

Biomass-fired Organic Rankine Cycle System

Grantees	Chena Power, LLC (Utility-Government)
Technology Type	BIOMASS
Region	Railbelt
AEDG Project Code	10055

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
0, 1	-53, 53	Biomass-fired Organic Rankine Cycle System	2195358	402025	Construction	8/20/08	12/31/13	Active

Grant 2195358: Biomass-fired Organic Rankine Cycle System

Project Scope: This project will demonstrate a biomass-fueled heat and power generation system utilizing an Organic Rankine Cycle (ORC) power plant that is potentially suitable for deployment in rural Alaskan communities with available biomass resource.

For the purpose of this demonstration unit, the biomass fuel will be waste paper from the Fairbanks Borough waste stream and other suitable woody material. The \$2,000,000 in grant funds will be used to purchase fuel processing equipment, a fluidized bed boiler system, two United Technologies Research Center ORC units that will each generate 202 kWh net power, and miscellaneous balance of plant equipment. If changes in timeline are anticipated or occur, the grantee should inform AEA as soon as possible.

The grantee is required to petition Regulatory Commission of Alaska for a certificate of public convenience and necessity and economic rate regulation prior to release of construction funds.

Project Status: The system is shutdown, but the grant is not closed. Still discussing with grantee.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$2,000,000.00	\$1,900,000.00
Other State Funding	\$0.00	\$0.00
Total State	\$2,000,000.00	\$1,900,000.00
Required Local Match	\$1,000,000.00	\$2,109,009.34
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$3,000,000.00	\$4,009,009.34