 pm to 3:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 248 813 554 652
Passcode: zq2Xqp

Attendees

Name	Role
Tony Izzo	Co-Chair
Jenn Miller	Co-Chair
John Sims	Member
Curtis Thayer	Member
Bryan Carey	AEA Observer
Erin Whitney	Requested
Andrew Guy	Requested
Karl Hanneman	Requested
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    1. Member Assignments
    2. Support & Contractor Assignments
    3. **Next Meeting:** Tuesday, October 31, 2023 10:30am *(Consider meeting sooner if needed)*
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Railbelt Transmission, Generation and Storage Subcommittee will hold meetings between September 5, 2023 and October 31, 2023.

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- Tuesday, October 31, 2023, 3:00 pm – 4:00 pm

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Anchorage, AK 99503

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Project/Regulation #:	
Publish Date:	8/31/2023
Archive Date:	10/31/2023
Events/Deadlines:	

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

Coastal Generation, Distribution and Storage Subcommittee

STATUS: Future

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

Please note the **Coastal Generation, Distribution and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Friday, July 28, 2023, 11:00 am - 12:00 pm
- Friday, August 11, 2023, 11:00 am - 12:00 pm
- Friday, August 25, 2023, 11:00 am - 12:00 pm
- Friday, September 8, 2023, 11:00 am - 12:00 pm
- Friday, September 22, 2023, 11:00 am - 12:00 pm
- Friday, October 6, 2023, 11:00 am - 12:00 pm
- Friday, October 20, 2023, 11:00 am - 12:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Coastal Generation, Distribution and Storage Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

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Click here to join the meeting

Meeting ID: 222 737 932 706
Passcode: ueTKpj

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Video Conference ID: 111 032 024 9

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Or call in (audio only)

+1 412-634-6334,,679148717# United States, Pittsburgh

Phone Conference ID: 679 148 717#

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Attachments, History, Details

Attachments
None

Revision History
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Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/21/2023
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Events/Deadlines:	

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lt.governor@alaska.gov

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Alaska Energy Security Task Force
Subcommittee: Coastal Generation, Distribution, and Storage

Friday, July 28, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venebles	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Kickoff Facilitation
    a. Clarify Purpose, Deliverables, and Responsibilities
        i. Co-chairs/Members
        ii. Michael Baker International
        iii. Black & Veatch
    b. Subcommittee Administration
        i. Data/resource needs/file sharing
        ii. Define milestones for deliverables
        iii. Identify preferred name for report section
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Friday, August 11, 2023 11:00 AM
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

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Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
Modified 8/1/2023 2:23:32 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

Please note the **Coastal Generation, Distribution and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Friday, July 28, 2023, 11:00 am - 12:00 pm
- Friday August 11, 2023, 11:00 am- 12:00 pm
- Friday, August 18, 2023, 11:00 am - 12:00 pm
- Friday, August 25, 2023, 11:00 am - 12:00 pm
- Friday, September 8, 2023, 11:00 am - 12:00 pm
- Friday, September 22, 2023, 11:00 am - 12:00 pm
- Friday, October 6, 2023, 11:00 am - 12:00 pm
- Friday, October 20, 2023, 11:00 am - 12:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Coastal Generation, Distribution and Storage Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Anchorage, AK

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Learn More | Meeting options

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Attachments, History, Details

Attachments
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Events/Deadlines:

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Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, August 08, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venables	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Public input/Comments, if any.
4. Data/Resource needs/File sharing
4. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Friday, August 18, 2023 11:00 AM
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

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- Friday, September 8, 2023, 11:00 am - 12:00 pm
- Friday, September 22, 2023, 11:00 am - 12:00 pm
- Friday, October 6, 2023, 11:00 am - 12:00 pm
- Friday, October 20, 2023, 11:00 am - 12:00 pm

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Attachments
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Modified 8/14/2023 12:42:23 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
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907.269.7460
907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, August 25, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venables	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
        1. Energy Symposium – Discuss any relevant actions identified in Alaska Statewide Comprehensive Economic Development Strategy: Appendix A
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Friday, September 8, 2023 11:00 AM
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

Please note the **Coastal Generation, Distribution and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Friday, July 28, 2023, 11:00 am - 12:00 pm
- Friday August 11, 2023, 11:00 am- 12:00 pm
- ~~Friday, August 18, 2023, 11:00am - 12:00 pm~~ CANCELLED
- Friday, August 25, 2023, 11:00 am - 12:00 pm
- Friday, September 1, 2023, 11:00 am - 12:00 pm
- Friday, September 8, 2023, 11:00 am - 12:00 pm
- Friday, September 22, 2023, 11:00 am - 12:00 pm
- Friday, October 6, 2023, 11:00 am - 12:00 pm
- Friday, October 20, 2023, 11:00 am - 12:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Coastal Generation, Distribution and Storage Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Or call in (audio only)

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Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:22:06 PM by jlbertolini
Modified 8/9/2023 2:40:12 PM by jlbertolini [Details]
Modified 8/10/2023 7:17:00 AM by jlbertolini [Details]
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/21/2023
Archive Date:	10/21/2023
Events/Deadlines:	

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Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, September 01, 2023
11:00 am to 12:00 pm
Teams Meeting:

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Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venables	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    a. Proposed Report Template of Actions/Strategy
    b. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Friday, September 8, 2023 11:00 AM
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

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- Friday, October 20, 2023, 11:00 am - 12:00 pm
- Friday, October 27, 2023, 11:00 am - 12:00 pm

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Attachments, History, Details

Attachments
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/21/2023
Archive Date:	10/21/2023

Events/Deadlines:

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Coastal Generation, Distribution, and Storage

Friday, September 08, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venables	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Preliminary Action Recommendation Updates
        1. Consider organizing actions similar to Data Subcommittee structure.
        2. Updates related to executive summary write ups for actions
4. Report out of coordination with other subcommittees
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting:
        1. Friday, September 15, 2023, 10am to 12pm with optional 2pm to 3pm Carry over time.

4. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

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- Friday, October 20, 2023, 11:00 am - 12:00 pm
- Friday, October 27, 2023, 11:00 am - 12:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Coastal Generation, Distribution and Storage Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

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Attachments, History, Details

Attachments
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/21/2023
Archive Date:	10/21/2023

Events/Deadlines:

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Coastal Generation, Distribution, and Storage

Friday, September 15, 2023
10:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venebles	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Overview of objectives and purpose of the meeting **(10:00am –10:15am)**
4. Identifying Strategies/Actions (ongoing) **(10:15 am – 11:00pm)**
    a. Identify & confirm strategies (high-level categories)
    b. Further refine individual actions in action sheet
5. Advance Executive Summary of Actions **(11:00am – 11:45am)**
    a. Discuss and assign members to relevant actions to assist with providing high-level write-up for each action.
    b. Discuss details related to actions subcommittee considers high priority.
    c. Initial Feedback on Prioritization Metrics (draft metrics shared by MBI)
6. Next Steps **(11:45am-12:00pm)**
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Task Force Meeting, Tuesday, September 19, 2023 9AM – 4pm
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

Please note the **Coastal Generation, Distribution and Storage Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

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- Friday, October 20, 2023, 11:00 am - 12:00 pm
- Friday, October 27, 2023, 11:00 am - 12:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

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Learn More | Meeting options

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Attachments, History, Details

Attachments
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Details

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Events/Deadlines:

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Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, September 22, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venebles	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Identify & confirm strategies (high-level categories)
    b. Discuss and assign members to remaining actions to assist with providing high-level write-up for each
    c. Discuss pencils down date for final draft documents
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Friday, September 29, 2023 9AM – 4pm
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

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- Friday, September 15, 2023, **10:00 am - 12:00 pm; and 2:00pm - 3:00 pm (if necessary)**
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- Friday, September 22, 2023, 11:00 am - 12:00 pm
- Thursday, September 28, 2023, 11:00 am - 12:00 pm
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Attachments, History, Details

Attachments
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Modified 9/28/2023 9:56:15 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
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Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, September 28, 2023
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Teams Meeting:

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Attendees

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Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Confirm Strategies/Actions (ongoing)
    a. Confirm strategies based on 09/27/2023 updates
    b. Confirm/edit final action summaries
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: TF Meeting, October 3rd, 1:30 pm – 4:30 pm
5. Adjourn

STATUS: Active

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The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Coastal Generation, Distribution and Storage Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 222 737 932 706
Passcode: ueTKpj

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Or call in (audio only)

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Phone Conference ID: 679 148 717#

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Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:22:06 PM by jlbertolini
Modified 8/9/2023 2:40:12 PM by jlbertolini [Details]
Modified 8/10/2023 7:17:00 AM by jlbertolini [Details]
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Modified 9/6/2023 10:18:30 AM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/21/2023
Archive Date:	10/21/2023
Events/Deadlines:	

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Modified 9/28/2023 9:56:15 AM by jlbertolini [Details]

Modified 9/28/2023 12:07:27 PM by jlbertolini [Details]

STATUS: Active

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Attachments, History, Details

Attachments
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Attachments
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Attachments, History, Details

Attachments
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Sub-Category:	
Location(s):	Statewide
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Publish Date:	7/21/2023
Archive Date:	10/21/2023
Events/Deadlines:	

NANCY DAHLSTROM
LIEUTENANT GOVERNOR
www.ltgov.alaska.gov



550 West Seventh Avenue, Suite 1700
Anchorage, Alaska 99501
907.269.7460
907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Coastal Generation, Distribution, and Storage

Friday, October 20, 2023
11:00 am to 12:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Duff Mitchell	Co-Chair
Robert Venables	Co-Chair
Clay Koplin	Member
Audrey Alstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions, if needed
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Tuesday, October 27, 2023 11am
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Coastal Generation, Distribution and Storage, will hold meetings between July 28, 2023 and October 20, 2023.

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Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
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Revision History

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Details

Department:	Commerce, Community and Economic Development
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Sub-Category:	
Location(s):	Statewide
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Publish Date:	7/21/2023
Archive Date:	10/21/2023
Events/Deadlines:	

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

Rural Generation, Distribution and Storage

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

Please note the **Rural Generation, Distribution and Storage Subcommittee** of Alaska Energy Security Task Force will hold virtual meetings as follows:

- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- Thursday, August 10, 2023, 1:00 pm - 2:00 pm
- Thursday, August 24, 2023, 1:00 pm - 2:00 pm
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Anchorage, AK

To attend, please use the following instructions:

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Meeting ID: 272 906 193 435
Passcode: PcapLx

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Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

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550 West Seventh Avenue, Suite 1700
Anchorage, Alaska 99501
907.269.7460
907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Rural Generation, Distribution, & Storage

Tuesday, July 25, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Jason Brune	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Kickoff Facilitation
    a. Clarify Purpose, Goal, and Roles
        i. Co-chairs/Members
        ii. Michael Baker International
        iii. Black & Veatch
    b. Subcommittee Administration
        i. Data/resource needs/file sharing
        ii. Define milestones for deliverables
        iii. Identify preferred name for report section
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Meeting Date, Thursday, August 10, 2023, 1:00 pm

5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

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Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

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Details

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Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

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mbakerintl@m.webex.com

Video Conference ID: 115 031 425 4

Alternate VTC instructions

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The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

Please note the **Rural Generation, Distribution and Storage Subcommittee** of Alaska Energy Security Task Force will hold virtual meetings as follows:

- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- ~~Thursday, August 10, 2023, 1:00 pm – 2:00 pm~~ CANCELED
- Thursday, August 17, 2023, 1:00 pm - 2:00 pm
- Thursday, August 24, 2023, 1:00 pm - 2:00 pm
- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Thursday, September 21, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 272 906 193 435
Passcode: PcapLx

Download Teams | Join on the web

Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 115 031 425 4

Alternate VTC instructions

Or call in (audio only)

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arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini
Modified 8/9/2023 12:39:23 PM by jlbertolini

[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023

Events/Deadlines:

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www.ltgov.alaska.gov

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Anchorage, Alaska 99501
907.269.7460
907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, & Storage

Wednesday, August 17, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Jason Brune	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Meeting Date, Thursday, August 24, 2023, 1:00 pm

4. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

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- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Thursday, September 21, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

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Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
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Events/Deadlines:	

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, & Storage

Wednesday, August 24, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Emma Pokon	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
        1. Review of Action Worksheet – draft action recommendations in progress for presentation to Task Force.
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Meeting Date, Thursday, September 7, 2023, 1:00 pm

4. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

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- Thursday, September 21, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

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Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
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Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
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Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, & Storage

Thursday, September 7, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Emma Pokon	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Consider organizing actions similar to Data Subcommittee structure.
4. Coordination with other subcommittees:
    a. Statutes and Regulations Subcommittee:
        1. Launch Alaska shared the preliminary actions with their 32 portfolio companies. Comments received on Rural Action #3 and #8 for consideration.
    b. Coastal Subcommittee:
        1. Proposed a Report Template of Strategy/Actions for consideration.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments

c. Next Subcommittee Meeting: Thursday, September 21, 2023, 1:00 pm

4. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

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- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Thursday, September 21, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Anchorage, AK

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Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini
Modified 8/9/2023 12:39:23 PM by jlbertolini [Details]
Modified 9/7/2023 1:32:58 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023

Events/Deadlines:

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STATE OF ALASKA
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Alaska Energy Security Task Force
Subcommittee: Rural Generation, Distribution, & Storage

Monday, September 18, 2023
1:00 pm to 3:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 213 320 233 479
Passcode: useVRv

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Emma Pokon	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (ongoing)
    a. Identify & confirm strategies (high-level categories)
    b. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss and assign members to relevant actions to assist with providing high-level write-up for each action.
    b. Discuss details related to actions subcommittee considers high priority.
    c. Initial Feedback on Prioritization Metrics (draft metrics shared by MBI)
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Task Force Meeting, Tuesday, September 19, 2023 9am –

4pm

6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/8/2023 2:53:48 PM by jlbertolini	
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Modified 9/14/2023 11:52:39 AM by jlbertolini	[Details]
Modified 9/14/2023 1:08:31 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

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- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- ~~Thursday, August 10, 2023, 1:00 pm - 2:00 pm~~ CANCELED
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- Thursday, August 24, 2023, 1:00 pm - 2:00 pm
- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Tuesday, September 19, 2023 10:40 am - 12:00 pm
- ~~Thursday, September 21, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Friday, September 22, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

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813 W. Northern Lights Blvd.
Anchorage, AK

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Attachments, History, Details

Attachments
None

Revision History

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Modified 9/18/2023 9:19:11 AM by jlbertolini	[Details]
Modified 9/21/2023 1:18:29 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
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Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

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Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, and Storage

Thursday September 21, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 222 737 932 706
Passcode: ueTKpj

Attendees

Name	Role
Clay Koplin	Co-Chair
Andrew Guy	Co-Chair
Emma Pokin	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Clarify Strategies/Actions (ongoing)
    a. Strategy documents
    b. Action worksheets
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Thursday, September 28, 1:00 pm
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

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- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Tuesday, September 19, 2023 10:40 am - 12:00 pm
- ~~Thursday, September 21, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Friday, September 22, 2023, 1:00 pm - 2:00 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

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Attachments, History, Details

Attachments
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Revision History

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Modified 9/21/2023 1:18:29 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

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lt.governor@alaska.gov

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Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, and Storage

Thursday September 22, 2023
1:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272906 193 435
Passcode: PcapLx

Attendees

Name	Role
Clay Koplin	Co-Chair
Andrew Guy	Co-Chair
Emma Pokin	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Clarify Strategies/Actions (ongoing)
    a. Strategy documents
    b. Action worksheets
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Thursday, September 28, 1:00 pm
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

Please note the **Rural Generation, Distribution and Storage Subcommittee** of Alaska Energy Security Task Force will hold virtual meetings as follows:

- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- ~~Thursday, August 10, 2023, 1:00 pm – 2:00 pm~~ CANCELED
- Thursday, August 17, 2023, 1:00 pm - 2:00 pm
- Thursday, August 24, 2023, 1:00 pm - 2:00 pm
- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Tuesday, September 19, 2023 10:40 am - 12:00 pm
- ~~Thursday, September 21, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Friday, September 22, 2023, 1:00 pm - 2:00 pm
- Friday, September 29, 2023, 1:30 pm - 2:30 pm
- Thursday, October 5, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.

Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 272 906 193 435
Passcode: PcapLx

Download Teams | Join on the web

Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 115 031 425 4

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,679720563# United States, Pittsburgh

Phone Conference ID: 679 720 563#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:32:35 PM by jlbertolini
Modified 8/9/2023 12:39:23 PM by jlbertolini [Details]
Modified 9/7/2023 1:32:58 PM by jlbertolini [Details]
Modified 9/18/2023 9:19:11 AM by jlbertolini [Details]
Modified 9/21/2023 1:18:29 PM by jlbertolini [Details]
Modified 9/28/2023 12:09:35 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023

Events/Deadlines:

NANCY DAHLSTROM
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Anchorage, Alaska 99501
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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Rural Generation, Distribution, and Storage

Thursday September 29, 2023
1:30 pm to 2:30 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Clay Koplin	Co-Chair
Andrew Guy	Co-Chair
Emma Pokin	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Edit Rural Strategies and Actions
    a. Strategy documents
    b. Action worksheets
        1. Rural 2.5 Rural Transmission Lines and Other Shared Energy Projects.
        2. Rural 3.4 Grid Automation and Modernization
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Thursday, September 28, 1:00 pm
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

Please note the **Rural Generation, Distribution and Storage Subcommittee** of Alaska Energy Security Task Force will hold virtual meetings as follows:

- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- ~~Thursday, August 10, 2023, 1:00 pm – 2:00 pm~~ CANCELED
- Thursday, August 17, 2023, 1:00 pm - 2:00 pm
- Thursday, August 24, 2023, 1:00 pm - 2:00 pm
- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Tuesday, September 19, 2023 10:40 am - 12:00 pm
- ~~Thursday, September 21, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Friday, September 22, 2023, 1:00 pm - 2:00 pm
- Friday, September 29, 2023, 1:30 pm - 2:30 pm
- ~~Thursday October 5, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Monday, October 9, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.

Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 272 906 193 435
Passcode: PcapLx

Download Teams | Join on the web

Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 115 031 425 4

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,679720563# United States, Pittsburgh

Phone Conference ID: 679 720 563#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments

None

Revision History

Created 7/14/2023 1:32:35 PM by jlbertolini	
Modified 8/9/2023 12:39:23 PM by jlbertolini	[Details]
Modified 9/7/2023 1:32:58 PM by jlbertolini	[Details]
Modified 9/18/2023 9:19:11 AM by jlbertolini	[Details]
Modified 9/21/2023 1:18:29 PM by jlbertolini	[Details]
Modified 9/28/2023 12:09:35 PM by jlbertolini	[Details]
Modified 10/5/2023 8:03:40 AM by jlbertolini	[Details]
Modified 10/5/2023 8:04:28 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Rural Generation, Distribution and Storage, will hold meetings between July 25, 2023 and October 19, 2023

Please note the **Rural Generation, Distribution and Storage Subcommittee** of Alaska Energy Security Task Force will hold virtual meetings as follows:

- Tuesday, July 25, 2023, 1:00 pm - 2:00 pm
- ~~Thursday, August 10, 2023, 1:00 pm – 2:00 pm~~ CANCELED
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- Thursday, September 7, 2023, 1:00 pm - 2:00 pm
- Monday, September 18, 2023, 1:00 pm - 3:00 pm
- Tuesday, September 19, 2023 10:40 am - 12:00 pm
- ~~Thursday, September 21, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Friday, September 22, 2023, 1:00 pm - 2:00 pm
- Friday, September 29, 2023, 1:30 pm - 2:30 pm
- ~~Thursday October 5, 2023, 1:00 pm - 2:00 pm~~ CANCELLED
- Monday, October 9, 2023, 1:00 pm - 2:00 pm
- Thursday, October 19, 2023, 1:00 pm - 2:00 pm

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Rural Generation, Distribution and Storage Subcommittee Meetings will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.

Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 272 906 193 435
Passcode: PcapLx

Download Teams | Join on the web

Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 115 031 425 4

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,679720563# United States, Pittsburgh

Phone Conference ID: 679 720 563#

Find a local number | Reset PIN

Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments

None

Revision History

Created 7/14/2023 1:32:35 PM by jlbertolini	
Modified 8/9/2023 12:39:23 PM by jlbertolini	[Details]
Modified 9/7/2023 1:32:58 PM by jlbertolini	[Details]
Modified 9/18/2023 9:19:11 AM by jlbertolini	[Details]
Modified 9/21/2023 1:18:29 PM by jlbertolini	[Details]
Modified 9/28/2023 12:09:35 PM by jlbertolini	[Details]
Modified 10/5/2023 8:03:40 AM by jlbertolini	[Details]
Modified 10/5/2023 8:04:28 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	10/20/2023
Events/Deadlines:	

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Rural Generation, Distribution, & Storage

Monday, October 09, 2023
1:00 pm to 3:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Emma Pokon	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Strategy/Action Priority discussion
4. Edit Strategies/Actions (on-going)
    a. Review of Strategies and associated actions.
    b. Edit latest versions of strategy documents.
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Monday, October 19, 2023, 1pm
5. Adjourn

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Rural Generation, Distribution, & Storage

Monday, October 09, 2023
1:00 pm to 3:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 272 906 193 435
Passcode: PcapLx

Attendees

Name	Role
Andrew Guy	Co-Chair
Clay Koplin	Co-Chair
Emma Pokon	Member
Nils Andreassen	Member
Garrett Boyle	Member
Erin Whitney	Requested
Tim Sandstrom	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Strategy/Action Priority discussion
4. Edit Strategies/Actions (on-going)
    a. Review of Strategies and associated actions.
    b. Edit latest versions of strategy documents.
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Monday, October 19, 2023, 1pm
5. Adjourn

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

State Energy Data

STATUS: Active

Alaska Energy Security Task Force Data Subcommittee Meeting Monday, August 7, 2023, 1:00 pm

Alaska Energy Security Task Force Data Subcommittee will hold meeting Monday, August 7, 2023

Please note the **Data Subcommittee** of the Alaska Energy Security Task Force will hold a virtual meeting on Monday, August 7, 2023 1:00 pm-2:00 pm.

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Data Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

1810 Salcha Street
Fairbanks, AK 99775

To attend, please join the Zoom Meeting:

https://alaska.zoom.us/j/87673168154
Meeting ID: 876 7316 8154

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/27/2023 2:52:09 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	

Publish Date: 7/27/2023
Archive Date: 8/8/2023

Events/Deadlines:

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907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force Subcommittee: State Energy Data

Monday, August 7, 2023
1:00 pm to 2:00 pm

Zoom Meeting:
Click here to join the meeting
Meeting ID: 876 7316 8154
Passcode: 696807

Attendees:

Name	Role
Daniel White	Subcommittee Chair
Erin Whitney	Subcommittee Member
John Boyle	Subcommittee Member
Brittany Smart	Technical Advisory Committee Chair
Michael Yaffe	Michael Baker International
Hua Fang	Black & Veatch
Maggie King	Staff Support

Agenda

1. Welcome/Introductions
2. Roll Call
3. Discussion and Revision of Subcommittee Purpose, Deliverables, and Responsibilities
4. AESTF Data Subcommittee Technical Advisory Committee Update – Smart
    a. Data/resource needs
    b. Define milestones for TAC deliverables
5. Schedule next meetings and subcommittee milestones
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

Created 8/1/2023 1:49:42 PM by jlbertolini
Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
Modified 8/1/2023 2:23:32 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Energy Data Subcommittee Technical Advisory Committee will hold meeting Thursday, August 10, 2023, 9:00 am – 4:00 pm

Please note the Technical Advisory Committee for the Alaska Energy Security Task Force Energy Data Subcommittee will hold a virtual meeting on Thursday, August 10, 2023 9:00 am – 4:00 pm at the following location:

Robert B. Atwood Building

550 W. 7th Avenue, Room 104

Anchorage, AK 99501

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/8/2023 12:49:41 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/8/2023
Archive Date:	8/11/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Energy Data Subcommittee Meeting Monday, August 21, 2023, 2:30 pm

Please note the Energy Data Subcommittee of the Alaska Energy Security Task Force will hold meeting Monday, August 21, 2023 at 2:30 pm.

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The Energy Data Subcommittee Meeting will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

1810 Salcha Street

Fairbanks, AK 99775

To attend, please join the Zoom Meeting:

https://alaska.zoom.us/j/81354552262?pwd=TFkxNFprWENFWE5KOE8xSEl1ZkNiZz09

Meeting ID: 813 5455 2262

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/9/2023 2:14:11 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/9/2023
Archive Date:	8/22/2023
Events/Deadlines:	

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907.269.0263 Fax
lt.governor@alaska.gov

STATE OF ALASKA
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Alaska Energy Security Task Force Subcommittee: State Energy Data

Monday, August 21, 2023
2:30 pm to 3:30 pm

Zoom Meeting:
Click here to join Zoom Meeting
Meeting ID: 813 5455 2262
Passcode: 741025

Attendees:

Name	Role
Daniel White	Subcommittee Chair
Erin Whitney	Subcommittee Member
John Crowther	Designee of Subcommittee Member
Joseph Byrnes	Designee of Subcommittee Member
Brittany Smart	Technical Advisory Committee Chair
Michael Yaffe	Michael Baker International
Hua Fang	Black & Veatch
Maggie King	Staff Support

Agenda

1. Welcome/Introductions
2. Roll Call
3. AESTF Data Subcommittee Technical Advisory Committee Update – Smart
4. Review and Discussion of Draft Recommendation Report
    a. Recommended edits
    b. Next steps
5. Schedule next meeting and subcommittee milestones
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/8/2023 2:53:48 PM by jlbertolini	
Modified 9/12/2023 9:20:14 AM by jlbertolini	[Details]
Modified 9/14/2023 11:52:39 AM by jlbertolini	[Details]
Modified 9/14/2023 1:08:31 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

Incentives and Subsidies

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907.269.0263 Fax
lt.governor@alaska.gov

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Tuesday, July 25, 2023
2:00 pm to 3:00 pm
Teams Meeting:

Click here to join the meeting
Meeting ID: 271 518 441 022
Passcode: 3YcTxZ

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Kickoff Facilitation
    a. Clarify Purpose, Goal, and Roles
        i. Co-chairs/Members
        ii. Michael Baker International
        iii. Black & Veatch
4. Discussion
    a. Terms – subsidy and incentive
    b. Time frame – short, medium, and long
    c. Goal-setting
    d. Intended beneficiaries
5. Subcommittee Administration
    a. Data/resource needs/file sharing
    b. Define milestones for deliverables
    c. Identify preferred name for report section

6. Potential Strategies/Actions (ongoing)
    a. Action worksheet
7. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Schedule next meeting/series
8. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies will hold a meeting on August 7, 2023

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold a virtual meeting on Monday, August 7, 2023, 8:00 am – 9:00 am.

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 266 868 441 900
Passcode: DTQDPV

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mbakerintl@m.webex.com

Video Conference ID: 118 300 255 3

Alternate VTC instructions

Or call in (audio only)

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Phone Conference ID: 880 630 278#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make

arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/4/2023 7:53:58 AM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/4/2023
Archive Date:	8/8/2023
Events/Deadlines:	

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, August 7, 2023
8 am to 9 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 266 868 441 900
Passcode: DTQDPV

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. AESTF Meeting, Tuesday, August 8
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

Created 8/1/2023 1:49:42 PM by jlbertolini
Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings every Monday, 8:00 am – 9:00 am, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- Monday, September 4, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am -9:00 am
- Monday, September 18, 2023, 8:00 am -9:00 am
- Monday, September 25, 2023, 8:00 am -9:00 am
- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

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Meeting ID: 257 910 172 057
Passcode: CUoici

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Video Conference ID: 113 238 029 8

Alternate VTC instructions

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Phone Conference ID: 268 876 460#

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/16/2023 2:29:12 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023

Events/Deadlines:

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STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, August 21, 2023
8 am to 9 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 266 868 441 900
Passcode: DTQDPV

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Energy Symposium – Discuss any relevant actions identified in Alaska Statewide Comprehensive Economic Development Strategy: Appendix A
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Monday, August 28, 2023, 8am
5. Adjourn

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, August 28, 2023
8 am to 9 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Review of Action Worksheet – draft action recommendations in progress for presentation to Task Force.
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Tuesday, September 05, 2023, 8am
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings every Monday, 8:00 am – 9:00 am, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am – 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 18, 2023, 8:00 am -9:00 am
- Monday, September 25, 2023, 8:00 am -9:00 am
- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/16/2023 2:29:12 PM by jlbertolini
Modified 8/17/2023 9:38:08 AM by jlbertolini

[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023

Events/Deadlines:

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Tuesday, September 5, 2023
8 am to 9 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Co-Chairs Report Out
    a. Launch Alaska survey of portfolio companies
4. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Consider organizing actions similar to Data Subcommittee structure.
4. Coordination with other subcommittees:
    a. Statutes and Regulations Subcommittee:
        1. Climate Xchange Site shared with Statutes and Regulations Subcommittee
        2. Gary Hennigh is a tentative guest/speaker at Statutes and Regulations Subcommittee to discuss PCE/King Cove
    b. Coastal Subcommittee:
        1. Proposed a Report Template of Strategy/Actions for

consideration.

5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Monday, September 11, 2023, 8am
        1. Potential Meeting Conflicts to discuss:
            i. Monday, September 25, 2023
            ii. Monday, October 9, 2023
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Monday, September 25, 2023, 8:00 am -9:00 am
- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

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Attachments, History, Details

Attachments
None

Revision History

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Modified 8/17/2023 9:38:08 AM by jlbertolini	[Details]
Modified 9/5/2023 3:14:55 PM by jlbertolini	[Details]
Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023
Events/Deadlines:	

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Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, September 11, 2023
8 am to 9 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Review of Action Worksheet – draft action recommendations in progress for presentation to Task Force.
        2. Updates to organizing actions similar to Data Subcommittee structure.
        3. Updates related to executive summary write ups for actions

4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments

c. Next Subcommittee Meeting: Tuesday, September 15, 2023, 12pm to 2pm

5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

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- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
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- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Attachments, History, Details

Attachments
None

Revision History

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Modified 8/17/2023 9:38:08 AM by jlbertolini	[Details]
Modified 9/5/2023 3:14:55 PM by jlbertolini	[Details]
Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023
Events/Deadlines:	

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Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Friday, September 15, 2023
12:00 pm to 2:00 pm
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Overview of objectives and purpose of the meeting **(12:00pm –12:15pm)**
4. Identifying Strategies/Actions (ongoing) **(12:15 pm – 1:00pm)**
    a. Identify & confirm strategies (high-level categories)
    b. Further refine individual actions in action sheet
5. Advance Executive Summary of Actions **(1:00pm – 1:45pm)**
    a. Discuss and assign members to relevant actions to assist with providing high-level write-up for each action.
    b. Discuss details related to actions subcommittee considers high priority.
    c. Initial Feedback on Prioritization Metrics (draft metrics shared by MBI)
6. Next Steps **(1:45pm-2:00pm)**
    a. Member Assignments
    b. Support & Contractor Assignments

c. **Next Meeting: Task Force Meeting, Tuesday, September 19, 2023 9AM – 4pm**

7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings every Monday, 8:00 am – 9:00 am, between August 21 and October 30, 2023 as follows:

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- Monday, September 25, 2023, 8:00 am -9:00 am
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- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

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The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 8/16/2023 2:29:12 PM by jlbertolini
Modified 8/17/2023 9:38:08 AM by jlbertolini

[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023

Events/Deadlines:

NANCY DAHLSTROM
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www.ltgov.alaska.gov

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, September 18, 2023
8:00am to 9:00 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Guest Speaker on PCE:
    a. Steve Colt, ACEP, University of Alaska
4. Identifying Strategies/Actions (ongoing)
    a. Identify & confirm strategies (high-level categories)
    b. Further refine individual actions in action sheet
5. Advance Executive Summary of Actions
    a. Discuss and assign members to relevant actions to assist with providing high-level write-up for each action.
    b. Discuss details related to actions subcommittee considers high priority.
    c. Initial Feedback on Prioritization Metrics (draft metrics shared by MBI)
6. Next Steps
    a. Member Assignments

b. Support & Contractor Assignments
c. **Next Meeting:**
    1. Task Force Meeting, Tuesday, September 19, 2023 9am – 4pm
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

Created 9/8/2023 2:53:48 PM by jlbertolini	
Modified 9/12/2023 9:20:14 AM by jlbertolini	[Details]
Modified 9/14/2023 11:52:39 AM by jlbertolini	[Details]
Modified 9/14/2023 1:08:31 PM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Passcode: CUoici

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mbakerintl@m.webex.com

Video Conference ID: 113 238 029 8

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,268876460# United States, Pittsburgh

Phone Conference ID: 268 876 460#

Find a local number | Reset PIN

Learn More | Meeting options

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Attachments, History, Details

Attachments
None

Revision History

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Modified 9/18/2023 9:08:55 AM by jlbertolini	[Details]
Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
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- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
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- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Passcode: CUoici

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Video Conference ID: 113 238 029 8

Alternate VTC instructions

Or call in (audio only)

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Attachments, History, Details

Attachments
None

Revision History

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Modified 9/18/2023 9:08:55 AM by jlbertolini	[Details]
Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023
Events/Deadlines:	

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, October 02, 2023
8:00am to 9:00 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Task Force Meeting, Tuesday, October 3, 2023 1:30pm – 4pm
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
- Monday, October 2, 2023, 8:00 am -9:00 am
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Attachments, History, Details

Attachments
None

Revision History

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Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]
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Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/16/2023
Archive Date:	10/31/2023
Events/Deadlines:	

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Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, October 9, 2023
8 am to 10 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Strategy/Action Priority discussion
4. Edit Strategies/Actions (on-going)
    a. Review of Strategies 1 - 7 and associated actions.
    b. Edit latest versions of strategy documents
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Monday, October 16, 2023, 8am
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
- Monday, October 2, 2023, 8:00 am -9:00 am
- Friday, October 13, 2023, 12:00 pm - 1:00 pm
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

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Passcode: CUoici

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mbakerintl@m.webex.com

Video Conference ID: 113 238 029 8

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Phone Conference ID: 268 876 460#

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Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	

Created 8/16/2023 2:29:12 PM by jlbertolini		Location(s):	Statewide
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Modified 9/5/2023 3:14:55 PM by jlbertolini	[Details]	Publish Date:	8/16/2023
Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]	Archive Date:	10/31/2023
Modified 9/18/2023 9:08:55 AM by jlbertolini	[Details]	Events/Deadlines:	
Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]		
Modified 10/12/2023 9:32:01 AM by jlbertolini	[Details]		

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Friday, October 13, 2023
12:00 pm to 1:00 pm
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Task Force Meeting, Monday, October 16, 2023 8 am – 9am
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

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- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
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- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
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- Monday, October 9, 2023, 8:00 am -9:00 am
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- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

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The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

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Anchorage, AK

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Attachments, History, Details

Attachments
None

Revision History

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	

Created 8/16/2023 2:29:12 PM by jlbertolini		Location(s):	Statewide
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, October 16, 2023
8:00am to 9:00 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
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Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Task Force Meeting, Tuesday, October 23, 2023 8am
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

- Monday, August 21, 2023, 8:00 am -9:00 am
- Monday, August 28, 2023, 8:00 am -9:00 am
- ~~Monday, September 4, 2023, 8:00 am - 9:00 am~~ CANCELED
- Tuesday, September 5, 2023, 8:00 am -9:00 am
- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
- Monday, October 2, 2023, 8:00 am -9:00 am
- Friday, October 13, 2023, 12:00 pm - 1:00 pm
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Download Teams | Join on the web

Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 113 238 029 8

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,268876460# United States, Pittsburgh

Phone Conference ID: 268 876 460#

Find a local number | Reset PIN

Learn More | Meeting options

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 907-771-3074 to make arrangements.

Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	

Created 8/16/2023 2:29:12 PM by jlbertolini		Location(s):	Statewide
Modified 8/17/2023 9:38:08 AM by jlbertolini	[Details]	Project/Regulation #:	
Modified 9/5/2023 3:14:55 PM by jlbertolini	[Details]	Publish Date:	8/16/2023
Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]	Archive Date:	10/31/2023
Modified 9/18/2023 9:08:55 AM by jlbertolini	[Details]	Events/Deadlines:	
Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]		
Modified 10/12/2023 9:32:01 AM by jlbertolini	[Details]		

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Incentives & Subsidies

Monday, October 23, 2023
8:00am to 9:00 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 257 910 172 057
Passcode: CUoici

Attendees

Name	Role
Nils Andreassen	Co-Chair
Isaac Vanderburg	Co-Chair
John Sims	Member
Andrew Guy	Member
Click Bishop	Requested
Duff Mitchell	Requested
Garrett Boyle	Requested
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Review most recent draft of plan posted for public comment.
4. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Second Public Testimony Meeting, Tuesday, October 24, 2023 5pm
        2. Task Force Meeting, Tuesday October 31, 2023
7. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Incentives and Subsidies, will hold meetings between August 21 and October 30, 2023. Subcommittee

Please note the **Incentives and Subsidies Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings, between August 21 and October 30, 2023 as follows:

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- Monday, September 11, 2023, 8:00 am - 9:00 am
- Friday, September 15, 2023, 12:00 pm - 2:00 pm
- Monday, September 18, 2023, 8:00 am -9:00 am
- Tuesday, September 19, 2023, 1:10 pm - 2:30 pm
- ~~Monday, September 25, 2023, 8:00 am - 9:00 am~~ CANCELED
- Monday, October 2, 2023, 8:00 am -9:00 am
- Friday, October 13, 2023, 12:00 pm - 1:00 pm
- Monday, October 9, 2023, 8:00 am -9:00 am
- Monday, October 16, 2023, 8:00 am -9:00 am
- Monday, October 23, 2023, 8:00 am -9:00 am
- Monday, October 30, 2023, 8:00 am – 9:00 am

The Agenda for the meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Incentives and Subsidies Subcommittee Meeting** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK

To attend, please use the following instructions:

Microsoft Teams meeting

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Passcode: CUoici

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mbakerintl@m.webex.com

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Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	

Created 8/16/2023 2:29:12 PM by jlbertolini		Location(s):	Statewide
Modified 8/17/2023 9:38:08 AM by jlbertolini	[Details]	Project/Regulation #:	
Modified 9/5/2023 3:14:55 PM by jlbertolini	[Details]	Publish Date:	8/16/2023
Modified 9/5/2023 3:20:40 PM by jlbertolini	[Details]	Archive Date:	10/31/2023
Modified 9/18/2023 9:08:55 AM by jlbertolini	[Details]	Events/Deadlines:	
Modified 9/25/2023 8:15:02 AM by jlbertolini	[Details]		
Modified 10/12/2023 9:32:01 AM by jlbertolini	[Details]		

ALASKA ENERGY SECURITY TASK FORCE SUBCOMMITTEE MEETING MATERIAL

Statutes and Regulations

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 20230 and October 31, 2023

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 2023 and October 31, 2023.

Please note the **Statutes and Regulations Reform Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Monday, July 24, 2023, 10:30 am - 11:30 am
- Tuesday, August 8, 2023, 10:30 am - 11:30 am
- Tuesday, August 22, 2023, 10:30 am - 11:30 am
- Tuesday, September 5, 2023, 10:30 am - 11:30 am
- Tuesday, September 19, 2023, 10:30 am - 11:30 am
- Tuesday, October 3, 2023, 10:30 am - 11:30 am
- Tuesday, October 17, 2023, 10:30 am - 11:30 am
- Tuesday, October 31, 2023, 10:30 am – 11:30 am

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Statutes and Regulations Reform Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend, please use the following instructions:

Microsoft Teams meeting

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Click here to join the meeting

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Passcode: KxevzE

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mbakerintl@m.webex.com

Video Conference ID: 119 022 753 0

Alternate VTC instructions

Or call in (audio only)

+1 412-634-6334,,677988940# United States, Pittsburgh

Phone Conference ID: 677 988 940#

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:14:59 PM by jlbertolini

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	11/1/2023
Events/Deadlines:	

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Monday, July 24, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Kickoff Facilitation
    a. Clarify Purpose, Goal, and Roles
        i. Co-chairs/Members
        ii. Michael Baker International
        iii. Black & Veatch
    b. Subcommittee Administration
        i. Data/resource needs/file sharing
        ii. Define milestones for deliverables
        iii. Identify preferred name for report section
3. Subject Matter Presentations
    a. Michael Rovito, Deputy Director of the Alaska Power Association
4. Identifying Strategies/Actions (ongoing)
    a. Action worksheet
5. Next Steps

a. Member Assignments
b. Support & Contractor Assignments
c. Meeting Date, Tuesday, August 8, 2023, 10:30 am
    1. **Reschedule due to Task Force meeting conflict**

6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 20230 and October 31, 2023

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 2023 and October 31, 2023.

Please note the **Statutes and Regulations Reform Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Monday, July 24, 2023, 10:30 am - 11:30 am
- ~~Tuesday, August 8, 2023~~, **Friday August 4, 2023,**10:30 am – 11:30 am
- Tuesday, August 22, 2023, 10:30 am - 11:30 am
- Tuesday, September 5, 2023, 10:30 am - 11:30 am
- Tuesday, September 19, 2023, 10:30 am - 11:30 am
- Tuesday, October 3, 2023, 10:30 am - 11:30 am
- Tuesday, October 17, 2023, 10:30 am - 11:30 am
- Tuesday, October 31, 2023, 10:30 am – 11:30 am

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Statutes and Regulations Reform Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend, please use the following instructions:

Microsoft Teams meeting

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Click here to join the meeting

Meeting ID: 295 811 372 922
Passcode: KxevzE

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Join with a video conferencing device

mbakerintl@m.webex.com

Video Conference ID: 119 022 753 0

Alternate VTC instructions

Or call in (audio only)

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Phone Conference ID: 677 988 940#

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Learn More | Meeting options

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:14:59 PM by jlbertolini
Modified 7/24/2023 11:58:06 AM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	11/1/2023

Events/Deadlines:

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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Friday, August 4, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. AESTF Meeting, Tuesday, August 8
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting with Break out sessions for Subcommittees, Tuesday, August 8, 2023, 9:00 am – 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, August 8, 2023.

The Alaska Energy Security Task Force and Subcommittees will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meetings and subcommittee breakout sessions will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Conference rooms
813 W. Northern Light Blvd.,
Anchorage, AK 99503.

To attend virtually, please use the follow:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

From 10:55 am until 12:25 pm, Task Force Committee members will breakout into Subcommittee Sessions as follows:

- **Rural Generation, Distribution and Storage** ***(Denali Room)***

  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 274 538 030 674
  Passcode: hAAoUj

- **Coastal Generation, Distribution and Storage** ***(Redoubt Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 292 387 066 158
  Passcode: BqFAF4

- **Railbelt Transmission, Generation and Storage** ***(Board Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 283 663 409 323
  Passcode: 3dZXeD

From 1:35 pm until 3:05 pm, Task Force members reconvene and break out into Subcommittee Sessions as follows:

- **State Energy Data** ***(Redoubt Room)*** https://alaska.zoom.us/j/81182996861?pwd=OTNQeTcwTWFuRWhkdIh4WXpucDFLdz09 Meeting ID: 811 8299 6861
  Passcode: 707323

- **Statutes and Regulations Reform** ***(Board Room)***
  Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

- **Incentives and Subsidies** ***(Denali Room)***
  Microsoft Teams meeting
  Click here to join the meeting
  Meeting ID: 265 983 942 05
  Passcode: jL9kiC

At 2:45 pm, The Task Force will re-convene until adjournment:
Microsoft Teams meeting

Click here to join the meeting
Meeting ID: 283 663 409 323
Passcode: 3dZXeD

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Security Task Force

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications to participate should contact 9007-465-3500 to make arrangement.

Attachments, History, Details

Attachments

2023.08.08 Alaska Energy Security Task Force Agenda FINAL.pdf

Revision History

Created 8/1/2023 1:49:42 PM by jlbertolini
Modified 8/1/2023 1:53:31 PM by jlbertolini [Details]
Modified 8/1/2023 2:23:32 PM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	8/1/2023
Archive Date:	8/9/2023

Events/Deadlines:

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 20230 and October 31, 2023

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 2023 and October 31, 2023.

Please note the **Statutes and Regulations Reform Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Monday, July 24, 2023, 10:30 am - 11:30 am
- ~~Tuesday, August 8, 2023~~, **Friday August 4, 2023,**10:30 am – 11:30 am
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- Tuesday, September 5, 2023, 10:30 am - 11:30 am
- Tuesday, September 19, 2023, 10:30 am - 11:30 am
- Tuesday, October 3, 2023, 10:30 am - 11:30 am
- Tuesday, October 17, 2023, 10:30 am - 11:30 am
- Tuesday, October 31, 2023, 10:30 am – 11:30 am

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Statutes and Regulations Reform Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

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Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:14:59 PM by jlbertolini
Modified 7/24/2023 11:58:06 AM by jlbertolini [Details]

Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
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Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	11/1/2023

Events/Deadlines:

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Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Friday, August 22, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Energy Symposium – Discuss any relevant actions identified in Alaska Statewide Comprehensive Economic Development Strategy: Appendix A
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Tuesday, September 5, 2023, 10:30am
5. Adjourn

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 20230 and October 31, 2023

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 2023 and October 31, 2023.

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- Tuesday, September 5, 2023, 10:30 am - 11:30 am
- Tuesday, September 19, 2023, 10:30 am - 11:30 am
- Tuesday, October 3, 2023, 10:30 am - 11:30 am
- Tuesday, October 17, 2023, 10:30 am - 11:30 am
- Tuesday, October 31, 2023, 10:30 am – 11:30 am

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

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Anchorage, AK 99503

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Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:14:59 PM by jlbertolini
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
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Publish Date:	7/17/2023
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Events/Deadlines:

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Tuesday, September 5, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Co-Chair Report Out
4. Guest Speaker - Gary Hennigh *(Tentative)*
3. Identifying Strategies/Actions (on-going)
    a. Action worksheet
        1. Consider organizing actions similar to Data Subcommittee structure.
4. Coordination with other subcommittees:
    a. Incentive and Subsidies Subcommittee:
        1. Climate Xchange Site shared
    b. Coastal Subcommittee:
        1. Proposed a Report Template of Strategy/Actions for consideration.

5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Tuesday, September 12, 2023, 10:30am
6. Adjourn

STATUS: Active

Alaska Energy Security Task Force Meeting, Tuesday, September 19, 2023, 9:00 am - 4:30 pm

Please note that the Alaska Energy Security Task Force and subcommittees will hold a meeting on Tuesday, September 19, 2023.

The Alaska Energy Security Task Force will convene at 9:00 am to conduct task force business and continue in session until recess or adjournment.

The Task Force Meeting and subcommittee breakout session will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority Board Room
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend virtually, please use the following:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 10:40 am until 12:00 pm, Task Force members will breakout into Subcommittee Sessions as follows:

Rural Generation, Distribution and Storage *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 291 864 551 562
Passcode: VLvB6w

Coastal Generation, Distribution and Storage *Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 211 468 734 796
Passcode: 3f6x6Q

Railbelt Transmission, Generation and Storage *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

From 1:10 pm until 2:30 pm, Task Force members reconvene and breakout into Subcommittee Sessions as follows:

State Energy Data *(Denali Room)*:

Microsoft Teams Meeting
Click here to join the meeting
Meeting ID: 298 296 950 855
Passcode: ocayWY

Statutes and Regulations Reform *(Redoubt Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 241 511 954 510
Passcode: VCWSsD

Incentives and Subsidies *(Board Room)*:

Microsoft Teams meeting
Click here to join the meeting
Meeting ID: 288 918 743 959
Passcode: cCsLbE

The Agenda for the Alaska Energy Security Task Force is available below, or by contacting Kollette Schroeder at 907-465-3500, or by visiting the Alaska Energy Security Task Force web page Alaska Energy Security Task Force .

The public is invited to participate. The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Persons requiring special modifications should contact 907-467-3500 to make arrangements.

Attachments, History, Details

Attachments

2023.09.19 Alaska Energy Security Task Force Agenda.pdf

Revision History

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Publish Date:	9/12/2023
Archive Date:	9/20/2023
Events/Deadlines:	

STATUS: Active

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 20230 and October 31, 2023

Alaska Energy Security Task Force Subcommittee: Statutes and Regulations Reform will hold meetings between July 24, 2023 and October 31, 2023.

Please note the **Statutes and Regulations Reform Subcommittee** of the Alaska Energy Security Task Force will hold virtual meetings as follows:

- Monday, July 24, 2023, 10:30 am - 11:30 am
- ~~Tuesday, August 8, 2023~~, **Friday August 4, 2023,**10:30 am – 11:30 am
- Tuesday, August 22, 2023, 10:30 am - 11:30 am
- Tuesday, September 5, 2023, 10:30 am - 11:30 am
- Tuesday, September 19, 2023, 10:30 am - 11:30 am
- Tuesday, October 3, 2023, 10:30 am - 11:30 am
- Tuesday, October 17, 2023, 10:30 am - 11:30 am
- Tuesday, October 31, 2023, 10:30 am – 11:30 am

The Agenda for each meeting will be available prior to the meeting by visiting the Alaska Energy Security Task Force Subcommittee web page: Alaska Energy Security Task Force Subcommittee.

The **Statutes and Regulations Reform Subcommittee Meetings** will be conducted by electronic media pursuant to AS 44.62.310 at the following location:

Alaska Energy Authority
813 W. Northern Lights Blvd.
Anchorage, AK 99503

To attend, please use the following instructions:

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting

Meeting ID: 295 811 372 922
Passcode: KxevzE

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mbakerintl@m.webex.com

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Alternate VTC instructions

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Email comments or questions to info@akenergysecuritytaskforce.com

Attachments, History, Details

Attachments
None

Revision History
Created 7/14/2023 1:14:59 PM by jlbertolini
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Details

Department:	Commerce, Community and Economic Development
Category:	Public Notices
Sub-Category:	
Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	11/1/2023

Events/Deadlines:

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LIEUTENANT GOVERNOR
www.ltgov.alaska.gov

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lt.governor@alaska.gov

STATE OF ALASKA
OFFICE OF THE LIEUTENANT GOVERNOR
ANCHORAGE

Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Tuesday, October 3, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions
    b. Discuss if CEDS actions/APA policy positions should be included in plan
    c. Review Actions Across multiple subcommittees
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting:
        1. Task Force Meeting, Tuesday, October 3, 2023 1:30pm – 4pm
        2. Determine if more frequent meetings are required to coordinate with other subcommittees and finalize actions/strategies for Statutes and Regulations Subcommittee.

5. Adjourn

STATUS: Active

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Location(s):	Statewide
Project/Regulation #:	
Publish Date:	7/17/2023
Archive Date:	11/1/2023

Events/Deadlines:

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STATE OF ALASKA
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Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Tuesday, October 10, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call
3. Strategy/Action Priority discussion
4. Edit Strategies/Actions (on-going)
    a. Review of Strategies and associated actions.
    b. Edit latest versions of strategy documents.
4. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Subcommittee Meeting: Tuesday, October 17, 2023, 10:30am
5. Adjourn

STATUS: Active

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Attachments

None

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Alaska Energy Security Task Force
Subcommittee: Statutes & Regulations

Tuesday, October 17, 2023
10:30 am to 11:30 am
Teams Meeting:

Click here to join the meeting

Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Robert Venables	Co-Chair
Karl Hanneman	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Rauscher	Member
Karen Bell – AEA	Support
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
    a. Discuss details related to actions subcommittee considers high priority.
5. Next Steps
    a. Member Assignments
    b. Support & Contractor Assignments
    c. Next Meeting: Tuesday, October 31, 2023 10:30am *(Consider meeting sooner)*
7. Adjourn

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Attachments
None

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Events/Deadlines:	

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STATE OF ALASKA
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ANCHORAGE

Alaska Energy Security Task Force

Subcommittee: Statutes & Regulations

Tuesday, October 24, 2023
10:30 am to 11:30 am
Teams Meeting:
Click here to join the meeting
Meeting ID: 295 811 372 922
Passcode: KxevzE

Attendees

Name	Role
Karl Hanneman	Co-Chair
Robert Venebles	Co-Chair
Tony Izzo	Member
Isaac Vanderburg	Member
Senator Click Bishop	Member
Garrett Boyle	Requested
Keith Kurber	Member
Representative George Raucher	Member
Karen Bell	AEA Observer
Michael Yaffe	Facilitation - Michael Baker International
Marc Luiken	Facilitation - Michael Baker International
Karin McGillivray	Facilitation - Michael Baker International

Agenda

1. Welcome/Introductions
2. Roll Call / Attendance
3. Identifying Strategies/Actions (ongoing)
    a. Review and consider adding actions recommended by Incentives and Subsidies subcommittee
    b. Further refine individual actions in action sheet
4. Advance Executive Summary of Actions
5. Next Steps
    a. Next Meeting: Tuesday, October 31, 2023 9:00am

7. Adjourn

STATUS: Active

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Attachments, History, Details

Attachments
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Department:	Commerce, Community and Economic Development
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Publish Date:	7/17/2023
Archive Date:	11/1/2023
Events/Deadlines:	

APPENDIX VII.

PUBLIC COMMENT DOCUMENTATION

APPENDIX VII: ALASKA ENERGY SECURITY TASK FORCE RECEIVED PUBLIC COMMENT

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Energy Priority C. Rural Generation, Distribution and Storage Public Comment VII-42

Energy Priority D. State Energy Data Public Comment.....VII-53

Energy Priority E. Incentives and Subsidies Public Comment VII-55

Energy Priority F. Statutes and Regulations Public Comment VII-65

ALASKA ENERGY SECURITY TASK FORCE-WIDE GENERAL PUBLIC COMMENT

Public Comment #5 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

The Alaska Public Interest Research Group (AKPIRG) is writing today concerning the rescheduling of the Energy Security Task Force's October 24th meeting from its originally scheduled time of 2-4 p.m. to a new time of 5-6 p.m. AKPIRG, established in 1974, advocates on behalf of public and consumer interests. To our knowledge, we are the only non-governmental organization focused on addressing Alaska-specific consumer interest issues.

We appreciate the decision to move the public comment period to a time when more people may be able to participate, and the Task Force's willingness to listen to public feedback on this issue. We are concerned, however, by the decision to only slightly adjust the time to right at the end of many Alaskans' work day and also reduce the meeting's length by half. We understand that attendance to the first public comment session on October 10th was low (6 commenters). However, this was likely the result of several factors—the relatively short amount of time people had to read the lengthy report (it was released to the public in full on October 4th, less than a week before the public comment opportunity); the lack of robust publicity around the opportunity on the 10th; and the difficult time of day when the initial public comment opportunity took place.

There is every reason to believe that public participation on October 24th will be much higher. By the 24th, people will have had more time to read and consider the voluminous draft. News of the opportunity for public feedback is spreading, and the time change will likely allow more people to attend.

We therefore urge you to extend the time scheduled for people to testify on the 24th back to the original two-hour length (optimally from 5 to 7 p.m.). If, for some reason, you are still convinced of low public turnout on that date, at a minimum you should commit to holding the meeting open until all members of the public wishing to speak have been heard.

We understand that the Task Force is also accepting written feedback; however, there are good reasons why the Task Force and other state bodies accept comments in both formats. Many people are more comfortable speaking and asking questions in real time. Oral testimony also allows for a wider range of emotional expression and frequently makes a stronger impact on listeners. Furthermore, it allows citizens to hear what others have to say.

While the decision to move the meeting on October 24th to a later time is a good decision, we urge you in the strongest possible terms to extend that meeting back to its original two-hour length to accommodate as many Alaskans as possible.

Excerpt: Public Comment #9 from Becky Long, Talkeetna, AK

1) The public comment period needs to be extended due to inadequate public outreach.

• Page 16 has listed the proposed Susitna Dam as one of 3 projects that should be decided whether to move forward. This proposed project would affect Trapper Creek, Talkeetna, and Sunshine communities. Their way of life based is based on the natural resources of the Susitna River watershed. The task force should have made outreach to the community councils there.

• The public comment period is too short for a massive subject that affects the whole state. I find myself wanting to understand and comment on many plan components. The short comment period means I cannot do a thorough job.

• The public has been presented with a draft to comment on when the draft is still evolving. The 10/17/23 Railbelt Transmission, Generation and Storage Subcommittee meeting showed that the draft was not complete at that time. The final draft was to be out hopefully by the end of that week. But there was already a public comment hearing based on an early version. This seems sloppy or unnecessarily rushed.

Excerpt: Public Comment #10 from June Okada, Susitna River Coalition

Lastly, the two public comment opportunities nor this report draft has been widely publicized . If public input is to be accounted for and seriously considered, which it most certainly should, there should be more effort to notify the general public about these important decisions and give them sufficient time to respond.

Excerpt: Public Comment #11 from Mary Burtness

I hope you will extend the time to finalize this plan as you only gave yourself a few days to go over the public comments (as well as gather public comment). With this small amount of time, it feels like public comment is not very important to you.

Excerpt: Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

I. Open and meaningful public process

AKPIRG advocates for open processes that allow Alaskans to meaningfully participate in the decisions that determine their futures, and with this concern we have serious misgivings about the Task Force's planning process. This public comment opportunity and the previous one on Oct. 10 were communicated to the public only via the state online public notice system on Oct. 4 and the Alaska Energy Authority's social media on Oct.6, allowing barely a week for the public to read, digest, and create comments on the complex, vague, and incomplete 130 page draft plan. For such a far-reaching report, rationalizing that minimum publication requirements were met or expecting everyday people to have been tracking the minutiae of all Task Force meetings is a disservice to Alaskans. Robust publication of the report and multiple public comment opportunities could have included supplemental notice in newspapers, on local radio, via press releases as with the Task Force's creation, or even social media accounts created specifically for this Task Force and public engagement efforts.

The plan document itself has also undergone piecemeal editing during the period when the public is meant to be considering their response to it. Notably, the second draft version – posted with no public notice 1 on Oct. 20 (the Friday before the upcoming comment opportunity) – replaces Action E-2.3, "adopt a renewable portfolio standard" in the Oct. 3 draft, with a recommendation for a similar but substantively different "clean energy standard" in the Oct. 20 draft. The call for a Renewable Portfolio Standard is nowhere in the Oct. 20 draft. With the Task Force already making such sweeping and under-the-radar decisions on the contents of the report, public comments are rendered meaningless.

Per the slides presented at the Task Force's Oct. 3 meeting, the group intends to vote on final recommendations from the subcommittees in 7 days, on Oct. 31, so that consultants can prepare a final draft by Nov. 10 for board approval on Nov. 17. If the Task Force expects substantive public comment on this lengthy and complex document and seriously intends to incorporate public feedback into the final plan, it has given itself a very short window to work in. The Task Force hasn't allotted sufficient time for either soliciting useful public feedback or for using that feedback in any meaningful way. The fact that edits to the plan are already well underway after minimal comment on Oct. 10 shows a lack of real intent to involve Alaskans in consequential energy decisions.

Excerpt: Public Comment #25 from Erin Mckittrick

This task force process seems explicitly designed to discourage and ignore public feedback. The draft plan is a very long and complex document, released with inadequate explanations of many of the actions, minimal public notice, little time for review, and only two public meetings. If that wasn't bad enough, the 142 page draft was modified on October 20 -- 4 days ago -- on the Friday before a Tuesday meeting. I suspect many commenters haven't seen the latest draft, and no one has had the opportunity to review it in the depth that it deserves...

Finally, I urge the task force to expand the timeline and to actually consider public comments. The many instances of "PLACEHOLDER FOR INFOGRAPHICS THAT DESCRIBE PUBLIC MEETINGS AND PARTICIPATION THAT HELPED IDENTIFY ACTIONS AND STRATEGIES PRESENTED IN THIS SECTION" in the report do not reflect reality.

Excerpt: Public Comment #28 from Bridget Maryott, Cook Inletkeeper

Though the Task Force has given itself only a week to consider public feedback on this packed document before voting on final subcommittee recommendations on Oct. 31, we hope you will

take seriously these comments and others from Alaskans who depend on good energy decisions and a clean environment.

Excerpt Public Comment #35 from Doug Woodby, Juneau, AK

Thank you for this opportunity to comment on the draft energy security plan. Please accept these comments despite being a day late. The public notice for this comment opportunity was minimal and well outside of what is expected of transparency in a democratic system.

These additional comments were provided by Alaska Power Association, Crystal Enkvist, Anchorage, AK at the November 20, 2023 Task Force Meeting

Alaska Power Association appreciates the work of the Alaska Energy Security Task Force members and the commitment of time, energy and resources dedicated to lowering the cost of energy in Alaska.

We appreciate the opportunity to provide feedback on a draft joint policy position from the Incentives and Subsidies Subcommittee and the Statutes and Regulations Reform Subcommittee that calls for expanding the Power Cost Equalization program to include all rural power users. Liquidating the PCE Endowment without a

well-developed plan that includes investment in electric infrastructure for the short-term gain of artificially lowering the cost of electricity in rural Alaska is not sustainable public policy. Expanding PCE to include "all rural power users," as proposed in the draft policy position, would drain the PCE Endowment quickly, subsidize some facilities that are already subsidized by the government, subsidize companies, and place a tremendous administrative burden on the Alaska Energy Authority as a result of this dramatic expansion of the PCE program.

The PCE program is not perfect, but it is absolutely needed until long-term solutions are in place for lowering the cost of power in rural areas. Modifications to the program might be warranted to address current challenges. For example, increasing the allowable amount of PCE for community facilities should be considered. In addition, the State should allow for flexibility within the PCE program to accommodate communities that increase renewable generation but still face high electric costs.

Alaska Power Association supports maintaining the PCE program, using the PCE Endowment for its statutorily mandated purposes, fully funding PCE in FY 2025 and future years as needed, and the consideration of economically realistic modifications to the program to consider items like increased renewable generation.

However, APA cannot support the draft Power Cost Equalization policy position as it is currently written. Expanding the PCE program to all rural power consumers is not a long-term strategy for lowering the cost of electricity in rural Alaska.

APA looks forward to working with the state and the legislature on energy policy that will bring down the cost of power and provide Alaskans with safe, reliable, and affordable electricity no matter where they live in the state.

ENERGY PRIORITY A. RAILBELT TRANSMISSION, GENERATION, AND STORAGE PUBLIC COMMENT

Excerpt Public Comment #1 from Becky Long

I listened to the April 25, 2023 first meeting of the Task Force. Both the Alaska Energy Authority Director Thayer and Chair Dahlstrom asked the question should the state move forward with this project. I respectfully submit that the state should NOT move forward for 3 basic reasons. 1. It is highly questionable that there is enough water in the Susitna River system to generate 300 MW or more of hydropower. According to the National Oceanic Atmospheric Administration, the arctic is warming more than twice as fast as the rest of the world. The Susitna glaciers mass loss affects the water resource. A new study by lead scientist David Rounce of Carnegie Mellon University along with our very own Regine Hock of the University of Alaska Fairbanks Geophysical Institute has shown that glaciers will be affected under the global temperature increases of 1.5 degrees C to 4 degree C. Losses are found to be one quarter to nearly one half of their mass by 2100. This new study shows glaciers melting faster than has been anticipated. At our current rate of global warming 2/3 of earth's glaciers could be entirely gone by 2100. Of course, how fast and how far Alaskan glaciers will retreat is unclear. Glaciologist Mike Loso of the National Park Service in Wrangell Saint Elias National Park is partnering with scientist Rounce to refine their survey model for specific observation changes in Alaska glaciers. At the very least, the Glacier and Runoff Changes for Susitna River watershed glaciers need reevaluation using up to date scientific methods. 2. Greenhouse gas emissions (GHG) from dam reservoirs, dam infrastructure and permafrost melting shows that hydropower facilities do NOT produce clean zero-carbon energy. In fact, as a result of a petition of over 100 groups, the Environmental Protection Agency is adding dams and reservoirs as a source category under their Greenhouse Gas Emissions Inventory Program. Numerous scientific studies over the past 2 decades have shown that dams and reservoirs produce and emit substantial amounts of carbon dioxide, methane and nitrous oxide including significant emissions in the northern latitudes. Regulators, policy makers, utilities and the public have frequently overlooked these emissions and incorrectly assume that hydropower facilities produce clean, zero-carbon electricity. We can no longer afford this lack of awareness that leads to mistaken assumptions about hydropower as a renewable resource category. With a proposed Susitna Dam reservoir of 40,000 acres inundated and substantial permafrost deposits at the exact site of the dam, the GHG emissions greatly offset any potential carbon reduction benefits.

Public Comment # 3, June Okada, Susitna River Coalition

We write with comments in response to the Alaska Energy Security Task Force's subcommittee meeting on September 14th, 2023 as well as the first public meeting on April 25th, 2023. With Cook Inlet's natural gas contracts ending, reaching the Governor's 10 cents/kWh goal undoubtedly requires the diversification of local energy generation that is local, reliable and affordable as you all collaboratively concluded. We believe developing a sustainable, reasonable, and resilient energy system plan is of the utmost priority for our state. However, including the Susitna-Watana Hydroelectric project in such a plan would be of grave oversight.

The price tag of the proposed project is enough reason to shelve it. The project would cost an estimated total of $5.6 billion ($7 billion 2023 value). However, according to a cost analysis study by Erickson & Associates, this is a serious underestimate. New transmission lines and facilities needed to connect the power from the dam to the existing grid would cost an additional $880 million ($936 million 2023 value). On top of that, the costs to lease or purchase Native Corporation lands that the dam, the reservoir and the transmission lines would exist on have not been calculated or negotiated. AEA's statement about the FERC licensing costing another $100 million to finish is misleading and inaccurate. According to a letter to FERC on 10/2/2015 from James Balsiger, NMFS Administrator to the Alaska Region, "AEA has stated that at least $100 million in funding would be necessary to complete the FERC ordered study plan. This amount does not include modifications in study plans, additional study requirements or additional information requiring that NMFS, FERC and their licensing participants may require." Furthermore, former AEA Susitna Project Manager Wayne Dyok stated that there will be an extra $230 million needed for detailed engineering and geotechnical information to take the state to the construction phase.

Inaccuracies of the FERC Licensing Status (slide 10 of AEA's presentation) include:

58 FERC-approved studies; Implemented 2012- 2017': The studies were actually done in 2012-2014. This means they were done almost a decade ago. '19 studies completed': The 2017 FERC Determination states 3 of those studies have modifications, which indicates non-completion.

Inaccuracies of FERC Study Plan Determination Outcome (slide 11) include: Confirmed adequacy of environmental studies' and ' Validated quality of work completed to Date. However, FERC stated (re: the water quality study 5.5) in their 6/22/2017 Director's Determination: "...we find that in its current state, the data are largely unusable, and we are also unable to determine the adequacy of the data to characterize the baseline water chemistry, water quality, water temperature, and groundwater of the Susitna River." Some of the most important studies of water quality and instream flow are incomplete and useless.

Rejected nearly all study modification requests': There were 37 modification requests and 17 were actually granted by the Director's determination. Confirmed data gathered thus far is representative of baselines': The water quality data is futile.There is no completed baseline data for ice processes in the sloughs and side channels, river flow access, recreation resources, river transportation, side slough habitat for the lower river to name a few. FERC also determined that AEA's assertion that the dam will have no effect on lower river flows is premature.

There are many reasons why the Susitna Dam should not be built. A massive 705 ft dam, almost as tall as the Hoover Dam, would undoubtedly cause more harm than good, including severe impacts to 40,000 acres of salmon and caribou habitat, and diminish the local tourism, fishing and hunting businesses. This type of load-following dam releases water from a reservoir to meet energy demands. This hydrological change would adversely impact and could ultimately destroy wild salmon populations. Water released from the reservoir would severely alter the river's flow, causing detrimental effects to salmon spawning and rearing habitat. To understand more about the great risks the dam would pose on our watershed, take a look at this film. Putting all our renewable energy dependence into one giant project is dangerous. "A mega-project like Susitna Hydro brings grid risk — if it drops offline, abruptly leaving the rest of the grid to make up the difference, a major disaster might occur to the entire system," warns Bob Butera, an engineer who worked on the project in the 80's, in a recent 2023 ADN article. Relying on one mega hydro project that cannot easily shift in response to fluctuations in demand is precarious and potentially disastrous. Hydroelectric dams are incorrectly labeled as clean carbon-neutral energy sources based on assumptions with poor information. Though categorized as "sustainable" energy facilities, dams emit methane – a harmful greenhouse gas 25 times more potent than carbon dioxide. This greatly offsets the potential carbon emissions that AEA touts the dam will reduce. The EPA now includes reservoirs in their greenhouse gas reports.

The proposed Susitna-Watana project would be an economic disaster, environmentally harmful, and would not help Alaska reach emissions goals. We believe that state and energy policy-makers can and should come up with better solutions to solve the current gas shortage in Cook Inlet and still be able to reach our renewable energy goals for a cleaner, safer and more reliable energy future. We are happy to share additional resources besides the listed below. Please reach out if you have any questions.

Public Comment # 11 from Mary Burtness

I believe at CES is not going to move us in that direction. We need at Renewable Portfolio standard to give us a road map to take advantage of the cost effectiveness future of renewables.

Drop the AKLNG as is it is not a short term expenditure of money when your goal is to make sure these do not hinder the longer term expenditures. This cost will lock us into more fossil fuel and not help in diversifying our energy use, a focus of the plan.

Public Comment# 13 from Connie Markis, Anchorage, Alaska

I would like to comment on the Statewide Energy Master Plan that is currently being reviewed. I agree with it in general Two things need more improvement in my opinion. One is a stronger focus on

building an infrastructure to generate power through renewable technologies immediately. We only need to look at Typhoon Merbok in western Alaska last year to confirm that climate change is real and not going away. And we need to realize that continuing to burn fossil fuels only adds to the problem. Second is I disagree with unifying all of the different electric transmission systems along the Railbelt under the ownership of a single entity. Monopolies do not always act in the best interests of the people they are supposed to serve and diverse voices need to have input so we move away from continuing to rely on oil, gas and coal instead of turning to renewable energy sources that don't contribute to carbon pollution.

Public Comment #16

There are number of provisions in this document that are amazing.

Please continue to support a Renewable Portfolio Standard, not a Clean Energy Standard (which is a misleading and inaccurate name).

Please invest in tidal energy. Cook Inlet alone has enough potential tidal energy to power ALL of Alaska, so if we can make that work, we could still be energy exporters (think electrolysis and green hydrogen).

There are also several that are deeply concerning. The continued investment in fossil fuels is a large mistake.

I ask for a No-Go Decision on the AKLNG Project and North Slope Natural Gas Bullet Line. A recent study by NREL has shown that the most economical way forward for Alaska is to have 78% renewables by 2040. Investing in the AKLNG and North Slope gas line will make that nearly impossible to achieve; further, investing in those WILL hurt our economy.

I ask that AIDEA (and AEA members who are also on the AIDEA board) not be involved whatsoever. AIDEA has a history of making very bad investments that benefit oil and gas companies while detrimenting Alaskans. Having AIDEA involved will likely have the same exact outcome.

Public Comment #17 from Gail Heineman

I oppose any further consideration of construction of the Susitna-Watana Dam.

On pages 16-17 your report says "the Subcommittee supports taking these projects through feasibility such that a “go/no-go” decision can be made.", where one of those projects is the Susitna-Watana dam.

The Susitna-Watana dam has already been extensively studied, shown to not make economic sense, and to be extremely harmful to the environment.

I am a long-time Alaska resident, since 1981, and plan to stay. I do not want to pay the higher electric rates, and lose the salmon and caribou and bear, to the destructive Susitna-Watana dam. I don't want the threat of a huge dam collapsing in a big quake (more faults have been discovered in the area recently). I don't want the methane emissions from the reservoir (a recently discovered global problem).

I don't want any more State money, or any money, spent on studying the dam yet again. And I do not want it built, study or no study. The cost is too high, both economic and environmental.

And chances are, the cost of construction would be twice what is estimated (Ansar, A. et al., 2014. “Should we build more large dams? The actual costs of hydropower megaproject development.” Energy Policy. University of Oxford..

Public Comment # 19 from Louis Dupree – Homer, Alaska

Every flat roofed building on the rail belt (Costco, Sams club, Outdoor World, and all the school buildings should have solar panels.

Public Comment #21 from Joel

Hi, my comment is to think global and act local, i.e. to align the overall goal of the plan with the Paris agreement and UN Sustainable Development Goals. I can provide more detail if needed. Thanks for your time and consideration in this planning process!

Public Comment # 22 from Chris Rose, REAP

1) The Railbelt Reliability Council (RRC) has been formed via state law and certificated by the Regulatory Commission of Alaska (RCA) to develop Integrated Resource Plans (IRPs) for the Railbelt. Those IRPs will determine the best "value" for Railbelt consumers through an economic and technical feasibility analysis. Unfortunately, the Task Force has not had the time or resources to do the thorough technical and economic analysis required to determine which asset investments have the best benefit-to-cost ratio.

2) The goal of 10 cent/kW power is unattainable with the current structure of four coops and their respective overhead and fixed costs unless and until those fixed costs can be spread over many, many more kWh sales. Strategies to increase the electric load in the Railbelt is so far underdeveloped, and in any case would likely take decades to achieve.

3) All new generation and transmission project decisions in the Railbelt moving forward should be based on sound and thorough technical and economic analysis through an IRP to ensure that Railbelt consumers do not have to pay for more infrastructure than necessary, and to protect consumers from the volatility of the world fossil fuel markets.

4) With the importation of expensive LNG looming in as little as five years, diversification of the Railbelt generation portfolio needs to be a short-term, not a long-term, objective.

5) A study currently being done by the National Renewable Energy Laboratory to analyze the currently proposed Railbelt Renewable Portfolio Standard (RPS) is expected to demonstrate that a combination of solar, wind and energy storage is the least-cost pathway going forward for Railbelt consumers. It is anticipated that the study will be published in December 2023.

6) With the rapid adoption of electric vehicles and air-source heat pumps around the world and in the United States, the Railbelt's ground transportation and space 2 308 G Street, Suite 207, Anchorage, Alaska 99501 www.REalaska.org p: 907.929.7770 f : 907.929.1646 heating needs are likely to increasingly be met by those electric-based technologies, which could also be powered by local, fuel-free renewable energy.

7) As the Railbelt's renewable energy sector grows, it will create a host of new job opportunities that would not be created if the region continues to rely on natural gas to generate electricity.

8) More than two-thirds of the Railbelt's population lives in either Chugach Electric Association (CEA) or Matanuska Electric Association (MEA) service territories. There a very few, if any, transmission constraints between those two service territories that currently prevent a more rapid uptake of renewable energy for more than half the state's population. The RCA has ordered those two utilities to operate in a "tight power pool", something that would improve the efficiencies in the Railbelt and save consumers money.

9) If transmission assets are pooled into a new entity, that entity should be independent, not a current asset owner like the Alaska Energy Authority (AEA).

10) If a new transmission entity is formed, either it or another new entity like an independent system operator (ISO) must assure that the grid is operated on the basis of merit-order, economic dispatch. Without merit-order economic dispatch, Alaska consumers will not reap the benefits of unified transmission.

11) If new natural gas resources are brought to the Railbelt market through any size of pipeline from the North Slope, there is no guarantee that the price of that gas will be attractive for Railbelt consumers. That gas price risk, along the fact the Alaskans have been waiting for a gas line for decades, makes future reliance on natural gas for Alaskan consumers a riskier proposition than instead aiming at a future where Alaskans are able to rely on local, stably-priced renewable energy for their electric, heating and transportation needs.

12) A plan to rely on renewable energy is much more likely to attract new investment to the state than a plan to rely on natural gas from the North Slope. It is clear that there are more unknowns with a natural gas future. A renewable future would likely include attracting industry to make carbon-free hydrogen and synthetic fuels, which could increase the region's electric load and drive down consumer prices.

Public Comment # 23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

I. Open and meaningful public process

AKPIRG advocates for open processes that allow Alaskans to meaningfully participate in the decisions that determine their futures, and with this concern we have serious misgivings about the Task Force's planning process. This public comment opportunity and the previous one on Oct. 10 were communicated to the public only via the state online public notice system on Oct. 4 and the Alaska Energy Authority's social media on Oct.6, allowing barely a week for the public to read, digest, and create comments on the complex, vague, and incomplete 130 page draft plan. For such a far-reaching report, rationalizing that minimum publication requirements were met or expecting everyday people to have been tracking the minutiae of all Task Force meetings is a disservice to Alaskans. Robust publication of the report and multiple public comment opportunities could have included supplemental notice in newspapers, on local radio, via press releases as with the Task Force's creation, or even social media accounts created specifically for this Task Force and public engagement efforts.

The plan document itself has also undergone piecemeal editing during the period when the public is meant to be considering their response to it. Notably, the second draft version – posted with no public notice 1 on Oct. 20 (the Friday before the upcoming comment opportunity).

It appears the notice on the Alaska online public notices website for the Oct. 10th Task Force meeting was modified to also suffice as notice for the Oct. 24th meeting; the attachment in that public notice only includes the initial draft and states "The DRAFT Report is available below, or by visiting the Alaska Energy Security Task Force web page…" Many might not even know there is a recent, second version of 1 replaces Action E-2.3, "adopt a renewable portfolio standard" in the Oct. 3 draft, with a recommendation for a similar but substantively different "clean energy standard" in the Oct. 20 draft. The call for a Renewable Portfolio Standard

is nowhere in the Oct. 20 draft. With the Task Force already making such sweeping and under-the-radar decisions on the contents of the report, public comments are rendered meaningless.

Per the slides presented at the Task Force's Oct. 3 meeting, the group intends to vote on final recommendations from the subcommittees in 7 days, on Oct. 31, so that consultants can prepare a final draft by Nov. 10 for board approval on Nov. 17. If the Task Force expects substantive public comment on this lengthy and complex document and seriously intends to incorporate public feedback into the final plan, it has given itself a very short window to work in. The Task Force hasn't allotted sufficient time for either soliciting useful public feedback or for using that feedback in any meaningful way. The fact that edits to the plan are already well underway after minimal comment on Oct. 10 shows a lack of real intent to involve Alaskans in consequential energy decisions.

Omissions & Further Considerations:

The Railbelt-relevant sections of the plan have an unwarranted and glaring omission: there is no explicit mention in the Oct. 3 draft of the Railbelt Reliability Council (RRC) or its own ongoing Integrated Regional Planning (IRP) process, and only passing mention in the Oct. 20 draft without real consideration. The RRC's IRP is an open and transparent effort to evaluate with depth and technical rigor the best energy options for the Railbelt. Moreover, the RRC was established with particular safeguards to ensure that directors act independently from users, owners, and operators of the Railbelt grid; there is reasonable notice and opportunity for public comment, due process, openness, and balancing of stakeholder interests; avoidance of undue amplification or attenuation of stakeholder interests; and consideration of whether certain stakeholder class members stand to profit from construction of new facilities used to provide electrical service, among other protections—directly in contrast to the creation of the Task Force, which is largely composed of similarly situated private industry members or state agencies but not consumer or environmental interests as in the RRC. The legislature mandated that an Electrical Reliability Organization carry out the IRP process in SB123, and in 2022 the Regulatory Commission of Alaska certified the RRC as the organization to do it.

Public Comment # 24 from Tim Hinterberger, Anchorage, AK

1. Susitna-Watana dam. In addition to habitat destruction, mega-dams may not lead to a net decrease in carbon emissions. Instead, organic matter that builds up in reservoirs decomposes and emits the powerful greenhouse gas methane, potentially hurting the climate more than would the fossil fuel carbon emissions prevented.

2. The AKLNG pipeline from the North Slope, which would lock in our gas reliance and substantially increase Alaska's carbon impact on the world.

3. The Dixon Diversion hasn't received adequate public scrutiny.

Public Comment # 25 FROM Erin Mckittrick

The stated goal is to reduce costs to Alaskans. Many of the actions involve spending large amounts of Alaskans' money. Clearly, this should require thorough cost/benefit analyses to ensure that the chosen subsidies provide the largest net benefit to Alaskans -- or indeed -- to ensure they provide any benefit at all.

This was not done. Several of the top line actions in the Railbelt section (Actions A 2.1-2.4) involve putting money towards projects that would require multi-billion dollar state subsidies to be built: the $8.8 billion bullet line and the Susitna dam that was estimated to cost over $5.6 billion in 2014 -- certainly much higher now with inflation and supply chain issues.

We need to compare the net benefit of those projects to the net benefit of building other large energy projects like wind farms, batteries, or transmission. But we also need to compare that to the benefit of spending the same billions of dollars on subsidizing home energy efficiency and heating, or on directly supporting consumers' energy bills (like we do for PCE communities). And, critically, we need to compare it to billions of dollars of basic state services and permanent fund dividends, and potential tax increases needed to pay for state services if we spend the money on unwise energy projects. Anything we do has to pencil out for Alaskans holistically, not just on their electric bills.

As presented, the idea of subsidizing large industries to promote load growth (Action A 3.1) would be costly and dangerous to Alaskan consumers. While it is true that load growth can help reduce costs by spreading fixed costs among consumers, it is only true if those new customers are willing to pay the entire variable cost of power, as well as a large enough portion of fixed costs to provide benefits to others. The Marathon refinery pays the lowest energy costs in the Railbelt today -- roughly 10-11 cents/KWh, which equates to the entire variable cost of power, plus around 2-3 cents extra. 10-11 cents/KWh is cheap for the Railbelt, but not nearly cheap enough to be competitive with industrial electricity prices in places like Iceland, or elsewhere in the U.S. Marathon also doesn't do much to reduce fixed costs to other consumers, because the fixed costs paid are so low. To be competitive, Alaska would need to subsidize industry enough such that the overall cost of power was in the 3 to 6 cent/KWh range. This would mean that regular Alaskans would bear all the fixed costs, and much of the variable cost of the industries' use -- at a time when dwindling Cook Inlet gas is making those variable costs rise. None of the generation projects suggested in this report are close enough to construction that we can determine when or if they'll be built, what they would cost, and whether they could possibly save enough money to make up the cost of subsidizing these industries.

Action A1 would allow our existing transmission to better support energy diversification by removing pancaking wheeling tariffs. Several of the actions mentioning using what money the state can bring to bear to match federal grants -- which is a great way to multiply our impact, in both rural and urban Alaska.

Public Comment # 28 from Bridget Maryott, Cook Inletkeeper

Inletkeeper opposes energy actions that would sacrifice the health of our watershed, the climate it depends on, and the economically vital salmon runs it supports. The most blatant such action is A-2.3, which recommends appropriating $50 million to $100 million to finish FERC process licensing of the Susitna-Watana Dam, as well as the AKLNG project. In addition to the damage that Susitna-Watana would do to our watershed and AKLNG to our climate, these projects are fundamentally uneconomic red herrings rather than actual energy solutions.

In 2011 Cook Inletkeeper's board resolved to oppose "any Susitna-Watana Dam project that significantly alters flow regimes, ice patterns, fish habitat, and temperatures that support wild Alaska salmon." A dam on the scale of the Susitna-Watana project would inevitably have these impacts, potentially without creating a net reduction in climate impact from our energy system. Flooding the area upstream of a hydropower reservoir traps organic

matter, the decomposition of which releases methane, a greenhouse gas with a more powerful heat-trapping effect than carbon dioxide, into the atmosphere. Globally, hydropower reservoirs accounted for 5.2% of human-caused methane emissions in 2020, according to research published in Nature.

Before commenting on responsible hydropower development, we must mention the other bad idea recommended in A-2.3, the AKLNG project. Though the plan recommends progressing these projects to a "go/no-go" decision, the choices that could actually bring AKLNG to this stage aren't Alaska's to make. The viability of AKLNG depends on commitments from gas buyers that have never materialized. With the global gas market returning to equilibrium after the shock of the Ukraine invasion and LNG facing long-term competition from wind and solar generation, there is little reason to believe this will change anytime soon – and certainly no reason to bet our own energy security on it. If the resources invested in AKLNG were put into smarter projects that Alaskans could choose to work on here and now -- such as wind, solar, and responsible hydro -- our energy system would be far better off.

AKLNG and Susitna-Watana have long histories of stagnation, huge price tags, and damaging side effects that should already be enough to warrant "no go" decisions without sinking further time, money, or attention into them. The alternative North Slope "bullet line" gas pipeline, which must be almost entirely state-financed to deliver economical energy, locks in the climate impact of natural gas without lowering current prices and is likewise a poor energy choice for Alaskans. The Dixon Diversion, also recommended in Action A-2.3, may be a poor investment of AEA funds in comparison to other renewable prospects, and we believe it should be analyzed alongside other options in a Railbelt-wide planning process.

Responsible hydropower deployment means strongly considering how changes in water temperature, flow rate, and variability affect the abundance and genetic diversity of downstream fish populations, and prioritizing fisheries in the development and operation of projects. Any measure to promote hydropower – such as Action B-3.1 in the Oct. 3 draft (F-2.3 in the Oct. 20 draft), which includes revising AS 42.45.350 and creating a state fund and a public/private hydro development corporation – must have these priorities.

Public Comment # 29 from Kelsey Schober, The Nature Conservancy

Develop and Sustain Renewable Energy Development Efforts Actions: A-2.1, E-2.3

In July 2021, McKinley Research Group (formerly McDowell Group) prepared a report entitled Alaska's Renewable Energy Economy: Progress and Possibility for TNC-AK. This report reviews the status of renewable energy deployment across Alaska while highlighting the increasing opportunities presented by renewable energy in our state. Notable impacts from investing in these opportunities include reduced energy costs for consumers, job creation, and increased community resilience. TNC-AK supports the adoption of incentives to facilitate reaching energy diversification goals. An overall increase in adoption of renewable energy will create substantial benefits for communities and people across Alaska. For additional material highlighting the economic opportunities created by renewable energy adoption, please refer to the aforementioned report.

Public Comment # 30 from Matthew Clarkson representing Chugach Electric:

I am the Chief Legal Officer at Chugach Electric Association, Inc. (Chugach), and I would like to provide the following comments on the Energy Security Task Force's October 20, 2023, Draft Report.

Chugach shares the Governor's vested interest in securing safe, sustainable, affordable, and reliable energy resources for Alaskans. The desire for a comprehensive statewide energy plan is understandable and the Governor's leadership in this regard is commendable.

As most are aware, the energy industry in general, and the electric utility industry specifically, is undergoing significant transformation. Decarbonization and decentralization of the grid are two key disruptors challenging the historically centralized electric utility model. In that vein, Chugach believes a statewide energy plan-if properly considered, formulated, and executed-would provide the coordination and direction necessary for successful statewide navigation of this uncertain path forward.

The Task Force's Report has six priority areas with numerous strategies and discreet action plans underlying each priority area. The breadth of issues raised and addressed in the 142-page report first released on October 2 and recently updated on October 20 are too numerous for Chugach to meaningfully respond to at this time. While Chugach has several high-level, conceptual concerns regarding certain Task Force recommendations that are set out below, Chugach expects, and specifically reserves its right, to provide additional detailed commentary and analysis on the Task Force's recommendations prior to any formal adoption or implementation of such recommendations.

For now, Chugach's comments will focus on Priority A of the Task Force's Report. Chugach has significant concern regarding any required conveyance of utility transmission assets to the State of Alaska or another third-party. Indeed, such recommendation implicates significant legal, operational, and financial challenges and complexities that should not be ignored or considered in haste.

First, from a legal standpoint, Chugach is a private not-for-profit member-owned electric cooperative utility. State law and Chugach's governing documents currently require supermajority member approval prior to disposal of any significant portion of its utility assets. Thus, depending on certain asset thresholds, Chugach's member approval prerequisite could prevent such a transaction from occurring. Regardless, even if this hurdle could be overcome, Chugach is not able to affirmatively support such a recommendation and would likely oppose any unprecedented State action to condemn its private utility business assets for such a purpose.

Second, from an operational standpoint, Chugach does not believe unified ownership is necessary for coordinated transmission system operations and long-range planning. As the Lower 48 electric grid has demonstrated for decades, neighboring transmission systems can be jointly operated without being singularly owned. Further, transmission system coordination is conceptually flexible and can be shaped to fit Alaska's unique circumstances if given adequate consideration. Chugach is working. through the process of considering alternative approaches to coordinated Railbelt transmission system operations and intends to provide opinions and recommendations in the future. Ultimately, any recommendation in this regard should be vetted for clear demonstration of positive economic benefit to end consumers prior to implementation.

Third, from a financial standpoint, substantially all of Chugach's tangible assets, including its transmission assets, fall under the lien of Chugach's Indenture of Trust. The conveyance of Chugach's transmission assets, and corresponding release of the Indenture's lien on those assets, could jeopardize Chugach's credit ratings, increase its cost of borrowing, and significantly undermine Chugach's ability to issue long-term secured debt to

fund future system capital improvement projects. Such financial limitations could also impact Chugach's ability to manage costs and provide sustainable, affordable, and reliable power to its members in the future.

In conclusion, Chugach again wants to express its appreciation to the Governor for his leadership and focus on securing affordable energy for Alaskans, and to the Task Force for its efforts in considering so many important issues on such a truncated timeline. Chugach remains optimistic about Alaska's energy future and looks forward to thoughtfully participating in ongoing public discussions regarding the future of Alaska's integrated electric system. We share in the goal of operational efficiency and a competitive cost structure for the benefit of all Alaskans, both rural and urban alike.

Public Comment # 31 FROM Ky Holland

I'd also like to see a focus on engaging our youth and university on energy challenges, including the long-promoted but never-supported Alaska Energy Prize (Allan Johnston).

Others seem to be self-serving plans by the AEA to add staff and take over control/ownership of transmission capability with the MLP-CEA-inspired dreams of buying out assets "at book value" to save money... I hope we are not fooled twice with this shell game of refinancing our existing infrastructure and giving greater control to an agency with more than enough time and money to buy worthless oil leases.

Some sections seem to be just not connecting the dots, such as Priority areas A, which never mentions the planned demand on gas for a Donlin Mine (14" gas line from cook inlet), and then in A.3 suggests we need to increase demand in an area that has excess electrical generation capacity and a shortage of natural gas that we want to give away to a large industrial user. Why isn't the Donlin mine considered for some of the additional demand, or better yet, solve some of the gas shortage by giving Alaskans access to lower-cost electricity and incentivizing them to ramp up the use of electric gas, returning their homes to electric head etc. (My home was initially heated with electricity on the hillside in the 70s. It is still installed and could pull electrical power today if there was an intelligent metering system to allow me to use excess electrical energy at a rate competitive with the potential cost of natural gas-supplied heating energy.

Another set of dots not connected is that we don't need a gas line AND the Wantana dam. Our plan should not be promoting more energy demand on one hand and then at the same time burdening us with fanciful expensive projects on the other hand that could lead us to even more excess production capacity and the capital burden of the projects. The plan reads more like a wish list for the construction industry than a thoughtful determination of a plan and hard decisions one what we should actually do next to address our energy needs.

Public Comment # 33 from George Donart, Anchorage

STRATEGY A-3: Increase Demand -

If we were to put out an RFP to increase our demand, we may end up building much larger generation facilities than we need prematurely. Demand for electricity will increase as more parts of our economy electrify, but counting on a large new demand may only drive new generation without closing old, expensive, polluting generation facilities. Alaska's focus must be on reducing reliance on fossil generation sources and moving

rapidly to clean energy. When we have cleaned up our generation, that is the time to start enticing large new demand centers, not before. We're not in the same situation as Iceland was in the mid 90's.

STRATEGY A-2.3 Progress Known Energy Generation Diversification Projects to Go/No-Go Decision -

Both the Susitna dam and a gas pipeline from the North Slope are at least a decade away - if everything goes smoothly, both are extremely expensive, and both have major negative impacts locally and globally. It doesn't take any more study to determine that there are plenty of other affordable viable options for new, renewable generation in the Railbelt. Waiting for yet further analysis of either should not be used to hold up an ambitious clean energy transition on Alaska's biggest grid.

Public Comment # 35 from Doug Woodby, Juneau, AK

I oppose the apparent bias towards funding the Alaska LNG pipeline, even if it is a line just to the railbelt. There are more worthy projects that will have lasting positive impacts for the people of Alaska that do not have an outsized carbon footprint that the LNG pipeline has.

Public Comment # 36 FROM Sarah Clement

1. Issue a No-Go decision on the AKLNG project and the North Slope Natural Gas Bullet Line. Finish a comprehensive alternative energy source analysis FIRST. Our priority should be investing in alternative, renewable energy sources, not hanging onto the declining fossil fuel industry.

2. Enact a Renewable Portfolio Standard in place of the "Clean Energy Standard." We have no evidence that a CES approach leads to stronger mobilization of private sector capital investment or utility adoption. An RPS provides realistic, enforceable targets and deadlines for Railbelt utilities to achieve energy transition.

These additional comments were provided by Railbelt Regional Coordination as the Railbelt Roadmap Workshop Summary, August 28th, 2023.

Summary Report
Introduction
In August 2023, technical and policy experts from the Railbelt Electric utilities and the Alaska Energy Authority gathered for a one-day workshop. Their primary objective was to brainstorm and articulate their vision for the future of the Railbelt Electric system. To achieve this, the team initially established end-state goals and subsequently crafted a roadmap to attain these objectives. This document serves as a summary of the workshop's significant insights and outcomes.
The tasks outlined below encompass a wide spectrum of initiatives, spanning from policy and regulatory measures to project assessment, design, permitting, and construction. This report is organized into two primary timeframes, further divided into subcategories that address evaluation, design, permitting, and construction. Although the tasks are presented in a somewhat sequential manner, it's important to note that we haven't formally prioritized or refined this list. Generally, items of lower priority are slated for later periods. However, many of these tasks will require concurrent and ongoing attention. Given the limited capacity of both the Railbelt utilities and AEA, it's imperative to allocate the necessary resources effectively to navigate this pivotal transition successfully. The initial three summary sections focus on actionable items, while the fourth section

diverges slightly, spotlighting areas that demand continuous oversight due to their profound implications for Railbelt's policy, investments, and operations in the forthcoming decades.

2060 End State goals:

1. By 2060, all current thermal generation will have been fully depreciated thus stranded investment is not an issue.
2. Virtually all replacement generation is “Clean Energy”.
3. Transmission limits have been resolved and a resilient and reliable transmission grid has been completed.
4. Transmission investment and cost recovery allows for non-discriminatory, open access, resilient, reliable, and economic energy delivery to all Railbelt regions.
5. Generation development and dispatch allows optimization across the system.
6. We are resiliently and reliably able to meet load demand.
7. Constructive regulatory, policy, and permitting processes have been developed that are not an impediment to energy production and delivery.
8. The cost of energy supports economic development and quality of life.
9. Utility systems accommodate evolving customer requirements.
10. The Copper Valley has been integrated into the Railbelt grid, by completing the Roadbelt intertie.

Roadmap Swim Lanes:

Data was gathered from the Team under the following swim lanes topics, where practical overlapping efforts and dependencies were identified. Each swim lane topic was evaluated over the short, medium, and long-term identified as 2023-2035, 2036-2050, 2051-2060. For simplicities sake in this summary, we have combined the medium and long term into a single category.

• Fuel Diversification
• Policy
• Regulatory
• Technology
• Generation
• Load Growth/Beneficial Electrification
• Transmission
• Distribution
• Decarbonization

Time frame [2023-2035]

Policy, Regulatory, and Structural Reform:

- Develop state energy policy and the corresponding statutory structure.
- Consider a potential Clean Energy Standard (CES).
- Implement net metering changes to minimize subsidies from other members and promote equitable growth.
- Explore the potential for a public-private industrial energy economic development program, possibly modeled after the TVA-BPA-Icelandic approach to achieve low-cost power. This might include large-scale direct air carbon capture, and injection, data server farms, or sustainable aviation fuel production.
- Develop a contractual framework for transmission development, operation, and control that includes the following:

• Explore the possibility of adopting a Transmission System Operator (TSO) model similar to that of Iceland. This TSO would operate within a regulated Railbelt BPMC-like management committee governance structure and have the authority to acquire control of the existing backbone transmission through methods such as pledge, lease, or purchase. The organization would be charged with developing the backbone transmission grid into a reliable and resilient open access transmission system.
• Reorient the nature of the transmission grid (at least the backbone transmission grid) from being a private good to a public good, eliminating wheeling charges, and shifting transmission costs to end-use consumers rather than generators and purchasers.
• Designate the State (AEA) as a primary, though not exclusive, transmission asset owner.
Regulation of the TSO through the Regulatory Commission of Alaska, with TSO responsibility for developing and owning the transmission tariff.
• Ensure non-discriminatory open access while maintaining the rights of legacy owners to access generation resources and serve firm loads.
• Minimize incremental costs by leveraging *existing* expertise and resources for planning, development, management, operation, and maintenance of the transmission grid.
• Develop a state-utility endowment or bond funding mechanism for developing and improving the public good backbone transmission system.
• Limit Electric Reliability Organization (ERO) statutory obligations to reliability standards development, enforcement, and traditional interregional Integrated Resource Planning (IRP), thereby transferring transmission-related functions away from the organization.

- Modify SB 123 and Alaska Administrative Code ERO regulations to minimize the incremental cost of the organization and create a more streamlined cost-causer, cost-payer-based organization.
- Implement regulatory rate-making reform to incentivize prudent transmission investment.
  • Consider reducing project carrying costs by allowing the inclusion of transmission costs in the rate base via simplified rate filing (SRF) process prior to being considered "used and useful."
  • Explore the option of forward funding transmission projects for the same reasons.
- Implement state clean energy generation and transmission permitting and ROW acquisition reforms, including permitting time limits, document page limits, and moderated legal recourse.
- Develop state licensing and siting regulations for Small Modular Nuclear Reactors (SMRs).
- Address near-term NEEPA reform.

Planning, Evaluation, Design, and Permitting

Planning

- Complete a traditional IRP for the Railbelt.
- Develop short, medium, and long-term plans to diversify electric generation fuel supply, including sources and companies.
- Develop a natural gas transition plan for home heating.
- To comprehend the implications of future decisions on energy rates and economic development, it is imperative to establish a comprehensive financing plan. Collaborate with the RCA to formulate a high-level funding strategy aimed at identifying funding sources for future grid development.
- In the energy sector, demand, often referred to as "load," drives all operations. It is essential to create a comprehensive regional load forecast that considers both thermal and electrical loads. This forecast should

be maintained as a dynamic, regularly updated document, incorporating sensitivities that account for different degrees of technology development and adoption.

Evaluation and Permitting

- Complete and secure the Watana license, while concurrently postponing actual project development to assess the commercial viability of Small Nuclear Reactors (SNRs). Absent commercial viability of SNR's with in a decade proceed with the project.
- Evaluate benefit-cost analysis and complete the amendment to the Bradley Lake license for the Dixon diversion. If the project is determined economically viable, complete development.
- Evaluate benefit-cost analysis and work towards completing and securing the license for Godwin Creek if it is both economically and technically viable.
- Explore and quantify all small wind, solar, and hydro projects that fall within the cost-effective range of the Railbelt transmission and distribution systems for future development.
- Design and permit a near-term expandable LNG import project, or the development of additional bridging Cook Inlet gas reserves.

Design and Permit

- Design, permit, and acquire the right-of-way (ROW) for a second transmission line from Nikiski to Healy, potentially using the Beluga and AKLNG pipeline ROW.
- Design and permit the reconstruction of the Railbelt backbone from Bradley to Fairbanks.
- Initially, focus on the following segments:
  - Healy to Douglas
  - Douglas to Eklutna-Fossil Creek
  - Quartz Creek to Anchorage
  - Bradley to Soldotna
  - Healy to Fairbanks (old line)
- Design an interregional coordinated control scheme for BESS and HVDC assets.
- Complete the design and permitting of the relevant elements of the GVEA strategic generation plan, including BESS, wind, and power purchase agreements (PPA).
- Complete the relevant design and permitting of elements related to other Railbelt utility clean energy goals, including siting, and permitting regulations for Small Modular Nuclear Reactors (SNRs).

Evaluate for Potential Future Design and Permitting

- Evaluate the required improvements for the Cook Inlet natural gas storage system.
- Pursue and make a final near-term decision on LNG import, the AKLNG pipeline, or the bullet line from the North Slope to Cook Inlet.
- Assess the efficacy of developing additional natural gas resources in Cook Inlet.
- Complete the evaluation of the large wind resources in West Cook Inlet and obtain permits if economically viable.
- Evaluate carbon capture options for coal plants and potentially gas turbines in the Railbelt as part of a transition strategy.
- Assess the state of technology, conduct benefit-cost analyses, and consider piloting tidal generation in Cook Inlet.

- Determine conclusively the viability of West Cook Inlet geothermal energy (Mt. Spurr) and explore the potential of Augustine geothermal energy.
- Evaluate the potential for offshore wind near the entrance to Cook Inlet.
- Re-evaluate Chakachamna hydroelectric project in light of technology improvements in terms of fish habitat enhancement.

Infrastructure and Structural Development - Complete or Construct

Statutory or regulatory

- Complete structural reform of the transmission system, e.g., Transmission System Operator.
- Reform Electric Reliability Organization statutory and regulatory requirements.
- Implement reforms related to energy-related permitting.

Assets

- Construct a second transmission line from Nikiski to Healy, potentially via Beluga and the AKLNG pipeline alignment (with a separate ROW).
- Construct battery energy storage systems (~40-70 MW, two-hour to four-hour) in each of the three Railbelt regions: Southern, Central, and Northern.
- Complete the coordinated control and operation of the regional BESS systems.
- Complete the South Kachemak Bay submarine cable system.
- In accordance with the GVEA strategic generation plan, retire Healy 2, and construct a replacement wind facility in the Healy area with a corresponding long-duration energy storage component and necessary power purchase agreements (PPAs).
- Reconstruct the existing backbone transmission system between Bradley and Fairbanks, with an initial focus on:
  - Healy to Douglas
  - Douglas to Lake Lorraine
  - Fossil Creek
  - Quartz Creek to Anchorage
  - Healy to Fairbanks (old line)
- If technologically and economically viable, develop a possible pilot or prototype for carbon capture for:
  - Natural gas generation sources in Cook Inlet (reinjection into depleted oil and gas formations)
  - Direct Air Capture (reinjection into depleted oil and gas formations)
  - Healy Coal (reinjection into coal formations).
- Construct the Dixon diversion if it is determined to be economically viable.
- Construct a Cook Inlet natural gas fuel storage solution to mitigate peak deliverability challenges.
- Monitor and potentially adopt successful small SNR prototypes at an early stage.
- To the extent cost-effective, expand hydro ponding (raise dams) at existing hydroelectric projects (Cooper, Eklutna, Bradley) to increase the capability to provide long-term storage and regulation of variable renewable generation resources.
- Construct Godwin Creek if it is viable.

Technology and Load Growth Monitoring

- Long-duration energy storage (LDES) solutions

- Short-term battery technology
- Small and micro nuclear reactor development
- Carbon capture technology
- Hydrogen
- As a fuel, either mixed or in its pure form
- As a feedstock for ammonia
- Load growth related to beneficial electrification.
- Electric vehicle adoption
- Heat pump adoption
- Large loads, such as server farms, mine loads (e.g., Donlin), compression stations, sustainable aviation fuel production, carbon capture, etc.
- High-voltage solid dielectric cable development
- Grid-forming inverters
- Short-circuit current delivery by or for inverter-based technologies
- Distributed Energy Resource Management (DERM) development
- Superconductor development
- Nuclear fusion

Time frame [2036-2060]

- Policy, Regulatory, and Structural Reform
- Wildfire liability reform for cooperatives and municipals.
- Tort reform for permitting litigation.
- Reform of the federal refuge "let it burn" policy.
- Reform of hydro development policies.
- The widespread adoption of electric vehicles (EVs) and heat pumps may require significant investments in distribution assets by utilities. Considering the limitations of balance sheet capacity, this could redirect vital capital away from transmission and generation projects. It is crucial to anticipate and prepare for this potential scenario.

Planning, Evaluation, Design, and Permitting-

- As energy demand increases, there will be a need for more dispatchable generation sources. Within this evolving context, a crucial decision point will emerge, influenced by factors such as load growth, technological advancements, and political feasibility. With the current state of clean energy technologies and those on the near horizon, the decision might revolve around whether to invest in SNRs, various scales of hydro projects, or a combination of both. However, this decision could be swayed by unforeseen technological breakthroughs, such as nuclear fusion, tidal energy, or other yet-to-be-discovered technologies.
- If SNR is available then adopt design and permit, else absent the SNR option consider construction of Watana and perhaps Chakachamna.
- Large-scale long-term energy storage projects to regulate large scale variable generation.
- Development of all small Hydro projects within economic reach of the Railbelt.
- Development of tidal resources in Cook Inlet
- Railbelt Roadmap Workshop Summary October 30, 2023 Executive Director of Railbelt Regional Coordination

- Design, Permit and Construct
- Complete design, permitting, and construction for remainder of the Railbelt Backbone reconstruction.
- Fairbanks to Delta Junction
- Complete Design, Permitting and ROW acquisition and construction for the Roadbelt intertie.

Evaluate for future Design and Permitting
- Tiekel River Hydro at Maximum capacity (~ 400GWH).
- Evaluate DC line North Slope to Faibanks.
- Evaluate DC line North Slope to Peace River.

Recommendations
1. To ensure the continued progress of these diverse initiatives, one viable approach might be to create an interregional project management office. This office, possibly funded by utilities, could operate as a subsidiary of the proposed transmission organization, tasked with prioritizing, monitoring, and advancing these initiatives.

2. At present, technology monitoring occurs on an ad hoc basis, leading to varied opinions on the state of different technologies. A potential solution worth exploring is the establishment of a Railbelt technology working group. This group's mandate would be to stay updated on the topics listed in the technology list (along with any new ones that emerge) and to regularly report their findings to relevant stakeholders, perhaps on a biannual or quarterly basis. Additionally, this group could oversee the continuous updates to the electric and thermal load forecasts referenced below.

These additional comments were provided by Chugach Electric, Trish Baker, Manager, Government and Business Affairs, Anchorage, AK and noted at the November 20, 2023 Task Force Meeting

Alaska Energy Security Task Force,
Please accept these comments as part of the official record.

At the October 31, 2023, meeting of the Alaska Energy Security Task Force, committee member Mr. Izzo read into the record a change that had previously been missed, so he proposed new language to eliminate the phrase "net book value" and eliminate the word "convey." The Task Force voted in favor of the following change to A.1.1. on page 38 of the draft report:
"Unify all existing transmission assets along the Railbelt and Bradley Lake under AEA or a new not-for-profit utility."

- The draft report dated November 7, 2023, does not reflect that change; it still reads "Unify and convey all existing transmission and storage assets along the Railbelt to AEA."
- Appendix III, page 2 of the draft report, under "How Do We Get There?" The first bullet reads: "Unify and convey all existing transmission assets along the Railbelt and Bradley Lake to AEA or a new non-for-profit regulated utility for the net book value."

We respectfully request changing the language on page 38, first bullet to what was voted on during the Oct. 31, 2023, meeting: "Unify all existing transmission assets along the Railbelt and Bradley Lake under AEA or a new not-for-profit entity."

We further respectfully request changing the language under the first bullet "How Do We Get There?" in Appendix III to reflect the vote of the Task Force:
"Unify all existing transmission assets along the Railbelt and Bradley Lake under AEA or a new not-for-profit entity."

For the record, Chugach Electric's position:

1. We believe the Railbelt utilities are unified. We are aligned in our support of unified transmission system operations.
2. Chugach is supportive of a utility governed, BPMC-style, unified system operator for the Railbelt transmission system backbone. [Bradley Lake Project Management Committee]
3. Chugach is supportive of the elimination of "pancaked wheeling rates" through a simplified form of an open access transmission tariff to be administered by the unified system operator.
4. Chugach does not support conveying ownership of its transmission assets to the State of Alaska or any entity. To our knowledge, ownership of transmission assets throughout the Lower 48 under ISO/RTO structures remains with the utility.
5. Unifying the operation of transmission and the elimination of pancaked wheeling charges can be accomplished without transmission assets changing hands. That said, we have no objection to any other utility conveying ownership of their transmission assets, but Chugach is not interested in doing so.

ENERGY PRIORITY B. COASTAL GENERATION, DISTRIBUTION, AND STORAGE PUBLIC COMMENT

Excerpt: Public Comment #6 from John Neary, Juneau, Alaska

Net metering reform (pg. 52, pg. 101) is also a positive recommendation as it will help incentivize smaller investments in solar or in-stream hydro on private lands.

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers…

Lastly, it is also unnecessarily divisive to recommend skirting the federal roadless rule for development in national forests such as the Tongass and Chugach, especially considering that every exemption to the rule for a renewable energy project has been granted!

In conclusion, good work on your draft plan but please make some changes to improve the details. Renewable Energy is something everyone supports regardless of party affiliation or political leanings. Please operate within that spirit of unity on such an important document.

Excerpt: Public Comment #11 from Mary Burtness

Workforce development is a necessary component for future jobs that will keep our youth in the state, as well as re-tool the fossil fuel industry workforce.

Excerpt: Public Comment #13 from Connie Markis, Anchorage, Alaska

Net metering reform (pg. 52, pg. 101) is also a positive recommendation as it will help incentivize smaller investments in solar or in-stream hydro on private lands.

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers…

Lastly, it is also unnecessarily divisive to recommend skirting the federal roadless rule for development in national forests such as the Tongass and Chugach, especially considering that every exemption to the rule for a renewable energy project has been granted!

In conclusion, good work on your draft plan but please make some changes to improve the details. Renewable Energy is something everyone supports regardless of party affiliation or political leanings. Please operate within that spirit of unity on such an important document.

Excerpt: Public Comment #16

Please invest in tidal energy. Cook Inlet alone has enough potential tidal energy to power ALL of Alaska, so if we can make that work, we could still be energy exporters (think electrolysis and green hydrogen).

Public Comment #18 from Lisa Behnken, Alaska Longline Fisherman's Association

The Alaska Longline Fishermen's Association (ALFA) strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the reinstating of the Alaska Energy Security Task Force. This

proactive step towards a comprehensive statewide energy plan is critical to meet the challenge of climate change while safeguarding community resiliency in Alaska.

The Alaska seafood industry is an economic pillar of our state's economy, especially in coastal Alaska. It is the largest private sector employer in Alaska and generates $5.7 billion annually in economic activity while contributing 60% of the United States' wild seafood production. Alaska' seafood industry includes over 100 large seafood processing plants in 40+ of Alaska's coastal communities, supporting a fleet of 9,000 vessels using more than 200 million gallons of diesel and gasoline fuel annually.

Our industry depends on energy to operate, and ALFA is eager to lead the nation's seafood industry to fuel efficiency and decarbonization. We recognize the threat climate change and ocean acidification pose to our industry and our State, and we are actively pilot testing hybrid equipment while researching next generation renewable energy. We recently received a Department of Energy award to convert two commercial fishing boats to hybrid propulsion and one mariculture boat to full electric. ALFA is committed to fleet decarbonization, and we recognize the need for shoreside infrastructure to co-evolve in support.

In many coastal communities, the seafood industry serves as an anchor buyer of utilities, which justifies large-scale capital investment in power generation and lowers electrical prices for coastal residents. That investment supports harbors and fishing fleets, providing the primary employment and economic opportunity in most coastal communities. Harvesting and processing go hand and hand, and the evolution to renewable energy must support both through a strategy that is also compatible with the remote and isolated locations characteristic of Alaska's coastal fishing communities.

Given the considerable energy consumption and the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, ALFA strongly recommends that the seafood industry be a stronger focus and better represented in the Task Force's deliberations and recommendations.

Our recommendations for the Task Force's consideration include:

1. Elevate Alaska's Seafood Industry
    - Welcome a representative from the Alaska commercial fishing sector onto the Task Force to provide nuanced insights from our complex and diverse industry.
    - Facilitate presentations from key stakeholders within our industry to describe how energy impacts costs, profitability, and investment decisions.
    - Research and describe the significant role of the Alaska seafood industry in coastal communities within the energy discussion framework.
2. For Priority B: Coastal Generation, Distribution, and Storage – Action Tracking Sheet
    - Highlight the importance of initiatives B3.1, B4.4 & B4.5 to the seafood industry.
    - Advocate for the exploration and establishment of public-private partnerships to bolster energy infrastructure.
    - Offer guidelines on leveraging local, state, and federal funds for financing new renewable energy projects.
    - List vessel and processing plant decarbonization and efficiency as a long-term goal in the energy plan draft.

ALFA anticipates that these considerations will enrich the statewide energy plan while also securing robust alignment with the needs of coastal communities, supporting community resilience, and fostering a sustainable economic trajectory for Alaska's maritime sector. We are eager to work with the Alaska Energy Security Task Force and believe you will find the fishing sector to be among the early adapters of renewable energy options.

Public Comment #20 from Hannah Wilson, Alaska Fisheries Development Foundation, Inc.

The Alaska Fisheries Development Foundation (AFDF) strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the Alaska Energy Security Task Force. This proactive step towards a comprehensive statewide energy plan is critical for Alaska's sustained economic growth and community resiliency.

The Alaska seafood industry is a significant pillar of our state's economy, especially in coastal Alaska. It is the largest private sector employer in Alaska and generates $5.7 billion annually in economic activity while contributing 60% of the United States' wild seafood production. The industry's operations across 100+ large seafood processing plants in 40+ of Alaska's coastal communities, and a fleet of 9,000 vessels using more than 200,000,000 gallons of diesel and gasoline annually, underscore its substantial role in our state's energy landscape.

Our industry serves as an anchor buyer of utilities in coastal communities, which justifies large-scale capital investment in power generation and drives down electrical prices for coastal residents.

Given the considerable energy consumption and the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, we believe that a more pronounced representation and consideration of the seafood industry in the Task Force's deliberations and recommendations are both necessary and beneficial.

We look forward to the opportunity to contribute to the meaningful discussions and actions of the Alaska Energy Security Task Force. Your consideration of our recommendations is highly appreciated.

Public Comment #22 from Chris Rose, REAP

Priority B: Coastal Generation, Distribution and Storage.

1) REAP agrees with the Task Force's objective of integrating and promoting more air source heat pumps to reduce the heavy energy burden currently put on consumers in coastal Alaska by relying on imported heating oil.
2) REAP also supports the objective to electrify the Alaska Marine Highway fleet to stabilize prices and reduce emissions.
3) REAP is not sure what "light" integrated resource planning is.1 Integrated Resource Plans will deliver more to Alaskans if the technical and economic analysis is thorough, and the there is some type of requirement to follow through with the IRP's action plan.
4) Hydropower must be compared on an "apples to apples" basis with other generation alternatives in IRPs.

Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

II. Omissions & Further Considerations

The Railbelt-relevant sections of the plan have an unwarranted and glaring omission: there is no explicit mention in the Oct. 3 draft of the Railbelt Reliability Council (RRC) or its own ongoing Integrated Regional Planning (IRP) process, and only passing mention in the Oct. 20 draft without real consideration. The RRC's IRP is an open and transparent effort to evaluate with depth and technical rigor the best energy options for the Railbelt. Moreover, the RRC was established with particular safeguards 2 to ensure that directors act independently from users, owners, and operators of the Railbelt grid; there is reasonable notice and opportunity for public comment, due process, openness, and balancing of stakeholder interests; avoidance of undue amplification or attenuation of stakeholder interests; and consideration of whether certain stakeholder class members stand to profit from construction of new facilities used to provide electrical service, among other protections—directly in contrast to the creation of the Task Force, which is largely composed of similarly situated private industry members or state agencies but not consumer or environmental interests as in the RRC. The legislature mandated that an Electrical Reliability Organization carry out the IRP process in SB123, and in 2022 the Regulatory Commission of Alaska certified the RRC as the organization to do it.

In creating the IRP, the RRC would compare the economic trade offs of different options for meeting our transmission and generation needs -- an already-existing mechanism that could avoid the danger of bad investments being made in an absence of public oversight. In contrast, the draft Statewide Energy Plan was created through an opaque and politically influenced process and contains particular actions that risk spending public resources on poorly conceived energy projects if no transparency and accountability measures are included or are simply performative. Action B-1.4, which would create a transmission fund within the Alaska Energy Authority; B-3.1, which calls for, among other things, a public/private hydropower investment 2 AS 42.05.765; 3 AAC 46.060. fund; E-5.1 and E-5.4, creating an energy incentive program; and E-5.5, creating tax exemptions for generation and transmission investors; all require definite mechanisms for public transparency.

In the Oct. 20 draft, the existence of the RRC IRP is mentioned in Action F-3.4, which only notes that the process may take several years and recommends the RCA review time considerations. F-3.5 recommends modifying a section of the RRC's underlying statute, AS 42.05.760, "to ensure alignment with unified Railbelt transmission authority." It does not specify how the current RRC is misaligned or incompatible with unified transmission.

Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

IV. Endorsed recommendations

Among the recommendations that AKPIRG would like to see adopted in the final plan and executed by the legislature or executive branch are those in Action B-1.5, especially the establishment of a Data Department at the Alaska Energy Authority and a data governance committee for establishing data collection protocols. Having easy access to a body of consistent data on our energy system not only enables better decisions, but would help utilities, agencies, and IPPs seek federal funding for their projects, and allow researchers and the public insight into the energy options that best meet our needs. These benefits depend on the data collected

and organized by AEA being open to the public, and we urge for language to this effect to make this explicit in the Statewide Energy Plan. 3 Action F-1.6 (F-3.1 in the Oct. 20 draft), "provide budgetary support to the Regulatory Commission of Alaska," should be a high priority for decision makers acting on this plan. A lack of staff capacity likely contributed to the RCA's inattention in this summer's 400% rate increase for the residents of Aniak, which the RCA commissioners unanimously approved in May. Though the Commission later mitigated the impact on Aniak residents, it could have avoided subjecting them to the increase in the first place had there been more capacity devoted to the case and to the underlying problem with Aniaki's utility. Currently the RCA is considering whether to grant the Alaska Power Company a 25% rate increase, which deserves a degree of regulatory scrutiny the RCA does not seem to be currently equipped for. Future regulatory matters emerging from our changing energy system will require even greater capacity.

Public Comment #26 from Study of Environmental Arctic Change (SEARCH)

The Study of Environmental Arctic Change (SEARCH) is a collaboration of Indigenous Knowledge holders, scientists, and public and private decision makers with the goal to provide a deeper understanding and inform decisions related to the drivers and consequences of environmental Arctic change. These consequences include the impacts of environmental changes on human-well-being, as well as on international collaboration and economic decision making. This collaboration is funded by the U.S. National Science Foundation and more information can be found at www.searcharcticscience.org.

Increasing energy security, affordability, and reliability for every Alaskan is a critical priority for the entire state, but those goals remain particularly difficult to achieve for any rural, remote or coastal community not connected to the Railbelt Grid or near locally sourced hydroelectric power. These communities continue to primarily rely on economically and environmentally costly diesel generation. This dependency severely limits these communities' ability to have secure and affordable heat and power, and exposes the individual community, and the state more broadly, to a multitude of compounding and cascading environmental hazards.

Our co-produced comments integrate perspectives and examples from Indigenous Knowledge holders, scientists, and public and private decision makers. We focus on the sections of this draft Energy Master Plan that relate to rural communities now relying on Power Cost Equalization (PCE) to help make residential electricity rates affordable, but many of our comments apply more broadly to energy systems throughout the state.

Comment 1: Definitions need to be revised.

The Draft Plan broadly groups the state's energy Priorities, Strategies, and Actions by Railbelt, Coastal, and Rural areas. However, many of the state's most challenged communities are both rural and coastal. Rural coastal communities in many parts of the state experience double jeopardy: they face the same energy affordability challenges that most off-grid communities face, but their energy infrastructure is also experiencing severe environmental damage due to permafrost thaw, coastal erosion, and increased exposure to wave and sea spray.

The term Rural is defined differently at federal, state, and local levels, and within specific programs, and it is important that the Plan provide a broad definition of the term, particularly given that it recommends policy changes at all levels of government.

Recommendation: Given these different conditions, we encourage the Task Force to recognize the three different types of energy conditions in Alaska as Railbelt, and two rural situations as Coastal non-PCE, and PCE communities. It is important to make clear that the current "coastal" definition is only for developed coastal communities with existing access to resilient energy infrastructure and renewable generation sources (e.g., hydropower).

Comment 2: Electricity generated by renewable sources (wind, solar) is less costly, more reliable, and more secure than diesel-powered electricity.

The stated aim of this Energy Master Plan is to ensure that energy for all Alaskans, including those in PCE communities, is affordable, secure, and reliable. While the Railbelt section, and to a lesser extent the Coastal section, emphasize the need to diversify power generation sources and to provide economic incentives for reducing both residential and business energy costs, no such considerations are provided for existing PCE communities. The Plan needs to consider a nondiesel energy future for PCE communities so they too can have affordable, secure, and reliable energy.

There are clear advantages for renewables over diesel power for each of the Plan's three goals (please also see the diagram at the end of this letter).

Security. Diesel fuel is subject to both the variability of commodity pricing and the vulnerability of Alaska's complex supply-chain. Locally-sited renewables and power storage (e.g., batteries) are inherently more secure. Fuel storage, generation and transmission infrastructure is increasingly vulnerable to climate related environmental risks such as wildfire, flooding, erosion, permafrost thaw, wind storms, ocean spray, fallen lines from heavy or freezing rain in winter, and permafrost thaw. Transmission lines that span long distances are costly to install and maintain, and may expose communities to increased energy insecurity due to changing environmental conditions.

Savoonga provides a case study. Fuel is primarily provided to Savoonga via barge. Barge service, however, is limited by weather and ocean conditions, including when shorefast ice is present in winter during which time barges cannot be used at all. Fuel is airlifted into Savoonga when barge service is not possible. This method, though, is similarly limited by weather as, among other concerns, Savoonga (like many other remote Alaskan villages) does not have multidirectional runways. Naturally, airlifted fuel is more expensive than fuel transported by barge. Just this autumn 2023, there was a plan to airlift several thousand gallons of fuel to keep Savoonga's airport garage operable. Despite the need, however, the $19-per-gallon price of airlifted fuel led to the plan not receiving approval. Similarly, when Savoonga's local store ran out of gas, fuel was airlifted in, nearly tripling the price.

Loss of power on all scales is a security risk for rural Alaskan communities. For example, many communities (such as Chevak) are required to travel dozens of miles for wood to fuel wood stoves. These necessary labors,

which often only yield minimal amounts of firewood, further increase communities' reliance on diesel energy, thereby exacerbating insecurity.

Reliability. Most rural communities in Alaska lack redundancy in their power generation infrastructure. If diesel fuel becomes unavailable due to supply-chain issues, or power generators fail, rural communities lack the redundancy and diversity that most urban communities have. Locally sourced renewables like wind and solar can provide power independently, and rapid advances in storage technology will help increase redundancy and reliability by diversifying energy sources. Rapid advances in electricity storage technologies are reducing the need for backup power generation, but diesel generation capacity is still necessary in many parts of the state to backup renewables.

See also: https://alaskapublic.org/2020/03/19/village-of-savoonga-contends-with-power-outageas-region-is-hit-with-heavy-storms/

Affordability. The high cost of diesel in rural Alaska results mainly from long transport distances (i.e., no local sources), and although the market for diesel is competitive the requisite barge service to rural communities is not. This problem is compounded by unpredictable and volatile markets, which is an energy security problem. Locally-sourced renewables help alleviate these problems and provide lower-cost energy once established. Because of the way electricity prices are regulated by the RCA, the regulated price of electricity generated by renewables may be higher for an initial startup period (1-3 years), although the long-term cost is lower.

Current state policy associated with PCE, given the way that utilities are regulated by the Regulatory Commission of Alaska (RCA), prevents utilities that invest in renewable power from receiving PCE subsidies for any return on their initial equity investment. Because renewable sources typically have much higher initial capital costs, but much lower operating costs that are eligible for PCE assistance, this amounts to a crippling disincentive for moving to renewable power. The argument that the short-term cost of renewables is higher than diesel is like saying buying a house is more costly than renting, even when your monthly mortgage payment would be lower than the rent. However, this current policy can be changed, without compromising the objectives of the PCE program.

In some communities, existing renewables do not adequately serve as backup energy sources. In Savoonga, a majority of the power generated by their two wind turbines is being used to offset the costs of the community's power generators.

Additionally, businesses and service providers in PCE communities do not have access to PCE payments and consequently continue to suffer increasingly unaffordable energy until there is an investment made in truly affordable power generation.

Recommendation: Transition to renewable energy sources is the most robust energy strategy, especially for PCE communities, and needs to be prioritized. To help support this transition, PCE statutes should be revisited to allow for a fair rate of return on capital investments targeted at bringing renewable power generation infrastructure online, reducing the reliance on diesel fuels, and lowering the necessity for equalization subsidies in the longer term.

Comment 3: Risks to community energy infrastructure are increasing, and will continue to increase without diversified alternative energy sources that provide redundancy, storage, and reliable backups.

Diminishing sea ice is increasing coastal erosion and the changing climate is raising precipitation levels - both snow and rain - in other areas of the state. Flooding, snowfall and freezing rain can directly impact transmission lines and cause power outages. Recently, for example, areas of the Fairbanks North Star Borough suffered extended power outages due to downed transmission lines.

The isolation of many northern Alaskan communities further increases their vulnerability to weather-related energy disruptions. Many of these communities do not have the resources (especially linemen) in village to repair energy infrastructure following outages. Often, outages are caused by storms which then delays linemen and resources being flown in, thereby prolonging outages. Linemen for rural Alaskan communities do not live in the communities in which they work, instead traveling to dozens of villages when their services are needed. This prolongs outages and delays repairs. For example, earlier this year, a storm affected 20 homes, the preschool, and tribal offices in Savoonga. While Savoonga does have certified electricians, there are no linemen in the community. In this case, it took two days for the lineman to come in and for power to be restored.

In Savoonga, the last few years have seen high winds affecting the power plant with the community experiencing unscheduled power outages from strong winds and precipitation during the winter. Similarly, permafrost thaw in Savoonga causes energy setbacks by shifting transmission poles. Maintenance resources, however, are limited, meaning that once workers fix poles in one community, the poles have moved again before they are able to return.

Recommendation: The Draft Plan should explicitly consider the increased vulnerabilities Alaska's energy infrastructure will be facing due to weather-related hazards, especially for communities in northern areas. This will require a focus on diversifying energy sources within local systems and grids, to include incorporating battery backup and storage, and other emerging technologies. Such an approach will not only make energy more reliable and secure, but also more affordable than being dependent on the supply of diesel via barge and storage in fuel tank farms vulnerable to coastal erosion and permafrost thaw.

Comment 4: This plan does not adequately consider the needs of non-residential energy users in PCE communities.

A stated goal of the Plan is to make energy more affordable to drive economic growth, yet current regulations for PCE inhibit that in a variety of ways. The regulations stifle business and commercial enterprise, and they restrict many aspects of overall development that contribute to and support human wellbeing and economic prosperity. For example, diesel power is very expensive for transportation services such as airport and freight operations, and for municipal infrastructure such as water, sewer, and broadband internet. The high cost of diesel energy also makes the operation of medical and educational facilities more difficult.

Recommendation: PCE as currently operated reduces the energy cost for residential users; it does not do the same for businesses and commercial facilities. Reduced cost for reliable energy in these communities, however, is needed to support economic growth. While we understand the safeguards against misuse by power

companies from this policy, we recommend that PCE statues be revisited to support community assets including small businesses and commercial enterprises.

Comment 5: The current process that created this Draft Statewide Energy Master Plan has not adequately considered the energy security, affordability, and reliability of PCE communities.

As noted, and as evident from the brevity and content of the Rural Section of the Plan, this process has not adequately considered the current conditions, limitations, and options for PCE communities, nor has it adequately consulted with PCE community members. As such, many of the proposed strategies fail to address their energy security, affordability, and reliability realities and future needs. These realities all need active strategies to transition to renewable energy sources, to allow PCE to support capital investments for renewable and weather-resilient energy infrastructure, and to receive direct input from PCE communities from the beginning stages of these planning efforts.

Recommendation: We recommend substantial in-person consultation with PCE communities prior to finalization and implementation of the plan. Without such input the Plan as drafted cannot achieve energy affordability, reliability, security, and equity for rural Alaskans living in PCE communities.

We appreciate the opportunity to comment on this Draft Plan and look forward to seeing how these comments will be reflected in the final draft version. We are certain of our agreement with your Task Force that creating a new Statewide Energy Master Plan is a tremendous opportunity to transition the State to a more robust, reliable, affordable, and environmentally responsible energy infrastructure. As has been shown in many other regions and states, these goals are best met by transitioning to renewable energy sources and supporting its transmission, storage, and use. This will directly benefit Alaskans while simultaneously establishing Alaska as a leader in our urgent national and global need to reduce, prevent, and mitigate the increasing environmental hazards many of our residents are experiencing, especially as they relate to affordable power.

Public Comment #27 from Pacific Seafood Processors Association

The Pacific Seafood Processors Association (PSPA) represents seafood processing companies with operations throughout coastal Alaska and Washington. PSPA's corporate members are twelve major shoreside and mothership seafood processing companies, each with multiple facilities, that purchase, process, and market billions of pounds of seafood from just about every commercial fishery in Alaska, including wild Alaska pollock, salmon, cod, crab, halibut, and rockfish, among others. PSPA member companies have made significant investments in the future of Alaska seafood, spending hundreds of millions of dollars in rural infrastructure, facilities, processing technology, and, in some cases, energy generation

The Alaska seafood industry is a significant pillar of our state's economy, especially in coastal Alaska. It generates $5.7 billion in total economic activity and $2.2 billion in labor income annually in Alaska, including spending for energy, capital reinvestments, regulatory compliance, payroll, innovation, and other costs. This industry supports more than 31,000 commercial fishermen and 27,000 processing workers in 160 shore-based plants, and onboard 9,000 registered commercial fishing vessels, including 52 catcher-processor vessels, and 30 floating processors in Alaska. The fishing fleet alone uses more than 200,000,000 gallons of diesel and gasoline annually, which underscores its substantial role in our state's energy landscape. This industry also serves as an

anchor buyer of power from utilities in coastal communities, which helps justifies large-scale capital investment in generation and drive down electrical prices for coastal residents.

PSPA strongly supports long-term energy planning efforts initiated by Governor Mike Dunleavy through the establishment of the Alaska Energy Security Task Force by Executive Orders #344 and #345, and by hosting annual Alaska Sustainable Energy Conferences. These proactive steps toward an abundant energy future are critical for Alaska's sustained economic growth and community resiliency. Additionally, some international markets are beginning to require carbon footprint accounting throughout their supply chain as companies and countries aim to implement net zero sustainability goals. This could prove challenging for Alaska's seafood industry which is still highly dependent on diesel to power vessels and, in some cases, shoreside operations.

The Task Force has held numerous meetings toward the future of Alaska's energy security. The Task Force drafted a Statewide Energy Master Plan (Plan) and has asked for comments from the public. Members of PSPA commend this significant undertaking and offer our recommendations to help make this Plan as

effective as possible, given a particular eye toward the unique needs of the Alaska seafood industry. Respectfully, PSPA's offers the following recommendations for consideration by the Task Force:

General – Elevate the Alaska Seafood Industry in the Plan and the Process

Given the considerable energy consumption, the consequential impact of energy costs on the seafood industry's operations, profitability, and competitiveness, its unique needs and requirements, and the interdependent nature of Alaska's coastal communities and seafood industry, we firmly believe that a more pronounced representation and consideration of the seafood industry in the Task Force's deliberations and recommendations are both necessary and beneficial to the State. The Plan should include a description of the significant role of the Alaska seafood industry and its unique challenges and needs in securing energy. For example, seafood processing companies must generate their own power in some remote areas, such as Bristol Bay, because community facilities cannot meet peak energy demand.

Additionally, representation by the Alaska seafood industry is missing from the Task Force, although oil, gas and mining are included. Therefore, moving forward, we recommend additional outreach to and inclusion of the seafood industry in both the Task Force's Plan and implementation process. For example, the Task Force may benefit from presentations by key seafood industry stakeholders to describe unique needs, challenges and considerations for investment decisions, such as the potential for geothermal energy in Unalaska and its connection to future industry investment decisions.

Specific - Priority B: Coastal Generation, Distribution, and Storage

Below, we offer some specific recommendations for the Plan related to Priority B – Coastal Generation, Distribution, and Storage:

- Highlight the importance of initiatives B-1.6, B-3.1, B-4.4 & B-4.5 to the seafood industry.
- Add a strategy to advance adoption of geothermal where appropriate.
- Add actions to B-4 Alaska Market Initiatives, including:

    - Plan, finance and support the execution of shore power for fishing vessels converted to electric or hybrid
    - Consider and support technical assistance for alternative energy sources and solutions for vessels of all sizes (fishing vessels, support vessel, maritime shipping, ferries, cruise ships)
    - Technical assistance to right-size community and industry needs with new renewable energy technologies, such as technologies being demonstrated in Alaska by the U.S. Dept. of Energy's Advanced Research Projects Agency – Energy (ARPA-E)
- List vessel and processing plant decarbonization, efficiency, and energy solutions as a long-term goal in the Plan.
- Reduce emphasis on distribution in coastal Alaska, where sparse populations and geography in many cases make distribution economically unfeasible.
- Advocate for the exploration and establishment of public-private partnerships to bolster energy infrastructure.
- Offer guidelines on leveraging local, state, and federal funds for financing new renewable energy projects

We look forward to the opportunity to contribute to the meaningful discussions and actions of the Task Force.We appreciate your diligent work on a topic of extreme importance to all Alaskans. Thank you for your service to Alaska.

PUBLIC COMMENT # 28 from Bridget Maryott, Cook Inletkeeper

Responsible hydropower deployment means strongly considering how changes in water temperature, flow rate, and variability affect the abundance and genetic diversity of downstream fish populations, and prioritizing fisheries in the development and operation of projects. Any measure to promote hydropower– such as Action B-3.1 in the Oct. 3 draft (F-2.3 in the Oct. 20 draft), which includes revising AS 42.45.350 and creating a state fund and a public/private hydro development corporation – must have these priorities.

Excerpt: PUBLIC COMMENT # 29 from Kelsey Schober, The Nature Conservancy

Promotion of Energy Efficiency and Conversion Measures in Buildings

Actions: B-4.1, E-6.3

The mentioned report, Resilient Homes: Alaskans Building for Climate Change, contains information pertinent to building energy efficiency and fuel reduction measures in buildings across Alaska. This report specifically notes that these measures result in reduced cost burdens for households, additional opportunities for employment, and health benefits.

TNC-AK supports the implementation of Action B-4.1 to promote heat pumps as an alternative energy and heat source in coastal Alaska. We also support the Task Force in exploring successful case studies in order to further implementation in Alaska, as identified in Action B-4.1. The aforementioned report, Resilient Homes, identifies examples of residential heat pump integration by Tlingit-Haida Regional Housing Authority in Petersburg and Baranof Island Housing Authority in Sitka as two heat pump integration projects (see pg. 14). It

also identifies the installation of combination heat pump and solar array systems in Ambler as an example of deployment that utilizes integration as a way to address overall high energy costs (see pg. 14).

Given the additional identified risk of exceeding monthly PCE limits as a barrier that could slow adoption of heat pump technology in regions with high electricity costs (see pg. 2), we encourage the Task Force to take into account successful examples of deployment from across Alaska in order to ensure equitable rollout of any heat pump deployment-related efforts.

Additionally, TNC-AK supports the implementation of Action E-6.3 which seeks to increase availability of resources for weatherization, energy efficiency, and building retrofits. Energy efficiency and weatherization efforts from 2008 to 2018 under the Home Energy Rebate Program

(HERP) and weatherization programs translated into "a combined $444 million in residential energy savings over the decade" with participants of the program seeing an average annual savings of $1200-$1300 in their energy costs (pg. 14). As Alaskans face high energy costs and a high cost of living, savings from these programs is not only an economic boon but also supports community sustainability and resilience.

Thank you for your work to call attention to the importance of affordable and renewable energy for Alaskans. As supporting material, we are submitting the two reports referenced throughout these comments. We ask that the task force to review these supplementary materials to inform future development of the report and we encourage robust outreach to the public as the task force works to review and finalize this plan

PUBLIC COMMENT # 31 FROM Ky

I have the opportunity to review the draft Statewide Energy Master Plan. The task force does not appear to have delivered the initial plan required in May under the Executive Order, and it seems this plan is not on track to be completed by the end of October when the task force is set to sunset. I would appreciate an update on what is planned since this draft appears to be missing a substantial amount of what might be in the final plan, so it isn't easy to offer much in the way of comments. I do not want what I do offer considered comments on a final plan. I do not feel that what has been proposed in this draft is adequate for a master plan for the state.

Overall, it's clear the plan is nothing more than a restatement of current plans and policies of the state and offers little to change the trajectory of our energy use or supply or achieve any cost containment, much less cost reduction. (e.g. Redundancy is nice for transmission, but only increases capital carrying costs.) In fact, many sections are missing strategies and details or, offer lofty thoughts but little in tangible results, or recommend more AEA staff.

e.g. "...Benefits: The ability of the state to achieve a moonshot goal [emphasis added - what "moonshot"?] requires a coordinated effort across agencies and through all programs that intersect with the goal. The state can consider every program through the lens of lowering energy costs for Alaskans, and refine its approaches to achieve that end. Expected Results: [blank]..." page 57. or

e.g. "Strategies" B-1 to B4 that are not strategies but seem to be titles for a group of actions that follow.

Others seem to be self-serving plans by the AEA to add staff and take over control/ownership of transmission capability with the MLP-CEA-inspired dreams of buying out assets "at book value" to save money... I hope we

are not fooled twice with this shell game of refinancing our existing infrastructure and giving greater control to an agency with more than enough time and money to buy worthless oil leases.

Some sections seem to be just not connecting the dots, such as Priority areas A, which never mentions the planned demand on gas for a Donlin Mine (14" gas line from cook inlet), and then in A.3 suggests we need to increase demand in an area that has excess electrical generation capacity and a shortage of natural gas that we want to give away to a large industrial user. Why isn't the Donlin mine considered for lower-cost electricity and incentivizing them to ramp up the use of electric gas, returning their homes to electric head etc. (My home was initially heated with electricity on the hillside in the 70s. It is still installed and could pull electrical power today if there was an intelligent metering system to allow me to use excess electrical energy at a rate competitive with the potential cost of natural gas-supplied heating energy.

Another set of dots not connected is that we don't need a gas line AND the Wantana dam. Our plan should not be promoting more energy demand on one hand and then at the same time burdening us with fanciful expensive projects on the other hand that could lead us to even more excess production capacity and the capital burden of the projects. The plan reads more like a wish list for the construction industry than a thoughtful determination of a plan and hard decisions one what we should actually do next to address our energy needs.

And my list could go on, but I don't have time to start untangling this plan, particularly when it is clearly in a form that is not quite ready for public review with a strong and well-accepted set of goals and strategies to start with.

I'd suggest if the Task Force is extended that it back up and get clear on the goals of this plan rather than lots of fluffy words, including a goal to monitor and reduce Alaska's greenhouse gas emissions with specific targets rather than vague references and address the monster in the room of gas supplies in south-central. I'd also like to see a focus on engaging our youth and university on energy challenges, including the long-promoted but never-supported Alaska Energy Prize (Allan Johnston). Further, the plan should start with a number of objective goals and real targets, potentially tied to 4-5 scenarios for the Alaska's future.

The plan reads like a recipe to keep the gas line dream alive and to keep doing all the other work being done, and there is a lot of good work being done. It is well past time to set the pipeline aside and think about a state master energy plan without the line distracting us from the many other opportunities we have for energy and exports and see what it looks like. Or if you want to keep that dream alive, I'd build the master plan based on a set of scenarios that might be something like:

1. Gas Dreams - A gas line is built and running by 2035, perhaps with a bridge of imported gas... (that will never help our energy costs...)

2. Transformer - There is no gas pipeline and no sufficient supply of southcentral gas for the Anchorage or Donlin needs but instead, alternative energy systems, storage, and smart demand controls are used to accelerate a transformation for the railbelt and Donlin goes ?Nuclear? or uses an ammonia pipeline feed by the Alutians geothermal or Mightypipelines' proposal to bring blue ammonia down the existing TAPS line.

3. Slow Drain - Alaska continues to do nothing to invest in its economy and we have a declining population reliant on federal subsidies and stagnant/flat natural resource development.

4. Climate Winner - Alaska chooses to think and act like a potential climate change winner and make 10c power a reality and invests in being a global leader in energy systems and economic transformation (See Calgary and Iceland examples).

5. 1987 - Disaster strikes and the oil industry collapses in the next 10 years, while the federal funding drys up due to deficits and conservative politics.

If you'd like help witThe current plan offers nothing of a "master plan", but I agree one is needed, and the remarkable work at ACEP, the H2 and CCUS working groups, RPS legislation, the meetings this week in Iceland on energy transformations, the national energy hubs all point the way to amazing future if we choose to create a plan to move in that direction vs. keep the status quo, give AEA more control, and hope someone will buy our gas.h scenario planning, let me know!

ENERGY PRIORITY C. RURAL GENERATION, DISTRIBUTION AND STORAGE PUBLIC COMMENT

Public Comment #2 from Joel Groves, Polarconsult Alaska, Inc.

I've reviewed minutes for the the Energy Security Task Force's April 25th meeting. In contemplating the magnitude of the Governor's charge and resultant impacts to the state's energy infrastructure / industry, it occurs to me that low-power HVDC / MVDC (high-voltage / medium voltage direct current) electric transmission technology that was advanced by an R&D project that the Denali Commission funded, ACEP managed, and Polarconsult performed about a decade ago merits consideration by the Task Force.

I think any practical path to achieving 10-cent energy in our villages will need to include (a) increased subsidy beyond PCE and/or (b) significant transmission build to achieve economies of scale and consolidate operations. This is not to exclude the importance of other significant contributing efforts such as local energy solutions, but it is hard to see how the 10-cent goal is achieved absent major subsidy and/or transmission components. If transmission is to be part of the solution, HVDC / MVDC should be part of the transmission discussion as it holds significant promise as a lower-cost solution for interties between rural Alaska communities and / or the Railbelt bulk electric system and rural communities.

Relevant take aways from the Denali Commission-funded R&D project that pertain here include:

1. Low power (500 kW to 5 MW) HVDC / MVDC transmission in remote AK applications holds promise to be more economic than conventional AC tie lines for lines over ~20 miles in length. 20 miles does not get you very far in Bush Alaska.
2. The basic technology is not a barrier to this solution. Suitable commercial converters are probably still not commercially available but they could be developed with capital commitment for R&D - either from government or private investment depending on the market potential / interest.
3. Adapting low power HVDC / MVDC to conform with telecom submarine cable manufacturing practices / capabilities would be a key innovation that holds promise to reduce the capital / installed cost of low-power HVDC / MVDC submarine cables. This is because the comm sub cable manufacturing and installation industry is larger than the power sub cable industry, and offers lower costs. If successful this effort could have profound implications for the economic viability of low-power village interties in southeast Alaska and other coastal regions of our state. Dual-purpose cables (power transmission and broadband fiber) is an obvious synergistic opportunity here.
4. Principal barriers to low power HVDC / MVDC implementation are:
    a. Regulatory. National codes adopted by the state and managed by the DOL do not anticipate the unique conditions of remote AK and do not allow elements of HVDC / MVDC installations that would maximize tie line economics. The principal issue here was the "single wire ground return" operational mode of monopolar DC circuits.
    b. Industry. The electric utility industry is conservative by nature and advancing this technology from R&D to commercially accepted and financeable (RUS financing vehicles, etc.) merits scrutiny and a holistic strategy / roadmap to success. A robust supply chain for manufacture / life-cycle support of the power converters is a key need as well.
    c. Advocacy. An appropriate advocate within the utility or state realm needs to be identified if the potential benefits of HVDC / MVDC are to be realized. This Task Force seems well-positioned to identify that advocate and facilitate it being charged with the appropriate mission.

I was Polarconsult's project manager for the prior HVDC R&D project and am available to answer questions about that prior effort. Robert Venables and Gwen Holdman are both current task force members with some direct knowledge of the prior HVDC R&D project.

I've also copied Bill Stamm on this email for general awareness as AVEC was a key supporter of the prior HVDC effort back in the Meera Kohler / Brent Petrie days. Also AVEC perhaps best-understands the economic benefits of village tie-lines generally.

Details on the prior project are available at: http://energy-alaska.wikidot.com/high-voltage-direct-current-transmission

Public Comment #4 from Katya Karankevich, Alaska Native Health Consortium

I am writing to express support with your draft as it relates to rural initiatives. We most desperately need state financial match in the form of 20-50% so that we can harness the federal dollars for remote communities. Action C-1.1 and C-1.3 are very important. But C-1.2: "developing public/private partnerships for financing" has not ever produced results and will likely never produce results for the vast majority of remote communities. This point should be removed or restated. The factors that make private capital interested in infrastructure projects is generally a financial environment that rural Alaska does not meet. The energy projects that are cost effective at such a small scale usually save as much over their lifetime as they cost, giving them a cost benefit ratio of around 1. This would be a 3% return on a lifetime of a project, given a 25 year life like in the case for solar systems. Returns under 10% do not interest private capital investors, as local private capital sources have told me that they don't choose projects below 14% annual returns. Even the state revolving loan fund is at 6.25% currently. Our investment in making remote community's power more affordable will not come from private capital. The returns are too low and the performance risk is too high compared to larger scale projects on the railbelt. To put effort into finding funding partnerships with funders who want these expected returns will be wasted effort. More effort should be put on local match sources, forgivable loans and state derived match sources, which unlock millions more than they cost in federal dollars.

In our statewide work lowering the costs of providing water and sewer to remote communities through energy projects, we have experienced these hurdles acutely. Please let us know if there is another version of this document that we could provide input on.

Excerpt: Public Comment #6 from John Neary, Juneau, Alaska

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers….

You also recommend (pg. 67) the state create and distribute community outreach and education programs to promote extractive energy projects in rural areas. This program would research how projects "have successfully navigated opposition mounted by local communities and environmental NGOs." What an unfortunate and divisive use of words to describe legitimate opposition to certain projects, and the state should not position itself to deliver what seems like corporate messaging.

Excerpt: Public Comment #11 from Mary Burtness

Workforce development is a necessary component for future jobs that will keep our youth in the state, as well as re-tool the fossil fuel industry workforce.

Excerpt: Public Comment #6 from Connie Markis, Anchorage, Alaska

It's also encouraging to see you support training to grow the renewable energy workforce (pg. 67, 77, and 110). This is really needed here in Juneau where heat pump installations have been unnecessarily delayed due to a lack of skilled workers….

You also recommend (pg. 67) the state create and distribute community outreach and education programs to promote extractive energy projects in rural areas. This program would research how projects "have successfully navigated opposition mounted by local communities and environmental NGOs." What an unfortunate and divisive use of words to describe legitimate opposition to certain projects, and the state should not position itself to deliver what seems like corporate messaging.

Public Comment #22 from Chris Rose, REAP

Priority C: Rural Generation, Distribution and Storage

1) REAP believes there should be more of an emphasis on lowering costs through energy efficiency programs, incentives and subsidies
2) Another important way to reduce energy costs in rural Alaska is by reducing operations, repair and maintenance costs, and REAP supports state investments in workforce training and local capacity building to ensure that projects are fuel efficient, and have high availability rates.

Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

Action C-3.3, a "community outreach and education program to combat NIMBYism in energy projects in rural areas" is an activity that the state should not subject its citizens to or spend its resources on. Studying and imitating the tactics of projects "that have successfully navigated opposition mounted by local communities and environmental NGOs," as recommended in Appendix II is neither an appropriate activity for the state nor an impactful solution for our energy problems. Community engagement and power in difficult decisions -- such as the hydropower or mining activities specifically mentioned in association with this action in Appendix II -- is a necessary function of civil society in a democracy. The urge to "combat" it with state-delivered propaganda is a fundamentally authoritarian one that has no place in any plan in Alaska.

PUBLIC COMMENT # 24 from Tim Hinterberger, Anchorage, AK

Thank you for this opportunity to comment on the Alaska Energy Security Task Force Statewide Energy Master Plan. I'm sure my thoughts align with those of many other concerned citizens you're hearing from. The draft plan contains both proposals that are highly beneficial to the energy future of Alaska and ones that should be avoided.

TO AVOID

5. Community outreach and education programs to promote extractive energy projects in rural areas are not an appropriate part of an unbiased, science-based energy policy.

HIGHLY BENEFICIAL

1. Renewable Portfolio Standards (RPS) will be a strong motivator for Alaska utilities to invest in clean energy.
2. Green Bank state financing institution for sustainable energy as considered in SB 125 and HB 154.
3. Making better use of already existing energy data to guide decisions with a full and consistent picture of how Alaska uses energy, and better equip utilities, agencies, and power producers to seek federal funding (pg. 31, 106-108).
4. "Postage stamp" transmission rates that would allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate.
5. Net metering reform (pg. 52, pg. 101).
6. Training the growing renewable energy workforce (pg. 67, 77, and 110).

The Task Force has an enormous responsibility not only for the future of Alaska, but for all the occupants of the planet. I urge you to take an extremely long view and to think about what we owe to the many generations that will follow us.

Public Comment #26 from Study of Environmental Arctic Change (SEARCH)

The Study of Environmental Arctic Change (SEARCH) is a collaboration of Indigenous Knowledge holders, scientists, and public and private decision makers with the goal to provide a deeper understanding and inform decisions related to the drivers and consequences of environmental Arctic change. These consequences include the impacts of environmental changes on human-well-being, as well as on international collaboration and economic decision making. This collaboration is funded by the U.S. National Science Foundation and more information can be found at www.searcharcticscience.org.

Increasing energy security, affordability, and reliability for every Alaskan is a critical priority for the entire state, but those goals remain particularly difficult to achieve for any rural, remote or coastal community not connected to the Railbelt Grid or near locally sourced hydroelectric power. These communities continue to primarily rely on economically and environmentally costly diesel generation. This dependency severely limits these communities' ability to have secure and affordable heat and power, and exposes the individual community, and the state more broadly, to a multitude of compounding and cascading environmental hazards.

Our co-produced comments integrate perspectives and examples from Indigenous Knowledge holders, scientists, and public and private decision makers. We focus on the sections of this draft Energy Master Plan that relate to rural communities now relying on Power Cost Equalization (PCE) to help make residential electricity rates affordable, but many of our comments apply more broadly to energy systems throughout the state.

Comment 1: Definitions need to be revised.

The Draft Plan broadly groups the state's energy Priorities, Strategies, and Actions by Railbelt, Coastal, and Rural areas. However, many of the state's most challenged communities are both rural and coastal. Rural coastal communities in many parts of the state experience double jeopardy: they face the same energy affordability challenges that most off-grid communities face, but their energy infrastructure is also experiencing severe environmental damage due to permafrost thaw, coastal erosion, and increased exposure to wave and sea spray.

The term Rural is defined differently at federal, state, and local levels, and within specific programs, and it is important that the Plan provide a broad definition of the term, particularly given that it recommends policy changes at all levels of government.

Recommendation: Given these different conditions, we encourage the Task Force to recognize the three different types of energy conditions in Alaska as Railbelt, and two rural situations as Coastal non-PCE, and PCE communities. It is important to make clear that the current "coastal" definition is only for developed coastal communities with existing access to resilient energy infrastructure and renewable generation sources (e.g., hydropower).

Comment 2: Electricity generated by renewable sources (wind, solar) is less costly, more reliable, and more secure than diesel-powered electricity.

The stated aim of this Energy Master Plan is to ensure that energy for all Alaskans, including those in PCE communities, is affordable, secure, and reliable. While the Railbelt section, and to a lesser extent the Coastal section, emphasize the need to diversify power generation sources and to provide economic incentives for reducing both residential and business energy costs, no such considerations are provided for existing PCE communities. The Plan needs to consider a nondiesel energy future for PCE communities so they too can have affordable, secure, and reliable energy.

There are clear advantages for renewables over diesel power for each of the Plan's three goals (please also see the diagram at the end of this letter).

Security. Diesel fuel is subject to both the variability of commodity pricing and the vulnerability of Alaska's complex supply-chain. Locally-sited renewables and power storage (e.g., batteries) are inherently more secure. Fuel storage, generation and transmission infrastructure is increasingly vulnerable to climate related environmental risks such as wildfire, flooding, erosion, permafrost thaw, wind storms, ocean spray, fallen lines from heavy or freezing rain in winter, and permafrost thaw. Transmission lines that span long distances are costly to install and maintain, and may expose communities to increased energy insecurity due to changing environmental conditions.

Savoonga provides a case study. Fuel is primarily provided to Savoonga via barge. Barge service, however, is limited by weather and ocean conditions, including when shorefast ice is present in winter during which time barges cannot be used at all. Fuel is airlifted into Savoonga when barge service is not possible. This method, though, is similarly limited by weather as, among other concerns, Savoonga (like many other remote Alaskan villages) does not have multidirectional runways. Naturally, airlifted fuel is more expensive than fuel transported by barge. Just this autumn 2023, there was a plan to airlift several thousand gallons of fuel to keep

Savoonga's airport garage operable. Despite the need, however, the $19-per-gallon price of airlifted fuel led to the plan not receiving approval. Similarly, when Savoonga's local store ran out of gas, fuel was airlifted in, nearly tripling the price.

Loss of power on all scales is a security risk for rural Alaskan communities. For example, many communities (such as Chevak) are required to travel dozens of miles for wood to fuel wood stoves. These necessary labors, which often only yield minimal amounts of firewood, further increase communities' reliance on diesel energy, thereby exacerbating insecurity.

Reliability. Most rural communities in Alaska lack redundancy in their power generation infrastructure. If diesel fuel becomes unavailable due to supply-chain issues, or power generators fail, rural communities lack the redundancy and diversity that most urban communities have. Locally sourced renewables like wind and solar can provide power independently, and rapid advances in storage technology will help increase redundancy and reliability by diversifying energy sources. Rapid advances in electricity storage technologies are reducing the need for backup power generation, but diesel generation capacity is still necessary in many parts of the state to backup renewables.

See also: https://alaskapublic.org/2020/03/19/village-of-savoonga-contends-with-power-outageas-region-is-hit-with-heavy-storms/

Affordability. The high cost of diesel in rural Alaska results mainly from long transport distances (i.e., no local sources), and although the market for diesel is competitive the requisite barge service to rural communities is not. This problem is compounded by unpredictable and volatile markets, which is an energy security problem. Locally-sourced renewables help alleviate these problems and provide lower-cost energy once established. Because of the way electricity prices are regulated by the RCA, the regulated price of electricity generated by renewables may be higher for an initial startup period (1-3 years), although the long-term cost is lower.

Current state policy associated with PCE, given the way that utilities are regulated by the Regulatory Commission of Alaska (RCA), prevents utilities that invest in renewable power from receiving PCE subsidies for any return on their initial equity investment. Because renewable sources typically have much higher initial capital costs, but much lower operating costs that are eligible for PCE assistance, this amounts to a crippling disincentive for moving to renewable power. The argument that the short-term cost of renewables is higher than diesel is like saying buying a house is more costly than renting, even when your monthly mortgage payment would be lower than the rent. However, this current policy can be changed, without compromising the objectives of the PCE program.

In some communities, existing renewables do not adequately serve as backup energy sources. In Savoonga, a majority of the power generated by their two wind turbines is being used to offset the costs of the community's power generators.

Additionally, businesses and service providers in PCE communities do not have access to PCE payments and consequently continue to suffer increasingly unaffordable energy until there is an investment made in truly affordable power generation.

Recommendation: Transition to renewable energy sources is the most robust energy strategy, especially for PCE communities, and needs to be prioritized. To help support this transition, PCE statutes should be revisited to allow for a fair rate of return on capital investments targeted at bringing renewable power generation infrastructure online, reducing the reliance on diesel fuels, and lowering the necessity for equalization subsidies in the longer term.

Comment 3: Risks to community energy infrastructure are increasing, and will continue to increase without diversified alternative energy sources that provide redundancy, storage, and reliable backups.

Diminishing sea ice is increasing coastal erosion and the changing climate is raising precipitation levels - both snow and rain - in other areas of the state. Flooding, snowfall and freezing rain can directly impact transmission lines and cause power outages. Recently, for example, areas of the Fairbanks North Star Borough suffered extended power outages due to downed transmission lines.

The isolation of many northern Alaskan communities further increases their vulnerability to weather-related energy disruptions. Many of these communities do not have the resources (especially linemen) in village to repair energy infrastructure following outages. Often, outages are caused by storms which then delays linemen and resources being flown in, thereby prolonging outages. Linemen for rural Alaskan communities do not live in the communities in which they work, instead traveling to dozens of villages when their services are needed. This prolongs outages and delays repairs. For example, earlier this year, a storm affected 20 homes, the preschool, and tribal offices in Savoonga. While Savoonga does have certified electricians, there are no linemen in the community. In this case, it took two days for the lineman to come in and for power to be restored.

In Savoonga, the last few years have seen high winds affecting the power plant with the community experiencing unscheduled power outages from strong winds and precipitation during the winter. Similarly, permafrost thaw in Savoonga causes energy setbacks by shifting transmission poles. Maintenance resources, however, are limited, meaning that once workers fix poles in one community, the poles have moved again before they are able to return.

Recommendation: The Draft Plan should explicitly consider the increased vulnerabilities Alaska's energy infrastructure will be facing due to weather-related hazards, especially for communities in northern areas. This will require a focus on diversifying energy sources within local systems and grids, to include incorporating battery backup and storage, and other emerging technologies. Such an approach will not only make energy more reliable and secure, but also more affordable than being dependent on the supply of diesel via barge and storage in fuel tank farms vulnerable to coastal erosion and permafrost thaw.

Comment 4: This plan does not adequately consider the needs of non-residential energy users in PCE communities.

A stated goal of the Plan is to make energy more affordable to drive economic growth, yet current regulations for PCE inhibit that in a variety of ways. The regulations stifle business and commercial enterprise, and they restrict many aspects of overall development that contribute to and support human wellbeing and economic prosperity. For example, diesel power is very expensive for transportation services such as airport and freight

operations, and for municipal infrastructure such as water, sewer, and broadband internet. The high cost of diesel energy also makes the operation of medical and educational facilities more difficult.

Recommendation: PCE as currently operated reduces the energy cost for residential users; it does not do the same for businesses and commercial facilities. Reduced cost for reliable energy in these communities, however, is needed to support economic growth. While we understand the safeguards against misuse by power companies from this policy, we recommend that PCE statues be revisited to support community assets including small businesses and commercial enterprises.

Comment 5: The current process that created this Draft Statewide Energy Master Plan has not adequately considered the energy security, affordability, and reliability of PCE communities.

As noted, and as evident from the brevity and content of the Rural Section of the Plan, this process has not adequately considered the current conditions, limitations, and options for PCE communities, nor has it adequately consulted with PCE community members. As such, many of the proposed strategies fail to address their energy security, affordability, and reliability realities and future needs. These realities all need active strategies to transition to renewable energy sources, to allow PCE to support capital investments for renewable and weather-resilient energy infrastructure, and to receive direct input from PCE communities from the beginning stages of these planning efforts.

Recommendation: We recommend substantial in-person consultation with PCE communities prior to finalization and implementation of the plan. Without such input the Plan as drafted cannot achieve energy affordability, reliability, security, and equity for rural Alaskans living in PCE communities.

We appreciate the opportunity to comment on this Draft Plan and look forward to seeing how these comments will be reflected in the final draft version. We are certain of our agreement with your Task Force that creating a new Statewide Energy Master Plan is a tremendous opportunity to transition the State to a more robust, reliable, affordable, and environmentally responsible energy infrastructure. As has been shown in many other regions and states, these goals are best met by transitioning to renewable energy sources and supporting its transmission, storage, and use. This will directly benefit Alaskans while simultaneously establishing Alaska as a leader in our urgent national and global need to reduce, prevent, and mitigate the increasing environmental hazards many of our residents are experiencing, especially as they relate to affordable power.

Excerpt: PUBLIC COMMENT # 33 from George Donart, Anchorage

STRATEGY C-3.3 Create and implement a community outreach and education program to combat NIMBYism in energy projects in rural areas - Simply put, this strategy needs to be changed substantially by dropping the "to combat NIMBYism in energy projects in rural areas" focus. Community members - all residents of the state of Alaska - should be involved early on in permitting and citing decisions, and they need to be listened to. People living in Alaska love the land they live on; the state must respect its citizens and should not be running a propaganda operation or trying to pit Alaskans against each other. PRIORITY C Rural Generation, Distribution, and Storage This section of the Plan seems particularly weak. Though there are some decent, action-sounding strategies and actions, most were undeveloped in the appendices. Also, I'd like to suggest setting an Action of

investment and research into standardizing technology for "diesel-off" operations during extended periods of low load and/or high renewable output in small rural communities.

PUBLIC COMMENT # 34 FROM Tom Atkinson, Kotzebue Electric

My name is Tom Atkinson. I am the General Manager / CEO of the Kotzebue Electric Association a Rural electrical cooperative located in Kotzebue, Alaska. Our power is 70% diesel generated and 30% renewables generated.

Priority "C" for Rural Generation, Distribution, and Storage. We need more capital and investment. KEA has several shovel ready renewable energy projects. If funding were available, it would take us from 30% to 50% renewable energy. We need to up fund the Renewable Energy Fund which allows us to seek funding in a less competitive arena.

Increasing renewable energy will lower operational costs. The required maintenance is much less with renewable energy than with diesel generation. Development of more renewable energy will displace more diesel which is the greatest annual cost to our cooperative.

The greatest economic burden in our community is using diesel for home heating. Development of renewables will allow us to use electricity to heat our homes at a much-reduced cost. This creates the greatest economy of scale by using clean energy for most of our power needs.

KEA has a close relationship with the Alaska Center for Energy and Power. They are working on projects with KEA that will help us with data to make the best decisions for energy generation.

We are working with other entities on a regional energy plan, but the distance between communities in this region makes shared and/or connected infrastructure unfeasible at present.

Priority "E" Incentives and Subsidies. The PCE is not a subsidy. The PCE is a negotiated agreement. We ask that we not be penalized for our development of renewable energy by making energy created with it not eligible for PCE. You are de-incentivizing the development of renewable energy by not giving PCE credit for renewable energy that cooperatives create.

PUBLIC COMMENT # 37 from Matt Bergan

Below are my comments on the October 20, 2023 draft document pertaining to Priority C. "RURAL GENERATION, DISTRIBUTION, AND STORAGE":

1. Energy is not just electricity! The title and "Introduction" (pg.55) appear to only be concerned about electricity in terms of energy. Due to the regulatory requirements of electricity for most communities the costs of electricity are well documented. However, a more significant cost burden for Rural Alaska is thermal/heating from diesel fuel (stove oil). Diesel fuel in Alaska is unregulated and subject to market conditions that tend be dominated by monopolies in Rural Alaska. An average home in Kotzebue pays 3-5 times more for stove oil annually than electricity. If a goal of the Energy Security task for is to reduce the cost of energy, there is low hanging fruit to look at in the Rural AK stove oil supply chain. Natural gas is regulated; could stove oil pricing

be regulated to provide heating energy at an affordable rate? Kotzebue is $8/gal but many of the surrounding villages are over $10/gallon.

2. Strategy C1 should consider reinstating the "Middle Earth" seismic and well tax credits to encourage development of local natural gas resources that may be available in Rural AK.

3. Strategy C-2.4 should include stove oil to read: "...demonstrate a regional approach to supplying affordable and reliable (stove oil / heat) and power to multiple communities."

4. Strategy C-2.8 should call out local natural gas and hydrogen specifically in addition to micronuclear.

5. Strategy C3 in the "Purpose" sentence should include "heat/stove oil" along with "power/electricity".

6. Strategy C4. This strategy is relating mostly to electricity and ignores the heating cost burden of stove oil in Rural AK. If more electric load is needed to increase the kWh sales just convert all heating to electric heating (no more stove oil) and increase PCE to roughly 3000-5000 kWh per month.... just an idea...

7. Strategy C5. C-5.1 should also collect data related to cost of stove oil at the bulk and retail levels. Gasoline prices could also be collected.

I have also included some comments on Appendix II for Priority C.

1. Action C-2.1... Community water/sewer infrastructure energy needs (which are significant) should be included in the regional planning approach.

2. Action C-2.4 should include heating/thermal/stove oil in addition to power.

3. Action C-2.8 should name local natural gas resources and hydrogen in addition to micronuclear.

4. Action C-5.1 should also examine the costs of heating in Rural AK. The cost of stove oil is the primary driver.

This a good document that will hopefully help lead to an exit from "energy poverty" in Rural AK...

ENERGY PRIORITY D. STATE ENERGY DATA PUBLIC COMMENT

Excerpt: Public Comment #6 from John Neary, Juneau, Alaska

Your draft plan also suggests making better use of existing energy data which is scattered, sporadic, and inconsistent. Better organizing it could also help utilities, agencies, and power producers seek federal funding.

Excerpt: Public Comment #13 from Connie Markis, Anchorage, Alaska

Your draft plan also suggests making better use of existing energy data which is scattered, sporadic, and inconsistent. Better organizing it could also help utilities, agencies, and power producers seek federal funding.

Public Comment #22 from Chris Rose, REAP

Priority D: State Energy Data

1) REAP agrees that better data acquisition, analysis and sharing is one key to the success of future energy projects in Alaska. REAP believes the state should invest in ensuring that that data is centrally located and managed to make it useful. Without measuring current energy projects, it will be much more difficult to improve and optimize them over time, or to build projects that are based on past learnings. This investment could include mandatory instrumentation of all projects funded by the state through the Renewable Energy Fund (and other sources) to collect and deliver data for a period of at least 10 years. REAP also agrees that it is in the state's best interest to improve data acquisition, coordination, analysis and sharing among other energy related programs and agencies of the state, including the RCA and PCE. Finally, REAP supports a statutory requirement to annually update the Alaska Energy Statistics report.

Excerpt: PUBLIC COMMENT # 33 from George Donart, Anchorage

ACTION C-4.1 Identify Economies of Scope/Scale to Provide Multi-Benefit Utility Projects - AND ACTION C-4.2 Identify Energy Anchor Tenants to Provide Economy of Scale for Rural Communities - Again, these two actions seem to be putting a large cart before the horse. These are 2 of the few Plan actions in Priority C with any description at all. These actions, and a lack of detail for other Plan actions, appear to prioritize large industrial sites over the needs of rural Alaskans, perhaps holding rural communities hostage until large development operations begin.

ENERGY PRIORITY E. INCENTIVES AND SUBSIDIES PUBLIC COMMENT

Excerpt: Public Comment #6 from John Neary, Juneau, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.

It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Please also support a pair of Renewable Portfolio Standards (RPS) bills currently in front of the state legislature to require Railbelt utilities to become 80% renewable by 2040. It's great that your draft plan calls for the adoption of an RPS but please don't recommend a weakened Clean Energy Standard (pg. 89) that could include loopholes such as counting waste heat recovered from gas turbines as "clean."

Your recommendation to allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate, analogous to a stamp on a letter, is a very good idea and worthy of support.

Excerpt: Public Comment #8 from Zach Brown, Standford University, Living & Working on Traditional Tlingit lands of Huna Knaaw

Thank you for your hard work in creating a Master Plan for meeting Alaska's statewide energy needs.

I applaud your inclusion of a Renewable Portfolio Standard for Alaska's electricity generation, a Green Bank (aka Alaska Energy Independence Fund), net metering reforms, and workforce development investments…

The only way for Alaska, and America, to achieve true energy independence is to use our abundant renewable energy resources, and end the fossil fuel era. Fossil fuels go on a globalized commodity market over which Alaskans have virtually no control – being dependent on fossil fuels for energy and for revenue leaves us at the whims of petro-dictators like Vladimir Putin and Saudi Princes.

Thank you for your consideration. Please push Alaska toward our energy future, not our energy past!

Excerpt: Public Comment #10 from June Okada, Susitna River Coalition

Re: E-2.3 Adopt a Renewable Portfolio Standard (RPS) (pg. 73)

The SRC supports passing the RPS. This bill would enhance energy security, reduce fuel prices, and promote local job growth. According to a new National Renewable Energy Laboratory (NREL) economic wind study,, we can achieve 78% renewables by 2040 by relying solely on new solar and wind infrastructure and no large-hydro projects. We support the RPS over the Clean Energy Standard (CES). This watered-down version of the bill includes unproven technologies such as carbon-capture, and waste heat recovery, which is already widely generated by utilities and relies on natural gas.

Excerpt: Public Comment #11 from Mary Burtness

First off I am in favor of moving away from an increase fossil fuel dependency. This plan should consider the move towards renewables in an orderly and timely manner. It is the future, and although our state depends on fossil fuels, we do not need to be using them here in this polar region, where the impact of the climate change is happening here faster than anywhere else

I believe at CES is not going to move us in that direction. We need at Renewable Portfolio standard to give us a road map to take advantage of the cost effectiveness future of renewables…

…I am very glad you are including a Green Bank to help expedite financing renewable projects.

Workforce development is a necessary component for future jobs that will keep our youth in the state, as well as re-tool the fossil fuel industry workforce.

Public Comment #12 from Pamela Hays, Cindy Atcheson, Katie Tongue, Kelsey Shields and Laura Rhyner, Kenai Peninsula, Alaska

We the undersigned are writing regarding the Statewide Energy Master Plan.

We are a group of Alaskans from communities across the Kenai Peninsula who care deeply about our state. We look forward to a future in which the pollution of our air, water, and land has stopped.

As you know, Hilcorp is not renewing any of its contracts with our electric utility Homer Electric Association. Given the dwindling supply of oil and gas, it only makes sense that the state increase investment in alternative energy sources. Affordable energy options would benefit many Alaskans, as would training and jobs in the alternative energy sector. We strongly support clean energy alternatives and encourage you to do so too.

Excerpt: Public Comment #13 from Connie Markis, Anchorage, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.

It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Please also support a pair of Renewable Portfolio Standards (RPS) bills currently in front of the state legislature to require Railbelt utilities to become 80% renewable by 2040. It's great that your draft plan calls for the adoption of an RPS but please don't recommend a weakened Clean Energy Standard (pg. 89) that could include loopholes such as counting waste heat recovered from gas turbines as "clean."

Your recommendation to allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate, analogous to a stamp on a letter, is a very good idea and worthy of support.

Public Comment #14 from Terry Johnson, Anchorage, Alaska

I recently moved from Massachusetts to Anchorage and am shocked and surprised that Anchorage's future energy needs are at risk. We need a comprehensive plan to meet our short term and long term energy goals using renewables as much as possible. Thank you.

Excerpt: Public Comment #16

Thank you for taking the time to read my comments concerning the proposed Statewide Energy Master Plan for Alaska.

There are number of provisions in this document that are amazing.

Please continue to support a Renewable Portfolio Standard, not a Clean Energy Standard (which is a misleading and inaccurate name).

Public Comment #21 from Joel

Hi, my comment is to think global and act local, i.e. to align the overall goal of the plan with the Paris agreement and UN Sustainable Development Goals. I can provide more detail if needed. Thanks for your time and consideration in this planning process!

Public Comment #22 from Chris Rose, REAP

Priority E: Incentives and Subsidies

1) REAP believes the disparities in power costs can be alleviated with heavy investments in energy efficiency. This can be done through state and federal grants, as well as through affordable loans from a proposed state green bank.
2) PCE rules should be aligned with the Renewable Energy Fund so that communities with successful renewable energy projects are not penalized through lower PCE subsidies.
3) REAP supports the establishment of a "new and improved" Emerging Energy Technology Fund (EETF). There are many new energy technologies being researched and developed today that could benefit Alaska, especially in rural communities where energy costs are so high. Subsidizing technologies that are not yet commercial, but could be within five years, could be a sound state investment if done thoughtfully.

Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

II. Omissions & Further Considerations

The Railbelt-relevant sections of the plan have an unwarranted and glaring omission: there is no explicit mention in the Oct. 3 draft of the Railbelt Reliability Council (RRC) or its own ongoing Integrated Regional Planning (IRP) process, and only passing mention in the Oct. 20 draft without real consideration. The RRC's IRP is an open and transparent effort to evaluate with depth and technical rigor the best energy options for the Railbelt. Moreover, the RRC was established with particular safeguards 2 to ensure that directors act independently from users, owners, and operators of the Railbelt grid; there is reasonable notice and opportunity for public comment, due process, openness, and balancing of stakeholder interests; avoidance of undue amplification or attenuation of stakeholder interests; and consideration of whether certain stakeholder class members stand to profit from construction of new facilities used to provide electrical service, among other protections—directly in contrast to the creation of the Task Force, which is largely composed of similarly situated private industry members or state agencies but not consumer or environmental interests as in the RRC. The legislature mandated that an Electrical Reliability Organization carry out the IRP process in SB123, and in 2022 the Regulatory Commission of Alaska certified the RRC as the organization to do it.

In creating the IRP, the RRC would compare the economic trade offs of different options for meeting our transmission and generation needs -- an already-existing mechanism that could avoid the danger of bad investments being made in an absence of public oversight. In contrast, the draft Statewide Energy Plan was

created through an opaque and politically influenced process and contains particular actions that risk spending public resources on poorly conceived energy projects if no transparency and accountability measures are included or are simply performative. Action B-1.4, which would create a transmission fund within the Alaska Energy Authority; B-3.1, which calls for, among other things, a public/private hydropower investment 2 AS 42.05.765; 3 AAC 46.060. fund; E-5.1 and E-5.4, creating an energy incentive program; and E-5.5, creating tax exemptions for generation and transmission investors; all require definite mechanisms for public transparency.

In the Oct. 20 draft, the existence of the RRC IRP is mentioned in Action F-3.4, which only notes that the process may take several years and recommends the RCA review time considerations. F-3.5 recommends modifying a section of the RRC's underlying statute, AS 42.05.760, "to ensure alignment with unified Railbelt transmission authority." It does not specify how the current RRC is misaligned or incompatible with unified transmission.

PUBLIC COMMENT # 24 from Tim Hinterberger, Anchorage, AK

Thank you for this opportunity to comment on the Alaska Energy Security Task Force Statewide Energy Master Plan. I'm sure my thoughts align with those of many other concerned citizens you're hearing from. The draft plan contains both proposals that are highly beneficial to the energy future of Alaska and ones that should be avoided.

HIGHLY BENEFICIAL

7. Renewable Portfolio Standards (RPS) will be a strong motivator for Alaska utilities to invest in clean energy.
8. Green Bank state financing institution for sustainable energy as considered in SB 125 and HB 154.
9. Making better use of already existing energy data to guide decisions with a full and consistent picture of how Alaska uses energy, and better equip utilities, agencies, and power producers to seek federal funding (pg. 31, 106-108).
10. "Postage stamp" transmission rates that would allow power generated anywhere in the region to be consumed anywhere else for a single transmission rate.
11. Net metering reform (pg. 52, pg. 101).
12. Training the growing renewable energy workforce (pg. 67, 77, and 110).

The Task Force has an enormous responsibility not only for the future of Alaska, but for all the occupants of the planet. I urge you to take an extremely long view and to think about what we owe to the many generations that will follow us.

PUBLIC COMMENT # 29 from Kelsey Schober, The Nature Conservancy

The Nature Conservancy in Alaska (TNC-AK) is encouraged to see a draft of the Statewide Energy Master Plan, a plan to find ways to lower power costs and ensure electric reliability across the state in the coming decades, available for public comment. Within this draft plan, we are pleased by the focus on renewable energy in pursuing a vision for a secure and affordable energy future for Alaskans.

On average, Alaskans currently pay about 23 cents per kWh for electricity. The draft plan outlines a goal to harness the vast resources in our state to reduce the price of electricity in Alaska to 10 cents per kilowatt hour (kWh) by 2030. From the perspective of TNC-AK, highlights of this draft plan include the policy recommendation to develop and sustain renewable energy efforts throughout the state, the proposal to establish a green bank, and the promotion of use of heat pumps in individual communities. As such, we have organized our comments under these three general areas of focus, with specific attention given to actions we support.

Develop and Sustain Renewable Energy Development Efforts

Actions: A-2.1, E-2.3

In July 2021, McKinley Research Group (formerly McDowell Group) prepared a report entitled Alaska's Renewable Energy Economy: Progress and Possibility for TNC-AK. This report reviews the status of renewable energy deployment across Alaska while highlighting the increasing opportunities presented by renewable energy in our state. Notable impacts from investing in these opportunities include reduced energy costs for consumers, job creation, and increased community resilience.

TNC-AK supports the adoption of incentives to facilitate reaching energy diversification goals. An overall increase in adoption of renewable energy will create substantial benefits for communities and people across Alaska. For additional material highlighting the economic opportunities created by renewable energy adoption, please refer to the aforementioned report.

Establishing Entity to Finance Community-Scale Energy Efficiency

Action: E-4.3

In September 2021, McKinley Research Group (formerly McDowell Group) prepared a report entitled Resilient Homes: Alaskans Building for Climate Change for TNC-AK. This report summarizes the relationship between energy efficiency investments and cost savings. Notably, it specifically states that a financing mechanism like a green bank "would be the most

comprehensive way to make financing available statewide" for sustainable energy deployment, with "[s]tate and federal efforts to capitalize the institution" being critical to this effort (pg. 21).

TNC-AK supports the creation of a green bank entity to finance community-scale energy efficiency. Between 2010 and 2020, more than $750 million in public and private investments were made across Alaska for sustainable energy efficiency, integration, and deployment – with Alaska Housing Finance Corporation (AHFC) playing a substantial role in facilitating the State's investment in many of these programs, particularly at the residential level. Establishing a financing mechanism like a green bank with the AHFC as the lead would build off their record of success in deploying sustainable energy development programs. As well, it could allow the State to leverage funding and economic opportunities created by the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) pertaining to the financing of clean energy and technology.

Historically, energy efficiency investments in Alaska have resulted in an estimated $444 million reduction in residential energy savings and $320 million in health and safety benefits between 2008 and 2018, as well as

increased employment opportunities due to the deployment of energy efficiency programs. Creation of a green bank would continue to build on these successes and TNC-AK strongly supports the implementation of this recommendation.

Promotion of Energy Efficiency and Conversion Measures in Buildings

Actions: B-4.1, E-6.3

The mentioned report, Resilient Homes: Alaskans Building for Climate Change, contains information pertinent to building energy efficiency and fuel reduction measures in buildings across Alaska. This report specifically notes that these measures result in reduced cost burdens for households, additional opportunities for employment, and health benefits.

TNC-AK supports the implementation of Action B-4.1 to promote heat pumps as an alternative energy and heat source in coastal Alaska. We also support the Task Force in exploring successful case studies in order to further implementation in Alaska, as identified in Action B-4.1. The aforementioned report, Resilient Homes, identifies examples of residential heat pump integration by Tlingit-Haida Regional Housing Authority in Petersburg and Baranof Island Housing Authority in Sitka as two heat pump integration projects (see pg. 14). It also identifies the installation of combination heat pump and solar array systems in Ambler as an example of deployment that utilizes integration as a way to address overall high energy costs (see pg. 14).

Given the additional identified risk of exceeding monthly PCE limits as a barrier that could slow adoption of heat pump technology in regions with high electricity costs (see pg. 2), we encourage the Task Force to take into account successful examples of deployment from across Alaska in order to ensure equitable rollout of any heat pump deployment-related efforts.

Additionally, TNC-AK supports the implementation of Action E-6.3 which seeks to increase availability of resources for weatherization, energy efficiency, and building retrofits. Energy efficiency and weatherization efforts from 2008 to 2018 under the Home Energy Rebate Program

(HERP) and weatherization programs translated into "a combined $444 million in residential energy savings over the decade" with participants of the program seeing an average annual savings of $1200-$1300 in their energy costs (pg. 14). As Alaskans face high energy costs and a high cost of living, savings from these programs is not only an economic boon but also supports community sustainability and resilience.

Thank you for your work to call attention to the importance of affordable and renewable energy for Alaskans. As supporting material, we are submitting the two reports referenced throughout these comments. We ask that the task force to review these supplementary materials to inform future development of the report and we encourage robust outreach to the public as the task force works to review and finalize this plan

Excerpt: PUBLIC COMMENT # 33 from George Donart, Anchorage

Next, I would like to commend the numerous forward looking proposals in the Plan that I believe serve the best interests of Alaskans:

ACTION E 2.3 Adopt a Renewable Portfolio Standard followed by a Renewable Energy Credit - The experience of regions in the lower 48 and Hawai'i, shows that Renewable Portfolio Standards save ratepayers money and bring on clean energy resources faster than they would otherwise. This is partly due to the clear focus on a doable goal. An RPS precludes a constant re-examination of direction and pace of energy development. A strong RPS also stabilizes energy costs and provides certainty for both ratepayers and power producers. One concern here, though. It seems that the "Clean Energy Standard" is very vague, as is the oft used term "diversification". A lot of emphasis is put on diversification and it seems to be the standard that a CES is measured by. Including more coal, for instance, might make the railbelt more diverse. So a diverse portfolio isn't necessarily what we need -- reliable, renewable and affordable is. "Diversify" is so common in the Plan that it should be clearly defined. Using the term "renewable" is a lot clearer.

PRIORITY E: INCENTIVES AND SUBSIDIES I feel this Priority is especially strong; the actions recommended are broad, effective and efficient. STRATEGY E 3: I agree that a flatter rate across Alaska improves the mobility of residents, increases local economic opportunities, and improves the quality of life for Alaskans overall.

STRATEGY E 4: Improve the economics of project development - is important, especially in these Actions: E-4.2 Utilize FERC-defined open access on all State-owned/subsidized and RCA regulated utility transmission lines - E-4.3 Establish a green bank for financing of community scale energy efficiency projects - E-4.4 Ensure adequate workforce training and skills development alongside job creation goals of State - The state should partner with the Anchorage School District which has recently established new "academies" in its high schools some of which could focus on workforce training for the renewables industry.

STRATEGY E 5: Evaluate and implement State policy, tax, and other incentives - This part of the Plan is fairly vague and needs much more clarification. In closing, I'd like to point out that we have a lot of existing generation sources, but we need to move as quickly as we can to renewable generation throughout the entire state. There are many reasons to do this. Costs of renewable technology continue to fall. Renewable energy is price stable once in operation. In Alaska, we've already shown ourselves to be leaders in renewables innovation, and we can continue that path. The rest of the world has already started imposing penalties on fossil fuel generation and use, and that will continue to accelerate. Solar and wind, especially, are relatively quick to build and bring into operation. We've seen reports that indicate the lowest cost way forward is to retire fossil resources and replace them with renewables.

This plan would be greatly improved if it were to reflect a move to renewable generation more explicitly. Thank you for all the hard work and good thinking that have gone into the Statewide Energy Master Plan by the Alaska Energy Security Task Force team members. I appreciate the chance to comment on the Plan.

PUBLIC COMMENT # 34 FROM Tom Atkinson, Kotzebue Electric

My name is Tom Atkinson. I am the General Manager / CEO of the Kotzebue Electric Association a Rural electrical cooperative located in Kotzebue, Alaska. Our power is 70% diesel generated and 30% renewables generated.

Priority “C” for Rural Generation, Distribution, and Storage. We need more capital and investment. KEA has several shovel ready renewable energy projects. If funding were available, it would take us from 30% to 50%

renewable energy. We need to up fund the Renewable Energy Fund which allows us to seek funding in a less competitive arena.

Increasing renewable energy will lower operational costs. The required maintenance is much less with renewable energy than with diesel generation. Development of more renewable energy will displace more diesel which is the greatest annual cost to our cooperative.

The greatest economic burden in our community is using diesel for home heating. Development of renewables will allow us to use electricity to heat our homes at a much-reduced cost. This creates the greatest economy of scale by using clean energy for most of our power needs.

KEA has a close relationship with the Alaska Center for Energy and Power. They are working on projects with KEA that will help us with data to make the best decisions for energy generation.

We are working with other entities on a regional energy plan, but the distance between communities in this region makes shared and/or connected infrastructure unfeasible at present.

Priority "E" Incentives and Subsidies. The PCE is not a subsidy. The PCE is a negotiated agreement. We ask that we not be penalized for our development of renewable energy by making energy created with it not eligible for PCE. You are de-incentivizing the development of renewable energy by not giving PCE credit for renewable energy that cooperatives create.

PUBLIC COMMENT # 38 from Allegory Smith

Hey folks,

Thanks for doing what you do.

I'm here to add my voice in support of renewable energy, efficiency, and recycling investments. Our collective appetite for energy is unsustainable, and while liquid natural gas and other fossil fuels are still available, we have need of institutional urgency between the efficiency deficits we've atrophied into and the severity of present and future lifeway disruptions due to the climate crisis. A Renewable Portfolio Standard is suggested: incentives for transition, intrinsic and extrinsic, must be paired with clear targets and timelines. We've run out of the very easiest options, and the next best one doesn't involve more oil subsidies. We need support in our diversifying renewable energy systems. It's already happening, we just need your help.

PUBLIC COMMENT # 39 from Yvonne Leutwyler

Thank you for extending the comment period for this very important master plan.

Generally speaking, I am pleased to see the Task Force recognizing the need to diversify Alaska's energy sources.

However, I am disappointed that there is no mention of the Renewable Portofolio Standard (RPS) for the Railbelt. There are two bills in the Alaska Legislature regarding the RPS right now. It is a concise and reasonable standard that takes into account the looming natural gas shortage, and provides a plan for achieving a high percentage of renewable energy sources in the mid- to long-term (80% by 2040).

The "Clean Energy Standard" the Task Force is proposing is inferior to the RPS – please streamline Action A 2.1 with the RPS.

Also, please consider NOT using the term "clean energy". It is really an oxymoron, as NO form of energy generation is "clean". To differentiate from fossil fuel-generated energy, the term "renewable energy" is often used and well understood by the public.

Action A 2.4.1: Two proposed projects stand out like sore thumbs: Susitna Watana dam, and a natural gas pipeline. Other commenters have pointed out why both of those projects are too risky, and not appropriate solutions to address Alaska's energy issues. There are more feasible options that are implementable in the short to mid-term: Solar PV and wind energy (including pumped hydro where environmentally and technologically reasonable), along with energy storage systems. Small-scale nuclear as well as tidal energy do have potential in Alaska, and are mid to long-term projects that deserve to be considered as well.

ENERGY PRIORITY F. STATUTES AND REGULATIONS PUBLIC COMMENT

Excerpt: Public Comment #1 from Becky Long

[regarding Susitna River Hydroelectric Project]

3. Prohibitive cost of FERC licensing studies to complete the license process must be recognized.

It will take substantially more than $100 million to complete the studies. $100 million was an AEA estimate from 2015. What this stated cost does not include is the following.

The 58 FERC approved study data was from 2012-2014. There was no study implementation in 2015-2017. The data is stale and much over a decade old. FERC more than likely will require more recent baseline information.

- 17 study modifications were mandated by the FERC Director.
- 3 of the studies that AEA says are complete have mandated modifications. So they are not completed.
- FERC has stated that the water quality data, ice processes in the sloughs and side channels, river flow access, recreation resources, and river transportation to name just a few have no completed baseline data.
- Also former project Director Wayne Dyok stated in 2014 that on top of the $100 million to complete the studies, $230 million will be needed for detailed engineering and geotechnical information to take to the construction phase.

Taken all this into consideration plus many more factors too numerous to comment here, the State needs to move beyond considering this project.

Public Comment #23 from Bridget Shaughnessy Smith, Alaska Public Interest Research Group

IV. Endorsed recommendations

Among the recommendations that AKPIRG would like to see adopted in the final plan and executed by the legislature or executive branch are those in Action B-1.5, especially the establishment of a Data Department at the Alaska Energy Authority and a data governance committee for establishing data collection protocols. Having easy access to a body of consistent data on our energy system not only enables better decisions, but would help utilities, agencies, and IPPs seek federal funding for their projects, and allow researchers and the public insight into the energy options that best meet our needs. These benefits depend on the data collected and organized by AEA being open to the public, and we urge for language to this effect to make this explicit in the Statewide Energy Plan. 3 Action F-1.6 (F-3.1 in the Oct. 20 draft), "provide budgetary support to the Regulatory Commission of Alaska," should be a high priority for decision makers acting on this plan. A lack of staff capacity likely contributed to the RCA's inattention in this summer's 400% rate increase for the residents of Aniak, which the RCA commissioners unanimously approved in May. Though the Commission later mitigated the impact on Aniak residents, it could have avoided subjecting them to the increase in the first place had there been more capacity devoted to the case and to the underlying problem with Aniaki's utility. Currently the RCA is considering whether to grant the Alaska Power Company a 25% rate increase, which deserves a degree of regulatory scrutiny the RCA does not seem to be currently equipped for. Future regulatory matters emerging from our changing energy system will require even greater capacity.

PUBLIC COMMENT # 28 from Bridget Maryott, Cook Inletkeeper

The Oct. 20 draft's Action F-1.6 also calls for unspecified changes to 11 ACC 93.120, the code that governs permits for the appropriation of water. Cook Inletkeeper would strongly oppose certain changes to this code, such as weakening part (e), allowing the Department of Natural Resource to put conditions on permits to protect water quality, fish and wildlife habitat, or any other purpose DNR determines is in the public interest.

Excerpt: Public Comment #6 from John Neary, Juneau, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.

It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Excerpt: Public Comment #13 from Connie Markis, Anchorage, Alaska

I'd like to comment on the Draft Statewide Energy Master Plan by the Security Task Force.

It's encouraging to see you recommend a Green Bank that would help power market incentives for renewable energy investments. I understand SB 125 and HB 154 are bills that will be introduced this session. That's smart.

Public Comment #22 from Chris Rose, REAP

Priority F: Statues and Regulations

1) Please see REAP comments under Priority A, above.

2) REAP supports a budget for the RCA that reflects that agency's need for highly competent technical analysts that typically command high wages in the private sector.

3) REAP supports the preservation of the PCE endowment fund.

4) REAP supports the establishment of an RPS, with a focus on rapidly advancing renewable energy projects in the Railbelt to displace expensive natural gas, rather than a clean energy standard.

Excerpt: Public Comment #26 from Study of Environmental Arctic Change (SEARCH)

Affordability. The high cost of diesel in rural Alaska results mainly from long transport distances (i.e., no local sources), and although the market for diesel is competitive the requisite barge service to rural communities is not. This problem is compounded by unpredictable and volatile markets, which is an energy security problem. Locally-sourced renewables help alleviate these problems and provide lower-cost energy once established. Because of the way electricity prices are regulated by the RCA, the regulated price of electricity generated by renewables may be higher for an initial startup period (1-3 years), although the long-term cost is lower.

Current state policy associated with PCE, given the way that utilities are regulated by the Regulatory Commission of Alaska (RCA), prevents utilities that invest in renewable power from receiving PCE subsidies for any return on their initial equity investment. Because renewable sources typically have much higher initial capital costs, but much lower operating costs that are eligible for PCE assistance, this amounts to a crippling disincentive for moving to renewable power. The argument that the short-term cost of renewables is higher

than diesel is like saying buying a house is more costly than renting, even when your monthly mortgage payment would be lower than the rent. However, this current policy can be changed, without compromising the objectives of the PCE program.

In some communities, existing renewables do not adequately serve as backup energy sources. In Savoonga, a majority of the power generated by their two wind turbines is being used to offset the costs of the community's power generators.

Additionally, businesses and service providers in PCE communities do not have access to PCE payments and consequently continue to suffer increasingly unaffordable energy until there is an investment made in truly affordable power generation.

Recommendation: Transition to renewable energy sources is the most robust energy strategy, especially for PCE communities, and needs to be prioritized. To help support this transition, PCE statutes should be revisited to allow for a fair rate of return on capital investments targeted at bringing renewable power generation infrastructure online, reducing the reliance on diesel fuels, and lowering the necessity for equalization subsidies in the longer term.

Comment 3: Risks to community energy infrastructure are increasing, and will continue to increase without diversified alternative energy sources that provide redundancy, storage, and reliable backups.

Diminishing sea ice is increasing coastal erosion and the changing climate is raising precipitation levels - both snow and rain - in other areas of the state. Flooding, snowfall and freezing rain can directly impact transmission lines and cause power outages. Recently, for example, areas of the Fairbanks North Star Borough suffered extended power outages due to downed transmission lines.

The isolation of many northern Alaskan communities further increases their vulnerability to weather-related energy disruptions. Many of these communities do not have the resources (especially linemen) in village to repair energy infrastructure following outages. Often, outages are caused by storms which then delays linemen and resources being flown in, thereby prolonging outages. Linemen for rural Alaskan communities do not live in the communities in which they work, instead traveling to dozens of villages when their services are needed. This prolongs outages and delays repairs. For example, earlier this year, a storm affected 20 homes, the preschool, and tribal offices in Savoonga. While Savoonga does have certified electricians, there are no linemen in the community. In this case, it took two days for the lineman to come in and for power to be restored.

In Savoonga, the last few years have seen high winds affecting the power plant with the community experiencing unscheduled power outages from strong winds and precipitation during the winter. Similarly, permafrost thaw in Savoonga causes energy setbacks by shifting transmission poles. Maintenance resources, however, are limited, meaning that once workers fix poles in one community, the poles have moved again before they are able to return.

Recommendation: The Draft Plan should explicitly consider the increased vulnerabilities Alaska's energy infrastructure will be facing due to weather-related hazards, especially for communities in northern areas. This will require a focus on diversifying energy sources within local systems and grids, to include incorporating battery backup and storage, and other emerging technologies. Such an approach will not only make energy

more reliable and secure, but also more affordable than being dependent on the supply of diesel via barge and storage in fuel tank farms vulnerable to coastal erosion and permafrost thaw.

Comment 4: This plan does not adequately consider the needs of non-residential energy users in PCE communities.

A stated goal of the Plan is to make energy more affordable to drive economic growth, yet current regulations for PCE inhibit that in a variety of ways. The regulations stifle business and commercial enterprise, and they restrict many aspects of overall development that contribute to and support human wellbeing and economic prosperity. For example, diesel power is very expensive for transportation services such as airport and freight operations, and for municipal infrastructure such as water, sewer, and broadband internet. The high cost of diesel energy also makes the operation of medical and educational facilities more difficult.

Recommendation: PCE as currently operated reduces the energy cost for residential users; it does not do the same for businesses and commercial facilities. Reduced cost for reliable energy in these communities, however, is needed to support economic growth. While we understand the safeguards against misuse by power companies from this policy, we recommend that PCE statues be revisited to support community assets including small businesses and commercial enterprises.