

Akutan promotes energy independence

by Margaret Bauman
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A power plant developed for Akutan, a tiny Aleutian fishing community, is expected to drastically lower utility costs with a hydroturbine system backed up by diesel power in the same module.

The self-contained generator,

equipped with a computer to provide 24-hour system analysis, monitored remotely in Anchorage, was developed as a model with a \$250,000 grant from the Alaska Science and Technology Foundation.

The plant, owned jointly by Alaska Power Systems Inc. of Anchorage and the City of Akutan,

should save residents \$40,000 to \$50,000 annually in power costs, said Scott Thompson, president of Alaska Power Systems.

"The Akutan project is the first of its type," said Clarissa Quinlan, who owns the firm jointly with Thompson and Harlan Hansen.

Sensors in the system measure water going from a nearby dam into the plant. When the water reaches a certain low level, which is preset, the system sends a signal for the diesel engine to start up.

"The diesel engine comes up to speed, a clutch engages and it runs the generator and the pelton wheel stops. The diesel engine continues to run until the sensors signal that the dam has filled to the proper level.

Quinlan estimates the hydroturbine facility will operate 70 percent to 80 percent of the time, at a considerable savings to residents.

Maintenance of the system is monitored via computer in Anchorage and Akutan.

"We will be able to call the plant's computer from our Anchorage office to get a picture of how the system is operating and and pinpoint what might have

caused a problem without having to send a technician to the site," Thompson said. "Just eliminating unnecessary travel can save some big money here in Anchorage."

Local plant operators, trained in maintenance of the system, will use a toll-free number to report any problems.

Eliminating unnecessary travel is a crucial issue, for Akutan has no airport. Air traffic is handled on the small, locally maintained seaplane ramp.

Owners of Alaska Power Systems said a number of other rural communities could use similar power plants at a considerable savings.

"There are a lot of attractive hydroelectric sites near small communities," Quinlan said, "but they have been uneconomic because the engineers want to make them 100 percent hydroelectric. By combining hydroelectric with diesel a good portion of the year, you are effecting these savings."

Akutan, incorporated as a second class city in 1979, lies in the center of some of the most productive fishing grounds in the world. Yet it has no local fishery of any size and, except through the one percent raw fish tax levied on processors using the bay along its shoreline, there has been no benefit from these neighboring fishing grounds to residents, Aleutians East Borough officials said.

Huge amounts of product move through Akutan, including crab, halibut, cod and pollock, along with small amounts of herring, salmon and other species. The raw fish tax pays for local services, and employment with the city government provides some steady income for residents.