

State of Alaska FY2025 Governor's Operating Budget

Department of Commerce, Community, and Economic Development Statewide Project Development, Alternative Energy and Efficiency Component Budget Summary

Component: Statewide Project Development, Alternative Energy and Efficiency

Contribution to Department's Mission

Assist in developing projects in Alaska that reduce and stabilize the cost of energy and decrease dependency on diesel and heating oil.

Major Component Accomplishments in 2023

Electric Vehicle (EV): AEA continues to lead Alaska's effort to minimize barriers to EV adoption. In August 2023, AEA, in coordination with the Alaska Department of Transportation and Public Facilities, submitted its second State of Alaska EV Infrastructure Implementation Plan (The Plan) to the United States Joint Office of Energy and Transportation, as required by the Infrastructure Investment and Jobs Act's (IIJA) National Electric Vehicle Infrastructure (NEVI) Formula Program. Through the NEVI program, Alaska will receive over \$52 million in federal formula funds over five years to support EV charging.

The Plan includes a five-year phased approach to building out Level 3 EV charging stations along the Alternative Fuels Corridor from Anchorage to Fairbanks, and a forward-looking schedule of building out Level 3 charging stations along Alaska's highways and the Alaska Marine Highway. AEA intends to execute and complete the NEVI program in the years 2022-2027.

In March of 2023, AEA and the Alaska Department of Transportation and Public Facilities (DOT&PF) released a Request for Applications for EV charging site hosts along the designated Alternative Fuel Corridor between Anchorage and Fairbanks. Thirty-four applications were received as a result of this solicitation, and nine sites were selected to receive NEVI funding. Sites are in Anchorage, Cantwell, Denali State Park, Ester, Fairbanks, Healy, Nenana, Trapper Creek, and Wasilla.

AEA continues to pursue EV-related funding opportunities, as they become available. In September 2023, AEA received \$1.67 million from the Department of Energy's (DOE) Vehicle Technologies Office to install charging stations in rural and disadvantaged communities. The scope of the project also includes support for EV outreach and education, workforce development, data collection and research.

In addition to the above funding opportunity AEA submitted a joint application with DOT&PF to the Charging and Fueling Infrastructure Grant Program, administered through the Federal Highway Administration in June 2023, "Connecting Alaska's Coastal Communities with Charging Infrastructure." This project aims to install direct-current fast chargers in nine coastal communities, served by the Alaska Marine Highway System. The total project budget is \$15 million. Award announcements are anticipated in Q4 2023.

Power Project Fund (PPF): As of June 2023, AEA's PPF loan program, which qualifies applicants seeking low-interest loans for eligible power projects, included 16 outstanding loans for biomass, diesel, energy conservation, hydro, solar, and wind. There are no delinquent loans. Through the PPF program, AEA provided financing for an Alaska-based independent power producer to develop the state's largest 6MW solar farm.

Renewable Energy and Energy Efficiency: AEA's renewable energy and efficiency programs grow Alaska's clean energy economy. These programs provide critical technical support for communities interested in developing renewable energy and efficiency projects. Through AEA's collaborative working groups, various renewable technologies and energy efficiency initiatives are supported.

- **Biomass Program:** AEA's biomass program focuses on utilizing organic material for generating heat and/or power. The program encompasses landfill gas, fish oil, and wood-based projects. The biomass program receives funding through State appropriation and the United States Department of Agriculture – Forest Service Wood Innovations Grant. Through this grant, AEA funds the Alaska Wood Energy Development Task Group. AEA and the Task Group fund multiple lines of effort that include outreach, technical assistance, training, pre-feasibility studies, and design projects. Through this work, AEA and the Task Group intend to increase the utilization of wood energy across the state of Alaska.

- **Efficiency:** AEA's energy efficiency program focuses on rural community outreach and education, public and commercial buildings, industrial facilities, and electrical efficiency. The two main objectives of AEA's efficiency program are 1) achieving the most cost-effective energy efficiency gain and 2) providing services where energy costs are critically high.
- **Energy Storage:** Energy storage allows for energy from non-firm generation sources such as wind or base load thermal generation sources such as natural gas or coal to be stored for later use. The stored energy is used during periods of high electrical demand to avoid turning on additional generation units or to provide energy when the non-firm source is not generating. Energy storage can be accomplished with several technologies such as, but not limited to, battery energy storage systems, water storage, pumped hydro, flywheels, and compressed air. Battery storage can be used in many ways but typically, it is to peak shave, support system stability, or prevent blackouts.
- **Geothermal:** Alaska is geothermally active with 141 volcanoes and 97 known thermal springs. It is one of eight states generating electricity from geothermal energy. Alaska's first geothermal power plant at Chena Hot Springs has a generating capacity of 730 kilowatts and began operation in 2006. AEA, through the Renewable Energy Fund, is supporting two geothermal conceptual design and feasibility studies which would connect to the Railbelt grid. In Round 15 of the Renewable Energy Fund, two projects were funded supporting the investigation of the potential for utility-scale power production for those natural geothermal resources of Mount Spurr and Augustine Island and are currently ongoing.
- **Heat Recovery and Combined Heat and Power (CHP):** AEA's rural programs support Combined Heat and Power development with a specific focus on waste heat recovery in rural generation facilities. Whenever rural power systems are upgraded, the feasibility of integrating heat recovery is evaluated and implemented wherever possible. This approach is vital for improving energy efficiency and is an essential component of statewide efforts to improve energy efficiency.
- **Hydroelectric Energy:** Hydroelectric power plays a critical role in Alaska's renewable energy goals and provides long-term economic benefits and energy security. AEA's owns the Bradley Lake Hydroelectric Project and assists approximately 70 hydroelectric projects throughout the state. Projects range from conceptual design to operational hydroelectric facilities. At present, the hydroelectric program focuses on providing technical assistance for hydroelectric feasibility assessment, and coordinating with other state, federal, municipalities, tribal, and private entities to analyze, plan, and support hydroelectric development. As noted in the Renewable Energy Fund (REF) section of this document, AEA is working with eight hydroelectric projects through the REF program.
- **Solar:** AEA provides solar energy information, resources, and technical assistance. The Power Project Fund and the Renewable Energy Fund have provided grant and loan financing for several PV projects on the Railbelt and in rural Alaska. The Renewable Energy Fund has funded design and construction efforts for solar and battery projects across the entire state including but not limited to Huslia, Galena, and Selawik. AEA recently applied to the EPA for a \$100 million Solar for All program to potentially serve low-income and disadvantaged households in Alaska. This program would fund residential rooftop solar as well as community based solar PV and battery projects.
- **Wind Energy:** Since 2012, Alaska's wind energy capacity has increased 400 percent. This growth is supported by AEA's Renewable Energy Fund (REF) and information sharing among wind energy producers and stakeholders. In partnership with the Wind Working Group, AEA facilitates annual educational events including the wind and energy storage workshops. AEA assists communities in evaluating wind energy and often aids in rural community decision-making. In AEA's most recent REF solicitation, Round 15, a total of nine wind projects were recommended for funding and are under development.

Renewable Energy Fund (REF): REF is a unique and robust competitive grant program, which provides critical financial assistance for statewide renewable energy projects, across a variety of project phases. Since its inception in 2008, the REF program has secured approximately \$317 million in State funds and leveraged over \$300 million in federal and local funds toward renewable energy development across a variety of project phases throughout Alaska. Nearly 300 renewable energy projects are part of the REF catalog. There are 60 REF projects currently under

development. A recent third-party impact analysis of the REF program estimates that approximately 85 million gallons of diesel and 2.2 million cubic feet of natural gas have been displaced through 2022 by over 100 fully operational REF projects. This amount of diesel fuel is roughly five percent of all petroleum consumed in Alaska in 2021 as reported by the Energy Information Administration (EIA).

REF Round 13, 14, and 15:

- \$36.8 million in grant funds was approved and appropriated by the Legislature, providing financial assistance for 56 recommended projects, with the majority of such grant funds allocated to rural communities.
- All grant agreements for rounds 13 and 14, and the majority of round 15 agreements are fully executed, with only a few remaining under negotiation between AEA and grantees.

In recognition of the efficacy of the REF in advancing the integration of renewable energy within Alaska's statewide energy portfolio, in May 2023, Governor Dunleavy signed House Bill 62 repealing the sunset date provision for the REF, effectively extending the program into perpetuity.

Statewide Energy Security Profile (SESP): AEA, as required by the Infrastructure Investment and Jobs Act State Energy Program, prepared a SESP. A SESP describes the state's energy landscape, people, processes, risks, and the state's strategy to build energy resilience. More specifically, the plan will detail how the State of Alaska, working with energy partners, can secure their energy infrastructure against all physical and cybersecurity threats; mitigate the risk of energy supply disruptions to the State; enhance the response to, and recovery from, energy disruptions; and ensure that the state has secure, reliable, and resilient energy infrastructure.

Statewide Energy Plan: On February 23, 2023, Governor Mike Dunleavy issued Administrative Order (AO) 345, establishing the Alaska Energy Security Task Force (Task Force). The purpose of the Task Force is to develop a comprehensive statewide energy plan that will evaluate energy generation, distribution, and transmission for the State of Alaska and its communities. The development of this plan will include collaboration with public and private stakeholders. The statewide energy plan, including proposed timelines and milestones, will be presented to the governor upon completion. Based on AO 345, AEA has led the effort to develop a Statewide Energy Plan that will include a regional balance, introduction of additional renewables, and needed transmission upgrades. This plan will provide a balance between rural and urban needs.

Renewable-Energy Village Energy Efficiency Program (RE-VEEP): AEA will use recently awarded federal funds to establish RE-VEEP. Using the Village Energy Efficiency Program framework, AEA will sub-grant funds to eligible local governments to finance building-scale renewable energy, energy efficiency, and conservation projects in public buildings and facilities statewide with a focus on rural Alaska. These projects will decrease energy use and cost in public and community buildings and infrastructure in small, high-energy cost communities.

Village Energy Efficiency Program (VEEP): AEA, in partnership with the Denali Commission and Wells Fargo, awarded forty-eight communities to help facilitate energy efficiency improvements throughout the state. These projects include upgraded lighting from legacy high-voltage bulbs to LED, window and garage weatherization, and upgraded HVAC systems. Despite COVID-19 setbacks and supply-chain shortages, the program is ongoing and successful, with all projects scheduled to be completed in the summer of 2024. To date, this program has collectively saved 575,173 kW, providing an estimated \$257,348 in annual cost savings for the awarded communities.

Key Component Challenges

Renewable Energy Fund (REF): In FY2024, AEA received \$17 million from the Alaska Legislature to support 18 of the 27 recommended REF Round 15 projects. AEA received 28 applications prior to the deadline for the next round totaling \$37.8 million. Appropriation of REF funds for AEA recommended REF grant projects/applications is at the full discretion of the Legislature.

Power Project Fund (PPF) Capitalization:

The current cash balance is inadequate for pending loan applications. Loans are a primary funding source for the development of renewable energy projects, and as required cost matching for many available federal programs which require the leveraging of local and private investment as, including the realization of federal tax credits as made available via the Inflation Reduction Act. Capitalization of this fund is needed to meet the increase in loan applications.

Significant Changes in Results to be Delivered in FY2025

No significant changes are anticipated.

Statutory and Regulatory Authority

AS 42.45 Rural and Statewide Energy Programs
AS 44.83 Alaska Energy Authority
3 AAC 107 Grant Programs

Contact Information
<p>Contact: Curtis W. Thayer, Executive Director Phone: (907) 771-3000 E-mail: cthayer@akenergyauthority.org</p>

Component Detail All Funds
Department of Commerce, Community, and Economic Development

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)
RDU: Alaska Energy Authority (453)

Non-Formula Component

	FY2023 Actuals	FY2024 Enrolled	FY2024 Authorized	FY2024 Management Plan	FY2025 Governor Adjusted Base	FY2025 Governor	FY2024 Management Plan vs FY2025 Governor	
1000 Personal Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
2000 Travel	6.6	22.1	22.1	28.5	28.5	128.5	100.0	350.9%
3000 Services	2,234.6	2,179.8	2,179.8	2,173.4	2,173.4	2,673.4	500.0	23.0%
4000 Commodities	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
5000 Capital Outlay	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
7000 Grants, Benefits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
8000 Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Totals	2,245.2	2,201.9	2,201.9	2,201.9	2,201.9	2,801.9	600.0	27.2%
Fund Sources:								
1061 CIP Rcpts (Other)	1,050.7	800.7	800.7	800.7	800.7	1,200.7	400.0	50.0%
1107 AEA Rcpts (Other)	0.0	0.0	0.0	0.0	0.0	200.0	200.0	100.0%
1210 Renew Ener (DGF)	1,194.5	1,401.2	1,401.2	1,401.2	1,401.2	1,401.2	0.0	0.0%
Unrestricted General (UGF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Designated General (DGF)	1,194.5	1,401.2	1,401.2	1,401.2	1,401.2	1,401.2	0.0	0.0%
Other Funds	1,050.7	800.7	800.7	800.7	800.7	1,400.7	600.0	74.9%
Federal Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
Positions:								
Permanent Full Time	0	0	0	0	0	0	0	0.0%
Permanent Part Time	0	0	0	0	0	0	0	0.0%
Non Permanent	0	0	0	0	0	0	0	0.0%

Change Record Detail - Multiple Scenarios with Descriptions
Department of Commerce, Community, and Economic Development

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

RDU: Alaska Energy Authority (453)

Scenario/Change Record Title	Trans Type	Totals	Personal Services	Travel	Services	Commodities	Capital Outlay	Grants, Benefits	Miscellaneous	Positions		NP
										PFT	PPT	
***** Changes From FY2024 Enrolled To FY2024 Authorized *****												
FY2024 Enrolled	Enrolled	2,201.9	0.0	22.1	2,179.8	0.0	0.0	0.0	0.0	0	0	0
1061 CIP Rcpts		800.7										
1210 Renew Ener		1,401.2										
Subtotal		2,201.9	0.0	22.1	2,179.8	0.0	0.0	0.0	0.0	0	0	0
***** Changes From FY2024 Authorized To FY2024 Management Plan *****												
Align Authority with Anticipated Expenditures	LIT	0.0	0.0	6.4	-6.4	0.0	0.0	0.0	0.0	0	0	0
Align authorization for anticipated expenditures in the travel and services lines, consistent with the FY2024 Travel Plan.												
Subtotal		2,201.9	0.0	28.5	2,173.4	0.0	0.0	0.0	0.0	0	0	0
***** Changes From FY2025 Governor Adjusted Base To FY2025 Governor *****												
Align Authority with Anticipated Expenditures	Inc	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0	0	0
1061 CIP Rcpts		50.0										
Align authority with increased anticipated expenditures in travel line due to new Infrastructure Investment and Jobs Act (IIJA) program travel. The remaining authority is sufficient to cover anticipated expenditures.												
Authority for Alternative Energy and Energy Efficiency Capital Improvement Project Receipts	Inc	350.0	0.0	50.0	300.0	0.0	0.0	0.0	0.0	0	0	0
1061 CIP Rcpts		350.0										
Increased authorization anticipated related to the increase in capital project expenditures for the Infrastructure Investments and Jobs Act (IIJA). Personal services for the Alaska Energy Authority are provided by the Alaska Industrial Development and Export Authority through a reimbursable services agreement.												
Administration and Management of Alaska Energy Authority Data Library	IncOTI	200.0	0.0	0.0	200.0	0.0	0.0	0.0	0.0	0	0	0
1107 AEA Rcpts		200.0										
The Alaska Energy Authority (AEA) is in the process of updating and revising the online document library. This library includes information AEA itself, as well as project and program fact sheets. The library will eventually contain research and documentation on projects funded AEA. This will allow the research, data, and information on these projects to be available to the public. The increase in availability and transparency of projects -- both successful and unsuccessful - will help support and advance other affordable or renewable energy projects in the state.												
Prior work on the project was funded by federal funds. This funding will support continued digitization of AEA records to be added to the online repository through												

Change Record Detail - Multiple Scenarios with Descriptions
Department of Commerce, Community, and Economic Development

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

RDU: Alaska Energy Authority (453)

Scenario/Change Record Title	Trans Type	Totals	Personal Services	Travel	Services	Commodities	Capital Outlay	Grants, Benefits	Miscellaneous	Positions		NP
										PFT	PPT	
direct personal services and contractual support, as well as hosting and administration costs.												
	Totals	2,801.9	0.0	128.5	2,673.4	0.0	0.0	0.0	0.0	0	0	0

Line Item Detail (1676)
Department of Commerce, Community, and Economic Development
Travel

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Line Number	Line Name		FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
2000	Travel		6.6	28.5	128.5
Object Class	Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
2000 Travel Detail Totals			6.6	28.5	128.5
2000	In-State Employee Travel	In-State Transportation - Transportation costs for travel relating to administration, meetings, boards and commissions.	6.0	23.3	23.3
2000	In-State Employee Travel	Travel costs for positions performing work on Infrastructure, Investments, and Jobs Act (IIJA) capital appropriations.	0.0	0.0	100.0
2002	Out of State Employee Travel	Out-of-State Transportation - Transportation costs for travel relating to administration, meetings, boards and commissions.	0.6	5.2	5.2

Line Item Detail (1676)
Department of Commerce, Community, and Economic Development
Services

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Line Number	Line Name		FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
3000	Services		2,234.6	2,173.4	2,673.4
Object Class	Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
3000 Services Detail Totals			2,234.6	2,173.4	2,673.4
3000	Education Services	Training, educational conferences, agency memberships, tuition, books and fees for work-related courses.	1.2	1.2	1.2
3001	Financial Services	Accounting, auditing, management consulting, grantee monitoring, loan servicing and insurance related services.	17.6	17.6	17.6
3002	Legal and Judicial Services	Legal and judicial services, including costs to conduct hearings and transcription fees.	3.3	3.3	3.3
3003	Information Technology	Information Technology - Training, consulting, equipment and software leases, licensing and maintenance.	13.1	13.1	13.1
3004	Telecommunications	Local, long distance, and cellular telephone charges, television, data/network, telecommunication equipment, and other wireless charges from outside vendors.	6.4	6.4	6.4
3006	Delivery Services	Freight, courier services, and postage.	0.0	0.5	0.5
3008	Utilities	Electricity, heating fuel, water, sewage and disposal services.	0.1	0.1	0.1
3010	Equipment/Machinery	Machinery, furniture and equipment purchase, repairs, maintenance, rentals, and leases.	1.5	1.5	1.5
3011	Other Services	Other professional services.	129.4	129.4	129.4
3011	Other Services	Temporary staffing services.	48.9	0.0	0.0

Line Item Detail (1676)
Department of Commerce, Community, and Economic Development
Services

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Object Class		Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
3000 Services Detail Totals				2,234.6	2,173.4	2,673.4
3011	Other Services		Data library support and administration.	0.0	0.0	200.0
3011	Other Services		Staff support and associated costs for positions performing work on Infrastructure, Investments, and Jobs Act (IIJA) capital appropriations.	0.0	0.0	300.0
3024	Inter-Agency Legal	Law - Department-wide	Legal services.	5.3	5.3	5.3
3038	Inter-Agency Management/Consulting	Commerce - AIDEA (1234)	Core and allocated services, including Administrative Services and Commissioner's Office support.	46.0	46.0	46.0
3038	Inter-Agency Management/Consulting	Commerce - AIDEA (1234)	Alaska Industrial Development and Export Authority support.	1,961.8	1,949.0	1,949.0

Line Item Detail (1676)

**Department of Commerce, Community, and Economic Development
Commodities**

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Line Number	Line Name		FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
4000	Commodities		3.8	0.0	0.0
Object Class	Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
4000 Commodities Detail Totals			3.8	0.0	0.0
4000	Business	Supplies for office, library, training, and instructional needs, including small equipment, tools and subscriptions.	3.7	0.0	0.0
4002	Household/Institutional	Cleaning, food, and other household supplies.	0.1	0.0	0.0

Line Item Detail (1676)

**Department of Commerce, Community, and Economic Development
Capital Outlay**

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Line Number	Line Name		FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
5000	Capital Outlay		0.2	0.0	0.0
Object Class	Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
5000 Capital Outlay Detail Totals			0.2	0.0	0.0
5004	Equipment	Office equipment and furniture.	0.2	0.0	0.0

Revenue Detail (1681)

Department of Commerce, Community, and Economic Development

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

Revenue Type (OMB Fund Code) Revenue Source	Component	Comment	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
5061 CIP Rcpts (1061 CIP Rcpts)			1,050.7	800.7	1,200.7
5351 Capital Improvement Project Inter-Agency		Capital Improvement Project Receipts.	1,050.7	800.7	1,200.7
5107 AEA Rcpts (1107 AEA Rcpts)			0.0	0.0	200.0
5420 Alaska Energy Authority Corporate Receipts		Administration fees project.	0.0	0.0	200.0
6210 Renew Ener (1210 Renew Ener)			1,194.5	1,401.2	1,401.2
6881 Renewable Energy Grant Fund - Transfers In Other Funds		Renewable Energy grant funds.	1,194.5	1,401.2	1,401.2

Inter-Agency Services (1682)

Department of Commerce, Community, and Economic Development

Component: Statewide Project Development, Alternative Energy and Efficiency (2888)

	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
Component Totals	2,013.1	2,000.3	2,000.3
With Department of Law	5.3	5.3	5.3
With Department of Commerce, Community, and Economic Development	2,007.8	1,995.0	1,995.0

Object Class	Servicing Agency	Explanation	FY2023 Actuals	FY2024 Management Plan	FY2025 Governor
3024 Inter-Agency Legal	Law - Department-wide	Legal services.	5.3	5.3	5.3
3038 Inter-Agency Management/Consulting	Commerce - AIDEA (1234)	Core and allocated services, including Administrative Services and Commissioner's Office support.	46.0	46.0	46.0
3038 Inter-Agency Management/Consulting	Commerce - AIDEA (1234)	Alaska Industrial Development and Export Authority support.	1,961.8	1,949.0	1,949.0