

ALASKA ENERGY AUTHORITY

INTRODUCTION AND OPPORTUNITIES

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Director of Renewable Energy
and Energy Efficiency

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2024 Southeast Alaska Economic Summit
and 66th Annual Meeting
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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 of renewable energy technologies such as biomass, electric vehicles, geothermal, hydroelectric, solar, and wind.



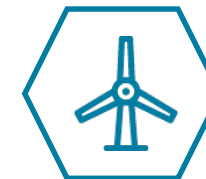
Power Cost Equalization (PCE) — In rural Alaska, PCE reduces the cost of electricity for residential customers as well as community facilities, thus ensuring its sustainability.



Grants and Loans — AEA offers loans to local utilities, local governments, and independent power producers for the construction or upgrade of power generation and other energy facilities.

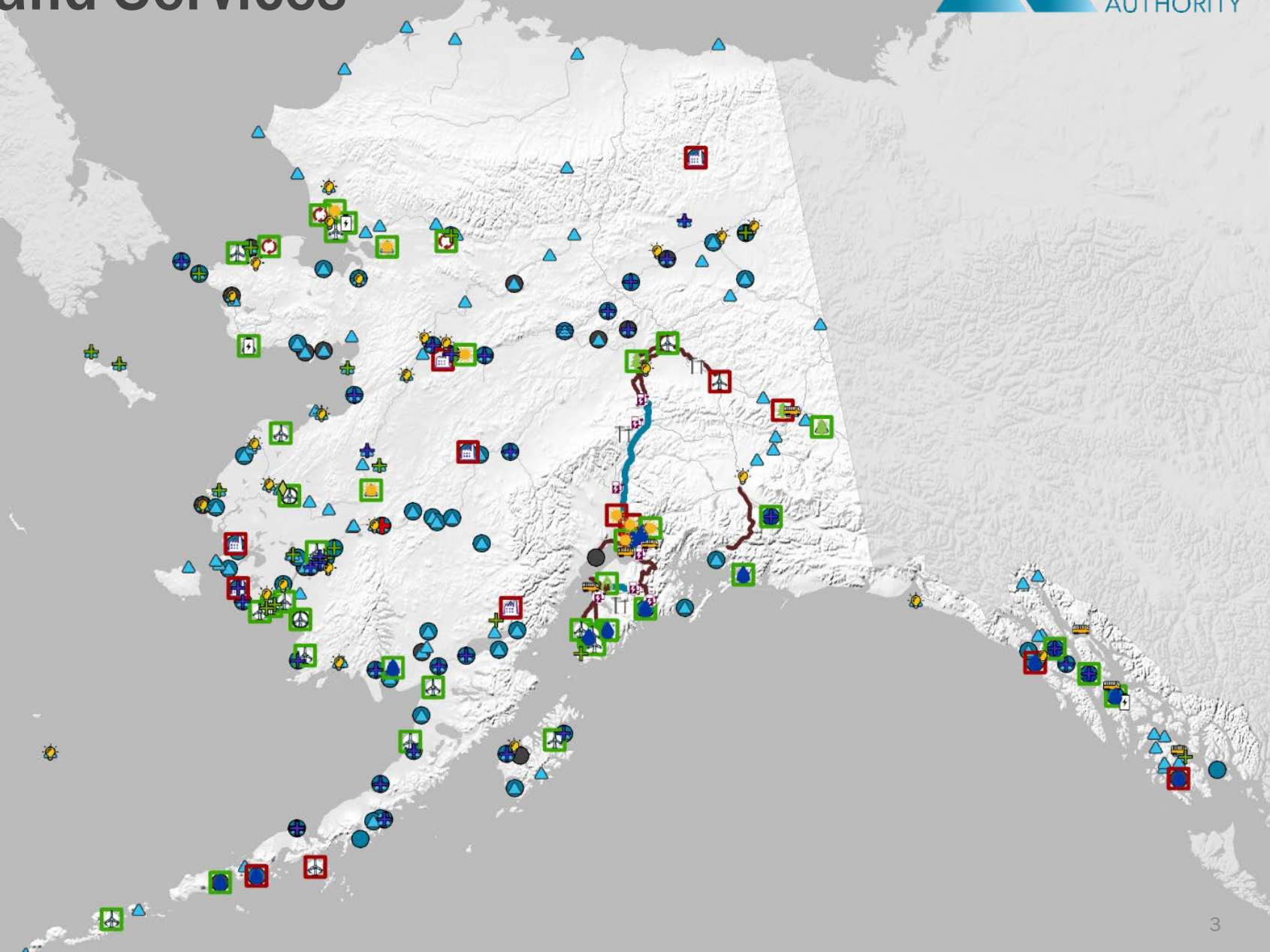


Rural Energy — AEA constructs bulk fuel tank farms, diesel powerhouses, and electrical distribution grids in rural villages. AEA supports the operation of these facilities through circuit rider and emergency response programs.



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

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- The map displays the state of Alaska with various colored icons representing different energy projects and services. A legend on the left side of the map provides a key for these icons, including counts for many categories. The map also shows transmission lines, with a thick blue line indicating those owned by the AEA and a thinner brown line for other transmission lines. The icons are distributed across the state, with a higher concentration in the central and eastern regions.
- 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)
 - Circuit Rider Assistance (93)
 - Emergency Assistance (3)
 - PCE Communities (193)
 - Power Project Fund
 - Renewable Energy Fund
 - Transmission Line owned by AEA
 - Other Transmission Line
 - Utility Training (81)



Audrey Alstrom, PE
Director

AEA Renewable Energy and Energy Efficiency Team

Number of Employees: 6

Responsible for:

- Working Group Facilitation
- Solar for All
- National Electric Vehicle Infrastructure
- Home Energy and High Efficiency Rebate Allocations
- Black Rapids Training Site
- State Energy Program
- Energy Efficiency and Conservation Block Grant
- Develop and implements renewable energy programs based on organizational goals

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.

Working Group Facilitation

- Alaska Electric Vehicle Working Group
- Alaska Energy Efficiency Partnership
- Alaska Solar Working Group
- 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

Renewable Energy Fund (REF)

With Senate Bill 187, the Legislature and Governor appropriated \$10.5 million for five projects in June 2024. The appropriation is double the initial REF budget of \$5 million. In light of the numerous federal funding opportunities available, which compete for these same limited community resources, AEA and the REF Advisory Committee will seek fiscal year 2026 funds from the Legislature for the 19 projects not funded in Round 16.

REF Highlights

Round 13: 11 Projects – \$4.75M

Round 14: 27 Projects – \$15M

Round 15: 18 Projects – \$17M

Round 16: 5 Projects – \$10.5M



Kongiganak, Alaska



Since its inception, the State has invested \$327 million in the REF;



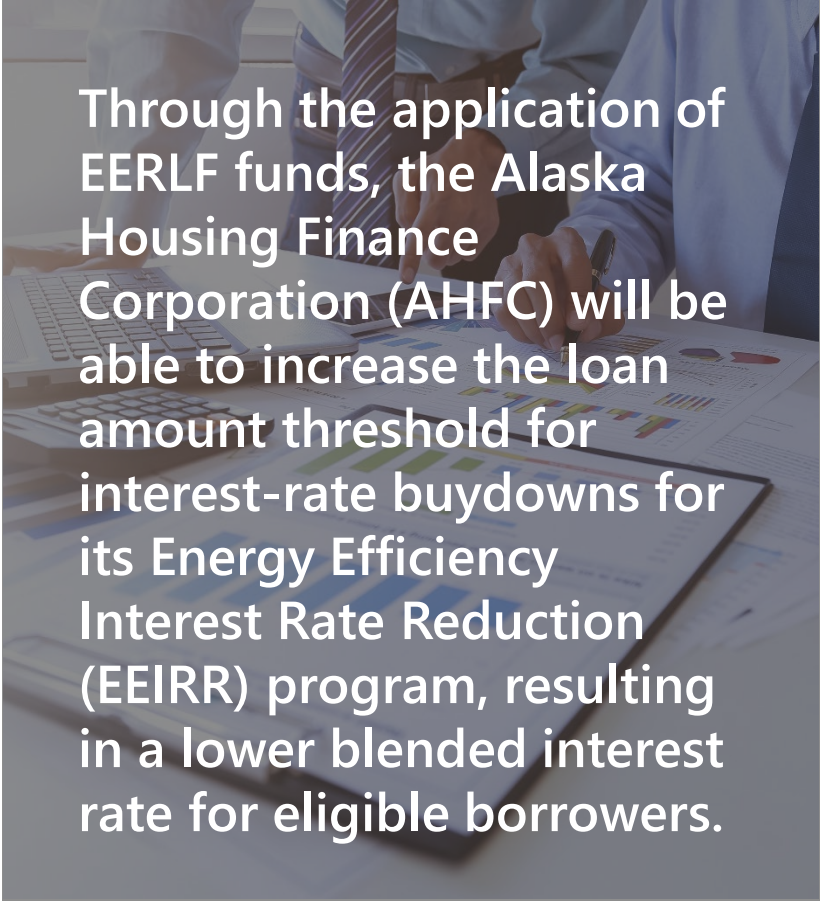
Over 100 operational projects, and 59 are under development; and



The REF has offset the consumption of approximately 85 million gallons of diesel fuel, per an independent study.

Energy Efficiency Revolving Loan Fund (EERLF) Capitalization Grant Program IRA 40502

- The EERLF was authorized under Section 40502 of the Inflation Reduction Act to provide capitalization funding for states to establish loan funds to eligible recipients for commercial and/or residential energy audits, upgrades, and retrofits. The state of Alaska was allocated \$4,782,480 under the federal formula, with funds being awarded to AEA in June 2024.
- With interest-rate buydowns stated as an allowable use of funds under the EERLF program, AHFC sought to apply the funds to its EEIRR program, increasing the loan amount threshold to which the interest rate reduction may apply, lowering the overall, blended interest rate for eligible borrowers.
- As the only entity eligible for the funds in the state, AEA applied with AHFC's support. AEA and AHFC have a reimbursable services agreement, and this award will be managed as a sub-award to AHFC. AEA will retain a portion of the funds for administration, reporting, and compliance, while AHFC will receive \$4.4 million to enhance its EEIRR program.



Through the application of EERLF funds, the Alaska Housing Finance Corporation (AHFC) will be able to increase the loan amount threshold for interest-rate buydowns for its Energy Efficiency Interest Rate Reduction (EEIRR) program, resulting in a lower blended interest rate for eligible borrowers.

\$60 Million (Over Five Years)

Grid Resilience Formula Grant Program, IIJA 40101(d)



Per IIJA section 40101(a)(1), 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.”



- Over the next five years, Alaska will receive **\$60 million in federal formula grants** to catalyze projects that increase grid resilience against disruptive events. In August 2023, **the first two years of allocations, \$22.2 million**, was awarded to AEA. AEA’s competitive solicitation for these funds closed in February 2024. Notification of sub-awards are expected 2nd QTR 2024, pending DOE approval. For fiscal year 2025, AEA requested **\$17,627,018**, Alaska’s formula allocation for year 3, in Federal Receipt Authority and **\$1,816,579 in matching funds**.
- 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**.

\$496,725 (Single Award)

U.S. DOE SCEP: Energy Future Grants (EFG) Program

With funding under the EFG program, the Alaska Municipal League (AML) will increase the capacity of up to 45 municipalities to access affordable clean energy, through cohort reviews and exercises related to permits, land-use, regulatory, and other aspects.



The U.S. Department of Energy's (DOE) EFG program is a competitive, federally-funded program that provides financial and technical assistance to support local, state, and Tribal government-led partnership efforts to increase resiliency and improve access to affordable clean energy. ■



With state energy offices eligible for the EFG program, AML and AEA partnered to submit an application under the first-ever program solicitation. It is slated to be a continuing program offered through DOE's State and Community Energy Programs (SCEP). ■



AML, via this pass-through sub-award opportunity to be managed under a Memorandum of Agreement between AEA and AML, will engage via a cohort-approach up to 45 Alaskan municipalities to enhance and improve their capacity for local energy operations and governance. ■



AEA's award under the program was preliminarily awarded in late March 2024. AEA expects the final award to be officially issued by DOE in August 2024, upon DOE's conclusion of negotiations. ■

Home Energy and High Efficiency Rebate Allocations

AEA is collaborating with AHFC to distribute Alaska's allocation of \$74 Million

Home Efficiency Rebates

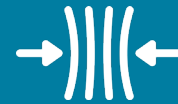
- Rebates for energy efficiency retrofits range from \$2,000-\$4,000 for individual households and up to \$400,000 for multifamily buildings.
- Grants to states to provide rebates for home retrofits.
- Up to \$2,000 for retrofits reducing energy use by 20% or more, and up to \$4,000 for retrofits saving 35% or more.
- Maximum rebates amounts are doubled for retrofits of low-and moderate-income homes.
- **Alaska's Allocation is \$37.4 million**
- **No State match is required.**
- **Funding is estimated to be available in fall/winter 2025.**

Home Electrification and Appliance Rebates

- Develop a high efficiency electric home rebate program.
- Inclusive of means testing and will provide 50% of the project cost for incomes ranging from 80% to 150% of area median income. Rebates to cover 100% of the proposed cost for incomes 80% of area medium income and below, with similar tiers applied 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 electrical 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.**
- **Funding is estimated to be available in fall/winter 2025.**

Solar for All

\$62.5 Million (Shared with AHFC)



- **In April 2024, AEA and the Alaska Housing Finance Corporation (AHFC) were selected for a \$62.5 million grant from the Environmental Protection Agency's Solar for All program.**
 - AEA will develop community solar in disadvantaged communities.
 - AHFC will develop residential rooftop solar for low income households.
- **Program benefits:**
 - Energy cost savings,
 - Increased resiliency,
 - Equitable access to solar,
 - Asset ownership benefits low income and disadvantaged communities,
 - Workforce development, and
 - Reduction in greenhouse gas emissions.
- **No match required for this competitive grant.**

Electric Vehicles

Alaska Electric Vehicle Working Group

- Quarterly Working Group Meetings, Monthly Technical Sessions and Newsletters
- Public Facing Stakeholder Outreach and Engagement

EV Infrastructure Funding

- **National Electric Vehicle Infrastructure (NEVI) Formula Program**
 - \$52 million / Federal Highway Administration
 - AEA and the Alaska Department of Transportation & Public Facilities (DOT&PF), continue their partnership in deploying the **State of Alaska EV Infrastructure Implementation Plan (The Plan)**.
 - The **first round of Alaska NEVI awards was announced on September 25, 2023**. AEA and DOT&PF selected projects in nine communities for a total investment of \$8 million. The \$6.4 million in NEVI funding will be matched with \$1.6 million from private entities selected to install, own, and operate the new EV charging stations.
- **Alaska Rural EVSE Deployment (ARED) Project**
 - \$1.67 million / DOE
- **Volkswagen Settlement**
 - Collaborating with Southeast Conference to fund Level 2 chargers in southeast Alaska



State of Alaska Electric Vehicle Infrastructure Implementation Plan FY25



Alaska Rural Electric Vehicle Supply Equipment Deployment Project



Thank You

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