Alaska Energy Authority - Grid Resilience and Innovation Partnership Grant **FY2024 Request: $213,452,000** **Reference No: AMD 65274**

AP/AL: Appropriation
Category: Development
Location: Statewide
Impact House District: Statewide (HD 1 - 40)
Estimated Project Dates: 07/01/2024 - 06/30/2029

Project Type: Energy
House District: Statewide (HD 1 - 40)
Contact: Curtis W. Thayer
Contact Phone: (907)771-3000

Brief Summary and Statement of Need:
The State of Alaska (State), Alaska Energy Authority (AEA), has been selected to receive $206.5 million from the U.S Department of Energy (DOE) for a Grid Resilience and Innovation Partnership (GRIP) Grant Project. Match of $206.5 million is required over the eight year term of the grant; year one of the State match is included in this request. Alaska is at a critical transition point with a once-in-a-generation opportunity to build resiliency and develop a fuel-diverse, low-carbon economy, by investing in essential electric infrastructure.

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
1002 Fed Rcpts	$206,500,000						$206,500,000
1140 AIDEA Div	$6,952,000						$6,952,000
Total:	$213,452,000	$0	$0	$0	$0	$0	$213,452,000

☑ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☑ Ongoing
100% = Minimum State Match % Required ☑ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

Project Description/Justification:
AEA, the Railbelt utilities, and the Regulatory Commission of Alaska (RCA) are partners in this project as collaborative decision makers representing all primary transmission owners and operators of Alaska’s largest electrical grid (the Railbelt).

Alaska's largest, but electrically islanded, grid serves over 75 percent of the state's population including diverse and underserved communities, primary commerce and shipping centers, strategic military bases, and access areas for key mineral deposits. However, due to the relatively low population to share in costs, the electric system does not meet the minimum standards of the Lower 48 states. The collective mission of the State, and the interconnected Railbelt electric utilities, is to build a resilient, clean, smart, and low-cost electrical grid. A team has been assembled to manage the project consisting of relevant decision makers in the region: AEA representing the State, RCA, and the five electric utilities that make up the Railbelt electric grid. The total estimated cost for the

construction of the transmission line segments and associated station facilities proposed is approximately $1 billion. DOE funds for grid resiliency provide a federal funding opportunity to defray a portion of the total estimated cost of required upgrades and is specifically eligible for the following scope of work ($413 million):

- Installation of High Voltage Direct Current (HVDC) submersible cable connecting the Kenai Peninsula to the Central Region (Anchorage and Mat-Su Valley);
- Installation of new Battery Energy Storage Systems (BESS) at Central and Northern (Fairbanks) regions.

Generation locations and electrical loads are changing, and existing transmission was constructed for a different system decades ago. The parallel transmission and batteries will enable energy to travel from one region to another more reliably and allow additional clean energy sources to connect on the transmission grid system. This funding will begin work on the Grid Modernization and Resiliency Plan (GMRP), but without federal and State assistance it cannot be completed in a reasonable time frame.

Residents from Homer to Fairbanks will benefit from the project. The value proposition for the residents of the Railbelt grid is clear: this project will position the Railbelt for lower energy costs through more efficient use of decreasing available volumes of Cook Inlet natural gas as Alaska transitions to a fuel-diverse, clean energy future. Improving the resiliency, reliability, and efficiency of the Railbelt grid will provide a more secure energy supply to critical military defense infrastructure located in the three Railbelt regions, enhancing national security and global stability.

Pending bondholder agreement, some required project work under an existing bond package for upgrading the Railbelt transmission grid is planned to be used to offset the need for State match. In the first year, match is requested to initiate the project. AEA plans to return to the legislature with updates on future match offsets and an update to the funding plan during the 2025 legislative session.

The funding plan for this project as of March 2024 is included below.

$ in Millions

	Appropriations		Other Funding		Activity	Expenditure Funding		
FY	Fed	Match	Fund Source To Be Determined	No Approp Needed		Fed	State Funds or Source To Be Determined	Existing AEA Revenue Bonds **
2025	206.5	12.7	-	20.0	Grant negotiations, bondholder outreach, legal review, and other preparatory costs. Initiate design, engineering, and	32.7	12.7	20.0

					NEPA/permitting process for HVDC and BESS.			
2026	-	-	6.5	25.0	National Environmental Policy Act (NEPA) process, begin procurement of BESS, site design and engineering.	31.5	6.5	25.0
2027	-	-	8.8	-	NEPA process.	8.8	8.8	-
2028	-	-	21.8	5.0	Complete NEPA process, construct BESS building, begin right-of-way clearing and site preparation.	26.8	21.8	5.0
2029	-	-	60.0	-	HVDC component construction begins (Soldotna switchyard, Soldotna-Bernic e HVDC line, Beluga landing, HVDC submarine cable); BESS testing and commissioning.	60.0	60.0	-
2030	-	-	30.95	-	HVDC component construction continues (Soldotna switchyard, Soldotna-Bernic e HVDC line, Beluga landing, HVDC submarine cable).	30.95	30.95	-
2031	-	-	15.75	-	HVDC component construction complete	15.75	15.75	-

					(Soldotna switchyard, Soldotna Bernice HVDC line, Beluga landing, HVDC submarine cable).			
2032	-	-	-	-		-	-	-
2033	-	-	-	-		-	-	-
2034	-	-	-	-		-	-	-
Total	**206.5**	**12.7**	**143.8**	**50.0**		**206.5**	**156.5**	**50.0**
	413.0					**413.0**		

Lemon Creek Correctional Center Extended Renovation and Repair | **FY2024 Request: $3,000,000** | **Reference No: 65545**

AP/AL: Appropriation
Category: Public Protection
Location: Juneau (Juneau/Downtown/Douglas)
Impact House District: Juneau Areawide (HD 3 - 4)
Estimated Project Dates: 07/01/2023 - 06/30/2028

Project Type: Life / Health / Safety
House District: Juneau Areawide (HD 3 - 4)
Contact: Teri West
Contact Phone: (907)465-3311

Brief Summary and Statement of Need:
The Department of Corrections (DOC) originally received $9.5 million for the repair and renovation of the Lemon Creek Correctional Center (LCCC). Unfortunately, with rising costs and additional unknown repairs that were discovered after the original capital appropriation, additional funding is needed to address and complete repairs at the LCCC. The additional project costs include increased costs for detention doors and hardware, damage to floors containing in-floor heating, and to address hazardous materials including lead paint, lead in water lines, and asbestos. Additional funds are needed to meet the full scope of the project.

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
1004 Gen Fund	$3,000,000						$3,000,000
Total:	$3,000,000	$0	$0	$0	$0	$0	$3,000,000

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ Ongoing
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:
Sec17 Ch1 SLA2023 P120 L26 HB 39 $9,500,000

Reapprop Alaska-British Colombia Intertie to Dixon Diversion - Bradley Lake Hydro Power

FY2024 Request: $0
Reference No: AMD 65571

AP/AL: Appropriation
Category: Development
Location: Statewide
Impact House District: Statewide (HD 1 - 40)
Estimated Project Dates: 07/01/2024 - 06/30/2029

Project Type: Energy
House District: Statewide (HD 1 - 40)
Contact: Curtis W. Thayer
Contact Phone: (907)771-3000

Brief Summary and Statement of Need:
ALASKA ENERGY AUTHORITY: CAPITAL. (a) The unexpended and unobligated balance, estimated to be $1,379,700, of the appropriation made in sec. 4(c), ch. 82, SLA 2006, page 117, lines 21 - 22, as amended by secs. 23(c) and (d), ch. 11, SLA 2008, and sec. 18(b), ch. 2, 4SSLA 2016 (Alaska Energy Authority – Alaska – British Columbia Intertie), is reappropriated to the Department of Commerce, Community, and Economic Development, Alaska Energy Authority, for Dixon Diversion Project (Bradley Lake).

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ Ongoing
0% = Minimum State Match % Required ☑ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

The Bradley Lake Hydroelectric Project (Bradley Lake) has been a low-cost source of electricity for the Railbelt for more than 30 years. The Alaska Energy Authority (AEA) has identified a major hydroelectric project opportunity: The Dixon Diversion project. The close distance to Railbelt transmission, water storage, and significant energy makes this project desirable.

Project Description/Justification:
Bradley Lake, completed in 1991, is a 120-megawatt (MW) facility that generates about 10 percent of the total annual power used by Railbelt electric utilities (Homer to Fairbanks) and provides some of the lowest-cost power to more than 550,000 Alaskans and “electrifies” 54,000 homes. Following the successful completion of the West Fork Upper Battle Creek Diversion Project in 2020, the Dixon Diversion Project would be the 3rd largest renewable energy project in Alaska and the largest in the last 30 years.

Estimates for the preliminary studies for the Dixon Diversion are $12 million. These studies were partially funded by a $5 million appropriation in FY2024. This appropriation will enable engineering and environmental studies to continue during the upcoming field season.

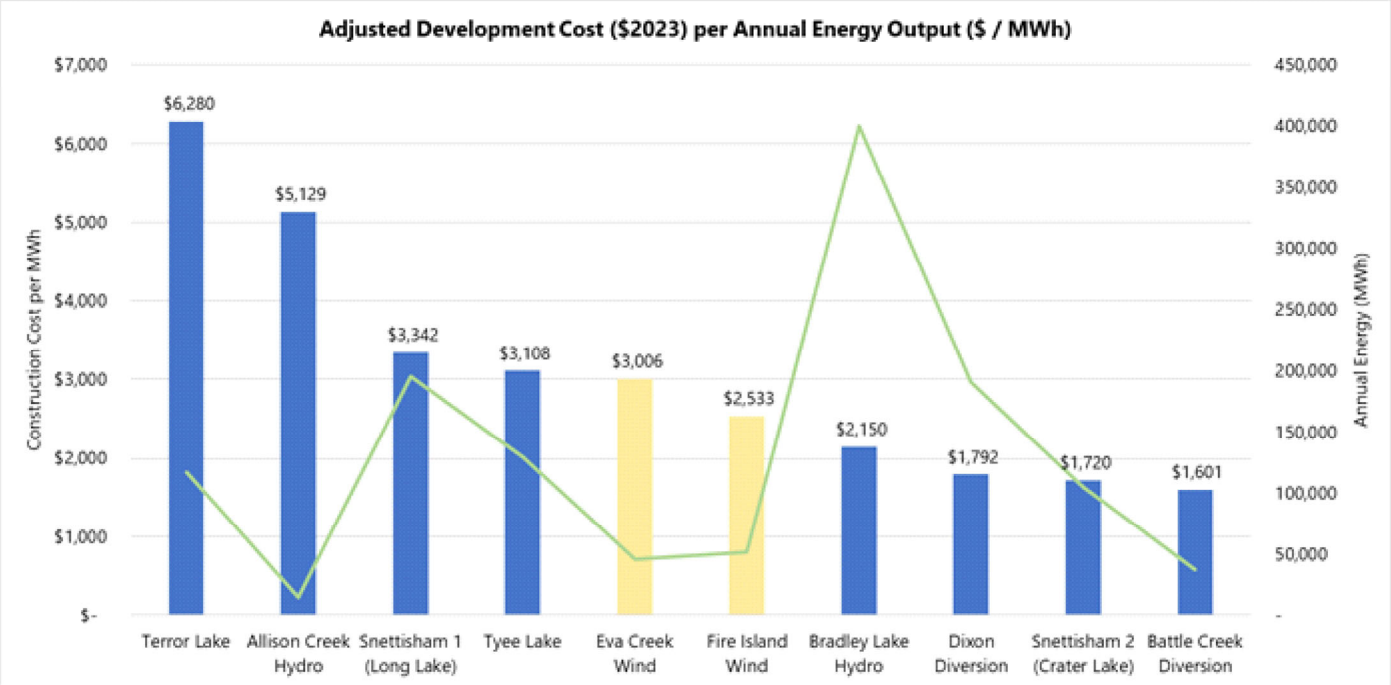
AEA, in partnership with the Railbelt utilities, has filed a license amendment with the Federal Energy Regulatory Commission as an initial step in pursuing the project. The project is currently the most

shovel-ready large renewable energy project in Alaska. Preliminary studies are on-going. Studies completed during 2023 decreased the overall estimated cost from $415 million to $342 million. Geotechnical drilling investigation and other engineering and environmental studies will occur during 2024. If further funding is provided for construction, the project could be completed as soon as 2030.

The project would enlarge the State-owned Bradley Lake Hydroelectric Project and could electrify an additional 24,000-30,000 homes on the Railbelt. This project is estimated to displace 1.5 billion cubic feet (Bcf) of natural gas demand in 2030. That displacement would account for approximately 7.5 percent of the estimated 2030 natural gas shortfall of 20 Bcf between Cook Inlet gas supply and demand.

Along with displacing natural gas demand, the project will enhance Alaska's energy security by directly increasing overall renewable generation, indirectly enabling additional non-firm renewable energy to be developed to displace natural gas, improving resilience to fuel price fluctuations and supply-side disruptions, and lowering the long-term cost of energy. This energy would increase the renewable energy portion of the total Railbelt energy portfolio by an additional four percent.

Revised cost and verified energy estimates indicate Dixon Diversion would produce energy at a lower levelized cost of energy than energy produced from imported liquid natural gas. Estimated cost per MWh for the project compared to other major Alaska renewable projects are shown below.



Fund Change: Alaska Energy Authority - Port Electrification | **FY2024 Request: $0** | **Reference No: AMD 65105**

AP/AL: Appropriation
Category: To be determined
Location: Statewide
Impact House District: Statewide (HD 1 - 40)
Estimated Project Dates: 07/01/2023 - 06/30/2028

Project Type: Energy
House District: Statewide (HD 1 - 40)
Contact: Curtis Thayer
Contact Phone: (907)771-3000

Brief Summary and Statement of Need:
This amendment changes the fund source for the FY2024 Alaska Energy Authority - Port Electrification project from the Commercial Passenger Vessel Environmental Compliance Fund to the Berth Fees for Ocean Ranger Program Fund.

ALASKA ENERGY AUTHORITY: CAPITAL.
(c) Section 15, ch. 1 , FSSLA 2023, page 114, lines 14-16, is amended to read:
Amount
[1166 Commercial Passenger Vessel Environmental Compliance Fund 5,000,000]
1175 Business License and Corporation Filing Fees and Taxes 2,500,000
1205 Berth Fees for the Ocean Ranger Program 5,000,000
1206 Commercial Vessel Passenger Excise Tax 2,300,000

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
1166 Vessel Com	$-5,000,000						$-5,000,000
1205 Ocn Rngr	$5,000,000						$5,000,000
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ Ongoing
0% = Minimum State Match % Required ☑ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

Reapprop Transmission Line Plan and Ext. of Intertie to Grid Resilience and Innovation Partnership (GRIP) Grant

FY2024 Request: **$0**
Reference No: **AMD 65572**

AP/AL: Appropriation
Category: Development
Location: Statewide
Impact House District: Statewide (HD 1 - 40)
Estimated Project Dates: 07/01/2024 - 06/30/2029

Project Type: Energy
House District: Statewide (HD 1 - 40)
Contact: Curtis W. Thayer
Contact Phone: (907)771-3000

Brief Summary and Statement of Need:
ALASKA ENERGY AUTHORITY: CAPITAL. (b) The unexpended and unobligated balance, estimated to be $2,294,100, of the appropriation made in sec. 78(c), ch. 1, SSSLA 2002, as amended by sec. 69, ch. 29, SLA 2008, sec. 7(b) ,ch. 5 , SLA 2012, and sec. 35(d), ch. 11, SLA 2022 (Department of Commerce, Community, and Economic Development, Alaska Energy Authority, upgrade and extend the Anchorage to Fairbanks power transmission intertie to Teeland substation), is reappropriated to the Department of Commerce, Community, and Economic Development, Alaska Energy Authority, to match the Grid Resilience and Innovation Partnership (GRIP) grant.

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required	☐ One-Time Project	☐ Phased - new	☐ Phased - underway	☐ Ongoing
0% = Minimum State Match % Required		☑ Amendment	☐ Mental Health Bill	

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:

Reappropriate Alaska Pioneer Homes Payment Assistance Program **FY2024 Request: $1,444,300** **Reference No: 65318**

AP/AL: Appropriation
Project Type: Deferred Maintenance
Category: Health/Human Services
Location: Statewide
House District: Statewide (HD 1 - 40)
Impact House District: Statewide (HD 1 - 40)
Contact: Marian Sweet
Estimated Project Dates: 07/01/2023 - 06/30/2028
Contact Phone: (907)465-1613

Brief Summary and Statement of Need:
DEPARTMENT OF FAMILY AND COMMUNITY SERVICES: CAPITAL
The unexpended and unobligated balance, estimated to be $1,444,300, of the appropriation made in sec. 1, ch. 1, TSSLA 2023, page 14, line 6, and allocated on page 14, lines 7 - 8 (Department of Family and Community Services, Alaska Pioneer Homes, Alaska Pioneer Homes payment assistance - $33,964,300), is reappropriated to the Department of Family and Community Services for deferred maintenance at the Alaska Pioneer Homes.

Funding:	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total
1004 Gen Fund	$1,444,300						$1,444,300
Total:	$1,444,300	$0	$0	$0	$0	$0	$1,444,300

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ Ongoing
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information: