

Alaska Sealife Center Ph II Seawater Heat Pump Project

Grantees City of Seward (Local Government)
Technology Type HEAT PUMPS
Region Railbelt
AEDG Project Code 10251

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
3	453	Alaska Sealife Center Ph II Seawater Heat Pump Project	7030017	406011	Construction	7/1/10	6/30/12	Closed

Grant 7030017: Alaska Sealife Center Ph II Seawater Heat Pump Project

Project Scope: The City of Seward used a Round III grant from the Renewable Energy Fund to complete the installation of a seawater heat pump to supply space heating for the Alaska Sea Life Center in Seward. (The City of Seward is the owner of the Alaska Sea Life Center, which is leased and operated by the Seward Association for the Advancement of Marine Science). This Round III grant was combined with another grant the Alaska Sea Life Center has received from the Denali Commission's Emerging Energy Technology grant fund (\$426,720) for the completion of this project.

Project Status: During the Quarter ending June 30, 2012, system commissioning was completed, including Tracer operating system training. The sea water supply pump loop has performed well to date, including the submerged turbine pump, in-line strainer, and titanium plate heat exchanger. No evidence of fouling has been detected, and the heat exchanger is delivering approach temperatures that are consistently less than the design specification of 2 degrees F.

Issues with the systems data logger prevented data collection for several months; operational data is now available starting in March of 2013. Since commission, the system has since been expanded and is now able to provide heat to the concrete slabs, sidewalk heating for snow melt, and pre-heating of domestic hot water in addition to providing space heating for the building. The oil fuel boilers are available for backup, but have not been used since the heat pump system came online.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$286,580.00	\$286,580.00
Other State Funding	\$0.00	\$0.00
Total State	\$286,580.00	\$286,580.00
Required Local Match	\$0.00	\$0.00
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$286,580.00	\$286,580.00