

Kwethluk Wind

Grantees	Organized Village of Kwethluk (Government Entity - Tribal Council)
Technology Type	WIND
Region	Lower Yukon-Kuskokwim
AEDG Project Code	10312

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
4	664	Kwethluk Wind Feasibility Study	7040020	410068	Feasibility	7/1/11	12/31/15	Active

Grant 7040020: Kwethluk Wind Feasibility Study

Project Scope: This grant consists of \$145,000 from Round IV of the Renewable Energy Fund for a wind feasibility analysis, resource assessment and conceptual design. The total project cost is \$161,000 with a match of \$16,000 provided by the grantee.

Organized Village of Kwethluk will install a meteorological (met) tower to determine the advisability of installing wind turbines in Kwethluk. The work will involve obtaining a letter of non-objection for placement of the wind tower, permitting plan, installing the met tower purchased with previous AEA funds and studying the wind resource for a minimum of one year. On completion of the wind study the met tower will be dismantled and returned to AEA.

Organized Village of Kwethluk will install instrumentation necessary to monitor the power plant, distribution system, and possible secondary load(s) (e.g. dispatchable electrical loads and heat loads) in order to adequately model the Kwethluk electrical demand, power system, and heat loads for a minimum of one year. Organized Village of Kwethluk will review the current power generation, distribution and control systems to determine necessary upgrades for the integration of wind power.

A final report detailing the findings of these tasks along with recommendations for next steps will be submitted to the Authority.

Project Status: The grant was executed on October 24, 2011. The grantee is using WH Pacific as their contractor. The meteorological (met) tower was installed June 12, 2012. Data from installation through December 10, 2012 indicates a class 2 wind resource. Data collection is ongoing.

After one year of data collection the wind resource does not appear to support a feasible wind project. However, wind varies annually and it is not uncommon to measure the wind resource at a location for more than one year. Also, technology is advancing that allows for the development of lesser wind regimes. Additional wind data, coupled with data from the power plant and possible secondary loads, may indicate a viable wind project or demonstrate that another technology is more appropriate for use in Kwethluk.

Acknowledging that a viable wind project may not be possible in Kwethluk, a full Conceptual Design Report will not be required of the grantee. Instead these funds will be used to perform a rigorous data collection campaign to support future wind or other energy projects.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$145,000.00	\$44,098.22
Other State Funding	\$0.00	\$0.00
Total State	\$145,000.00	\$44,098.22
Required Local Match	\$16,000.00	\$5,747.65
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$161,000.00	\$49,845.87