

AP/AL: Appropriation

Project Type: Energy

Category: Development

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Curtis W. Thayer

Estimated Project Dates: 07/01/2023 - 06/30/2028

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Brief Summary and Statement of Need:

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) is currently studying new project opportunities at Bradley Lake and a new hydroelectric site at Godwin Creek near Seward. The close distance to Railbelt transmission, water storage, and significant energy makes this project desirable. Engineering and environmental studies are needed to determine the feasibility of these potential projects. Optimizing the energy resource potential at Bradley Lake and adding a new Railbelt hydroelectric project will contribute significant amounts of reliable, low-cost renewable energy into the Railbelt system.

Funding:	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>FY2029</u>	<u>Total</u>
1004 Gen Fund	\$5,000,000						\$5,000,000
Total:	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Project Description/Justification:

The Bradley Lake Project, completed in 1991, is a 120-megawatt (MW) facility that generates about 10 percent of the total annual power used by Railbelt electric utilities 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, AEA has identified two major hydroelectric project opportunities: 1) Dixon Diversion Project, which is part of the Bradley Project, potentially could electrify an additional 24-30 thousand homes and 2) Godwin Creek hydroelectric project, near Seward, could potentially electrify an additional 10-20 thousand homes. The combined potential energy of both Dixon and Godwin projects is estimated to be an additional 6 percent - 8 percent of the renewable energy component of the total Railbelt energy.

The development of one or both projects will provide significant energy to the Railbelt system and allow other non-firm renewable generation to be developed for long term lower cost energy and lower

carbon. The funds will be used for engineering studies (feasibility, hydrological, geological) and environmental studies (fisheries, water quality, geomorphology). Estimates for the preliminary studies for the Dixon Diversion are \$12 million and \$1.5 million for Godwin Creek.