

Reviewed April 8, 2010

Project Fact Sheet: BRADLEY LAKE HYDROELECTRIC PROJECT

CURRENT STATUS: The lake level is above normal for this time of year. New piles were installed at several towers along transmission line. Water rights filed for a potential project to divert additional water into Bradley Lake and increase energy for project 10%. Project has been operating well through the winter.

PROJECT COST: \$328 million (original cost plus major capital improvements through June 30, 2009).

DESCRIPTION: The project has 126 MW of installed capacity hydroelectric project located 27 air miles southeast of Homer on the Kenai Peninsula. The project consists of Bradley Lake, a 125 foot high concrete faced, rock filled dam structure, three diversion structures, a 19,063 ft. long power tunnel and vertical shaft, generating plant, interior substation, 20 miles of transmission line, and substation. Due to its remote location, the project has its own airstrip, boat dock, residential quarters, and utility system. The project is normally automatically operated by remote dispatch by Chugach Electric Association from Anchorage.

PURPOSE: The Bradley project provides 5-10% of the annual railbelt electric power needs at the lowest generation cost. Bradley is most important to the railbelt electric system during the cold winter months. Demand for both electric power and gas for heat is at its highest. Utilities limited by available gas are able to use Bradley power to meet the high electric demand.

SOURCE OF FUNDS: Legislative appropriations and AEA revenue bonds repaid by participating utilities.

PARTICIPANTS: Under the Power Sales Agreement, 100% of the project's capacity has been sold to the power purchasers: Chugach Electric Association, Inc. (30.4%); Municipality of Anchorage (25.9%); Alaska Electric Generation & Transmission Cooperative, Inc. (25.8%) acting on behalf of Homer Electric Association, Inc. (12.0%) and Matanuska Electric Association, Inc. (13.8%); Golden Valley Electric Association, Inc. (16.9%); and City of Seward (1.0%).

BENEFITS: Authority ownership now assures the railbelt area of a long-term source of power at a stable cost and promotes economic development in the region.

ADDITIONAL BACKGROUND: The power generation potential of Bradley Lake was first studied by the U.S. Corps of Engineers and presented in a report dated March 1955. The project was authorized by Congress in 1962, but, despite its feasibility, federal funds were not available for its construction. The Alaska Energy Authority (then Alaska Power Authority) assumed responsibility for the project in 1982. Preliminary plans and field investigations started in 1982. In April 1984, the Authority submitted an application for license to the Federal Energy Regulatory Commission (FERC). The license to construct the project was issued on December 31, 1985. In December 1987, the Authority and the railbelt utilities entered into a Power Sales Agreement to delineate responsibilities. Project was declared in commercial operation September 1, 1991. Bradley has been producing power for 16 years. In 2008, Bradley produced 287,000 MWh of power at a cost of approximately \$.054 per kWh.

A Bradley Project Management Committee (BPMC) was formed in 1993 with representatives from each of the power purchasers and Alaska Energy Authority. The BPMC is responsible for the management, operation, maintenance, and improvement of the project, subject to the non-delegable duties of the Alaska Energy Authority.