

ALASKA ENERGY AUTHORITY

# AEA: PROGRAMS, PROJECTS, AND PRIORITIES

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February 4, 2026



50 YEARS OF SERVICE



# 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
- Tariff Under Regulatory Review

# AEA Active Projects and Services

## Grants and Loans

- Power Project Fund
- Renewable Energy Fund

## Owned Assets

- Other Transmission Lines
- Transmission
- Transmission Lines Owned by AEA

## Power Cost Equalization

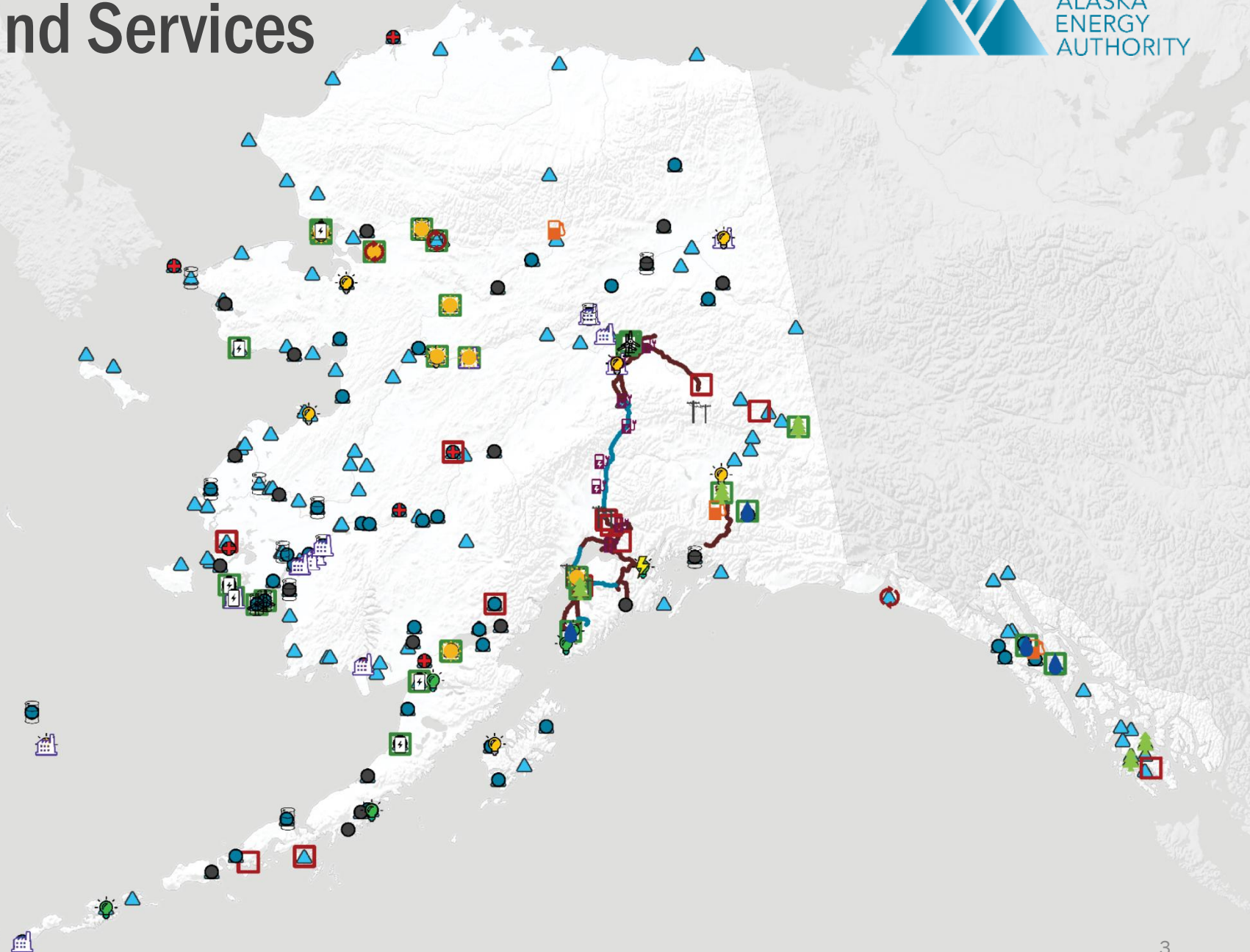
- PCE Communities

## 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



# Bradley Lake Expansion Project

AEA is advancing 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 OUTPUT

**180,000 MWh**

*≈ 30,000 homes powered*



NATURAL GAS OFFSET

**1.5 Billion cu ft**

*7.5% of unmet demand (2030)*



TARGET COMPLETION

**2031**

*Shovel-ready status*




ESTIMATED COST

**\$400 Million**

*Class IV Estimate*

**SOUTHCENTRAL ALASKA**

Bradley Lake Hydroelectric Project



# BRADLEY LAKE EXPANSION PROJECT

# Cook Inlet PowerLink (CIPLink)

CIPLink is a high-voltage direct current (HVDC) transmission system connecting Southern and Central Railbelt regions. It features a **38-mile subsea cable** and overland routes to deliver **up to 200 MW** of bidirectional power flow.



CAPACITY  
**200 MW**  
*Bidirectional Flow*



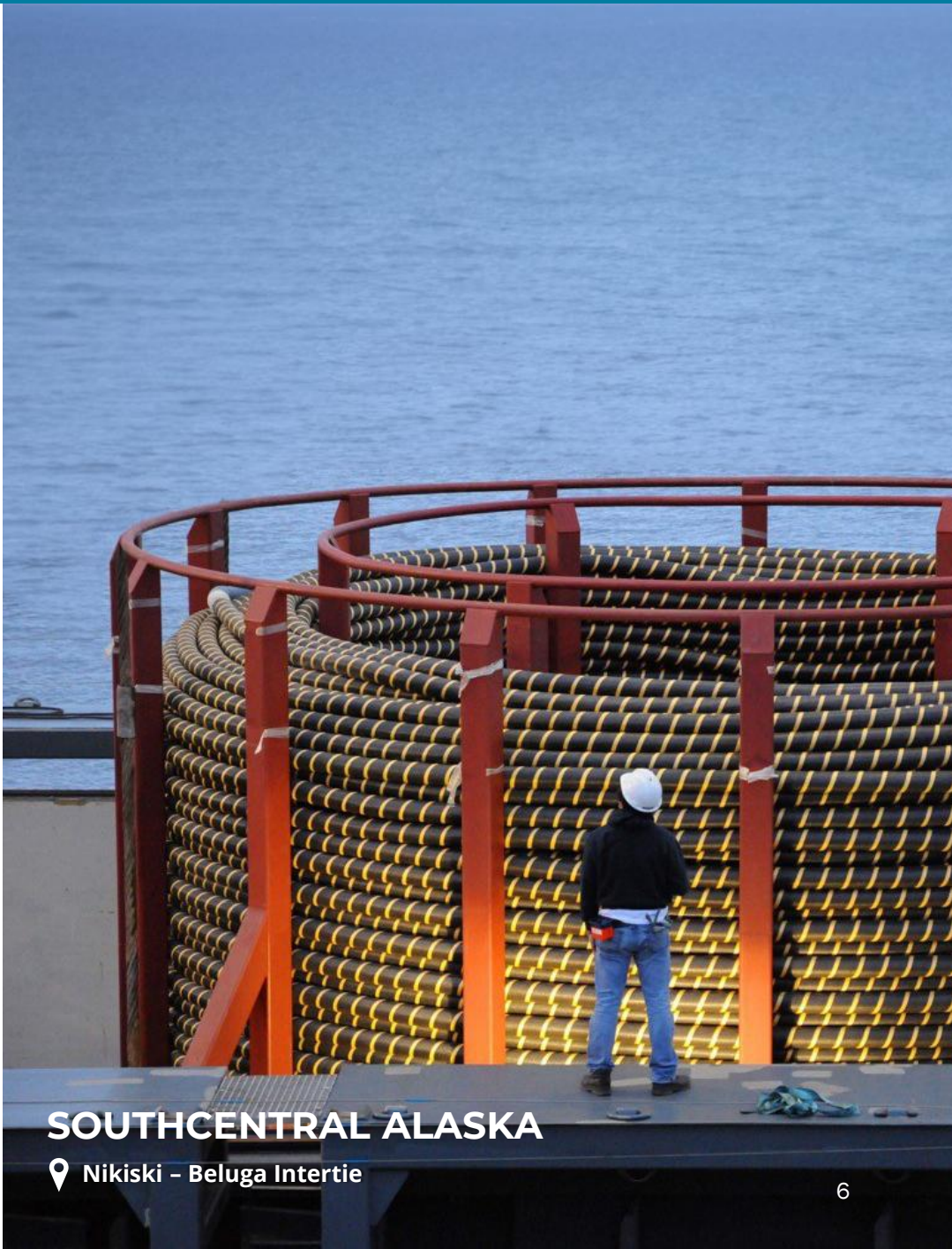
CONNECTIVITY  
**Railbelt Link**  
*Connects South & Central Regions*



TARGET COMPLETION  
**2032**  
*Shovel-ready status*



ESTIMATED COST  
**\$413 Million**  
*Preliminary Engineering Done*



**SOUTHCENTRAL ALASKA**

**Nikiski - Beluga Intertie**

# COOK INLET POWERLINK

# 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



82

ELECTRIC UTILITIES



82,000

ALASKANS



750 kWh

RESIDENTIAL

Residential customer are eligible for PCE credit up to 70 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.

\$47M

FUNDS DISBURSED

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

St. George Island, Pribilof Islands, Alaska

An aerial photograph of a rural landscape, likely in Alaska, featuring a winding river, a dense forest of evergreen trees, and large, rugged mountains in the background. The entire image is overlaid with a semi-transparent teal color.

# RURAL ENERGY INFRASTRUCTURE

# Rural Energy Infrastructure

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

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

## Circuit Rider Real-Time Remote Assistance

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

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



# 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)

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- **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

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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**  
\$28.9 Million  
15 Loans



**Uncommitted Cash Balance**  
\$12.1 Million as of  
January 2026



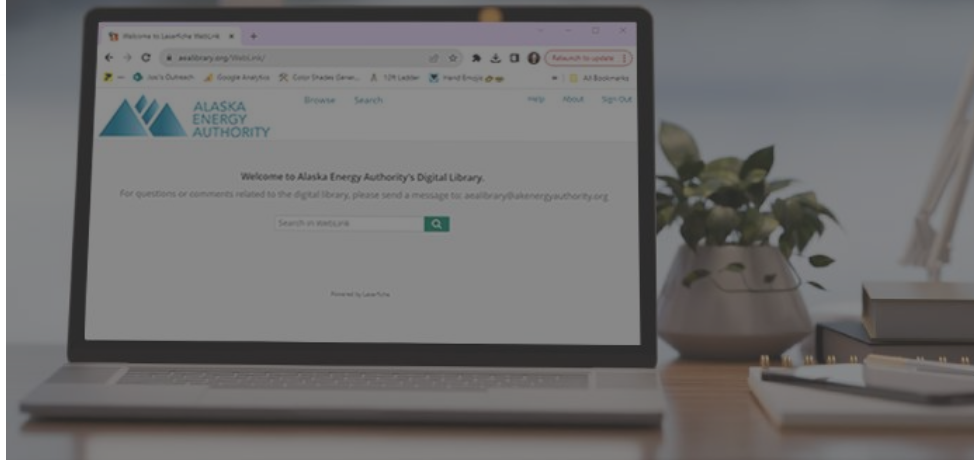
**Competitive Rates**  
Current PPF Interest Rate  
5.57% as of January 2026



**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 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.

## Public Outreach

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

Houston Solar Farm, Houston, AK



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.**

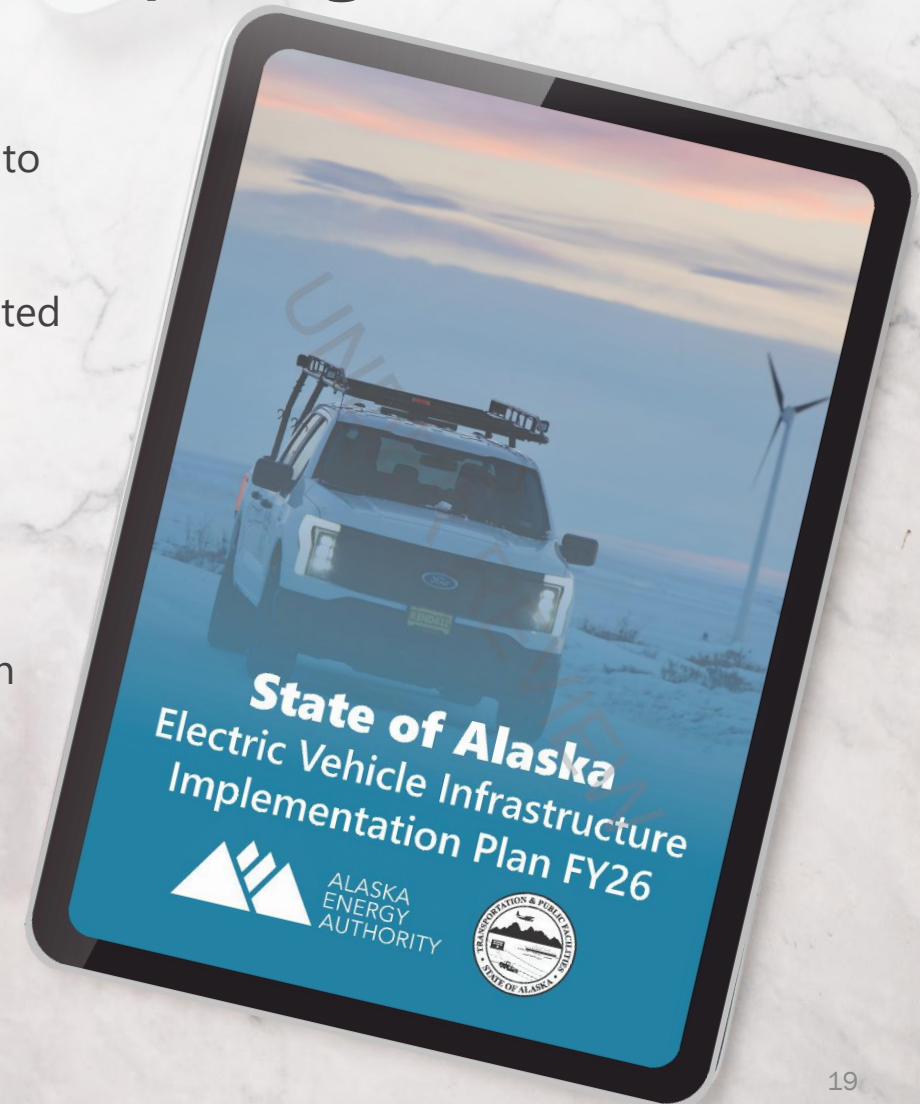
## Home Electrification and Appliance Rebates

- 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.**

# 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.



# Thank You

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