

Reappropriation Alaska-British Columbia Intertie to Dixon Diversion - Bradley Lake Hydro Power

FY2024 Request: \$1,379,700
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
Recipient: NA
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
1255	\$1,379,700						\$1,379,700
Reappropriations							
Total:	\$1,379,700	\$0	\$0	\$0	\$0	\$0	\$1,379,700

<input type="checkbox"/> State Match Required	<input 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 checked="" 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:

The Bradley Lake Hydroelectric Project (Bradley Lake) has been a low-cost source of electricity for the Railbelt for more than 30 years. 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:

The Bradley Lake Hydroelectric Project, completed in 1991, is a 120-megawatt (MW) facility that generates about 10% 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 be completed and determine feasibility.

Reappropriation of Alaska-British Columbia Intertie to Dixon Diversion - Bradley Lake Hydro Power

FY2024 Request: \$1,379,700
Reference No: AMD 65571

The Alaska Energy Authority (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. With this funding, studies will be completed in 2026. 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% 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 enable additional non-firm renewable energy to be developed to displace natural gas, improve resilience to fuel price fluctuations and supply-side disruptions, and lower the long-term cost of energy. The direct energy would increase the renewable energy portion of the total Railbelt energy portfolio by an additional 4%.

Revised cost and verified energy estimates indicate the Project 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.

