

Heat Recovery for the Water Treatment Plant and Washeteria of Kwinhagak

Grantees	Native Village of Kwinhagak (Government Entity - Tribal Council)
Technology Type	HEAT RECOVERY
Region	Lower Yukon-Kuskokwim
AEDG Project Code	10407

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
6	937	Kwinhagak Heat Recovery - Water Treatment Plant and Washeteria	7060937	403064	Construction	7/1/13	12/31/16	Active

Grant 7060937: Kwinhagak Heat Recovery - Water Treatment Plant and Washeteria

Project Scope: This grant consists of \$668,350 from Round VI of the Renewable Energy Fund for design and construction of heat recovery project to capture the recovered heat from the existing Alaska Village Electric Cooperative (AVEC) power plant to the Washeteria and combined utility building. The estimated fuel savings of the combined utility building and Washeteria is projected to be 14,200 gallons of heating oil per year by adding marine jackets to the AVEC generators to increase available recovered heat. If practical an electric boiler will be added to pick up excess wind capacity when available. Air vents, thermometers, pressure gauges, drain valves, and pressure relief valves will also be added, including a BTU meters in each building. The system will also provide freeze protection in the event a users boiler system temperature falls below a minimum temperature, typically between 50-100 degrees F. The feasibility study for this project was completed in 2012.

The total project cost is \$688,400 with \$20,050 of in-kind contribution provided by Alaska Native Tribal Health Consortium (ANTHC) as a match. ANTHC will be providing project and program management services. ANTHC and the Native Village of Kwinhagak will execute a Cooperative Project Agreement (CPA) to define each entity's role in the project scope. The CPA must be accepted by AEA prior to the release of construction funds.

Native Village of Kwinhagak is the grantee. Native Village of Kwinhagak and the power utility must finalize a heat sales agreement; a copy must be submitted the Authority before construction funds are released to grantee. Similarly a final design must be accepted by the Authority for review before construction funds are released to the grantee.

A 65 percent final design, which includes any necessary contracts must be complete and accepted by AEA prior to release of funds for materials requiring long lead time items.

A 95% final design must be complete and accepted by AEA prior to release of construction funds. The 95% design must include a narrative, along with attached drawings and specifications as required to establish function of all major components within the biomass system. The 95% design will contain adequate system and component definition to manage construction of the project.

The final reimbursement of grant funds will not be disbursed without an O&M reporting plan accepted by the AEA Project Manager. AEA may retain up to 10% of the contributed grant funds until the grantee has submitted an acceptable O&M reporting plan.

Project Status: The construction of this project is nearing completion with an anticipated start-up of fall 2016.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$668,350.00	\$99,883.84
Other State Funding	\$0.00	\$0.00
Total State	\$668,350.00	\$99,883.84
Required Local Match	\$20,050.00	\$20,050.00
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$688,400.00	\$119,933.84