Alaska Energy Authority

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Who We Are

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.
Owned Assets – AEA owns the Alaska Intertie and the Bradley Lake Hydroelectric Project. These assets benefit Railbelt consumers by reducing the cost of power.


Rural Energy Assistance – 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 Technology Programs – AEA provides renewable energy and energy efficiency grants, analysis, and expertise. These include hydro, biomass, wind, solar, and others.

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

Energy Planning – In collaboration with local and regional partners, AEA provides critical economic and engineering analysis to plan the development of cost effective energy infrastructure.
Our Projects

AEA works with its Alaska partners and stakeholders to provide reliable and affordable energy solutions.
Programs and Projects

- Alaska Intertie
- Bradley Lake Hydroelectric Project
- Power Cost Equalization
- Rural Power System Upgrades
- Bulk Fuel Upgrades
- Rural Utility Assistance
- Power Project Fund
- Renewable Energy Fund
- Energy Efficiency
- Alaska C-PACE
- Alternative Energy
- Energy Project Development
Statewide Impact

AEA currently has 88 active infrastructure projects around the state.
Owned Assets
Alaska Intertie

- 170 miles from Willow to Healy
- Allows Golden Valley Electric Association (GVEA) to connect to and benefit from lower cost power
- Improves reliability within Railbelt system
- Operated by AEA and Railbelt utilities
- $40 million savings for GVEA in Fiscal Year 2019
Bradley Lake Hydroelectric Project

- Produces ~10% of Railbelt electricity, 4.5 cents/kWh
- Benefits members of:
  - Chugach Electric Association
  - City of Seward
  - Golden Valley Electric Association
  - Homer Electric Association
  - Matanuska Electric Association
  - Municipal Light & Power
- Battle Creek Diversion Project: $47 million, will add ~10% energy
Rural Energy Assistance
Rural Power System Upgrades

- Improving power system efficiency, safety, and reliability
- Building code compliant facilities to provide stable and reliable power
- ~10%, 20%, 30% efficiency improvement in diesel generation
- 98 projects completed since 2000
Bulk Fuel Tank Farm Upgrades

- Code-compliant fuel storage facilities
- Prevention of spills and contamination
- Reduction of fuel cost by allowing the community to purchase bulk quantities
- 131 projects completed
- 8 are in design or construction
Rural Utility Assistance

109 Communities received Circuit Rider and/or Technical Assistance in Fiscal Year 2019

36 Operators from 33 communities received training in Fiscal Year 2019

5 Communities received electrical emergency assistance in Fiscal Year 2019
Power Cost Equalization
Power Cost Equalization

- **History** – Established in 1985, the Power Cost Equalization (PCE) Program provides electric power to rural residential customers and community facilities at costs similar those in Anchorage, Fairbanks, and Juneau.

- **PCE Endowment Fund** – Created and capitalized in Fiscal Year 2001, the $1.1 billion PCE Endowment Fund is managed by the Department of Revenue.

- **Calculation of PCE Rate** – The Regulatory Commission of Alaska determines the effective rate based on rural utility expenses and power sales.
PCE Program

- 197 Communities Served
- $27 Million Disbursed in FY 2018
- Supported by AEA Rural Utility Assistance
- Web Portal to Increase Accuracy
Energy Technology Programs
AEA focuses its energy efficiency programs on commercial buildings, public buildings, industrial facilities, and electrical efficiency.

**Biomass**
AEA’s biomass program supports the construction of wood-fired boilers using local fuels that provide heat for public facilities.

**Hydroelectric**
In addition to Bradley Lake, AEA continues to analyze, develop, construct, and fund hydroelectric projects throughout Alaska.

**Wind**
AEA supports the development and construction of wind projects across Alaska – from the Railbelt Grid to rural villages.
Alaska C-PACE

- Adopted by over 20 states, Commercial Property Assessed Clean Energy (C-PACE) is an effective financing program tool to attract private capital for energy upgrades.
- In 2017, legislation was passed to develop a C-PACE program in Alaska.
- AEA is leading an ad hoc group of stakeholders to initiate programs in municipalities and boroughs statewide.
- Under the C-PACE model, debt associated with doing the improvements is repaid via a line item on local tax assessments.
Grants and Loans
Power Project Fund

- ~$38 million committed or disbursed for 18 performing loans
- $10.7 million uncommitted
- Flexible loan program
- Covers all aspects of supply side system
- Relies on unique, in-house technical expertise for evaluation of loan viability and regulatory compliance
- Loan applications are vetted for economic and finance viability
- Critical resource in shift from grant funded to debt financed energy projects
Renewable Energy Fund

▶ $268 million invested in the Renewable Energy Fund (REF) by the State
▶ Boosted renewable energy market in Alaska
▶ Leveraged hundreds of millions of federal and private dollars

▶ 90 operational projects, 30 in development
▶ Saving more than 30 million gallons of diesel each year
▶ ~$74 million in fuel savings in 2017
295 REF Applications Funded 2008-2019

- Biomass or BioFuels
- Heat Pump
- Heat Recovery
- Hydro
- Ocean/River
- Solar
- Transmission
- Wind
- Other

- Hydro: $92.1
- Wind: $91.6
- Biomass: $27.0
- Heat Pumps: $17.2
- Heat Recovery: $21.1
- Transmission: $14.6
- Ocean/River: $3.9
- Solar: $0.5
- Other: $0.1
VW Settlement Funds

- On January 29, 2018, Alaska became the beneficiary of a $8.125 million “Volkswagen (VW) Settlement”
- AEA is the State’s lead agency to develop and implement a Beneficiary Mitigation Plan
- The following projects have been selected to reduce NOx emissions by more than 2.5 times Alaska’s mitigation goal:
  - Replacement of Diesel Engines used for Prime Power (~$813K)
  - Public Transit Bus Replacement (~$234K)
  - School Bus Replacement (~$4.3M)
  - Electric Vehicle Charging Infrastructure (~$1.2M)
Energy Planning
Energy Project Development and Financing

- Planning, evaluation, and project development assistance
- Data collection and reporting
- Financing
- Critical federal partnerships (Denali Commission, Department of Energy, USDA Office of Rural Development)
AEA provides energy solutions to meet the unique needs and opportunities of Alaska’s rural and urban communities.
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