Alaska Energy Authority - Grid Resilience and Innovation Partnership Grant | **FY2025 Request: $3,453,900** | **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
Recipient: NA
House District: Statewide (HD 1 - 40)
Contact: Curtis W. Thayer
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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:	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total
1140 AIDEA Div	$3,453,900						$3,453,900
Total:	$3,453,900	$0	$0	$0	$0	$0	$3,453,900

☐ 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:

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 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 timeframe.

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 NEPA/permitting process for HVDC and BESS.	32.7	12.7	20.0

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 (Soldotna switchyard, Soldotna-Bernic e HVDC line,	15.75	15.75	-

					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**		