

Mr. Chairman, Members of the committee I am Percy Frisby, Director of Energy for the Central Council Tlingit & Haida Indians Tribes of Alaska. I was invited to testify before you on Rural Alaska Energy Concerns in the Southeast Region. I was asked to cover three areas of energy development.

A) Unique Energy Problems:

In many ways, it seems that the primary problem is not unique for the villages of all the regions. The demand for electricity is small for each utility, but the energy per individual or home is quite expensive. Most of the small communities in Southeast Alaska are powered with diesel fuel - exception being Metlakatla and most of Prince of Wales Island.

However, the most unique aspect of Southeast Alaska is that there is an abundance of renewable energy available with most of the resources being developed by the larger communities - but very little of these resources are shared with the smaller communities. And the cost for smaller communities to develop these resources is greater than the costs for diesel-generated energy.

The biggest problem that small communities face is the economies of scale. Their populations are too small to justify the expense of developing and constructing a complete power system. Southeast Alaska is in a unique position because we can bus surplus power to a retail market when British Columbia completes its Northwest BC Transmission Line to Bob Quinn Lake. All that we in Southeast have to do is build the AK/BC section from Wrangell to the border. By having this transmission line built it would change the economies of scale throughout the region. Small communities then can afford to build adjacent power systems because they will have a market for surplus power.

B) Local Solutions Attempted:

- Many of the smaller communities are pursuing hydro facilities, but costs are excessive and permitting is arduous. Not much progress to date.
- Yakutat: Is looking at wind and wave technology
- Hoonah: Is looking at Gartina and Elephant Creek hydro plants; biomass gasification project at Pt Sophia; and an Intertie with AEL&P in Juneau.
- Angoon: Is looking at developing Thayer Creek hydro
- Kake: Is looking at an Intertie with Petersburg
- Tenakee Springs: Is looking at developing Indian River
- Hydaburg: Is developing Reynolds Creek Hydro

nected to the now set for completion Swan Lake - Tyee Transmission Line) - but they need an intertie to bus their surplus power.

C) State Assistance:

The state could help lay the ground work for development of renewable resources. There is so much preliminary work that needs to be completed before engineering and construction is even planned.

- Continued analysis, evaluation, and definition of potential renewable resources. This includes alpine lake tap generation potential, hydrokinetics, wind, wave, tidal, biomass, and geothermal.
- Hydro potential near the communities is well determined - the potential in the more remote areas is not.
- Wind is known to exist, but the quality as an area source is not known, sites are poorly defined.
- EPRI (Roger Bedard) published a good & promising report about tidal energy in SE - but it is very broad brushed with no correlation with current technology or application to specific sites.
- The state published a report and map illustrating potential geothermal sites in SE, but the real capacities of these sites is unknown. And the data does not address all known potential.
- Wave energy is a very new technology with a very positive outlook along the west coast - significant research and development is occurring in Oregon and British Columbia.

Strategic planning:

Example - Oregon is taking a very progressive position with the development of Wave Energy. They are quite involved with developing a Territorial Sea Plan - this plan defines allowable areas for Wave Energy development as well as allowable extent of generation. This type of planning should occur to some extent for all types of energy development to protect other stakeholders of the resources and uses of the land or sea.

Facilitate more research and development:

The best resources available to the communities, involves development of new technology. Our state now has the opportunity to take a greater leadership role in the application of new technology.

This is pretty much a shotgun approach with a wide distribution of ideas. I think that the two areas the state should address is the need for strategic planning and a much more progressive commitment to developing new technology and resources.

Thank you for allowing me to testify