

ALASKA ENERGY AUTHORITY

BRADLEY LAKE EXPANSION PROJECT

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NHA Alaska Regional Meeting
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50 YEARS OF SERVICE



CAPACITY

120MW

Bradley Lake generators are rated to produce up to 120 MW of power.

ENERGY

10%

Bradley Lake generates about 10 percent of the total annual electrical energy used by Railbelt electric utilities.

GENERATION COST PER KWH

\$0.04

From 1995 through 2020, the project averaged 392,000 MWh of energy production annually at \$0.04 per kWh.

Bradley Lake Hydroelectric Project

- **Online since 1991**, the **Bradley Lake Hydroelectric Project** is Alaska's largest renewable energy source, located **27 air miles northeast of Homer**.
- The **120-megawatt facility**—funded by the State of Alaska and Railbelt utilities—delivers low-cost power to **approximately 75 percent of Alaska's population served by the Railbelt**.
- Bradley Lake generates about **10 percent of Railbelt electricity** at an **average cost of 4.5 cents per kilowatt-hour**—powering **roughly 54,400 homes annually and saving Railbelt utilities more than \$20 million each year** compared to natural gas.



Bradley Lake Expansion Project

AEA is advancing the Bradley Lake Expansion Project, which includes the **Dixon Diversion** and **Bradley Pool Raise** sub-projects. This project will divert water from Dixon Glacier to increase Bradley Lake's annual energy production by **50 percent**.



ESTIMATED ANNUAL OUTPUT

165,000 MWh

≈ 30,000 homes powered



NATURAL GAS OFFSET

1.5 Billion cu ft

7.5% of unmet demand (2030)



TARGET COMPLETION

2031

Shovel-ready status



ESTIMATED COST

\$400 Million

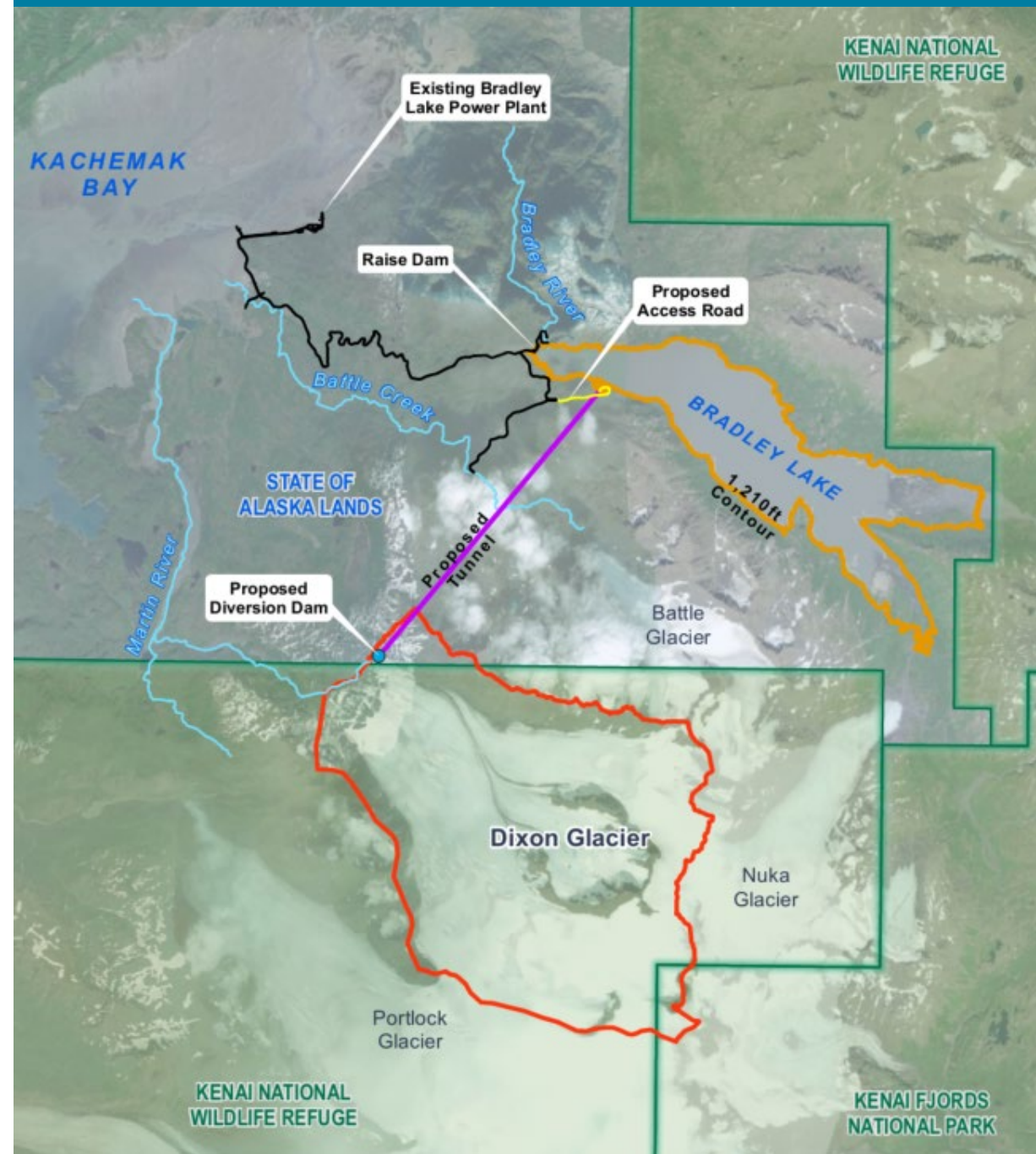
Class IV Estimate

Bradley Lake Expansion Project

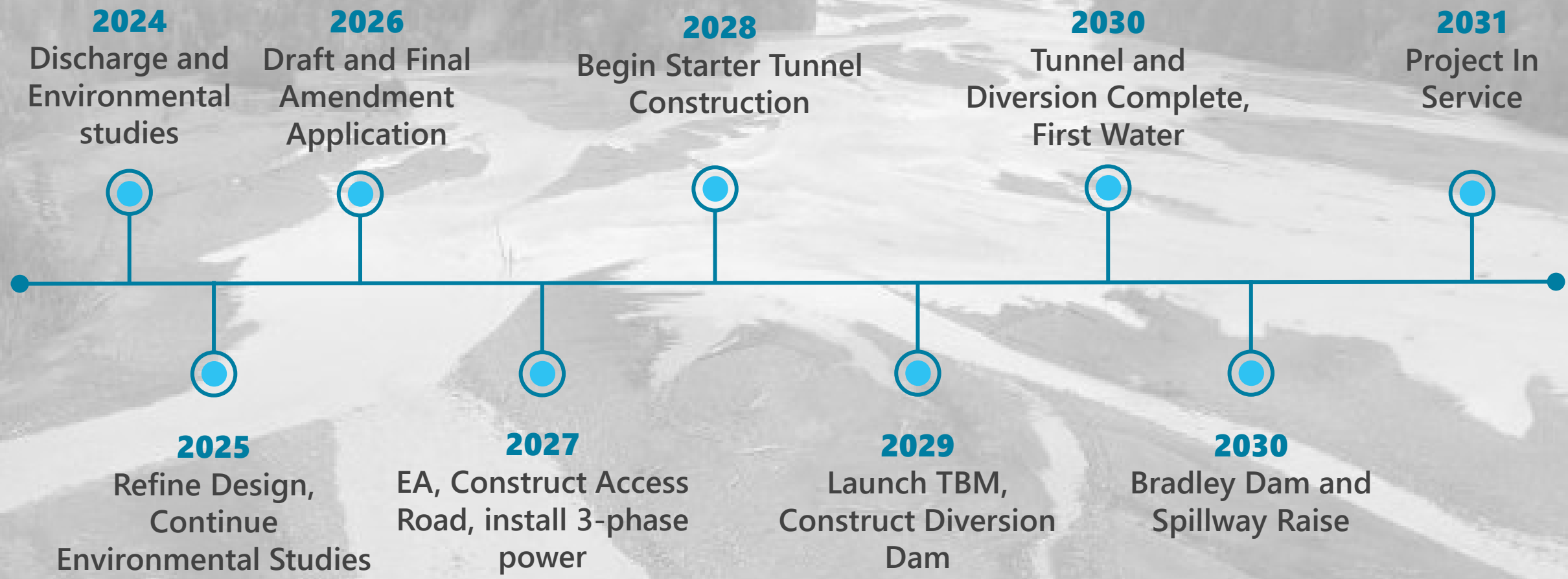
The **Bradley Lake Expansion** represents Alaska's largest new renewable energy development since the Bradley Lake Hydroelectric Project was completed in 1991.

Major Infrastructure Elements:

- Diversion dam at the toe of Dixon Glacier
- 4.6 mile tunnel (~14-foot diameter) conveying water to Bradley Lake
- Bradley Pool Raise up to 16'
- Approximately one mile of new access road



Licensing and Construction Schedule



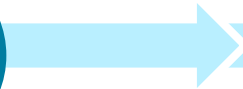
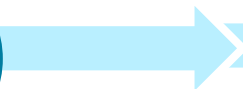
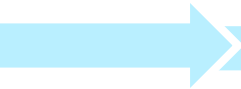
Bradley Lake Expansion Contracting Timeline

Fall 2026

July 2027

Aug 2027

Oct 2027



Virtual Industry Day

Virtual meeting with interested contractors to discuss project

On-Site Industry Day

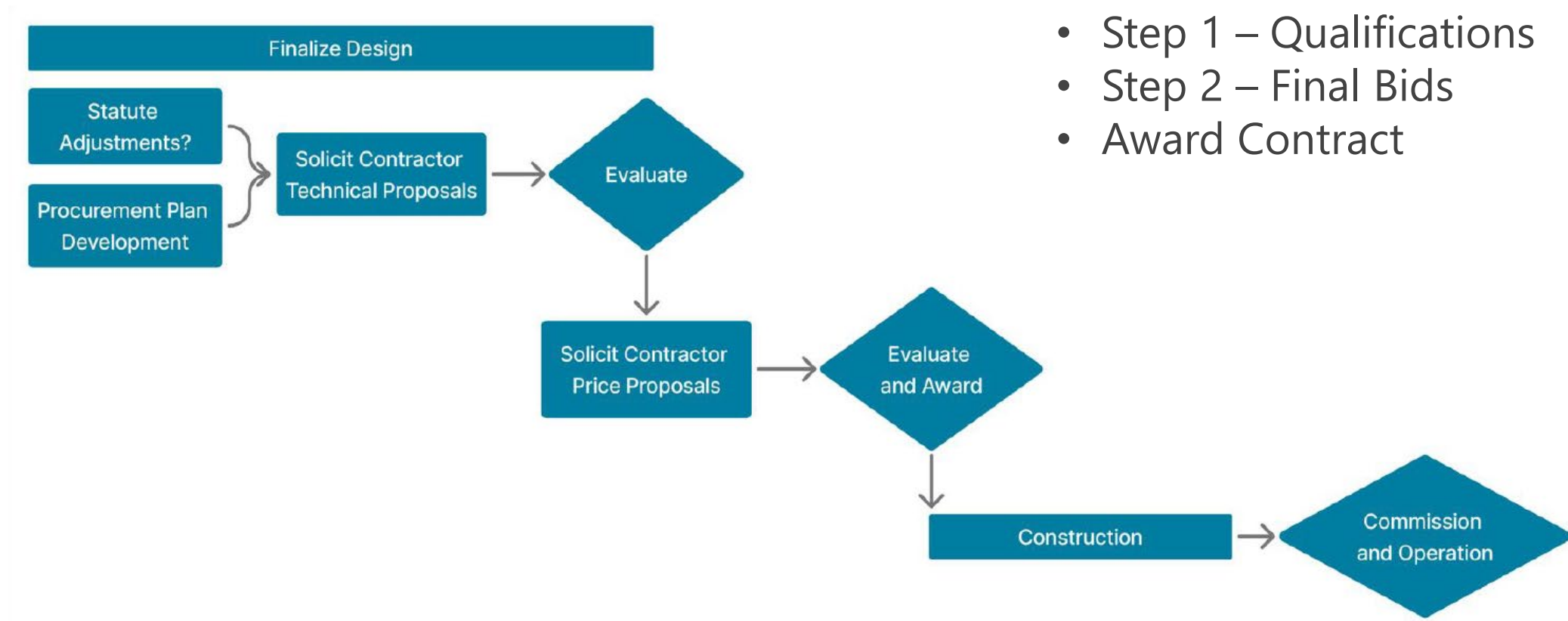
Site visit with interested contractors

Bid Opening

2-step process

Award Contract

Design-Bid-Build (2-Step Bidding)



- Step 1 – Qualifications
- Step 2 – Final Bids
- Award Contract

Stay Up To Date

- Join AEA's Bradley Lake Expansion Project contractor distribution list by emailing Ryan McLaughlin:
rtmclaughlin@akenergyauthority.org
- Visit the project website for license amendment filings, presentations, and study reports
<https://www.akenergyauthority.org/BLEP>

