

## Togiak Waste Heat Recovery Project

<b>Grantees</b>	City of Togiak (Local Government)
<b>Technology Type</b>	HEAT RECOVERY
<b>Region</b>	Bristol Bay
<b>AEDG Project Code</b>	10363

### REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
5	858	Togiak Waste Heat Recovery Project	7050858	403056	Construction	7/1/12	6/30/16	Active

### Grant 7050858: Togiak Waste Heat Recovery Project

**Project Scope:** The proposed project will design and construct a heat recovery system between the Alaska Village Electric Cooperative (AVEC) power plant and the end-user community buildings: 1) Water Treatment Plant, 2) Clinic, 3) Police Station, 4) City Office, and 5) Old School Community Activity Building. These community buildings are within a 500 foot radius of the AVEC power plant, offering an excellent opportunity to capture a maximum amount of waste heat from the plant for hydronic heating. The new system will capture jacket water heat generated by the AVEC plant that is currently wasted to the atmosphere by power plant radiators. The recovered heat will be transferred by insulated glycol piping to the end-users. The new system will tie into the end-users heating systems using heat exchangers, control mechanisms, and any required upgrades to the existing building hydronic systems.

The City of Togiak, in collaboration with Alaska Native Tribal Health Consortium (ANTHC), will construct this heat recovery system to connect waste heat from AVECs generating station to the water treatment plant, clinic, police station, City Office, and the Old School Community Activity Building. The project will displace approximately 13,700 gallons of diesel per year according to a 2010 Heat Recovery Analysis. A detailed Heat Recovery Analysis was completed for the City of Togiak and ANTHC in June 2010 by Alaska Energy and Engineering, Inc.

**Project Status:** TThe City of Togiak is working with Summit Consulting to prepare 35% design drawings for a design-build project. The project was on hold as of September 2015, pending Denali Commission funding for a new AVEC powerhouse. The design will be adapted to the new powerhouse location and layout. As of January 2016, AVEC reports that it has full funding for power house construction. The city is planning on proceeding with the design of a heat recovery system.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$443,030.00	\$46,660.28
Other State Funding	\$0.00	\$0.00
<b>Total State</b>	<b>\$443,030.00</b>	<b>\$46,660.28</b>
Required Local Match	\$43,150.00	\$0.00
Federal Grant Funding	\$0.00	\$0.00
<b>Total Project Costs</b>	<b>\$486,180.00</b>	<b>\$46,660.28</b>