ALASKA ENERGY AUTHORITY

LEGISLATIVE LUNCH AND LEARN

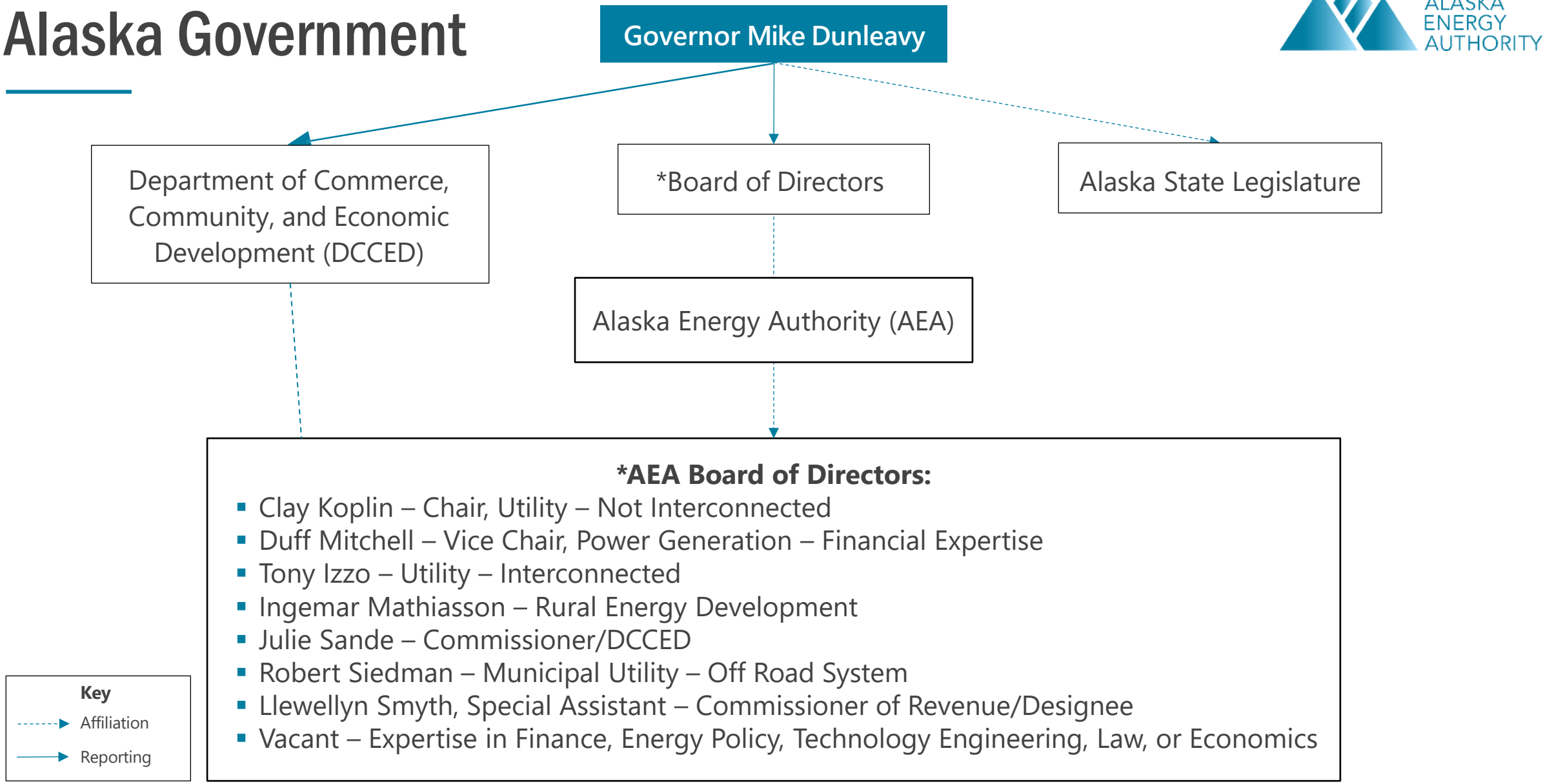
AEA Management Team

December 4, 2025

ALASKA ENERGY AUTHORITY

50 YEARS OF SERVICE

Alaska Government



AEA Programs and Services Overview

Owned Assets
- Bradley Lake Hydroelectric Project
- Alaska Intertie
- Sterling to Quartz Creek Transmission Line
- Cook Inlet PowerLink

Power Cost Equalization
- $48 Million Program
- 193 Rural Communities
- 82 Electric Utilities
- Benefits 82,000+ Alaskans

Rural Energy
- Bulk Fuel Upgrades
- Rural Power System Upgrades
- Circuit Rider Program
- Electrical Emergency Assistance

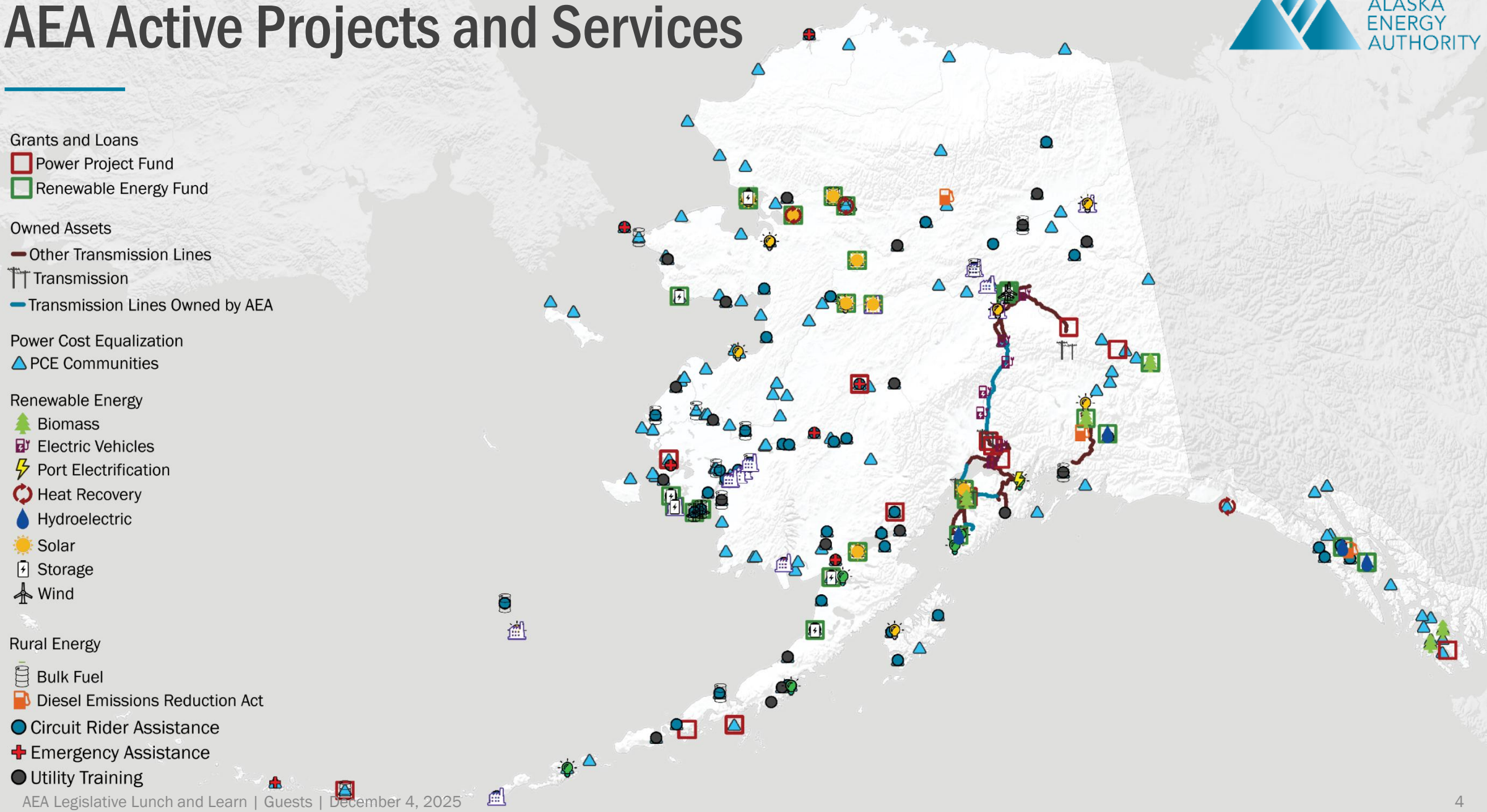
Renewable Energy and Energy Efficiency
- Renewable projects; biomass, electric vehicles, hydroelectric, solar, and wind
- Federal programs: NEVI and Home Energy and High Efficiency Rebate Allocation

Grants and Loans
- Renewable Energy Fund
- Power Project Fund
- Federal Grants

Energy Planning
- Alaska Energy Security Task Force
- State Energy Security Profile
- Electronic Library
- Energy Data Resources
- 40101(d) Grid Resilience

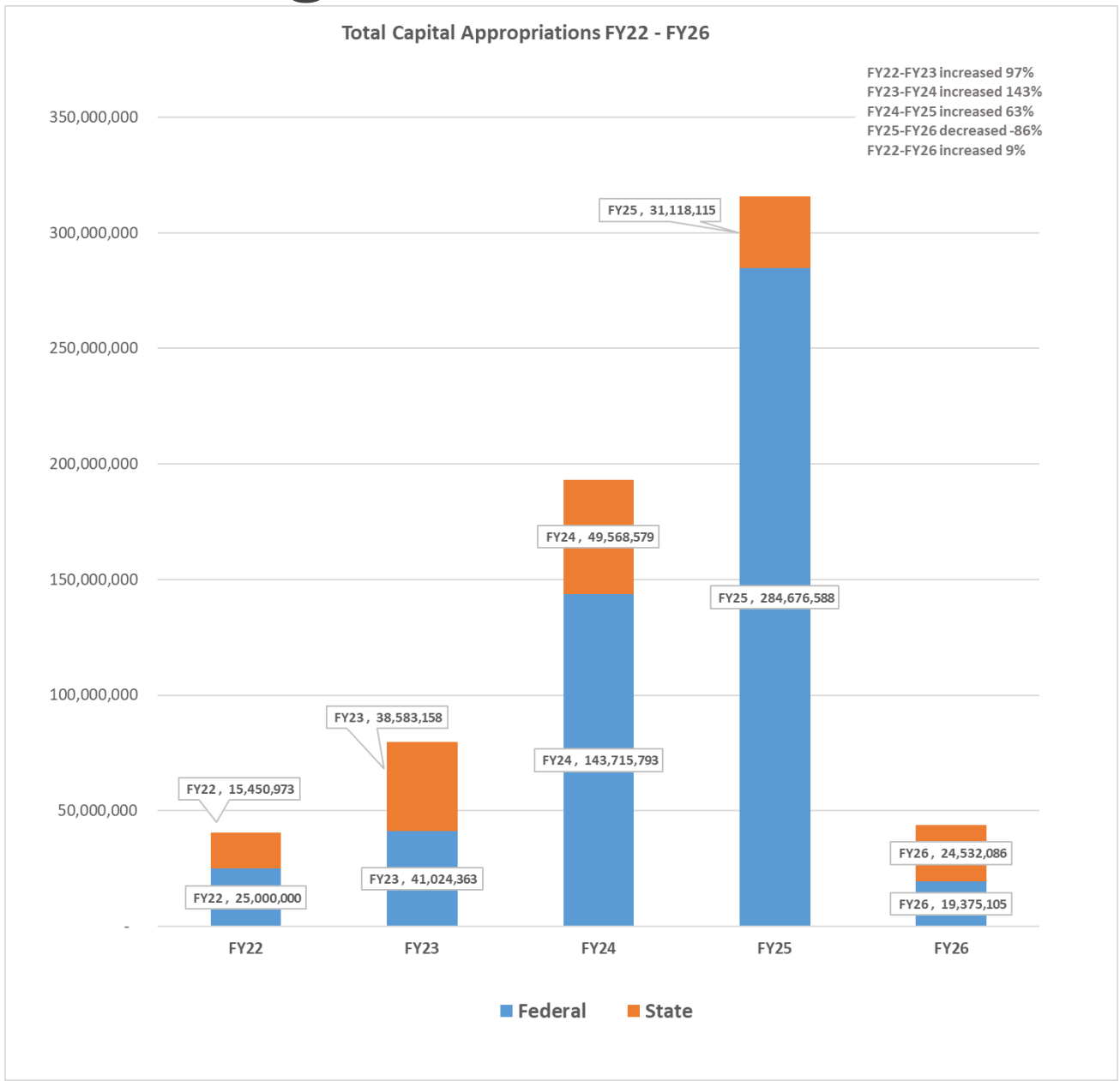
Railbelt Transmission Organization
- AEA, Railbelt Reliability Council, and Utility Governance
- Certificate of Public Convenience and Necessity
- Tarriff Under Regulatory Review

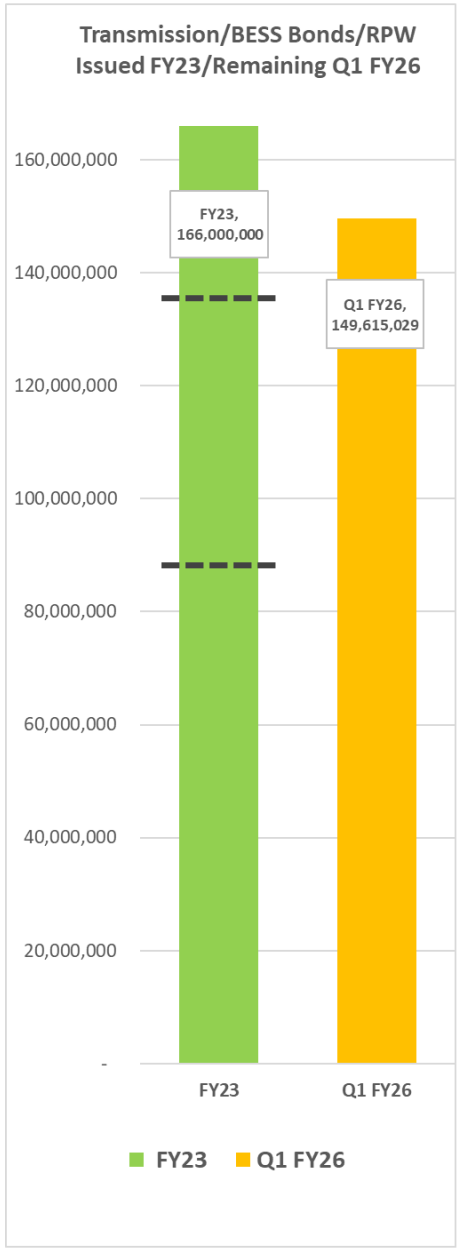
AEA Active Projects and Services

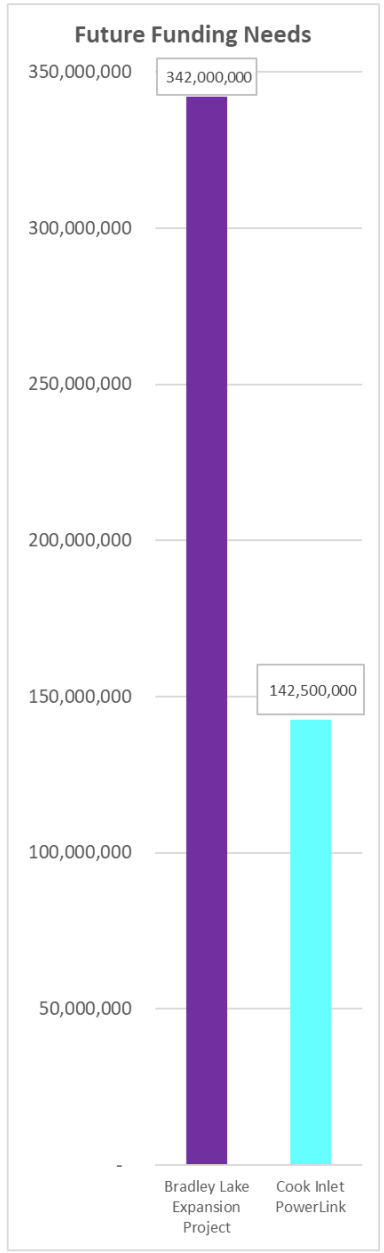


FINANCE

AEA Funding: Past, Present, and Future







FY2025 Financial Highlights

STATEMENTS OF NET POSITION	June 30, 2025	June 30, 2024
Assets		
Restricted Investment securities and cash	1,285,139	1,281,491
Securities lending collateral	46,735	44,045
Loans, net	29,508	30,832
Capital assets, net	375,026	369,244
Receivables and other assets	16,899	9,871
Total restricted assets	1,753,307	1,735,483
Deferred Outflows of Resources		
Related to employee pensions	422	—
Related to OPEB	89	—
Total deferred outflows of resources	511	—
Total assets and deferred outflows of resources	1,753,818	1,735,483

FY2025 Financial Highlights (Continued)

STATEMENTS OF NET POSITION	June 30, 2025	June 30, 2024
Liabilities, Deferred Inflows of Resources, and Net Position:		
Liabilities		
Bonds payable	195,915	201,253
Securities lending collateral	46,735	44,045
Payables and other liabilities	85,622	78,723
Total liabilities	328,272	324,021
Deferred Inflows of Resources		
Related to OPEB	34	—
Total deferred inflows of resources	34	—
Net Position	1,425,512	1,411,462
Total liabilities, deferred inflows of resources, and net position	1,753,818	1,735,483

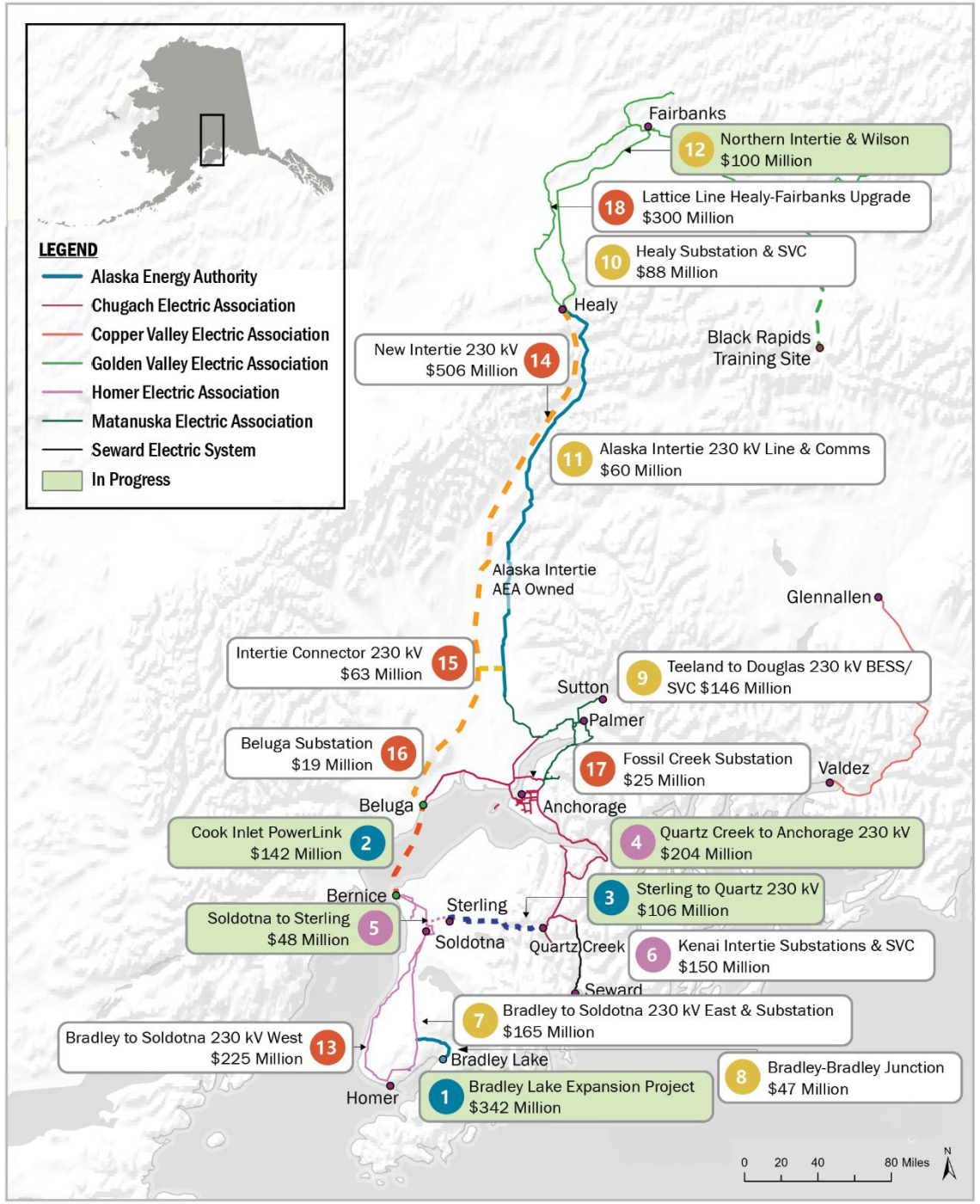
PCE Endowment History (In Thousands)

		FY2021	FY2022	FY2023	FY2024	FY2025
Beginning Investment Fund Balance	$	1,078,157	1,149,165	967,416	946,597	979,405
Inflows:						
Annual investment earnings		150,299	(143,842)	88,405	69,285	96,155
Capital fund transfers in		—	—	—	11,712	107
Total inflows		150,299	(143,842)	88,405	80,997	96,262
Outflows:						
Transfers to AEA for PCE payments		(28,237)	(23,613)	(54,139)	(45,505)	(48,666)
Transfers to Other Funds		(21,012)	(0)	(23,775)	—	—
Community Assistance Fund		(28,732)	(12,395)	(30,000)	—	(30,000)
Program administration – AEA		(737)	(737)	(214)	(616)	(737)
Administrative fee – Regulatory Commission		(123)	(133)	(126)	(167)	(105)
Management fee – Dept of Revenue/APFC*		(405)	(1,030)	(970)	(1,901)	(2,029)
Total outflows		(79,291)	(37,908)	(109,224)	(48,189)	(81,537)
Ending investment fund balance	$	1,149,165	967,416	946,597	979,405	994,130

Source: Unaudited schedule included in AEA's financial statements.
*Management of PCE Endowment transferred to the Alaska Permanent Fund Corporation (APFC) effective FY2024.


ALASKA
ENERGY
AUTHORITY
OWNED ASSETS

Alaska Railbelt Construction Priorities



1 PHASE 1: AEA PROJECTS UNDERWAY – $590 MILLION

1. Bradly Lake Expansion Project: AEA-unfunded (FERC January 2026)**
2. Cook Inlet PowerLink: AEA-partially funded, Target 2032**
3. Sterling-Quartz Creek: AEA-funded, target 2028*

2 Phase 2: 2nd 230 kV Kenai Intertie – $402 Million

4. Quartz Creek-Anchorage: CEA-Funded, Target 2032*
5. Soldotna-Sterling: HEA/AEA-partially funded*
6. Kenai Intertie Substations & SVC Upgrades: AEA/CEA (funds required)*

3 Phase 3: Complete 230 kV Bradley-Fairbanks – $606 Million

7. Bradley-Soldotna East & Substation: AEA/HEA (funds required)*
8. Bradley-Bradley Junction: AEA-unfunded*
9. Teeland-Douglas & SVC Upgrade: MEA/AEA (funds required)*
10. Healy Substation & SVC Upgrade: AEA/GVEA (funds required)*
11. Alaska Intertie 230 kV & Comms: AEA (funds required)*
12. Northern Intertie & Wilson SVC/BESS: GVEA (partially funded)*

4 Phase 4: 2nd 230 kV Anchorage to Fairbanks – $1138 Million

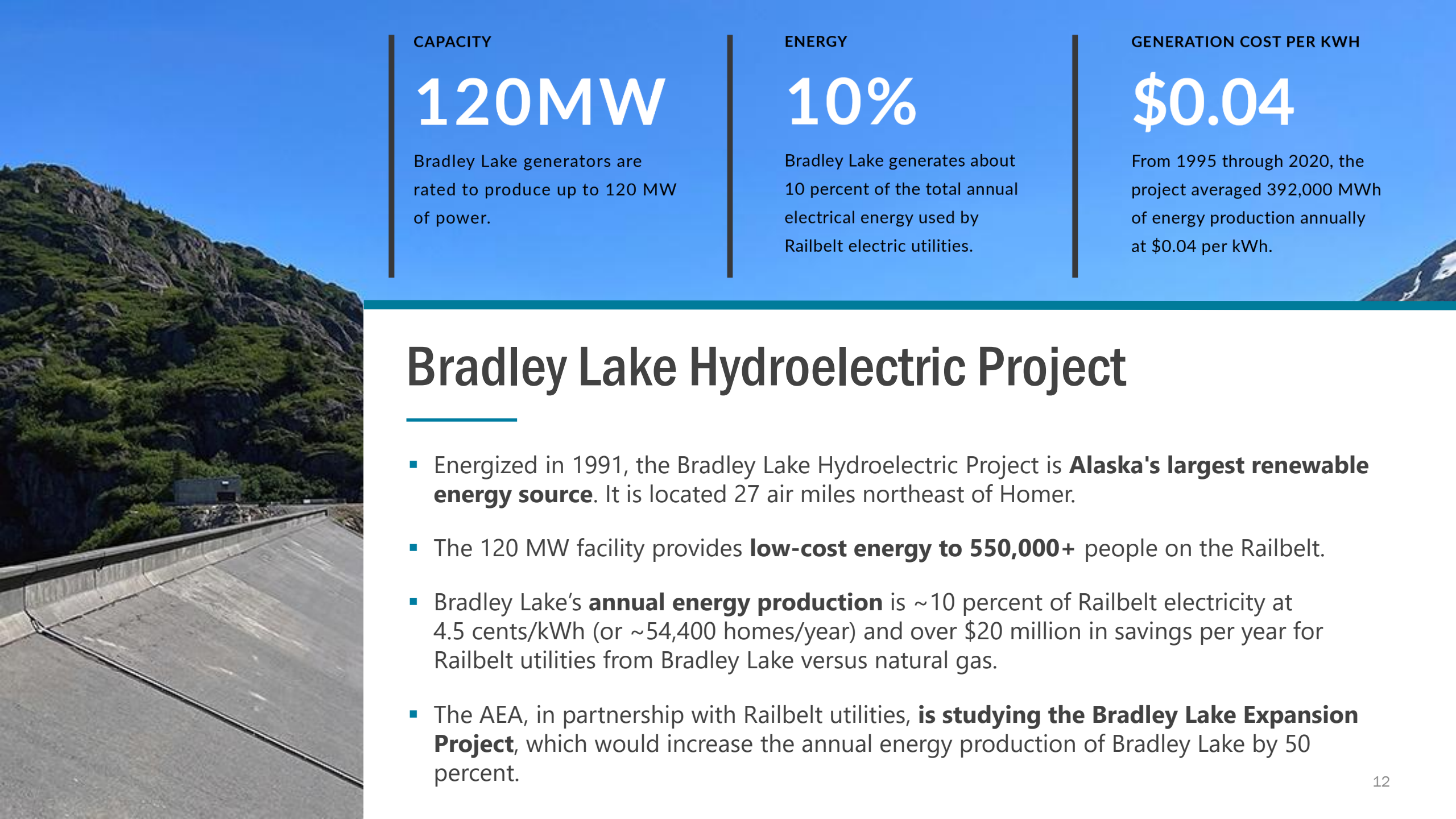
13. Bradley-Soldotna West: HEA (funds required)*
14. New Intertie Beluga-Healy & Substation: AEA (funds required) **
15. Intertie Connector: AEA (funds required)**
16. Beluga Substation: AEA (funds required)**
17. Fossil Creek Substation: CEA/MEA (funds required)*
18. Lattice Line Healy-Fairbanks Upgrade: GVEA (funds required)*

*Expansion or upgrade
**New project

Acronyms

BESS: Battery Energy Storage System

SVC: Static Var Compensator



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

- Energized in 1991, the Bradley Lake Hydroelectric Project is **Alaska's largest renewable energy source**. It is located 27 air miles northeast of Homer.
- The 120 MW facility provides **low-cost energy to 550,000+** people on the Railbelt.
- Bradley Lake's **annual energy production** is ~10 percent of Railbelt electricity at 4.5 cents/kWh (or ~54,400 homes/year) and over $20 million in savings per year for Railbelt utilities from Bradley Lake versus natural gas.
- The AEA, in partnership with Railbelt utilities, **is studying the Bradley Lake Expansion Project**, which would increase the annual energy production of Bradley Lake by 50 percent.

$342 Million

Bradley Lake Expansion Project

AEA is studying the Bradley Lake Expansion Project, which includes the **Dixon Diversion** and **Bradley Pool Raise** sub-projects. This Project will divert water from Dixon Glacier to increase Bradley Lake's annual energy production by **50 percent**.

- Estimated annual energy output is **180,000 MWh** (the equivalent of up to 30,000 homes).
- Natural gas offset of **1.5 billion cubic feet** per year in (equal to 7.5 percent of Alaska's unmet Railbelt demand in 2030).
- Targeted completion is **2031**.
- Estimated construction cost is **$342 million** (Class IV Cost Estimate).

$413 Million ($270.7 Million Secured; $142.5 Million Still Needed)

Cook Inlet PowerLink (CIPLink)

CIPLink is a **high-voltage direct current transmission system** connecting Southern and Central Railbelt regions via a **38-mile subsea cable** and overland cable routes and converter stations, delivering up to **200 MW bidirectional power flow**. In **FY2025**, AEA moved the project forward with **preliminary design**, **route evaluation**, **environmental review**, and **procurement planning**, while actively pursuing the remaining funding needed to match federal support.

Project Benefits for Alaska's Railbelt:

- Provides a **redundant transmission pathway** between Southern (Kenai Peninsula) and Central (Anchorage/Mat-Su) Railbelt regions
- Eliminates **single-point-of-failure** between Kenai and Anchorage (note: Willow to Healy remains a single point)
- Enables **integration and distribution** of more **renewable** power across the Railbelt
- Improves grid reliability and access for **military and industrial customers**
- Supports **sharing of the most economical power** across regions

$106 Million (Under Construction; AEA Bonds Existing)

Sterling to Quartz Creek (SQ) Transmission Lines

AEA acquired the SQ line following the Swan Lake fire in 2020 and is now upgrading the existing 115 kV line to 230 kV standards.

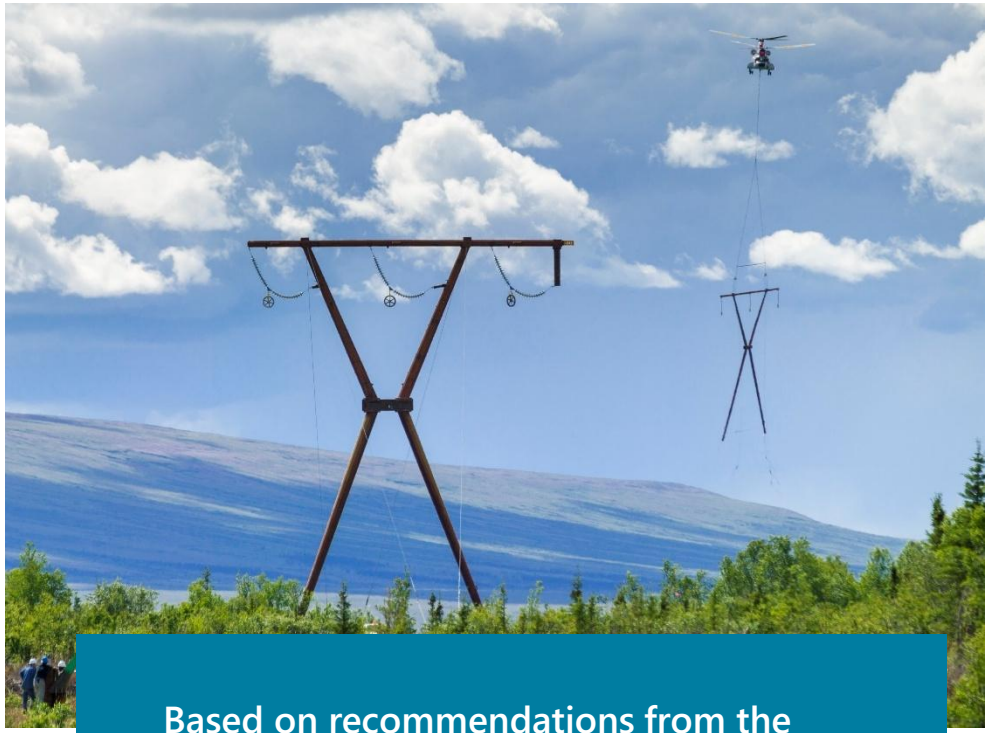
- **Location –** ~39 miles of 115 kV transmission between Sterling and Quartz Creek substations (Kenai Lake).
- **Benefits –** AEA ownership ensures better cost alignment, reduces line loss, increases reliability, and ensures more timely repairs and upgrades.
- **Status –** Engineers are designing and are procuring equipment for the upgrade of the existing 115 kV line to 230 kV standards. Construction has started on the first phase of the project.
- **Cost –** Estimated cost to upgrade the line is $106 million.

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 2010 and 2025, the Intertie **saved GVEA customers an average of $38 million annually**.
- The Intertie provides benefits to Southcentral customers as well through **cost savings and resilience to unexpected events**.

RAILBELT TRANSMISSION ORGANIZATION



Based on recommendations from the Governor's Alaska Energy Security Task Force—including eliminating transmission wheeling charges and establishing an RTO—the Legislature passed House Bill 307, signed into law on July 31, 2024. Under this new law, the RTO is established as a division of AEA.

Railbelt Transmission Organization (RTO)

- The RTO operates a **division of AEA** for administrative purposes.
- Governance includes representatives from **AEA, Chugach Electric Association, Golden Valley Electric Association, Homer Electric Association, Matanuska Electric Association, the City of Seward**, and the Railbelt Reliability Council (ex-officio, nonvoting member).
- The RTO received its **certificate to operate** from the Regulatory Commission of Alaska (RCA) on **May 6**.
- On **July 1**, the RTO filed a proposed **Open Access Transmission Tariff (OATT)** with the RCA, meeting its statutory deadline.
- The proposed OATT outlines terms for **network integration transmission service** and introduces a **formulaic tariff-based revenue mechanism** for recovering the costs to own and operate the backbone transmission system.


RURAL
ENERGY


RURAL ENERGY INFRASTRUCTURE

Power Cost Equalization (PCE)

PCE is a key part of Alaska's energy policy—helping rural residents access affordable electricity despite isolation and high infrastructure costs, narrowing the gap with urban rates and supporting rural utilities.

193
RURAL COMMUNITIES

82
ELECTRIC UTILITIES

82,000
ALASKANS

Electricity costs for Alaska's rural residents are significantly higher than in urban areas. The PCE program reduces these costs, ensuring affordable service, reliable centralized power, and the long-term viability of rural utilities.

750 kWh
RESIDENTIAL
Residential customer are eligible for PCE credit up to 70 kWhs per month.

70 kWh
PUBLIC FACILITIES
Community facilitates can Receive PCE credit for up to 70 kWhs per month multiplied by the number of residents in a community.

$47M
FUNDS DISBURSED
In fiscal year 2025, AEA disbursed $47 million to rural electric utilities benefiting 82,000 Alaskans.

St. George Island, Pribilof Islands, AK

Who is Eligible to Participate in PCE?

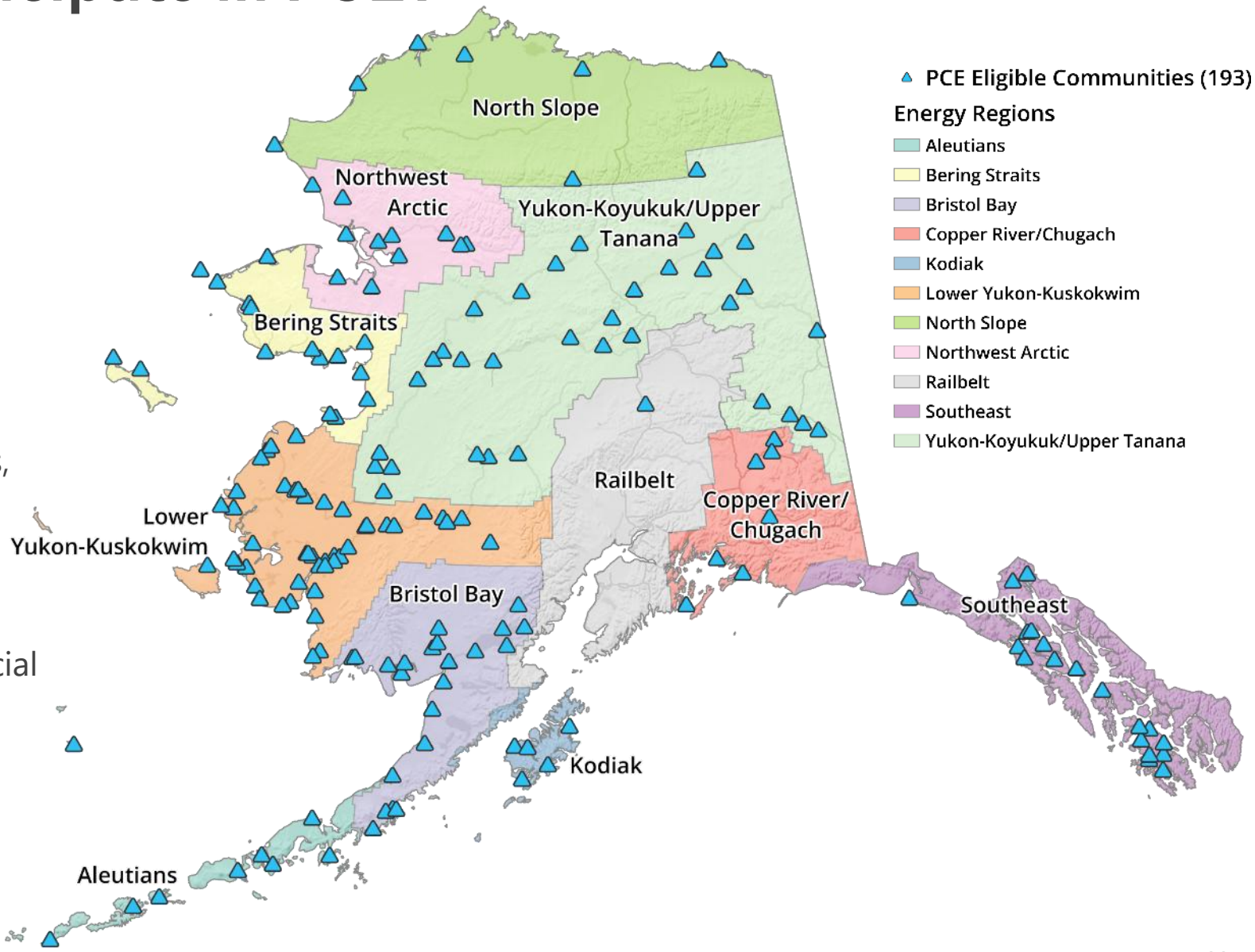
PCE eligibility is determined by the Regulatory Commission of Alaska in accordance with Alaska Statute 42.45.100-170.

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

- AEA's **Rural Power Systems Upgrade program** improves power generation in Alaska villages with less than 2,000 people.
- Approximately **170 communities** are eligible for the program, which replaces outdated, inefficient mechanical systems with new electronically controlled generator sets.
- Due to declining funds, rural **power systems aren't upgraded timely**, and communities are left with aging systems at risk of failure.
- AEA evaluates **several factors** when prioritizing projects for funding—at this time **deferred maintenance is estimated at $300 million**.

Bulk Fuel Upgrades

- AEA designs and builds modern, code-compliant bulk fuel facilities through our **Bulk Fuel Upgrade program**.
- In Alaska, there are over **400 bulk fuel facilities** — each sized to support the village.
- Most of the facilities are older than 40 years, **with many exceeding 50 years**, and they average **100,000 gallons** in size.
- However, **aging infrastructure poses several safety risks for rural communities**, e.g. corrosion, erosion, and environmental.
- AEA maintains an inventory and assessment priority need-based list—so far **deferred maintenance is estimated at $1 billion**.

Before

After

Alaska Bulk Fuel Infrastructure Partnership

Denali Commission Funds Bulk Fuel Upgrades in 10 Rural Communities

- **$100 million** awarded to the Alaska Native Tribal Health Consortium (ANTHC) and subawarded to AEA and Alaska Village Electric Cooperative (AVEC) for project management.
  - FY2027 federal receipt request.
- **Partners**: Denali Commission, ANTHC, AEA, AVEC
- **Impact**: Largest single-year investment in **20+ years**; addresses failing infrastructure needs and ensures sustainable, safe and efficient fuel storage.
- **Communities**: AEA - **Shageluk**, **Russian Mission**, **Eek**, **Aniak**, **Tuluksak**
  AVEC - **Wales**, **Kivalina**, **Kobuk**, **Noatak**, **Quinhagak**
- **Timeline**: August 2025-July 2028**; no cost-match required**.
- **Goal**: Robust and sustainable fuel storage infrastructure that **meets current and future** power generation, heating and transportation needs.

Circuit Rider Program

Electrical Emergency Assistance

- Kwethluk (1)

Circuit Rider and Bulk Fuel Itinerant Onsite

Number after entity indicates more than one occurrence: 50 Total Onsite Visits

- Akhiok (3)
- Akiak (2)
- AVTEC/Seward (6)
- Beaver (1)
- Chevak (1)
- Chignik Bay (1)
- Chignik Lake (1)
- Chitina (2)
- Chuathbaluk (1)
- Eek (1)
- Elfin Cove (2)
- Golovin (2)
- Koyukuk (2)
- Levelock (2)
- Napaskiak (6)
- New Stuyahok (1)
- Nunam Iqua (2)
- Nunapitchuk (1)
- Perryville (1)
- Port Heiden (3)
- Rampart (2)
- Scammon Bay (1)
- Takotna (2)
- Teller (1)
- Tenakee Springs (1)
- Tuluksak (1)
- Venetie (1)

Circuit Rider Real-Time Remote Assistance

Number after entity indicates more than one occurrence: 245 Total Responses

- Akhiok (4)
- Akiachak (11)
- Akiak (7)
- Aniak (1)
- Arctic Village (2)
- Atka (1)
- Atmautluak (3)
- Buckland (2)
- Central (1)
- Chalkyitsik (1)
- Chignik (4)
- Chignik Lagoon (1)
- Chignik Lake (3)
- Chitina (9)
- Chuathbaluk (6)
- Circle (5)
- Clarks Point (1)
- Diomede (2)
- Egegik (5)
- Elfin Cove (6)
- False Pass (2)
- Fort Yukon (2)
- Golovin (1)
- Hughes (1)
- Karluk (9)
- Kipnuk (11)
- Kokhanok (2)
- Koliganek (2)
- Kongiganak (1)
- Koyuk (1)
- Koyukuk (4)
- Kwethluk (6)
- Kwigillingok (3)
- Levelock (9)
- Manokotak (1)
- Mc Grath (1)
- Mertarvik (2)
- Napaskiak (20)
- Nelson Lagoon (1)
- Nikolai (8)
- Nikolski (1)
- Nunam Iqua (11)
- Ouzinkie (1)
- Pedro Bay (4)
- Pelican (1)
- Perryville (3)
- Pilot Point (4)
- Port Alsworth (1)
- Port Heiden (17)
- Rampart (5)
- RedDevil (1)
- Ruby (3)
- Saint George (1)
- Seward (1)
- Sleetmute (3)
- Stony River (2)
- Tatitlek (4)
- Tenakee Springs (3)
- Tuluksak (3)
- Tununak (1)
- Unalakleet (3)
- Venetie (7)
- White Mountain (1)


PLANNING

Renewable Energy Fund (REF)

REF Round 17 funded the **six top-ranked projects** recommended by **AEA**, with legislative approval and the Governor's concurrence, for a **FY2026 appropriation of $6.3 million**. For **Round 18, AEA** has received **35 applications at a total of $54 million** and is reviewing them now, with recommended projects to be submitted to the Legislature in **early January** for **FY2027 funding**.

Rounds 13-17: 67 projects – $53.55M

- Rd 13: 11 Projects – $4.75M
- Rd 14: 27 Projects – $15M
- Rd 15: 18 Projects – $17M
- Rd 16: 5 Projects – $10.5M
- Rd 17: 6 Projects – $6.3M

Kongiganak, Alaska

Since its inception, the State has invested **$333 million** in the REF;

110+ projects are operational, and **56** more in **development**;

REF has **displaced 120 million gallons of diesel**—$600 million in avoided costs at the FY2025 PCE rate of $4.95 per gallon.

Federal Program Funds Secured - $39.8 million
Estimated Final Federal Allocation ~ $20 Million

Grid Resilience Formula Grant Program IIJA 40101(d)

- **Under 40101(d)**, AEA expects to receive **$60 million** in federal formula grants to support grid resilience projects. To date, **two allocations totaling $39.8 million** have been awarded. A **third and final allocation** is anticipated in 2026.

- **AEA** administers **40101(d) funds** through a competitive application process. Under the **first Request for Applications, three projects** were awarded sub-grants totaling **$20.9 million—**
  - **two** to strengthen the **Railbelt grid** and
  - **one** to support resilience in the **Interior** served by **Golden Valley Electric Association**.

- AEA anticipates **issuing official award selections for round two in Q1 2026,** pending DOE approval.

- **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 percent state match** and a **33 percent small utility match**.

Power Project Fund (PPF) Loan Program

AEA's Power Project Fund (PPF) offers flexible, low-cost financing for eligible electric power projects. The program supports electric utilities, local governments, regional and village corporations, and independent power producers in developing, expanding, or upgrading power facilities. A wide range of project types qualify.

Outstanding Loans
$29.8 Million
15 Loans

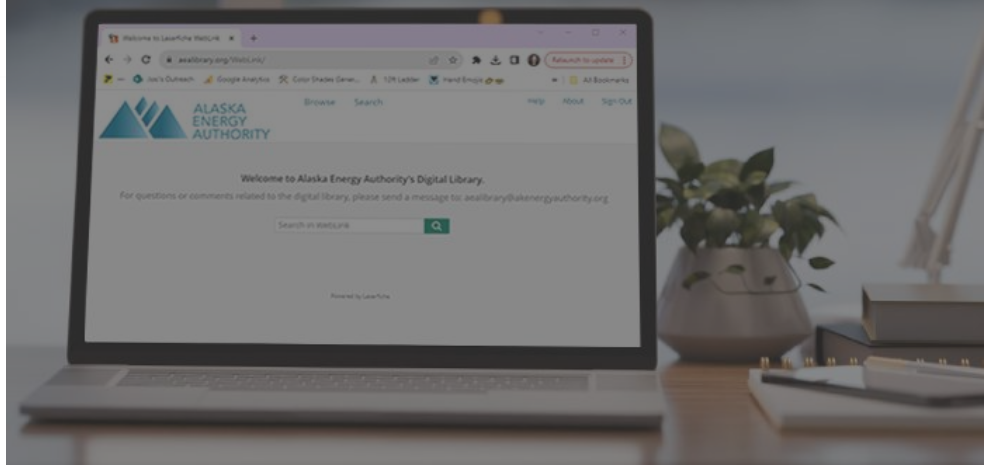
Uncommitted Cash Balance
$10.3 Million as of September 2025

Competitive Rates
Current PPF Interest Rate
5.59% as of September 2025

House Bill 307
Offers Reduced Interest Rate for Loans $5 Million or More

AEA Electronic Library (E-Library)

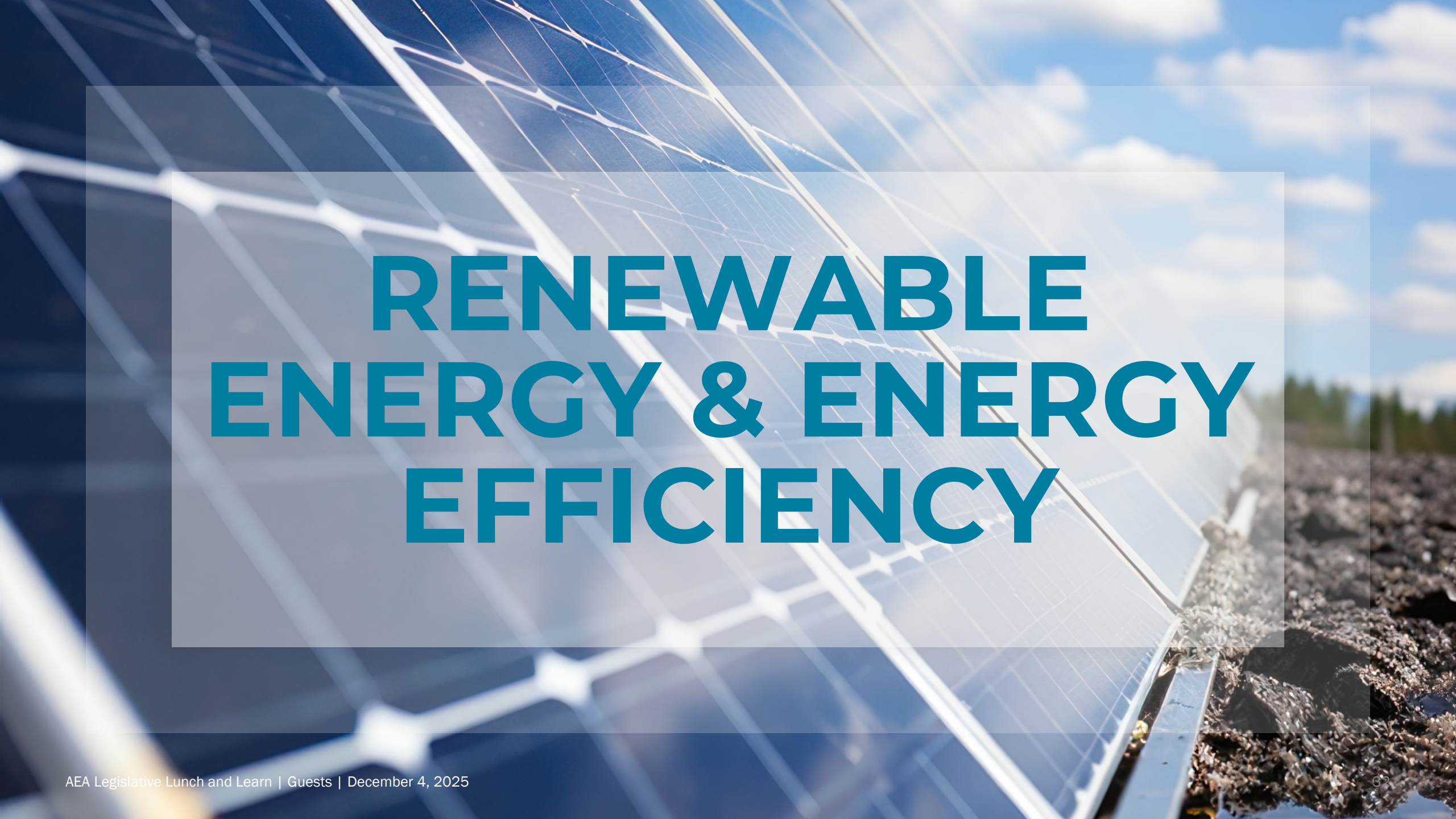
Provides the public with open, transparent access to over 50 years of Alaska energy data.



Since its launch, AEA's E-library has averaged **over 650 unique visitors per month**. Site visits to the e-library are reported to be trending positively, with an average **10 percent increase** in site visits month over month.

The E-library launched with **7,500 documents**, including program publications, technical reports, research, and feasibility studies. Currently, over **13,000 documents** are searchable.

The E-library is **fully accessible** to the public via the library tab on AEA's website, or directly at https://www.akenergyauthority.org/library.



RENEWABLE ENERGY & ENERGY EFFICIENCY

Renewable Energy and Energy Efficiency Programs

AEA's renewable energy and efficiency programs provide technical and financial support for communities interested in developing renewable energy programs with the aim of growing Alaska's clean economy.

Houston Solar Farm, Houston, AK

Public Outreach

- Alaska Electric Vehicle Working Group
- Alaska Energy Efficiency Partnership
- Alaska Wind Working Group
- Alaska Wood Energy Development Task Group

- BIOMASS
- ENERGY EFFICIENCY
- ELECTRIC VEHICLES
- ENERGY STORAGE
- GEOTHERMAL
- HEAT RECOVERY
- HYDROELECTRIC
- NUCLEAR
- SOLAR
- WIND

Home Energy and High Efficiency Rebate Allocations

AEA is collaborating with AHFC to distribute Alaska's allocation of $74 Million (pending with DOE)

Home Efficiency Rebates

- Rebates for energy efficiency retrofits range from $2,000-$4,000 for individual households and up to $400,000 for multi-family 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 amounts are doubled for retrofits of low-and moderate-income homes.
- **Alaska's allocation: $37.4 million; no State match required.**

Home Electrification and Appliance Rebates

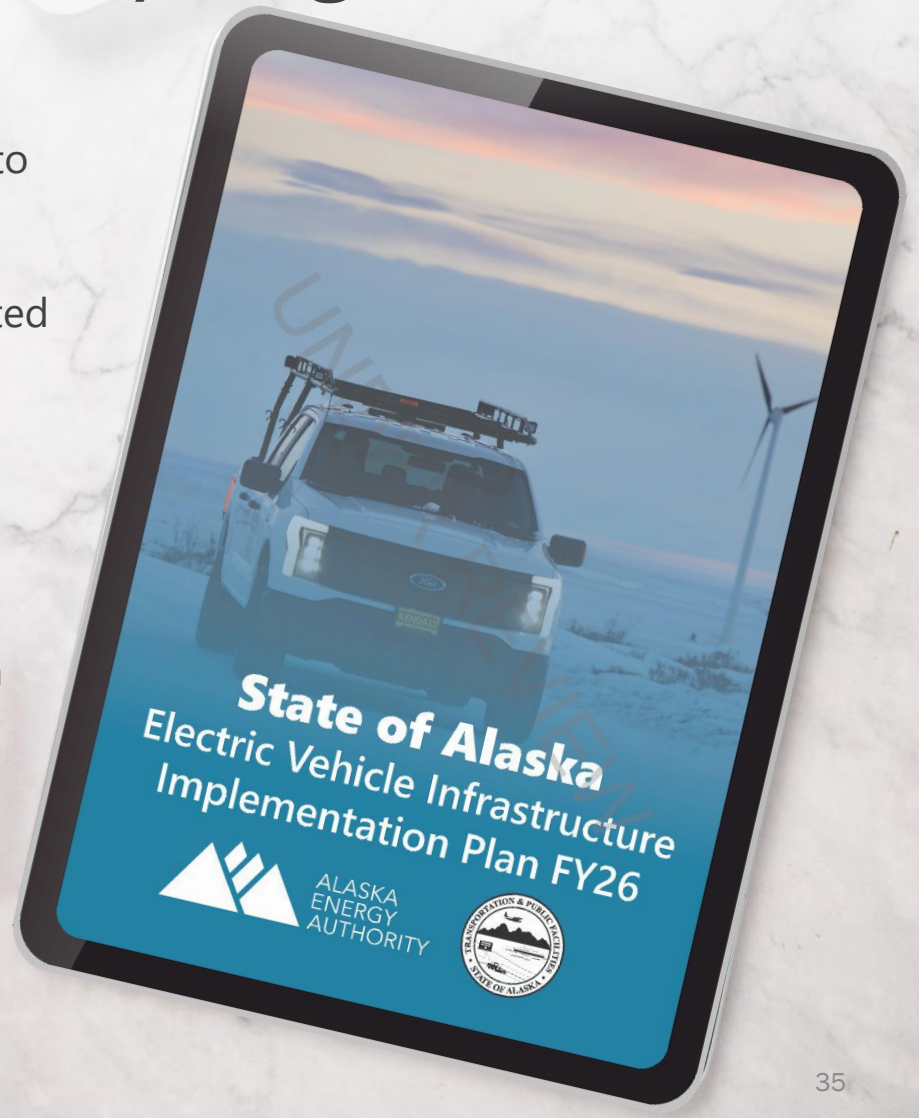
- Rebates for low- and moderate-income households to save energy and money toward energy upgrades made to their primary residence.
- Includes means testing and will provide 50% of the project cost to residents with incomes between 80% to 150%. Rebates of 100% for incomes below 80% of area medium income, with similar tiers for multi-family 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 electrical panel/service upgrade.
- Other eligible rebates include electric stoves, clothes dryers, and insulation/air sealing measures.
- **Alaska's allocation: $37.1 million; no State match required.**

$52 Million (Over Five Years)

National Electric Vehicle Infrastructure (NEVI) Program

AEA and the **Alaska Department of Transportation & Public Facilities** continue to deploy the **State of Alaska NEVI Plan.**

- **Recent Developments:** In August, the Federal Highway Administration requested an updated NEVI plan within 30 days under streamlined plan development guidance. The plan was submitted and approved by the FHWA division office.
- **Plan Highlights**: Revised plan details FY2022–2026 allocations, community engagement, and new security/cybersecurity sections.
- **Progress to Date**: Plan approval granted Alaska access to the full $52 million in program funding. Phase 1: Several communities have been selected to receive NEVI awards to construct sites between Anchorage and Fairbanks during the Summer 2026; private entities will own/operate stations.
- **Next Steps**: Phase 2 expands charging to 30+ communities along Alaska's Highway and Marine Highway Systems.



Black Rapids Training Center (BRTC) Defense Community Infrastructure Pilot Program

The AEA partnered with Golden Valley Electric Cooperative (GVEA) and was awarded this grant from the Office of Local Defense Community Cooperation under the Defense Community Infrastructure Pilot Program. **Federal Receipt authority of $15.7 million received in fiscal year 2024. No State match is required**.

The GVEA will use the funds to extend a transmission line 34 miles along the Richardson Highway to BRTC. Currently, BRTC 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 BRTC by tying them into GVEA's power grid.

Thank You

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APPENDIX

Project Cost: $26 Million

Whittier Cruise Ship Terminal Port Electrification

- **Port electrification** is a vital project for **Alaska's cruise ship docks,** which will receive this funding.
- Port electrification projects aim to enable **cruise ships to consume shore power**, rather than running on-board diesel generators while at port, which **reduces carbon emissions**.
- The **state cruise ship head tax and private sector matching contributions** will be leveraged to fully fund this project.
- **Partners:** Holland America, Chugach Electric Association.