

Wood Heating in Interior Alaska Communities

Grantees	Interior Regional Housing Authority (Government Entity - Housing Authority)
Technology Type	BIOMASS
Region	Yukon-Koyukuk/Upper Tanana
AEDG Project Code	10304

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
4, 5, 6	637, 820, 933	Feasibility Assessments for Wood Heating in Interior Alaska Communities	7040048	402113	Feasibility	7/1/11	12/31/12	Closed
5	820	Design & Construction of Wood Heating Projects in Interior Alaska Communities	7050820	402113	Construction	7/1/12	12/31/15	Active
6	933	Biomass Feasibility Studies in Public Facilities	7060933	402126	Feasibility	7/1/13	6/30/15	Closed

Grant 7040048: Feasibility Assessments for Wood Heating in Interior Alaska Communities

Project Scope: This project will complete feasibility assessments of wood-fired heating systems (e.g., Garn boilers), in eight communities in Interior Alaska: Hughes, Ruby, Koyukuk, Nulato, Kaltag, Nikolai, Anvik, and Holy Cross. The communities named in this proposal were selected using two criteria: 1) the 2010 Alaska Energy Pathway identifies six of the eight as having significant potential for fuel displacement and cost savings with a wood-fired heating system, and 2) the communities have all held tribal and municipal meetings on this issue, identified wood heat as an energy priority, and reached out to the applicant for assistance with a project of this type.

The feasibility studies will include forest resource inventories and wood harvest assessments, potential heating loads, heating technology evaluations, right-of-way evaluation, preliminary environmental/permitting assessments, and preliminary economic analysis.

Project Status: IRHA has successfully completed the biomass feasibility studies for eight communities in Interior Alaska: Hughes, Ruby, Koyukuk, Nulato, Kaltag, Nikolai, Anvik, and Holy Cross. In December 2012, IRHA submitted all final documents and AEA has reviewed and accepted the final studies. Three communities will advance to construction in a Round V grant: Hughes; Anvik; Koyukuk.

The project is closed out.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$120,870.28	\$120,870.28
Other State Funding	\$0.00	\$0.00
Total State	\$120,870.28	\$120,870.28
Required Local Match	\$0.00	\$0.00
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$120,870.28	\$120,870.28

Grant 7050820: Design & Construction of Wood Heating Projects in Interior Alaska Communities

Project Scope: This project will deliver a final design and construction of single woody biomass plant to heat three (3) Interior Alaska communities: Hughes; Anvik; Koyukuk.

In order for funding to be released and made available for construction, AEA must accept a fuel supply plan and feasibility study. Also, the system design must include metering and monitoring equipment and instrumentation.

However, AEA had some concerns about the wood supply sustainability, the wood supplier, and the lack of feasibility study for each chosen community to evaluate the fuel availability and feasibility of each chosen community. Therefore, AEA recommends full funding of \$1,215,224 with requirements that 1) A wood resource plan must be completed and reviewed by AEA and Alaska Division of Forestry to assure the sustainable supply of wood for each chosen community; 2) AEA must accept the recommendations

from the feasibility analysis for the three communities that will advance to design and construction; 3) the economic analysis B/C ratios of the chosen communities should average greater than 1.25 (the ratio that was assumed for the purpose of analysis).

Project Status: The Hughes and Koyukuk systems are operational. The resource plan, operational plan, and design efforts are all progressing in Anvik.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$1,215,224.00	\$1,032,083.04
Other State Funding	\$0.00	\$0.00
Total State	\$1,215,224.00	\$1,032,083.04
Required Local Match	\$173,771.00	\$174,937.86
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$1,388,995.00	\$1,207,020.90

Grant 7060933: Biomass Feasibility Studies in Public Facilities

Project Scope: Interior Regional Housing Authority (IRHA) will use the awarded grant funds to perform biomass feasibility assessments and forest inventories in the communities of Alatna, Allakaket, Northway, Grayling, Shageluk, Beaver, and Stevens Village.

IRHA will provide the Authority draft copies of the studies for review and approval at the 65% and 95% phases. The Authority has provided IRHA with an outline of the items that need to be included in the biomass feasibility assessments and forest inventories.

Project Status: 2013: The final reports have been accepted and the grant is closed.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$102,431.85	\$102,431.85
Other State Funding	\$0.00	\$0.00
Total State	\$102,431.85	\$102,431.85
Required Local Match	\$0.00	\$0.00
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$102,431.85	\$102,431.85