

ALASKA ENERGY AUTHORITY

INVESTMENT OPPORTUNITIES IN ALASKA ENERGY

Curtis W. Thayer
CEO and Executive Director

Consular Office of Japan
Consul Kiyohiko Hamada
Oct. 14, 2026



WHO WE ARE, WHAT WE DO

OUR MISSION

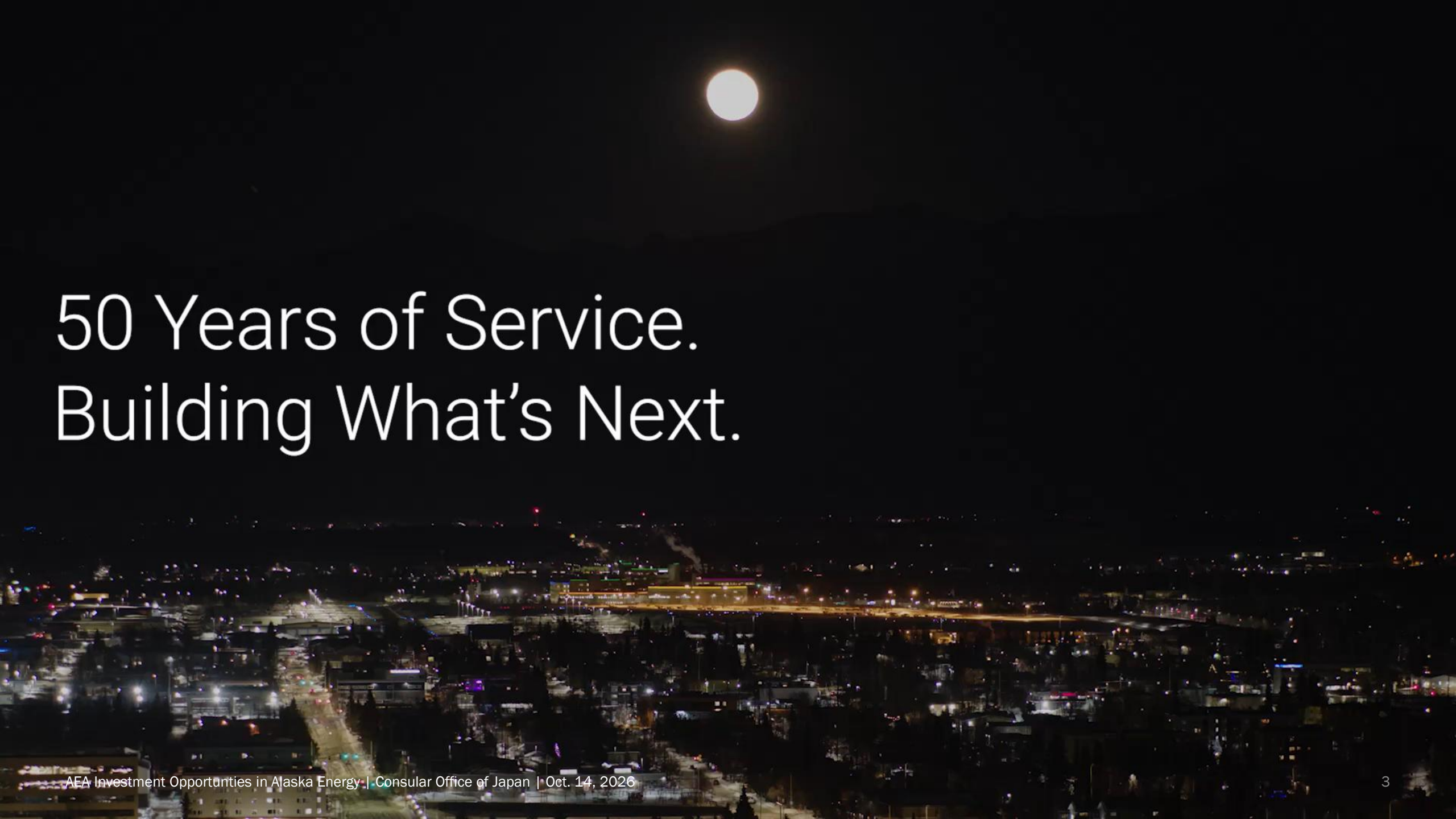
Advancing affordable,
reliable energy in Alaska.

WHERE WE'RE HEADED

OUR VISION

A resilient and reliable energy
future for Alaska, enabled by
strong infrastructure, innovation,
and collaboration.



An aerial night photograph of a city, likely Anchorage, Alaska, with a full moon in the dark sky. The city lights are visible, including a large airport terminal and surrounding urban areas.

50 Years of Service. Building What's Next.

AEA Programs and Services Overview



Owned Assets

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



Power Cost Equalization

- \$48 Million Program
- 193 Rural Communities
- 81 Electric Utilities
- Benefits 80,000+ Alaskans
(All figures reflect FY2026)



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

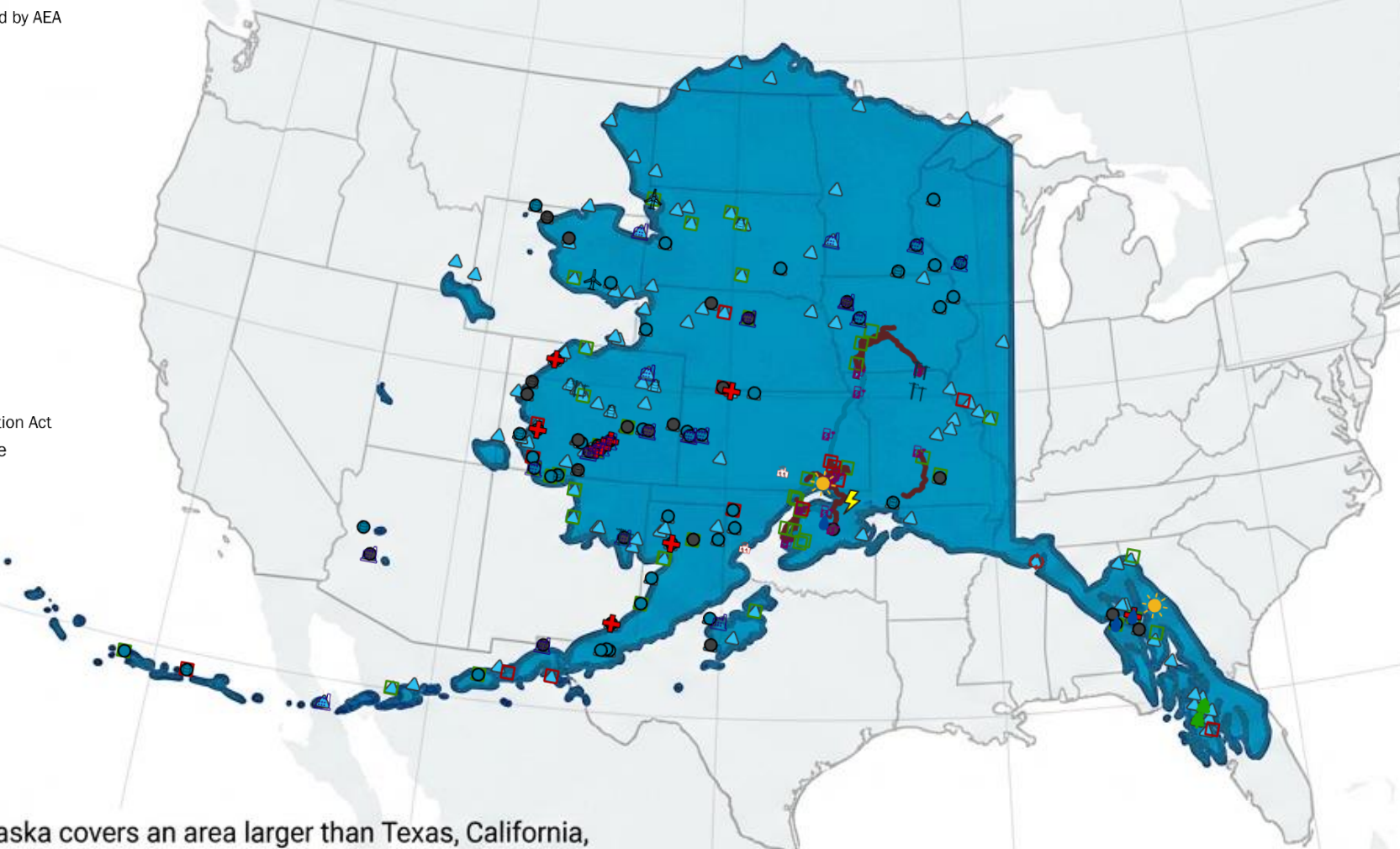


Railbelt Transmission Organization

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

- Grants and Loans
 - Power Project Fund
 - Renewable Energy Fund
- Owned Assets
 - Other Transmission Lines
 - Transmission
 - Transmission Lines Owned by AEA
- Power Cost Equalization
 - PCE Communities
- Renewable Energy
 - Biomass
 - Electric Vehicles
 - Port Electrification
 - Heat Recovery
 - Hydroelectric
 - Solar
 - Storage
 - Wind
- Rural Energy
 - Bulk Fuel
 - Diesel Emissions Reduction Act
 - Circuit Rider Assistance
 - Emergency Assistance
 - Utility Training

AEA Active Projects and Services



The state of Alaska covers an area larger than Texas, California, and Montana combined, spanning a distance from east to west that would stretch from coast to coast across the lower 48 states.



Railbelt Infrastructure and Military Installations

Railbelt system serving 75 percent of Alaskans; linking Homer–Kenai–Anchorage–Mat-Su–Denali–Fairbanks–Delta Junction



⚡ Bradley Lake Expansion Project – \$400 Million*

Expansion of the **120 MW** Bradley Lake Hydroelectric Project that **increases generation capacity by more than 40 percent**. Additional energy is transferred through the Alaska Intertie to utilities serving Interior Alaska—including military installations.

⚡ Beluga-Healy Transmission Project – \$418 Million (Up to \$150 Million Federal Funding)

A **223-mile, 230 kV transmission line** establishes a **second Railbelt intertie** between Southcentral and Interior Alaska. The project increases transfer capability, provides transmission redundancy, and supports power flows during upgrades to the Alaska Intertie.

⚡ Cook Inlet PowerLink – \$413 Million (\$206.5 Million Federal Grant)

A **38-mile** high-voltage direct current subsea transmission cable enabling up to **200 MW** bi-directional flow. Strengthens Southcentral-Interior transfer capacity and provides **critical backup redundancy for Joint Base Elmendorf-Richardson**.

⚡ SSQ Transmission Upgrades – \$178.5 Million

Upgrades to the Sterling-Soldotna-Quartz Creek transmission corridor that increase transmission capacity by **53 percent** through conversion to **230 kV** infrastructure. The project **reduces transmission losses** and **improves voltage performance within the corridor**.



Adding Renewable Energy to the Railbelt

Bradley Lake Expansion Project

Expanding Alaska's Largest Hydroelectric Facility

- AEA owns the **120-megawatt Bradley Lake Hydroelectric Project**, located 27-air miles northeast of Homer on the Kenai Peninsula.
- The project currently provides **~10 percent** of the annual power used by Railbelt utilities and serves about **75 percent** of Alaska's population.
- AEA is advancing the **Bradley Lake Expansion Project**—which includes the **Dixon Diversion** and **Bradley Pool Raise** subprojects—to increase annual energy production.

ESTIMATED COST



\$400 Million

Class IV Estimate

TARGET COMPLETION



2031

Shovel-ready status

Location and Anticipated Benefits

APPROXIMATELY

167,000 MWh

Additional renewable generation annually
(equivalent to 30,000 homes powered)

NATURAL GAS OFFSET

1.5 billion cu ft

7.5% of unmet demand (2030)

PROVEN INFRASTRUCTURE

35 years

Builds on Bradley Lake facilities reliably serving the
Railbelt since 1991

LONG-TERM PRICE STABILITY

Hydropower advantage

Reduced exposure to fuel-price changes

Project Location Map

Dixon Diversion and Bradley Pool

Raise: A 4.6-mile tunnel diverts water from Dixon Glacier into Bradley Lake, and a 16-foot dam raise increases storage.



Bradley Lake Expansion Project

2026 Progress and Key Milestones

Licensing, Engineering, and Field Activities

June 2026

COMPLETED

Final License Amendment application filed with the Federal Energy Regulatory Commission (FERC).

The 5,600-page filing included:

- ☑ Supporting Design Report
- ☑ Applicant-Prepared Environmental Assessment
- ☑ Operations and Hydrology Modeling

Throughout 2026

COMPLETED

Development activities: extensive geotechnical investigations; engineering and design advanced to **60 percent**; pre-diversion stream gaging and salmon monitoring.

Beluga to Healy Transmission Project

Supporting National Defense and Critical Minerals Development

- Backed by up to **\$150 million in U.S. Department of Energy (DOE) funding**, AEA is advancing **Beluga–Healy**, a 223-mile, 230-kV line connecting Southcentral and Interior Alaska.
- The project would support growing electricity demand from **military installations, mission-critical infrastructure**, and **national defense investments** along the Railbelt.
- Beluga–Healy would support domestic production of **critical minerals, mining**, and **industry** by expanding access to Railbelt power in West Susitna and Interior Alaska.

ESTIMATED COST



\$418 Million

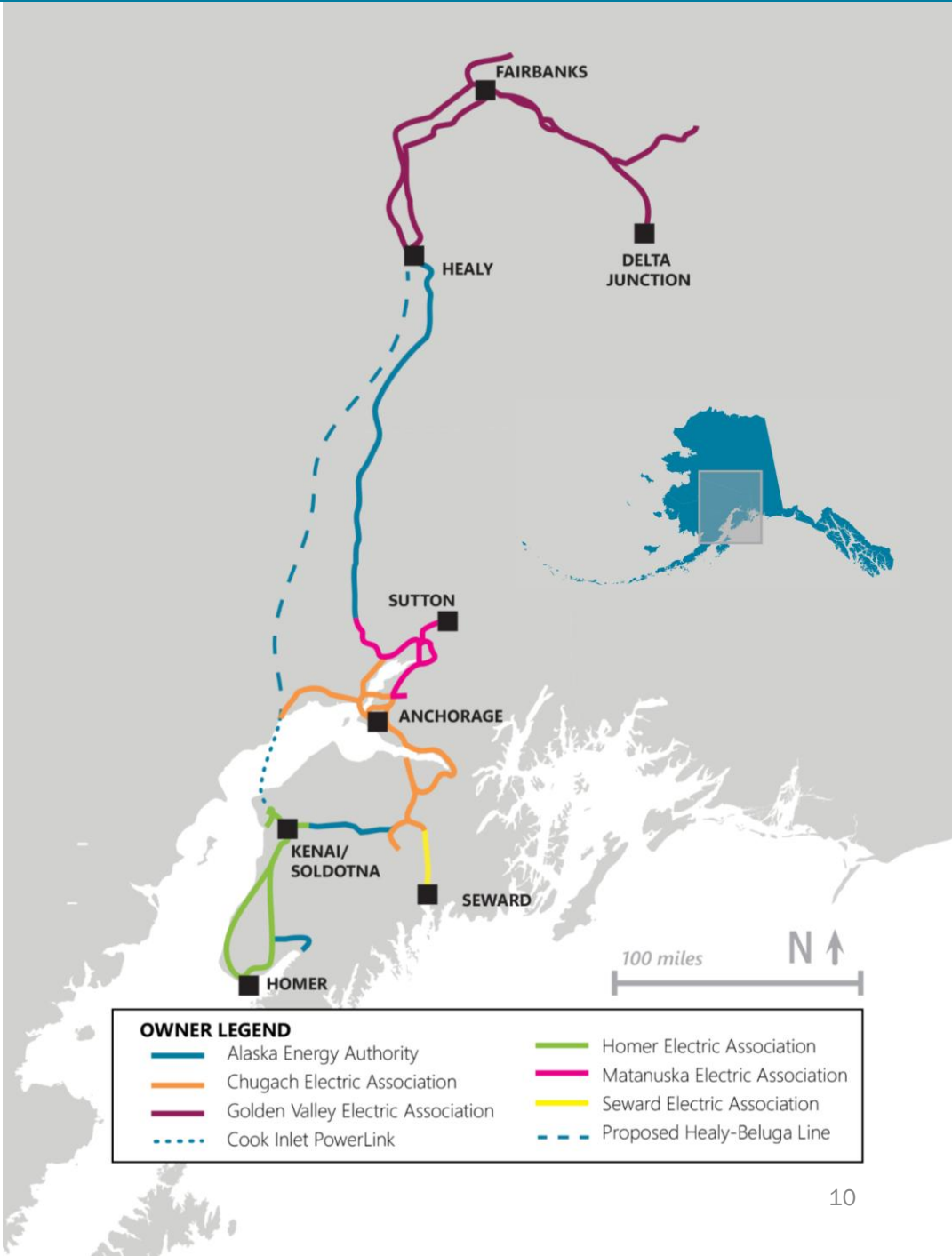
Up to \$150 million DOE funding

TARGET COMPLETION



2030+

Subject to permitting





Building Redundancy Into Alaska's Largest Electric System

Cook Inlet PowerLink (CIPLink)

Alaska's First High-Voltage Direct Current (HVDC) Transmission Project

- AEA is advancing **CIPLink** to strengthen Railbelt reliability through a second transmission path between the Southern and Central Railbelt.
- The project includes a **38-mile subsea cable, converter stations**, and supporting **overland transmission infrastructure**.
- CIPLink would enable up to **200 MW of bidirectional power flow**, allowing utilities to transfer power between regions and share generation resources across the Railbelt.

ESTIMATED COST



\$413 Million

Preliminary engineering done

TARGET COMPLETION



2032

Shovel-ready status

Cook Inlet PowerLink

Location and Anticipated Benefits

APPROXIMATELY

200 MW

Bidirectional power transfer

COOK INLET Crossing

38-mile subsea cable

Additional transmission path

Resource Sharing

Connected Railbelt

Connects Southcentral and Central Railbelt utilities, allowing utilities to share generation resources

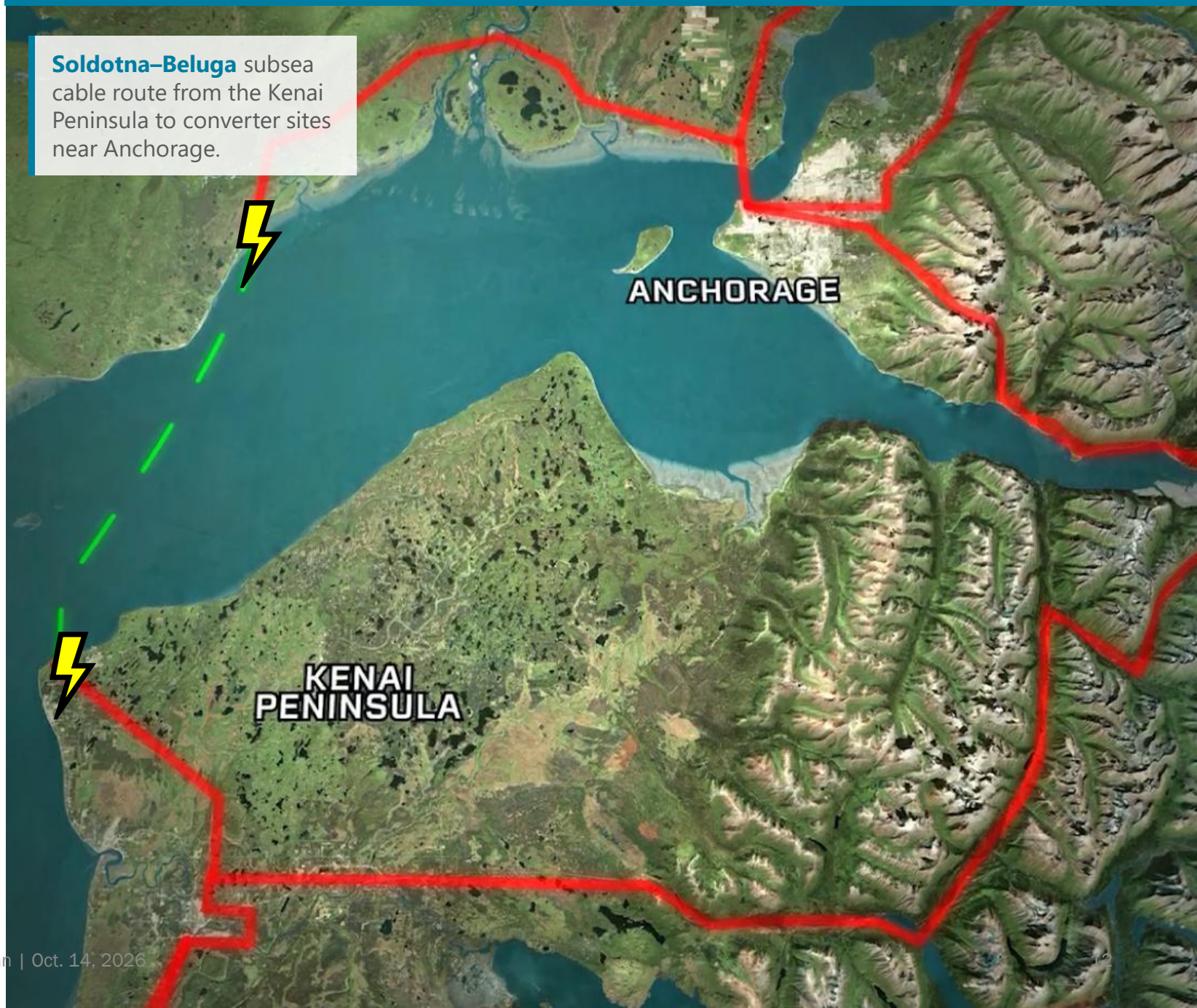
ADDITIONAL TRANSMISSION PATH

System redundancy

Supports reliability during outages

Project Location Map

Soldotna–Beluga subsea cable route from the Kenai Peninsula to converter sites near Anchorage.





2026 Progress and Key Milestones

Required permits are in place, and marine surveys begin in September



Marine survey permits obtained

Marine survey permits are secured for the Proposed **35-mile Cook Inlet corridor**.

COMPLETED



Woolpert mobilizes **Sept. 20**, with fieldwork expected through **Oct. 22** (subject to weather and marine conditions). **Surveys will evaluate:**

UNDERWAY

- ☑ Water depths and seafloor conditions
- ☑ Currents, sediments, and potential hazards
- ☑ Existing subsea infrastructure
- ☑ Potential cable landfall locations



Route refinement and engineering activities

Survey data will support cable design, installation planning, and future engineering activities.

NEXT

Soldotna-Sterling-Quartz Creek Transmission Line and Substation Project

- Upgrades **53 miles of transmission lines** on the Kenai Peninsula.
- Led by AEA in partnership with **Homer Electric Association** and **Chugach Electric Association**.
- Supports **reliable delivery of Bradley Lake hydropower** to Railbelt communities.



MORE POWER MOVED

+53%

Potential increase in power transfer capability



STRONGER RAILBELT

115 kV→230 kV

Supports more efficient power transfers



ESTIMATED COST

\$178.5 Million

Including all costs



TARGET COMPLETION

2030

Upgrades underway



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.

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.



193

RURAL COMMUNITIES



81

ELECTRIC UTILITIES



80,000

ALASKANS



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.

\$48M

FUNDS DISBURSED

In fiscal year 2026, AEA disbursed \$48 million to rural electric utilities benefiting 80,000 Alaskans.

Petersburg, Alaska



Rural Energy

Improving reliability and safety for Alaska's remote communities.



Rural Power System Upgrades

Improves generation in villages with <2,000 people by replacing inefficient mechanical systems with electronic generator sets.

Mitigates risk of aging system failure

ELIGIBLE
170
Communities

DEFERRED MAINT.
\$300 Million
Funding Need



Bulk Fuel Upgrades

Designs and builds modern, code-compliant bulk fuel facilities. Most existing facilities are >40 years old and pose safety risks.

Addresses corrosion and environmental risks

INVENTORY
400+
Facilities

DEFERRED MAINT.
\$1 Billion
Funding Need



Alaska Bulk Fuel Infrastructure Partnership

Denali Commission funds bulk fuel upgrades in 10 rural communities. \$100 million to ANTHC, subawarded to AEA, AVEC.

Largest single-year investment in 20+ years

FUNDED
10
Communities

Awarded
\$100 Million
FY2027 Receipt

RURAL ALASKA

Renewable Energy Fund (REF)



ABOUT THE PROGRAM

Established in 2008 to reduce and stabilize the cost of energy across Alaska.

The Renewable Energy Fund (REF) provides competitive grant funding for renewable energy projects in communities across Alaska. REF supports projects that reduce long-term energy costs, decrease diesel dependence, and improve power reliability.

AEA administers a four-stage review process under Alaska Statute 42.45.045: **eligibility and completeness, technical and economic feasibility, project scoring, and regional spreading.**

ROUND 19 · FY2028

\$84.5 million requested

42 applications received; \$476.3 million in matching funds (5.6:1 match ratio).

CUMULATIVE · SINCE 2008

\$333 million

Total state investment across 18 funding rounds.

PROJECTS IN SERVICE

120 + operational

Plus 58 additional projects in active development.

DIESEL DISPLACED

~120 million gallons

~\$600M avoided at the FY2025 PCE rate (\$4.95/gal).

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
\$28.5 Million
15 Loans



Uncommitted Cash Balance
\$8.3 Million as of
end of FY2026



Competitive Rates
Current PPF Interest Rate
5.55% as of August 2026



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

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

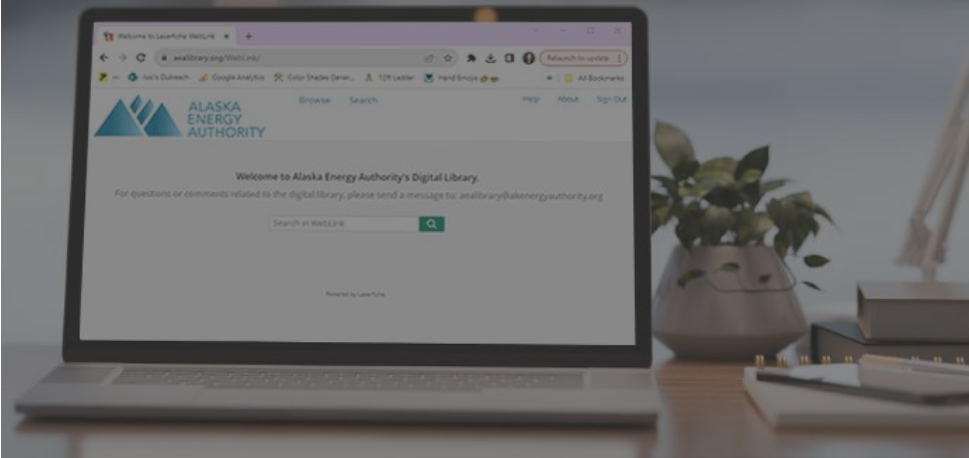
Grid Resilience Formula Grant Program IIJA 40101(d)

Metlakatla, Alaska

- AEA administers Section 40101(d) grid resilience funds through a competitive process. Of the **\$60 million** expected in federal formula grants, **\$39.8 million** has been awarded to date; a final allocation is expected in 2026.
- **Round 1** (initial solicitation): **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**.
- **Round 2** (second solicitation): **Three projects** were awarded sub-grants totaling **\$17.7 million**—
 - **Two** to strengthen grid resilience across the **Railbelt** and **Southcentral Alaska**, served by **Matanuska Electric Association** and **Golden Valley Electric Association**.
 - **One** to enhance grid resilience in **Southeast Alaska** served by **Southeast Alaska Power Agency**.
- Eligible resilience measures include:
 - Hardening lines and substations
 - Extreme-weather upgrades
 - Fire-resistant components
 - Microgrids and energy storage
- Funding requires a **15 percent state match** and a **33 percent small-utility match**.

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>.



OUR TEAM

THANK YOU

AEA's mission is advancing affordable, reliable energy in Alaska.



Alaska Energy Authority (AEA)

813 W Northern Lights Blvd.
Anchorage, AK 99503
Phone: (907) 771-3001
Fax: (907) 771-3044
akenergyauthority.org