

PRESS RELEASE

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FOR IMMEDIATE RELEASE

October 18, 2023

AEA Secures \$206.5 Million from U.S. DOE to modernize Alaska's energy infrastructure

(Anchorage) — The Alaska Energy Authority (AEA) has secured \$206.5 million for Grid Resilience and Innovation Partnership (GRIP) Topic Area 3: Grid Innovation through the United States Department of Energy Grid's (DOE) Grid Deployment Office (GDO). A cost share of 100 percent, or \$206.5 million, is required for a total project amount of \$413 million.

The awarded Railbelt Innovation Resiliency (RIR) project will construct a High Voltage Direct Current (HVDC) submarine cable to serve as a parallel transmission route from the Kenai Peninsula to Anchorage, creating a much-needed redundant system in case of disruptive events. In addition, the RIR project will provide funding for multiple battery energy storage systems (BESS) within the respective serving areas of the Railbelt utilities, with a focus on the central and northern regions of the Railbelt electrical grid. The project is estimated to take eight years to complete.

"The Railbelt transmission system is the largest electrical grid in Alaska and critical for the continued support of statewide economic and community development," **said AEA Board Chair Dana Pruhs.** "Over 75 percent of Alaska's population depends on the Railbelt, making it one of the state's most important pieces of infrastructure. Securing this historic funding is a real game-changer in our ability to transform the Railbelt."

"Thanks to millions in federal funding, we have the opportunity to elevate Alaska's aging Railbelt electrical grid to today's industry standards," **said AEA Executive Director Curtis W. Thayer.** "I am extremely proud of AEA's team and the Railbelt utilities' partnership. Through joint cooperation, we can improve resilience and energy security, diversify the state's energy portfolio, and accelerate the use of renewables and clean power."

"The State of Alaska is on the precipice of investing hundreds of millions of dollars in upgrades to its dated transmission infrastructure thanks to the collaboration between the Railbelt utilities, the Alaska Energy Authority, and Alaska's Congressional Delegation. Working together this team secured federal funds to build a second transmission line from the Kenai Peninsula to Anchorage and install much-needed battery storage into the grid. These investments will allow power to be produced at the lowest cost location for the benefit of all Alaskans," **said Homer Electric Association General Manager Brad Janorschke.**

As part of the Bipartisan Infrastructure Law, the GDO is administering a \$10.5 billion GRIP Program to enhance grid flexibility and improve the resilience of the power system against the growing threats of extreme weather and climate change. Programs such as GRIP are intended to accelerate the deployment of transformative projects that will help to ensure the reliability of the power sector's infrastructure, so all American communities have access to affordable, reliable, clean electricity anytime, anywhere.

AEA also applied for GRIP Topic Area 3: Grid Innovation Program, Project Title: Rural Alaska Microgrid Transformation. That application is still pending with the DOE.

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About the Alaska Energy Authority

The Alaska Energy Authority is a public corporation of the state. Its 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. To learn more, visit akenergyauthority.org.



FACT SHEET

GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Established by the Bipartisan Infrastructure Law, the U.S Department of Energy's Grid Deployment Office is administering a historic \$10.5 billion investment via the Grid Resilience and Innovation Partnerships (GRIP) program to enhance grid flexibility, improve the resilience of the power system against growing threats of extreme weather and climate change, and ensure American communities have access to affordable, reliable, clean electricity when and where they need it.

MODERNIZING TRANSMISSION INFRASTRUCTURE FOR A CLEANER, MORE AFFORDABLE ELECTRIC GRID IN ALASKA

The Railbelt Innovative Resiliency (RIR) Project is a unique partnership between the State of Alaska, four Railbelt Regional Electric Cooperatives, a Railbelt municipal utility, the Regulatory Commission of Alaska, and local labor unions. The project will incentivize crucial transmission investment through innovative rate-making techniques, and it will have a direct benefit for tribal and disadvantaged communities (DACs) within the Railbelt and rural Power Cost Equalization communities by building a resilient, clean, smart, and affordable electrical grid in Alaska.

The primary objective of the RIR Project is to address various challenges facing the electrical grid in the three Railbelt regions of Alaska. These challenges include decreasing system frequency regulation, slowing frequency response to disturbances, and increasing natural frequency power oscillations. The project will incorporate Battery Energy Storage (BESS) and a High-Voltage Direct Current (HVDC) submarine cable installed in a challenging marine environment to address the need for increased transfer capacity and advanced system regulation management technologies.

Anticipated Outcomes and Benefits

- › Increases transfer capacity between regions that enables higher renewable energy integration into the electricity system.
- › Resilience and reliability improvements for the tribal and DACs located in the Railbelt region, and a reduction in reliance on fossil fuel generation and associated emissions.
- › Supports the retention of high-quality jobs in the region, including 650 highly paid union jobs with competitive employer-sponsored benefits.
- › Creates apprenticeship and internship programs to train a new generation of lineworkers and wireworkers to reinvigorate Alaska's energy workforce.

PROJECT DETAILS

- › **Project:**
Railbelt Innovative Resiliency Project
- › **Applicant/Selectee:**
Alaska Energy Authority
- › **GRIP Program:**
Grid Innovation Program (Bipartisan Infrastructure Law, Section 40103(b))
- › **Federal cost share:**
\$206,500,000
- › **Recipient cost share:**
\$206,500,000
- › **Project Location:**
Alaska
- › **Project type:**
Interregional Interconnection

HELPFUL LINKS

- › [Grid Resilience and Innovation Partnerships Program](#)
- › [About the Grid Deployment Office](#)

Railbelt Innovation Resiliency Project

Project Objective, Justification, and Scope of Work

A. OBJECTIVE AND JUSTIFICATION

The Railbelt Innovation Resiliency (RIR) Project aims to enhance resiliency and transfer capability among the three regions of the Railbelt. The Railbelt has experienced decreasing frequency regulation, slowed disturbance response, and increasing magnitude natural frequency oscillations. The current Railbelt system configuration restricts the adoption of clean energy, diversification of the fuel supply, and Alaska's preparation for a sustainable carbon-free future. A key priority to achieve this objective is to reinforce interconnections between the primary regions of the Railbelt by adding parallel lines and implementing Battery Energy Storage Systems (BESS) to resolve long-standing frequency control and instability issues. Alongside the High Voltage Direct Current (HVDC) submarine cable, these additions will alleviate transmission congestion and optimize interregional transfer capability. The project's innovative solutions hold the promise of curbing escalating energy prices, which currently rank among the highest in the nation, while providing rural residents and disadvantaged communities with an opportunity to enhance community viability. Sharing these solutions with other communities will support our collective efforts toward clean, reliable, and affordable energy for all. Federal funding is \$206.5 million and a cost share of \$206.5 million for a total project amount of \$413 million.

B. SCOPE OF WORK

This phase of the RIR project involves connecting the Kenai Peninsula with a DC Bi-polar High Voltage Direct Current (HVDC) submarine circuit to the Railbelt Central Region (Anchorage and Matanuska & Susitna Valleys). In addition, two new Battery Energy Storage systems (BESS) will be installed in the Central and Northern regions. Coordinated interregional control and operations of the BESSs and HVDC line will tie all the individual systems together to maximize stability and limit congestion.

Phase 1 — HVDC Submarine Circuit across Cook Inlet: The HVDC submarine Cable system provides for increased transfer capability and the ability to mitigate system stability challenges aiding in the elimination of interregional oscillations. It connects the Southern and Central regions to allow increased energy from clean project to travel between regions and keep electricity on when a transmission route is impacted by an event.

Phase 2 — BESS units in both Central Northern Regions and Southern (existing) will work to control frequency caused by transmission line or generation trips from either unplanned unit trips or non-dispatchable power swings caused by wind and solar. The BESS units are necessary to fully integrate variable renewable generation and will work in concert with the HVDC controllers to minimize system oscillations.