**STATEMENT**

**OF**

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**DEPARTMENT OF THE INTERIOR**

**BEFORE THE SENATE COMMITTEE ON INDIAN AFFAIRS**

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Good morning, Madam Chairwoman and Members of the Committee. My name is Bob Middleton, and I am the Director of the Office of Indian Energy and Economic Development (IEED) at the Department of the Interior. Thank you for the opportunity to present testimony today concerning the potential economic development opportunities available for Alaska Native communities through energy resource development.

The Department believes that responsible development of the energy resources of Alaska Native communities can be a significant component of their economic viability and help to sustain their traditional way of life. In general, energy and mineral development represents a possible near-term solution for many tribes and Alaska Native communities to pursue economic development, small business, and job creation for their members.

## OVERVIEW

The U.S. Department of the Interior assists tribes, Alaska Native Corporations, villages, individual Indians and Alaska Native landowners in developing their renewable and non-renewable resources. This activity includes collection of exploratory data and identification of energy resources, funding of and assisting in feasibility studies, market analyses and other resource development initiatives, as well as overseeing leases and agreements for oil, natural gas, coal and industrial mineral deposits located on Indian lands in the lower 48 and Alaskan Native Allotments.

The Department is also responsible for developing, implementing and reviewing bureau-wide policies, plans, processes, environmental impact studies, industry leasing activities, and other functions related to development and production of energy and mineral resources on Indian lands in the lower 48 and Alaskan Native Allotments. We provide advice and data concerning geotechnical, economic, and land-use issues to tribes, individual Indian landowners, and Alaska Natives who seek to manage and develop their energy and mineral resources. While Alaska Native Corporations carry out these activities on behalf of their shareholders in Alaska, as stated, we do provide this assistance to individual Alaska Native landowners who are developing their resources. We also provide assistance in negotiating beneficial working agreements with developers, and guidance through an often complex and time-consuming regulatory approval process.

We recognize that Alaska Native communities face some of the same economic issues common to many rural communities in the U.S., such as lower rates of investment, lack of local job opportunities, and access to educational and job training services. However, the economic pressure on Alaska Native communities is intensified when you have to pay the highest utility rates in America, which can be up to six times the national average cost of 11 cents per kilowatt-hour.

These communities suffer from a reliance on electrical power supplied by diesel fuel that is very rare in the lower 48. When these energy costs are combined with some of the lowest per capita incomes in the United States, individual members of these communities are forced to choose between living in their rural communities or moving to an urban setting thereby having to shift away from their cultural and spiritual ties of living a subsistence lifestyle. Dependence on expensive and unreliable energy sources can have profoundly stifling effects on the vitality and viability of Alaska Native economies.

## OFFICE OF INDIAN ENERGY AND ECONOMIC DEVELOPMENT

The Office of Indian Energy and Economic Development reports to the Assistant Secretary for Indian Affairs and strives to actively build and strengthen Indian economies nationwide through

job creation, business development and capital investment. The office has a multi-disciplinary staff of professionals committed to achieving long-term goals of promoting Indian economic development, increasing tribal business knowledge, increasing jobs and businesses, increasing capital investment, and providing assistance for developing energy and mineral resources.

We recognize the challenges that face Alaska Natives and have worked with local villages and corporations to develop projects and programs to provide economic development opportunities for their communities.

The focus today is on energy resource development, but I would like to take a moment to give a few examples of how IEED works with Alaska Native communities across the economic development spectrum.

The IEED manages the Public Law 102-477 initiative which allows tribal entities to combine several Federal Government social service assistance and workforce development programs into one, thereby creating administrative and technical efficiencies that enhance the effective delivery of services. IEED's approved "477" plans with Alaska Native Villages and Corporations cover over 92 percent of Alaska's tribes.

The IEED also manages the Indian Loan Guarantee, Insurance, and Interest Subsidy Program which provides to potential lenders to individual Indian, tribally, or Alaska Native owned businesses a Federal guarantee for up to 90 percent of the amount of the loan. The backing of the Federal government can provide the assurance a lender may need before they choose to enter into partnership with a Native-owned enterprise.

One of our recent successes in Alaska is the provision of a guarantee on a $4.45 million loan for an Alaska energy service provider to purchase, install, and commission a new gas turbine generator to add additional capacity to its current operation through upgrading of existing facilities and associated distribution systems that will allow the company to increase the scale of their generating capability. This loan would not have been made without the Federal guarantee of repayment.

In June 2007, IEED collaborated with the Alaska BIA Regional Office to conduct an Alaskan Economic Development and Energy Conference at the Egan Convention Center in Anchorage. The agenda included an introduction to all the services our office provides; training on the Indian Affairs Loan Guaranty and Insurance Program, government procurement; and Small Business Administration 8(a) tribally and Indian owned business formation; and law and lending for tribes, Individual Indians, and Alaska Natives. The conference also featured a networking session to link lenders with tribal and Alaska Native borrowers and a panel on creating gas and oil related jobs.

## ENERGY RESOURCE DEVELOPMENT

As I stated before, Alaska Native villages have a unique energy situation. While rising energy costs certainly present problems for those of us who live in the lower 48, the consequences for Alaska Native communities, which are mostly rural, are alarming. The energy crisis impacts rural Alaska on both the individual and community level: when communities spend more on fuel, they spend less on key services. Presented with these options, and in the face of the current upward trend of energy prices, it has been reported that many rural residents are abandoning traditional lifestyles for more urban settings, thus devastating these longstanding vibrant rural communities.[1]

Diesel fuel driven generators provide a majority of electricity in rural Alaska. Because nearly all rural native villages generate their electricity locally using diesel generators, it is a balancing act each year for these communities. Diesel in Alaska is expensive at any time, with reported prices of $9 per gallon or higher. Estimating how many gallons of diesel need to be stockpiled when it can be transported less expensively during the warmer months is an important decision. Order too much and a village has spent money it may need for other goods and services. But, order too little, and it quickly becomes very expensive to have diesel transported to the bush during the winter months, again spending money that may be needed for other things.

[1] *Solutions to Alaska's Energy Crisis*, Kirsten Kinegak-Friday, Alaska Native Policy Center, Summer 2007

The Institute of Social and Economic Research (ISER) at the University of Alaska-Anchorage issued a report which estimates that rural households face utility costs that are 50% higher than in 2000. Specifically, according to ISER, for a gallon of diesel fuel, prices went up 83 percent in rural communities from 2000 to 2006.[2] And consider that the price for a barrel of oil in 2006 was $58 while in 2008 the average price, to date, has been over $100 per barrel[3].

To facilitate energy resource development, IEED works with Alaska Native communities to provide the technical assistance they need to move from energy resource assessment to the development and job-creation phase. We try to assist the community by helping to develop market studies, business plans, economic analysis, and lease negotiation that reflects their economic, environmental and social needs. Our major objective is sustainable resource development that focuses on employment and income to the Native community.

We are providing tribes, villages, and Alaska Native Corporations with access to state-of-the-art knowledge and geo-scientific based modern analysis of their energy resources to allow them to perform the following critical functions:

a) strategic planning,
b) formulation of economic and energy policies,
c) development of sound environmental policies, and
d) negotiation of sound business agreements with energy industry developers.

Some of our recent efforts involve IEED staff working with several of the Alaska Corporations and villages to establish a more economical and reliable energy source for the villages and islands. Our efforts are complicated by the high-cost environment that exists in getting both staff and equipment to remote Native communities as well as increased cost for necessary services to conduct engineering projects and scientific data gathering.

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[2] *Effects of Rising Utility Costs on Alaska Households*, ISER Research Summary, October 2006
[3] Inflation Data.com, www.infationdata.com/infation/Infation_Rate/Historical_Oil_Prices_Table.asp

In addition, the window of time to gain access to get onsite to conduct activities is often limited by weather and other environmental conditions in rural Alaska.

This is why IEED has pursued partnerships with other Federal agencies, such as the Department of Energy (DOE) to leverage resources in the hope that our combined effort can get results, where working alone might not. In early June, I along with Steven Morello, DOE Deputy Assistant Secretary for Intergovernmental and External Affairs/Director, Office of Indian Energy Policy and Programs, visited with representatives of Native Alaska communities to hear directly from them about their energy resource issues and to determine where our agencies could work in partnership to develop a coordinated approach to identify potential solutions.

IEED has been approached by numerous communities for support on geothermal projects. The State of Alaska has completed preliminary surface geology mapping at many of these communities and documented the geothermal resources that are present. We have supported the communities of Unalaska and Adak on the Aleutian Islands. Both communities are currently generating their electricity using diesel fuel.

Geothermal prospecting involves finding an underground fracture system that can provide sufficient quantities of heat, steam and water. These three components are necessary for a successful project. To find a fracture system, and to significantly increase the success of the project, shallow seismic refraction studies are often done to locate the well and identify the most prospective drilling depth.

For example, Unalaska has nearby thermal vents emitting steam and would be a good candidate for electricity generation using steam. We are working with the community to perform a geothermal assessment. The community is barging a drilling rig into the area to drill a municipal water supply well. This rig could be also be used to drill geothermal wells in the region. The mobilization costs for bringing in equipment are extremely high so it would be prudent to drill multiple holes while the rig is available. Unalaska currently is the home to an active fishing fleet and cannery, so any increased access to energy resources could benefit the local community as well as local businesses.

Our second project area is on Adak Island, which formerly housed a large Department of Defense (DOD) facility. Numerous steam vents line the coast in the harbor near Adak and the community has access to an extensive power line grid. However, the island's electrical generation facilities are powered by diesel powered generators to supply the electric needs of the 70 residents. There is a part-time cannery operation on the island supported by a small fishing fleet. In addition, DOD left behind a 2.8 million gallon fuel supply tank that has the potential to store fuel for ships in the area and provide some job potential. The addition of geothermal generation would greatly reduce energy costs in the area.

At both of these communities, IEED proposes acquiring and processing seismic data in an effort to locate the ideal site for a rig to drill an exploration borehole to help identify the optimal site for a future power generation facility.

In addition to the Adak and Unalaska projects, we are working with several other communities to leverage potential grant funds from the Department of Energy's Tribal Energy Program to create a coordinated seismic data gathering program that shares the mobilization costs so that the seismic data can be gathered in sequence using the same equipment. IEED would then provide data analysis and assist with geologic interpretations.

In addition to geothermal development, IEED is also assessing potential wind projects that would enhance energy reliability for some villages. One example is the Aleutian Pribilof Islands Association (APIA) where, in 2005 and 2006, IEED provided a total of $256,000 in funding to conduct environmental and feasibility studies necessary to develop wind power in this area.

These APIA communities, including Attu, Adak, Atka, St. Paul, St. George, Akutan, King Cove, Unga, Belkofski, Pauloff Harbor, False Pass, Nelson Lagoon, and Sand Point, are currently wholly dependent upon imported diesel fuel for their energy (electricity and heat) needs. However, the entire APIA area enjoys high enough level winds that are ideal for generating electricity. IEED's grants have helped APIA communities develop a deep penetration, hybrid wind/diesel energy generating regime.

APIA used IEED funds to conduct an eagle monitoring study and hold two community informational meetings concerning the impact of two 500kW wind turbines currently under development. IEED funds also paid for further documentation of Sand Point's Environmental Assessment. The U. S. Fish and Wildlife Service (USFWS) requested pre-construction surveys and post-construction monitoring for bald eagles in the vicinity of the two installation sites. APIA's onsite biologist worked with the Sand Point Tribal Council to compile local knowledge concerning eagle behavior and flight patterns in the area, developed an observation plan for both proposed sites, conducted seasonal population surveys for eagles in Sand Point, and created a two-year monitoring plan for eagle interaction with the installed turbines. APIA documented community comments and questions and saw to it that concerns were addressed. The primary deliverable for IEED's funding was the documentation required by USFWS. An intangible deliverable was an increase in Sand Point tribal capacity to conduct environmental analysis in support of renewable energy development.

IEED's grant also allowed APIA to retain an appropriate technology firm to develop a plan to assist the Nikolski IRA Council design and plan a greenhouse to make use of the excess electricity that has been produced from the oversized wind turbine that was installed in the summer of 2007. Finally, the funding enabled APIA to research project financing options and assist communities to develop financing proposals.

IEED is also assisting all of the Native communities it is working with to perform an economic evaluation for all of the renewable projects, as well as working on several other energy-related potential business opportunities in the region that include pipelines, propane distribution, and municipal waste to gas projects. It is no exaggeration to say that cheaper and more accessible electricity are keys to the economic survival of Native Alaska communities.

## SUMMARY

In closing, energy resource development for Native Alaska communities is essential. With the current high price environment for traditional energy sources and the high demand for both

traditional and renewable energy sources and technologies Alaska Native communities are well situated to use their natural resources to enhance their local economies and stand to benefit greatly from the development of alternative energy sources as a hedge against rising crude oil and natural gas prices.

The Department believes that energy resource development can help foster strong Indian communities with sustainable economic development by promoting and supporting the creation of jobs, capital investment, Indian-owned businesses, and a trained workforce.