

# Rural energy alternatives eyed

Seven contracts totaling \$815,000 have been awarded to evaluate ways to meet energy needs of 49 rural Alaskan villages. The contracts were awarded at the August 29 meeting of the

Alaska Power Authority Board of Directors.

Some contracts begin this month. All will be underway by October. They are due to be completed in mid-April 1981.

The 49 villages are from the following regions: Calista (9 villages); Bering Straits (14 villages); Doyon (8 villages); Arctic Slope (2 villages); Bristol Bay (1 village); NANA (9 villages); Koniag (4 villages); and Aleut Corporation (2 villages).

Villages in rural Alaska are nearly completely dependent upon diesel fuel for generation of electricity and upon fuel oil for space heating. Villagers are also

paying some of the highest rates for energy in the country.

The thrust of the studies is to identify and evaluate energy resources in rural Alaska as alternatives to diesel and fuel oil, so that programs can be initiated to implement the most feasible alternatives to reduce the dependence on petroleum.

The produce of the seven reconnaissance studies will be draft reports in late January 1981 with one or several of the following recommendations:

- collect more detailed data (for example: install wind anemometers or install stream flow recorders)

- conduct more detailed resource assessment (for example: conduct a more detailed coal investigation)

- conduct a feasibility study of one or several of the most viable alternatives

A feasibility study is a second, closer look at the technical, economic and environmental aspects of an energy alternative. The outcome of a feasibility study is the decision to file for federal and state permits and licenses and to spend additional funds for project development. In the event the Power Authority developed specific alternatives, a village would repay the Power Authority through project revenues.

The draft reports are due the end of January 1981. They will be sent to individual villages for comment, and that comment will be included in the final report due in mid-April 1981.

The seven consultants conducting the work will be using a variety of methods to talk with village people and find out village preferences for the alternatives that might be developed, the present electricity use patterns in a village, and problems the village is having.

Information will be gathered at public meetings with village leaders, by talking to representatives of a village or door-to-door interviewing, and by surveys through the mail.

All contractors will not be using all methods. If a village is interested in know-

ing specifically how a contractor will be involving the village in the study, they are encouraged to call, write or visit the project manager at the Alaska Power Authority: Don Baxter or Brent Petrie, phone in Anchorage: 277-7641

address: Alaska Power Authority  
333 West 4th Ave., Suite 31  
Anchorage, AK 99501

Eric Yould, Executive Director of the Alaska Power Authority, feels the studies are an important step in solving long term rural energy problems. He describes them by saying: "The studies will not be able to solve rural energy problems in the short term of the next 5 years. Utilities, villages and regional corporations pretty much have to do that themselves. The studies are, however, aimed at taking specific actions within the next three to four years that will satisfy village energy needs in the long term of the next 15 years."

Alternatives that will be looked at for the long term include: conservation, waste heat utilization, wind, wood and peat, small hydroelectric, continued use of diesel and fuel oil, and solar (both active and passive for space heating, hot water heating, and electric power generation).

Yould cautions that the studies will not automatically lead to low cost solutions to rural energy problems: "A stream or river may be near a village. But

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if it costs \$1 million to produce the energy, that may not be economical for that village. The same thing could be true for wood and peat resources; there may be a lot out there, but it may be too costly to develop. In some places, the long term solution may be to stay on diesel, in which case the effort will be to make the diesel system as efficient as possible. One way to increase the efficiency of diesel systems is to build bigger diesel units and connect several villages together with a transmission line. For this to occur, however, it will be important for village people to consider the cultural and environmental impacts."

The Alaska Power Au-

thority awarded the contracts at the request of the 1980 legislature. In some cases, a village or village utility worked through its legislator to request state assistance in finding ways to break village dependency upon petroleum.

You'd describes the role of the Alaska Power Authority, a state corporation, as "a facilitating organization that provides a variety of services depending on the needs and desires of a community. For instance, one village may desire that the Power Authority be used only for project financing; another village may request that the Power Authority finance, construct and operate a local project."