

Agency: Commerce, Community and Economic Development**Grants to Municipalities (AS 37.05.315)****Grant Recipient: Nome****Federal Tax ID: 92-6000084****Project Title:****Project Type: Planning and Research**

Nome - Location and Distribution of Affordable Energy Sources to Nome and Other Rural Alaskan Communities

State Funding Requested: \$300,000**House District: 39 / T**

One-Time Need

Brief Project Description:

Develop strategies and evaluate alternatives that can lead to a reduction in energy costs in Nome, and supporting funding of like efforts in other rural Alaskan communities.

Funding Plan:

Total Project Cost:	\$300,000
Funding Already Secured:	(\$0)
FY2014 State Funding Request:	<u>(\$300,000)</u>
Project Deficit:	\$0

Detailed Project Description and Justification:

Diesel is the primary source of electricity and heating in the Nome area and other rural Alaskan communities. In Nome, steps have been or are being taken to reduce reliance on fossil fuels. Wind power installations in place have reduced fuel requirements for power generation, and additional wind turbine installations to be constructed this summer can further reduce consumption. Energy audits have been performed on public buildings and many of the recommendations to improve efficiency have been implemented. Some residents have resorted to supplementing their heating needs with drift wood, although a consistent source of wood is not guaranteed or available.

Energy -- electricity, heating fuel and gasoline -- represents a significant portion of disposable income expended by residents to meet their basic energy needs. Over the last decade, it is estimated energy expenditures have at minimum doubled, and in rural communities -- up to 50% of income for families in the lowest income brackets is spent on energy.

There are few additional steps that can be taken at the local level to further reduce diesel use. The volume of diesel fuel required, combined with the maritime freight cost associated with its delivery to Nome, results in a high electrical production cost, nearly 300% of the National average; a family's electric bill in Nome can easily be more than double that of electric service in larger metropolitan areas of the state.

In collaboration with DOE's National Energy Technology laboratory (NETL) and the Alaska Energy Authority, a Nome Region Energy Assessment analyzed options available to Nome for electric power production and space heating, and reviewed options available to reduce the dependence on diesel generators. The study considered various alternatives, including coal, natural gas, geothermal and wind. The most promising option was wind generation to supplant some of the power produced by diesel fuel. Wind has been incorporated into the Nome system, and through the Rural Energy Fund

Program, additional wind generation capacity is on schedule for installation.

A geothermal site at Pilgrim Hot Springs may provide additional opportunity to convert electrical generation from diesel after additional investigation to determine potential production that could be available. The University of Alaska is conducting site investigation/drilling to determine if this is a viable option. The use of this site by Nome, however, would require the construction of a 50 mile transmission line. Private concerns have been investigating the potential of hydro power for potential mineral development; however, if this was developed -- connection would again require a 70 mile transmission line.

Findings of oil and gas seepage and a head of flammable gas have been reported in the area throughout the century. In the early 1980s, exploration and test wells were drilled by ARCO Alaska and other firms in anticipation of federal oil and gas lease sales. This drilling by oil companies apparently did not discover large-scale commercial reserves. A recent presentation by the State DGGs suggested it is unlikely the minimal pockets would provide even a sustained supply for local use, or that it could be economically developed.

The community has followed statewide discussions on a gas line, and various conceptual alternatives for "spur" lines to remote communities have been floated. This option, too, may provide relief in the long run.

However, the need is more immediate. Over the past couple of years, we have seen an influx of families from surrounding communities who could no longer survive -- and as the situation becomes ever more dire, we fear an exodus of residents who are being driven to urban communities or the lower 48 because they simply cannot afford to continue to live here.

Recommendation:

The State of Alaska compiled a Statewide Energy Plan which identified opportunities on a broad scale. Alaska Energy Authority has begun structuring and budgeting a regional approach for energy planning. We support a practical and useful effort to develop long-term, viable and cost effective options. But, we need to determine if there are additional short-term options as well.

Action must be taken to rapidly develop and implement alternatives -- which are not just renewable energy projects.

The City of Nome requests state financial assistance in the amount of \$300,000 to evaluate alternatives and develop strategies that can lead to a reduction in energy costs to the community. We support funding like efforts in other communities to allow them to also seek solutions that can insure the continued viability of rural Alaska.

Project Timeline:

SY14 - Develop strategies and evaluate alternatives

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

City of Nome

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No