

Reviewed April 15, 2010

Project Fact Sheet: LARSEN BAY HYDROELECTRIC PROJECT

CURRENT STATUS: Upgrades to the Larsen Bay Hydro Facility are in progress utilizing a Construction Management Contractor and AEA Rural Utility Workers. Project substantial completion is tentatively scheduled for June 30, 2010. Once the project is substantially complete, the community and AEA will execute a Facility Conveyance Agreement to complete the turnover agreement to the community. The city utility supplies a portion of the cannery's energy needs to increase utility revenues and enable repayment of bond funds. The utility has agreed to allow the use PCE payments to aid in repayment of their PPF loan.

PROJECT COST: \$320,000 from CDBG grant

DESCRIPTION: The Larsen Bay hydro facility has experienced numerous significant operating issues over the last several years which have resulted in delaying the ownership transfer from AEA to the community. The most significant issue is the reliability of the existing hydro switchgear and controls.

Scheduled improvements include:

- Replacement of the existing unreliable hydro switchgear and controls with new modern switchgear that includes data acquisition and remote monitoring capabilities. This task is substantially complete with minor programming and punch list items remaining.
- Repair ice damage to the water intake structure. This task was substantially completed in January 2009.
- Supply a portion of the cannery domestic load to facilitate increased use of hydro power without negatively impacting the power to the community and increase revenue to the city. This task was substantially completed spring of 2007.
- Execute Facility Conveyance Agreement. Agreement drafted by attorney and sent to community for review and comment.

PURPOSE: The project intent is to increase the reliability and use of the hydro electric system in order to facilitate the turnover of ownership of the system to the City of Larsen Bay.

SOURCE OF FUNDS: In 2004, the City of Larsen Bay applied for and received a CDBG Grant to upgrade the hydro facility. In 2005, AEA negotiated a Grant Agreement with the City of Larsen Bay and CDBG to manage the hydro upgrade project. Subsequently, the project was awarded \$320,000 from CDBG.

PARTICIPANTS: Alaska Energy Authority and the City of Larsen Bay

BENEFITS: Once operating reliably and efficiently, the hydro will displace the majority of the city's diesel fuel used for electrical generation. The utility can now provide a portion of the cannery's energy needs resulting in increased revenue to the utility. Sales to the cannery during the summer of 2007 allowed the City of Larsen Bay to pay its loan obligations for FY 2007 and 2008. The intent is to turn the hydro facility over to the City after the improvements have been completed and the facility has proven its reliability.

ADDITIONAL BACKGROUND: This 475-kilowatt project went into commercial operation in mid-1991 with construction costs of approximately \$1.6 million. In addition to producing electricity for this isolated Kodiak Island community, the project replaced the City of Larsen Bay's old water supply system which provides a safe source of water with reduced maintenance and improved water quality. The original intent of the hydro project was to turn the facility over to the City of Larsen Bay once it had been demonstrated to be operationally viable over a few years. The hydro operated only intermittently and unreliably for many years; therefore the community would not agree to accept the facility or make bond payments until these problems were worked out. In 2004, the City of Larsen Bay agreed to seek CDBG funding to make improvements to the hydro facility.