

House Energy Committee Testimony—Patrick Anderson, Executive Director
Chugachmiut

A) Chugach Region Unique Energy Problems

- a. Port Graham and Nanwalek, Alaska have single-phase 220-volt power supplied by Homer Electric Association.
- b. Port Graham Cannery needs three-phase 220-volt power that currently could use diesel three-phase power.
- c. Other business projects will need three-phase power such as a hatchery project in Port Graham and one in Nanwalek.
- d. Heating fuel oil costs in Port Graham and Nanwalek are \$5.40 per gallon.
- e. Chenega and Tatitlek use diesel power.
- f. Cordova uses hydropower in the summer but has to supplement with diesel power in the winter when the creeks freeze and water flow decreases.
- g. Valdez is on the Copper River Electric Association power grid yet has a need for additional power.
- h. Seward is on the Railbelt power grid and is supplied power by Homer Electric Association.

B) What local solutions have been attempted and what are the results?

- a. We are working on placing a woody biomass community heat and power system (CHP) into Port Graham and Nanwalek.
- b. A U. S. Department of Energy grant was obtained that funded a feasibility study that was completed July 2007 by Energy and Environment Research Center out of University of North Dakota.
- c. We are currently applying for grant funding for a downpayment to purchase and install a woody biomass plant.
- d. Chenega Village Council received funding from Alaska Energy Authority to revitalize a small hydroelectric plant that previously was used by San Juan Cannery located in Sawmill Bay across from Chenega. Plant size is approximately 250kW and is still in development.
- e. Eyak Village Council and Eyak Corporation have been working with Municipality of Cordova to supplement their power needs by adding a biomass gasifier that would burn both refuse and woody biomass. They recently received funding from Alaska Energy Authority.
- f. Eyak Corporation wishes to assess their biomass supply sustainability and has asked Chugachmiut foresters for assistance. An assessment of Port Graham biomass supply was done during their feasibility study.
- g. Eyak Council and Corporation have also conduct 2-years of wind tower studies, finding a suitable location for one wind tower and are seeking other site locations. They have yet to seek funding for purchase of wind tower systems.
- h. Tatitlek's diesel costs have risen considerably and they are looking to wind technology to help defray use of diesel and its cost.
- i. Recently, it has come to the attention of Chugachmiut and other stakeholders in the region of studies done by U. S. Department of

Agriculture and others about hydroelectric power development at Silver Lake approximately 10 miles northeast of Tatitlek and 15 miles south of Valdez. Project size is estimated at 15 megawatts of power that could be produced. Enough to supply power for the Copper River power grid that includes Valdez and could intertie to Tatitlek and Cordova. Chugach Alaska Corporation owns the land and Municipality of Valdez is very interested in seeing in this project could be developed. One of us could seek feasibility funding to gather past work completed and assess the current regulatory and market conditions.

- C) What State of Alaska Could do with the High Cost of Energy
- a. Continue funding Alaska Energy Authorities Renewable Energy Fund.
 - i. State funding provides critical amounts for down payment on loans and or coupled with other funding sources to bring energy projects to fruition.
 - ii. Federal funding generally requires certain match funding that many small communities could not normally afford that state funding could be used as that match.
 - b. Provide direction to the State of Alaska Regulatory Commission to allow self-power generation entities to enter power purchase agreements with local power utility cooperatives when they provide greater than 50 kilowatts of power that is accorded individual homeowners being credited for power production for their use. If a self-power generation entity develops a project that provides more power than could be used privately or locally and is near enough to supply power to an electric grid, then excess and off-peak power production could be sold at a wholesale price and make such projects more economical and affordable.
 - c. Continue support of University of Alaska Fairbanks' Cold Climate Center on Research. Weatherization and development of "Green" housing is the new norm for housing. Efficient housing development and weatherization are key due to the fact that buildings in the U. S. consume approximately 80% of energy used. State support of such innovation and implementation of techniques and technologies is important to all of us. Support for university research for alternative energy programs for small Alaska communities is as important as solving large Alaska communities energy needs.
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