

**ALASKA STATE LEGISLATURE  
HOUSE SPECIAL COMMITTEE ON ENERGY**

February 8, 2009

1:08 p.m.

**MEMBERS PRESENT**

Representative Bryce Edgmon, Co-Chair  
Representative Charisse Millett, Co-Chair  
Representative Kyle Johansen  
Representative Jay Ramras  
Representative Pete Petersen  
Representative Chris Tuck

**MEMBERS ABSENT**

Representative Nancy Dahlstrom

**OTHER MEMBERS PRESENT**

Senator Donny Olson

**COMMITTEE CALENDAR**

Alaska Energy Authority Statewide Energy Report

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

DENISE MICHELS, Mayor  
City of Nome  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

JOHN HANDELAND, Utilities Manager  
City of Nome  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

TIM TOWARAK, President/CEO  
Bering Straits Native Corporation (BSNC)  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

JERALD BROWN, Vice President  
Bering Straits Native Corporation (BSNC)  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

NEAL FOSTER, Vice President  
Sitnasuak Native Corporation  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

LEO B. RASMUSSEN  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

COLBY CARTER  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report

CARL EMMONS  
Nome Joint Utility System  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

MITCH ERICKSON, Executive Director  
Nome Chamber of Commerce  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

BRIAN JACKSON  
Western Community Energy (WCE)  
Oasis, Idaho

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

KATIE PETERSON, Community Development Coordinator  
Norton Sound Economic Development Corporation (NSEDC)  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

NANCY MENDENHALL, Chair  
Advisory Council  
Co-operative Extension Service  
University of Alaska - Fairbanks  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

RUTH EMMONS  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

JIM ADAMS  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

CARL EMMONS, Member  
Nome Joint Utility Board  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

BRYCE GREEN  
Western Community Energy  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

ROBERT HAFNER  
Western Community Energy  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

JIM STIMPFLE  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion of the AEA Statewide Energy Report.

FRED MOODY, Member  
Nome Joint Utility System  
Nome, Alaska

**POSITION STATEMENT:** Testified during the discussion on the AEA Statewide Energy Report.

**ACTION NARRATIVE**

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**CO-CHAIR CHARISSE MILLETT** called the House Special Committee on Energy meeting to order at 1:08 p.m. Representatives Petersen, Tuck, Ramras, Johansen, Edgmon, and Millett were present at the call to order. Senator Olson was also present.

ALASKA ENERGY AUTHORITY STATEWIDE ENERGY REPORT  
[Contains discussion of HB 66]

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CO-CHAIR MILLETT announced that the only order of business would be discussion of the Alaska Energy Authority (AEA) Statewide Energy Report.

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CO-CHAIR MILLETT noted some written materials from the Alaska Energy Authority were available to the public.

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CO-CHAIR EDGMON said he recognizes some faces in Nome, because he used to serve as an aide to Representative Foster and because of his involvement with the Community Development Quota (CDQ) program. He related that his district includes Bristol Bay and the Aleutians, and that area is also facing critical energy problems.

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REPRESENTATIVE PETERSEN acknowledged the progress the community of Nome has made in harnessing wind power.

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REPRESENTATIVE JOHANSEN expressed appreciation for the hospitality of the residents of Nome and expressed his hope that solutions can be found to stabilize energy costs.

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REPRESENTATIVE TUCK praised the efforts of the community in getting its wind farm to operate so efficiently, thus setting an example for the rest of the state.

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REPRESENTATIVE RAMRAS credited Nome for having the largest wind farm project in the state and talked about the applicability of wind turbines for usage in other villages.

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SENATOR OLSON credited Nome with forward thinking, and he said he thinks the purpose of bringing the residents together today is to hear ideas regarding how to solve energy problems across the state.

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CO-CHAIR MILLETT noted that the committee had heard compelling testimony in Kotzebue and Noatak the prior day. She said she thinks seeing first-hand what Nome and Kotzebue are facing will make the House Special Committee on Energy a better committee.

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DENISE MICHELS, Mayor, City of Nome, spoke about the high prices of energy and the community's commitment to tapping alternative energy sources in order to no longer be dependent on diesel fuel. She said Nome studied various forms of energy and decided that wind was the best. The city applied for an Alaska Energy Authority (AEA) \$15 million grant and received \$4 million. Mayor Michels said the City of Nome is looking for the remaining \$11 million, and she expressed her hope that the legislature would support Nome's efforts with further appropriations.

REPRESENTATIVE RAMRAS asked whether the City of Nome would consider having a private partner that could fund the remaining capital expense and take the tax credit, which would "buy down the cost of the project by the amount of the federal tax credit." He remarked, "... about 30 percent of your total kilowatt generation is considered 100 percent of what you can have as a portion of your wind portfolio."

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JOHN HANDELAND, Utilities Manager, City of Nome, responded that Nome is open to the idea of finding additional partners for the project. He said the project that the Bering Straits Native Corporation and Sitnasuak Native Corporation put into effect in Nome was one that "utilized those benefits." He confirmed that Nome, as a municipal entity, would not benefit from the tax credit. Mr. Handeland said the city of Nome is concerned, when looking at alternative financing and joining with partners, that it does not increase its costs. Currently, the city is working on a power purchase agreement; however, there are concerns about the costs of fuel and regarding how the integration of technologies will impact the fuel efficiency that the City of Nome has "on existing generation." He said the city is working with the Alaska Energy Authority (AEA) to develop a model to successfully use in Nome for the most efficient dispatch of the city's diesel and wind resources.

MR. HANDELAND said Nome is different in that the wind farm that was constructed is relatively large compared to some of the other areas. Kotzebue operates a wind farm a little smaller in size, but uses the same technology; however, it is owned by the utility.

MR. HANDELAND, regarding partnering with other agencies and finding private financing, said the City of Nome has had some discussions with the Norton Sound Economic Development Corporation (NSEDC), an entity interested in reducing its own energy costs for some of the facilities that it operates. He said the NSEDC was supportive of the city's proposal to AEA, under the Renewable Energy Fund. He said the city may also look at what federal sources may be available. Whether or not the city can generate [the remaining \$11 billion] is, at this point, unknown, he concluded.

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MAYOR MICHELS noted that the City of Nome has also submitted an application to relocate and replace its electrical distribution. She explained that every several years there are storms that take down the city's power lines. She said the goal is to get the power lines out of the flood zone, which will require \$3 million. The City of Nome is also asking that larger communities are allowed to take part in the Bulk Fuel Revolving Loan Fund. She explained that because the population of the City of Nome is over 2,000, it is not eligible; in fact, the city had to secure a loan with the bank to purchase its fuel.

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MR. HANDELAND noted that previously he has had discussions with "some of the members offline" regarding the Revolving Bulk Fuel Fund that is available through AEA. He said there were modifications to the fund to increase the maximum loan limits last year; however, he confirmed that a city with a population over 2,000 does not qualify. He noted that the current population of the City of Nome is approximately 3,700. The maximum fuel loan under the fund is \$750,000. This year, the City of Nome had to borrow \$10 million for fuel purchases and did so through tax-exempt, bank qualified financing with a local financial institution. He noted that the loan was taken out in two increments, the first being "relatively painless," while the second being "quite painful" as a result of the credit crunch throughout the nation and the subsequent reluctance of banks to lend to anyone regardless of his/her credit worthiness.

MR. HANDELAND said that the City of Nome proposes that the state could assist communities by amending statutes relative to the Bulk Fuel Revolving Fund, to allow larger communities to participate, to increase the maximum loan amount, and to either lower the interest rate or eliminate it entirely, using an application or origination fee for the administration of the project. Furthermore, he said the city officials believe that there needs to be more flexibility in the installment method of payback, perhaps using a "pay-as-you-take" method, where fuel loan payments would coincide with revenue generation. Mr. Handeland said the current prohibition of any funding that lasts longer than 12 months does not work for the City of Nome and other communities, because they need to have more than a year's supply [of fuel]. He said the city tries to get its supply at the end of the year, but that is sometimes controlled by barge companies and the weather. He said along with the desired amendments, there would also need to be some additional capitalization to the fund, so that there was sufficient corpus to allow the agency to make loans to all of the eligible communities.

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MR. HANDELAND, in response to Senator Olson, said he would recommend the population limit be changed to 7,500; however, he said the number may need to be higher, to include communities off of the road system, because they need to purchase all of their fuel during a "limited shipping window."

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REPRESENTATIVE RAMRAS remarked again about the possibilities of partnering with a company. He opined that a large, Alaskan, corporate partner would be able to have the federal government subsidize almost one-half of the cost, in addition to tax advantages. He stated, "There are so many ways to let the federal government step in and take over half the cost of your wind farm." He said that is what the City of Nome indicates it wants - help from the state or federal government.

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MR. HANDELAND said he would welcome the opportunity to speak further with Representative Ramras. He related that in the City of Nome's application, it did anticipate that it would make a local commitment to the project in the form of a 10 percent match.

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MAYOR MICHELS brought up the next item, regarding the Power Cost Equalization (PCE) program. She thanked the legislature for raising the ceiling last year from \$.52 to \$1, but pointed out that was a change with a sunset clause. She said the City of Nome has gone on record to support Senator Hoffman's recommendation to repeal the sunset clause. She asked that the repeal be supported and also that [PCE] be expanded to include municipalities, school districts, and businesses.

MAYOR MICHELS stated that the City of Nome supports the following: the development and expansion of the state's renewable resources program; the expansion of the Home Energy Rebate Program to include businesses; continued funding of the low income Housing Weatherization program; continued provision of rural energy grant funding assistance to expand the percentage of energy produced in the state from renewable and alternative sources; the creation of a regulatory environment which will encourage development of alternative and renewable energy; the provision of funding assistance to all new and retrofit public buildings that meet certified energy efficient standards; the coordination of regional energy planning; the construction of an Alaska gas line to reduce the dependency on imported fuels.

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SENATOR OLSON mentioned the governor's recent announcement that she would like a road built to Nome. He said that would bring down the cost of fuel delivery to the community, but said there is concern as to whether the citizens of Nome support such a project, which would cost several billion dollars.

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MAYOR MICHELS said the City of Nome supports Department of Transportation & Public Facilities' (DOT&PF's) "efforts in the study" and is working to ensure all communities are included in the planning process. She noted that there are some communities that do not want a road, although having a road may open up alternative energy opportunities.

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REPRESENTATIVE EDGMON noted that while in Kotzebue, the committee had heard about local efforts to weatherize homes and apply both the weatherization and home energy rebate programs from the Alaska Housing Finance Corporation (AHFC), and he asked Mayor Michels if the city could comment on those efforts.

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MAYOR MICHELS indicated that one program involved a long list of items that would need to proceed the "retrofitting." The other program required homeowners to pay up-front costs, and many people in rural Alaska do not have the money to do that.

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REPRESENTATIVE EDGMON observed that in some areas these programs have been successful, while in outlying areas, they have not; therefore, he said he would be listening during today's testimony for comments regarding this issue.

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TIM TOWARAK, President/CEO, Bering Straits Native Corporation (BSNC), told the committee that the wind farm was a joint venture between BSNC and the local village corporation, born out of BSNC's desire to find a way to reduce the cost of living for its 6,300 shareholders. He said rather than spending \$37 million on PCE, the state could be spending the same amount on alternative energy projects, and "in a matter of 20 years you would take care of all 200 communities in rural Alaska." He

opined that that would be a smart use of the money coming from the North Slope.

MR. TOWARAK said Alaska netted \$900 million through its first lease sales, and a lot of that money was spent on dams that benefitted urban areas. The BSNC believes now is an opportune time for the state to invest some of its money into alternative energy that will be a long-term investment into rural communities. He pointed out that BSNC and the Sitnasuak Native Corporation invested \$6 million to provide a wind farm to a rural community, while the State of Alaska is giving a \$25 million grant to build a wind farm on "the island right next to Anchorage." He stated, "We'd like fair treatment."

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REPRESENTATIVE RAMRAS said Nome's project did not score well in the \$100 million grant money distributed by AEA is because it was not, at the time, "project ready." However, he observed that six months later, the state has not yet passed out the money, "while your project is done, complete, running, and producing kilowatts." He questioned why the City of Nome could not give [BSNC] the \$4 million out of the \$15 million grant money, allow BSNC to build the project and take advantage of the tax deductions from the depreciation associated with it, and then sell it back to them at the end of the five-year period and use the \$4 million as a basis for "whatever that buy-out price is." He said this transaction would buy down the cost of kilowatts to almost nothing, provide the City of Nome with an entity to provide them with the \$11 million, and allow the federal government over the next 60 months to come in and subsidize just a little bit over 50 percent of the profit. He asked Mr. Towarak whether he would consider a such a partnership between BSNC, the City of Nome, and the federal government.

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MR. TOWARAK indicated BSNC's willingness to do so. He said that part of the plan for the current project is to eventually sell the facility to Nome's utility service, once BSNC gets its money back. The other part of the plan, he said, is to reinvest any profits made through the project into smaller communities. One example being considered, he noted, would be to put nine wind generators in Unalakleet, which is not even half the size of Nome.

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JERALD BROWN, Vice President, BSNC, said the investment tax credit, to which Representative Ramras previously referred, is useful for solar and small wind projects. However, he explained, "The version that's in front of the U.S. Congress currently would not cover the large utility scale wind turbines like the City of Nome is looking at. So, ... there's less of an incentive for a tax partner in that environment." He said he thinks the next focus for BSNC is to consider advancing technology in villages where the need is even greater than it is in Nome. He said he does not know if the corporation is able to commit \$11 million to "another project in Nome." The project that has been constructed was financed at an interest rate of prime plus zero, which he noted is still approximately three times as high as that which a government entity can borrow. He emphasized the importance of recovering the money.

MR. BROWN asked the legislature to reconsider the Banner Wind Project, as well as the City of Nome, for state grants. He stated, "Even with all of the tax credits, free money is still better." For example, every million dollars of grant money received "buys down" the future cost of electricity that is generated from the wind farm by \$.03 per kilowatt hour, for the life of the wind farm, which he estimated should be 20-30 years. He said about \$.05 per kilowatt hour is needed just to maintain the facility; anything above that is capital recovery. He said, "Your dollars go along way when you invest into something that has that kind of a life."

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NEAL FOSTER, Vice President, Sitnasuak Native Corporation, underscored Mr. Brown's request for reconsideration of the grant.

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MR. TOWARAK, in response to Representative Edgmon, clarified that he would not advocate for eliminating the PCE program. He said he thinks the state has enough money to be able to keep the PCE program going, while simultaneously investing in alternative energy that would eventually eliminate the need for the PCE program.

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REPRESENTATIVE JOHANSEN noted that there are three PCE communities in his district. He said he supports the idea of funding long-term energy solutions to the point where PCE would no longer be needed. He observed that Neal [Foster] and Larry Pederson went away to school, and he said the community should be proud that they both came back and are working on solutions to improve life in their community.

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REPRESENTATIVE PETERSEN asked what percentage of people heat their homes with fuel oil versus electricity.

MR. BROWN estimated that nearly 100 percent of Nome's residents heat their homes with fuel oil.

[AN UNIDENTIFIED SPEAKER FROM THE BACK OF THE ROOM] said that's correct.

MR. TOWARAK proffered, "I think in the whole region, there's more people that burn wood than heat their homes with electricity." In response to a follow-up question, he said, considering the rising cost of fuel oil, if the price of electricity were to come down, he might consider switching to electricity to heat his own home.

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MR. TOWARAK, in response to Co-Chair Millett, reiterated that BSNC may build a small wind farm in Unalakleet.

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REPRESENTATIVE RAMRAS asked for the sales price of the kilowatts being generated at the wind farm.

MR. BROWN replied that an agreement has not yet been negotiated; however, he estimated the price would be about \$0.18-\$0.19.

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REPRESENTATIVE RAMRAS noted that Representative Seaton is going to introduce a net metering bill, through which an issue will be addressed regarding whether a kilowatt made can be sold at the retail or the wholesale cost. He estimated that Mr. Handeland would be selling kilowatts "into the Nome system" at

approximately "half of the cost at which they're making them right now" with diesel.

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MR. HANDELAND, in response to comments by Representative Ramras, reported that the cost of a kilowatt two years ago, for the City of Nome, was about \$0.30, whereas now a kilowatt costs \$0.36.

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REPRESENTATIVE RAMRAS said, "You are right on the edge of setting energy policy for ... 200 communities."

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SENATOR OLSON asked whether the industry has looked for ways to help the general public immediately so that they are not always "looking to the government to try and give them something." He mentioned temperature compensators, and questioned whether they are good or bad, and what the industry can do to "take the pressure off and still maintain themselves in a good business light."

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MR. FOSTER said immediate action that can be taken is to modernize and weatherize homes. He said temperature compensators are a double-edged sword and explained that they compensate 70 degrees; therefore, when it is warm out, they work to people's favor. A lot of what can be done is what is already being done. He said he thinks the legislators are impressed at how quickly the wind farm was constructed, and he said he thinks that is a model for the state. He said he doesn't think there are quick solutions, but indicated that [the wind farm] was a start.

REPRESENTATIVE EDGMON said Senator Olson has made a good point. He said some communities will not have as much wind with which to generate power; in fact, some communities can only use wind power to supplement their source of power. He stated his support of the tax credits and low interest rates and the furthering of the availability of these types of programs. He talked about the high cost of fuel, asked what will happen if the prices remain high for the next couple of winters, and emphasized the importance of ensuring that communities remain sustainable.

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MR. TOWARAK predicted that because of the worsening of conditions and the economy, village people are going to continue to move to Anchorage where it is less expensive to live.

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MR. FOSTER said Norton Sound Economic Development Corporation (NSEDC) has a program wherein villages within a region form a cooperative and buy bulk fuel at a better rate.

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MR. BROWN, in response to Co-Chair Millett, said the timeline of the wind farm process began in August 2007, when the U.S. Department of Agriculture (USDA) Rural Development Energy program offered grants for areas of high energy costs. In December 2007, the manufacturer was about to raise its prices, and there had been no word from the USDA, so the board offered a refundable deposit of \$180,000, to cover \$10,000 per turbine. By May 2008, the board still had not heard anything from the USDA, and, considering the rising cost of fuel, decided it made sense economically to take on the project on its own. He said, "We could produce the power with wind at a price less than what we figured the utilities could produce it, so we could save the community some money, and at the same time make a profit on the wind farm." At that point, working jointly, BSNC and the Sitnasuak Corporation authorized moving forward with the project and the order was placed for the manufacture of the turbines. The operation kicked into high gear in late May, with permitting and site preparation, he noted. Mr. Brown said the site location changed three times before settling on Banner Peak in August 2008, at which point two and one half miles of road were built. The actual construction timeframe was approximately from the first of September to the end of November. The utility company efficiently put in the underground power line. From the initial thoughts about the project to its completion was approximately one and one half years, he said. However, the time from authorization to producing power was about seven to eight months.

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REPRESENTATIVE PETERSEN recalled that during their tour of the wind farm, legislators were told that the facility may be used

as a training center for wind farm maintenance workers. He asked how that might work.

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MR. BROWN said there are storage containers that will be used to build walls of a training facility. He said discussions have been held with the University of Alaska, Northwest Alaska Career and Technical Center (NACTEC), and the Nome Public Schools (NPS) about "rotating people in through that facility for training in alternative energy, particularly wind."

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MR. TOWARAK added that two of [BSNC's] staff have qualified as inspectors for the state's energy rating program, which he said shows just how important the concept of energy for the whole region is to the board.

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LEO B. RASMUSSEN, noted that he recently retired from USDA, and said getting any paperwork through that entity is a slow process. He stated, "The greatest return we can give to our people, with your assistance, is a better life standard, which can come with an alternate energy resource that is far less expensive than having to rely on the resource that we ship outside, which is oil and gas." Mr. Rasmussen mentioned the money in the permanent fund and suggested the need for Alaskans to find some way to reinvest in themselves to achieve a better standard of life. He said there is a water source across the Lisianski Inlet from Pelican that could be tapped at a reasonable cost to generate energy. He estimated that "of the 256 geopolitical units" in the state, close to 200 have a water resource available at least half of the year that could generate low-head hydro power. He estimated that the cost of burying a pipe in the ground, at a source higher than its terminus, could be only \$1 to \$2 million. He said Little Diomedes has a constant, six mile per hour current, and would only need a turbine to collect that energy. He questioned looking for multi-billion dollar projects when there are so many multi-million dollar projects that would "do exactly the same thing."

MR. RASMUSSEN, regarding the aforementioned road to Nome, said many surveys exist, including one from 1927. He said it would be far less expensive to install a railroad than to put in a road. He reiterated his encouragement to look for simple

solutions. He commended BSNC and Sitnasuak for its brave move and encouraged the state to follow that example so that there is no need for "20 different kinds of systems in Alaska." He said the state could have bought solar panels, wind turbines, and water generators, and offered them to communities around the state, which then could have funded their own foundations and technology.

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CO-CHAIR EDGMON concurred with Mr. Rasmussen regarding the importance of looking for small scale projects. He said about two weeks ago, the Yukon Tribal Watershed Organization came to Juneau to talk about its turbine project. He offered further details. He said [this information] will hopefully open the doors for the legislature to provide funding streams or work as partners with local efforts. The solution to energy problems, he concluded, will not be from the government alone; the local efforts combined with other entities are what will bring success.

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MR. RASMUSSEN described a hydro energy system at a nearby mining camp. He suggested that even on the North Slope, it is possible to get four to five months of hydro electric power each year.

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REPRESENTATIVE TUCK expressed appreciation for Mr. Rasmussen's comments regarding a rail versus road system to Nome. He noted that Noatak wants a road built that would tie in to the haul road to the Red Dog Mine and [bring in] competition for fuel providers. In other situations, he said it would be less expensive to transport fuel by rail than by road.

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MR. RASMUSSEN noted that a crane big enough to put the turbines in place had to be shipped to Nome, and although it was used for another project while it was in Nome, it could have been used around the state for multiple projects if those projects were scheduled to happen around the same time.

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REPRESENTATIVE TUCK said when he worked in construction, whenever the company worked in a remote location, it would purchase a backhoe, knowing that it would never be shipped back, but instead would be left behind. He said that is because of the high cost of shipping. He concluded that water is the cheapest source of transportation, but is not available in Nome year around; the second least expensive mode of transportation is rail and air transportation is the most costly.

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COLBY CARTER stated that he would like the legislature to be aware of Nome's natural gas resource. He deferred to Mr. Emmons for further comment.

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CARL EMMONS, Nome Joint Utility System, noted that he is a member of the Nome Joint Utility Board, and that during an energy conference, a spokesperson from the United States Department of Energy presented an engineering and economic analysis of gas production in the Norton Basin. He said in the early '80s drilling was done in the search for oil, and gas was found about 30 miles from Nome. Two wells would cost about \$112 million, and there would be a profit of approximately \$10 million in about seven years, based on fuel oil at \$2 per gallon. The City of Nome tried to pursue this avenue with DOE, but has been told essentially that the business of gas production is for oil companies, not communities. He opined that rural communities will always need some other source of energy for the times when "the wind doesn't blow and the sun doesn't shine." He encouraged the state to look at energy independence by including natural gas as a source, which he said would make a profit.

MR. CARTER added, "And it's here; it's a bird in the hand; it's identified. We just need some help developing this."

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REPRESENTATIVE RAMRAS remarked that one obstacle is getting a jack-up rig into the region. Attempts to do so in the Cook Inlet have failed thus far, he indicated.

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MR. EMMONS pointed out that the report from [the spokesperson from the U.S. Department of Energy] shows that the mobilization costs would be low, because there are already jack-up rigs going to the Canadian Arctic every year that could do the work on their way north.

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REPRESENTATIVE RAMRAS promised that he would talk to Kevin Banks at the Department of Natural Resources (DNR) about the concept.

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MR. EMMONS surmised that a lot of rural Alaska is "in the same boat that we are," and that there is potential for everyone in this part of Alaska to benefit.

MR. COLBY observed there are 3,412 Btus per kilowatt and 100,000 Btus per gallon [of oil]. He stated, "When I can buy enough electricity to offset one gallon of fuel oil, I will switch my boiler to an electric boiler [and] so will everybody else."

CO-CHAIR MILLETT requested copies [of the aforementioned DOE report].

2:38:34 PM

MITCH ERICKSON, Executive Director, Nome Chamber of Commerce, said the chamber held its first energy summit in April 2006, which raised awareness regarding energy cost challenges. He indicated that the summit was well attended, and topics were discussed from "big picture, big dollar items" to ways to cut energy costs immediately. However, he said, the rest of 2006 was basically wasted in attempting to put resolutions together for the [Alaska] State Chamber of Commerce and working with the Alaska Federation of Natives (AFN) to put its energy resolution together. He stated, "We realized then that until the Railbelt started feeling high energy prices, we are out here on our own." Mr. Erickson said "a number of us" talked a lot about [energy issues] and "what has happened since then is Banner Wind."

MR. ERICKSON mentioned various projects, including the conversion of wind to heat hot water, the use of evacuated tube solar panels, and "small wind" installed in Shaktoolik and in Nome. All the projects were funded by private sources in an attempt, not only to cut energy costs, but also to create an industry in the region to design and install this equipment.

Banner Wind is a success, because now there is a company in Nome that can design, build, and install wind farms. He related that the chamber supports making Nome the wind training center for Alaska and has been working with the University of Alaska (UA) to make that happen.

MR. ERICKSON said that since 2004, the audited energy costs for Nome's schools has nearly doubled from \$500,000 to over \$1 million this year; and that money comes straight out of the classroom. He explained that the school budget is due July 1, while the fuel barge shows up in October, and the result is that money has to be taken out of the classroom to pay for the fuel. Since fiscal year 2004 (FY 04), energy costs, on an incremental basis, have increased by \$1.3 million. He said the governor has asked for accountability, but he reemphasized the difficulty of planning the school budget without knowing what the cost of fuel will be.

MR. ERICKSON said the chamber would like to see PCE made available to schools, businesses, and "everyone." Wind [power] in the Lower 48 is growing at a 20 to 40 percent rate, even though rates there range between \$0.06 and \$0.11, and billions of dollars are being invested. He said the reason for that is because of the model set by Banner Wind. Mr. Erickson said "out here," where the rate is \$0.40 to \$1.00, it is a logical step to allow for-profit entities to partner to build the wind farms. He opined that in considering whether or not to build a turbine in the villages, there needs to be a minimum of a 25 percent penetration rate, because it costs just as much to bring six turbines in as it does one.

MR. ERICKSON concluded his testimony by saying that AEA is grossly understaffed. He also stated his belief that UA should take the lead in developing alternative energy sources. He commented favorably about the NSEDC vertical wind turbine project for small villages that have constant wind conditions.

[2:47:39 PM](#)

MR. ERICKSON, in response to Representative Johansen, said the progress regarding working with UA is going well. He said those involved are looking at syllabi from wind technician programs of junior colleges in the Lower 48; however, more turbines will need to be built in order for such a program to be successful. He said the chamber realizes that renewable energy will always be a secondary source. The goal of some of the solar projects would be to produce power from February 15 to October, when

according to the National Aeronautics and Space Administration (NASA), "we" had more sun insolation than Tucson, Arizona. He indicated his eagerness to install solar tubes by the fifteenth [of February] in order to begin recording data; in fact, the chamber brought in a company from Seattle, Washington, two weeks ago, to provide solar thermal training, and 25 people attended that training session. He clarified for the co-chair that the solar panels seen on buildings are for generating electricity, while the system to which he is referring uses tubes to heat water.

[2:49:32 PM](#)

REPRESENTATIVE PETERSEN asked about the vertical wind generator project.

[2:49:58 PM](#)

BRIAN JACKSON, Western Community Energy (WCE), explained that the vertical wind project predated the Banner Wind project, but there have been delays in the project. The prototype unit has just been delivered to Nome and will be installed over the next several weeks. Mr. Jackson emphasized that this is a research project. Vertical axis turbines have not performed [well] historically, he said; however, they have unique characteristics, in that they can be used on buildings and in towns, and they can deal with turbulence and varying wind directions. Mr. Jackson said in Nome's environment, heat loss is dramatically enhanced when the wind is blowing; therefore, a technology that could offset the heat loss with the generation of energy would be a great benefit.

[2:52:40 PM](#)

KATIE PETERSON, Community Development Coordinator, NSEDC, relayed that the intent of the [vertical turbine wind] project is to provide something that the average resident in the region can install on his/her house. She said NSEDC would use Unalakleet and Nome as hubs, and would train locals to help maintain the units, thus providing jobs and lowering energy costs.

[2:53:31 PM](#)

MR. JACKSON emphasized that the project has undergone many phases, and he said NSEDC decided that they wanted to fund it because such a project does not exist in the rural world at the

present. He spoke of taking action rather than "just waiting for some solution to materialize."

[2:54:09 PM](#)

REPRESENTATIVE JOHANSEN said he supports efforts to create multiple sources of power, rather than thinking something "big and grand" has to be done. He expressed appreciation for the testimony heard thus far.

[2:55:45 PM](#)

MR. ERICKSON said many of the projects being tested locally are ultimately meant to be exported to the villages.

[2:56:11 PM](#)

REPRESENTATIVE RAMRAS talked about the City of Nome transforming one third of its portfolio from diesel to [wind energy], and he said it would set a precedent for other communities of its size.

[Co-Chair Millett passed the gavel to Co-Chair Edgmon.]

[3:00:17 PM](#)

MR. ERICKSON, in response to Co-Chair Edgmon, reiterated the information pertaining to the \$1.3 million increase in the energy cost to Nome schools in the last five years.

[3:00:45 PM](#)

CO-CHAIR EDGMON noted that the fuel bill for Noatak's school was \$40,000 in December, and about \$50,000 in January.

[3:01:21 PM](#)

MR. ERICKSON indicated that his reason for researching the information pertaining to the school budget was inspired by repeatedly hearing the arguments at the city council meetings every October [after the fuel barge arrived]. The idea is to try to get more money back into the school districts that has been taken out because of escalating fuel costs, he concluded.

[3:01:53 PM](#)

REPRESENTATIVE EDGMON told Mr. Erickson that he sits on the House Special Committee on Education and the issue of school districts working to conserve energy is not lost on him.

[3:02:57 PM](#)

NANCY MENDENHALL, Chair, Advisory Council, Co-operative Extension Service, University of Alaska - Fairbanks, related that the purpose of the service is to educate householders, and that the priority topic of the extension service for this year and last has been energy education. She welcomed any suggestions from the legislature regarding ways to teach people how to save energy costs in their homes. She said she agrees that immediate solutions are needed, and suggested the state consider a matching grant program to help families install wood stoves in those communities with a good wood supply. She remarked that two sources of wood are driftwood and discarded shipping pallets.

MS. MENDENHALL said the recently released state energy plan highlighted the need for the upgrading of power plants in rural, off-road communities. She stated that while her emphasis is in alternative energy, the upgrading of the power plants seems to be a vital need.

MS. MENDENHALL, speaking on her own behalf, said all the people she has spoken with in Nome would prefer a railroad to a road.

[3:06:10 PM](#)

RUTH EMMONS told the committee that she lives in senior housing and receives a credit from rural development for her electricity. She stated that many people who do not live in rural areas do not understand the PCE program. She related that this year, because one of "the management company people" failed to include PCE as part of its electricity cost figures, those who had previously been receiving a credit of \$83 a month are now only getting a credit of \$55 a month. She revealed that she is living with multiple sclerosis and is heat sensitive. She expressed her appreciation of the legislature coming to Nome to hear the testimony of residents. She recalled various places she has lived and other places that used wind or water power.

[Co-Chair Edgmon returned the gavel to Co-Chair Millett.]

[3:12:24 PM](#)

MR. HANDELAND returned to the witness table to discuss the City of Nome's utilities. He acknowledged the presence of the following three Nome Joint Utility Board members: Carl Emmons, David Barron, and Fred Moody. Mr. Handeland noted that the subject of fuel stabilization is addressed on page 44 of a handout in the committee packet entitled "Alaska Energy - A first step toward energy independence." He said, "That, as a policy for the state, is something that the City of Nome and [the Nome Joint Utility System (NJUS)] supports." He said the NJUS does not care about the price of fuel between October and May; the window for purchasing fuel is between June and October. Because of the schedule of fuel purchasing, Nome and all the rural communities are in a position of continuing to pay high energy costs "for some period into the future." Mr. Handeland said the city and NJUS recommend that the state consider putting together an assistance program for communities that only have fuel shipping available for a portion of each year, to help equalize the fuel costs either by buying them down or through the "hedging of fuel." He suggested either the trustees of the permanent fund dividend, or AEA, are "well suited to assist in that hedging program." Being able to pay today's fuel cost of \$1.40 [per gallon] to be delivered this summer would "change the picture for rural communities."

MR. HANDELAND noted that the issue of net metering is found on page 50 of the aforementioned handout. He said net metering is of interest to utilities and to the community of Nome. He stated:

While we certainly want to see the benefit of reduced energy costs going to members of our community, we also are concerned that some of these programs, such as the wind power and ... alternative solar are not 24/7, 365. And so, utilities must maintain a plant that is capable and ready to operate in the times when the wind is not blowing or the sun is not shining. And so, that should be taken into consideration.

... I mean, if everybody in town goes onto an alternate source, I mean that's great for the time that that source is available to them, but pretty soon they're going to want to turn that switch and get it back from the utility. And if in the net metering program, there's not some consideration taken to a formula or ... a way to limit the revenue that a utility would lose by other people doing the generation, ... it could impact our abilities to

maintain plants and have them available when those alternatives are not available.

MR. HANDELAND said that the city and NJUS support AHFC's various weatherization programs, although he echoed the previous testifier who mentioned that people have trouble coming up with the upfront cost. He said if he were not currently spending \$15,000 this winter just to heat his home, he would be putting that money into energy upgrades. This is something he said he would pursue this summer. He concurred with Ms. Mendenhall that the upgrade of diesel plants in the communities is an important way to save fuel. The City of Nome has had an efficient power plant over time, but has done some upgrades, utilizing diesel engine and switchgear controls, as suggested on pages 62 and 63 of the handout.

MR. HANDELAND said the city is also looking at distribution system upgrades. There is a need to replace some of the power lines because they are in danger of being impacted by storms in the area. One of the strategies in the state plan, he said, is to upgrade distribution systems and increase voltage in order to eliminate some of the line losses. Mr. Handeland said the city is glad to know that the state, through the renewable energy program, is looking at developing wind technologies and other resources. He relayed that there has been consideration given to applications that were submitted, and he expressed appreciation of the committee regarding other ways that the city might be able to fund those projects. He noted, however, that there is "very little of the wind capacity in the state of Alaska that is being utilized," and the energy study done in the region of Nome, "that would seem to be one of the most promising." Mr. Handeland said there is also a geothermal resource about 55 miles away from Nome, in Pilgrim Hot Springs. The state energy plan and the "by community" summaries that are included in it list the potential for significant cost savings to consumers through the use of geothermal energy. He concluded, "We do believe there are a few areas where this document should be adjusted, because it does note that wind is not feasible in our area, and I think that you've seen otherwise."

[3:22:05 PM](#)

MR. HANDELAND, in response to a request for clarification, said that information is noted in "an AEA per community document for the City of Nome." He said the document says a wind diesel hybrid system actually loses \$800,000, which he said he hoped is

not correct. In response to a follow-up question, he stated his belief that [the City of Nome and NJUS] were consulted through the Alaska Power Association regarding the document; however, he said he was not consulted directly. In response to a request for further clarification regarding the compilation of information, he said:

I believe that, to the best of my knowledge, AEA took this information off of submittals that were done under the PCE program for the first portion of it, and I am unsure as to where they took the information on the geothermal or the wind hybrid.

[3:23:54 PM](#)

CO-CHAIR EDGMON noted that the City of Unalaska had the same concern regarding their "local numbers, as well, not being consulted."

[3:24:25 PM](#)

MR. HANDELAND, in response to Co-Chair Millett, said in all fairness to AEA, he did not speak with that entity directly about the information, he read it last night, and he just found out that there is a 10 megabyte addendum on AEA's website.

[3:25:25 PM](#)

CO-CHAIR EDGMON emphasized that no one is trying to undercut the good work that has been done by AEA. The energy crisis in Alaska is a huge issue, and there may or may not be an immediate solution depending on in which area of the state one lives, he said. While AEA plays a significant role, the House Special Committee on Energy, as well as "other efforts" also play an extensive role in the issue. He said he has heard from other community members that they think the community profiles "may have been hastily put together in order to meet some sort of arbitrary deadline, in terms of having an energy plan out." He said he has candidly said that he does not think that the document from AEA represented the energy plan, and the director, Steve Haagenson, agreed that it was a "building block."

[3:27:27 PM](#)

MR. HANDELAND, in response to Representative Petersen, reiterated that the location of the geothermal resource outside of Nome is Pilgrim Hot Springs. He noted that page 143 of the

AEA document lists other sites currently being looked at for geothermal energy, including Chena Hot Springs. He said Mr. Emmons just handed a report regarding the energy potential at Pilgrim Hot Springs to him. Furthermore, he related that the agent at the University of Alaska who addresses wind issues submitted an application to the Renewable Energy Fund to find out if it would be possible to do additional drilling [at Pilgrim Hot Springs] to determine whether or not the resource should be "on the table or off the table for the City of Nome."

3:29:04 PM

REPRESENTATIVE JOHANSEN said he has heard from many community members that geothermal energy is not taken seriously by AEA. He encouraged anyone who has felt that way to contact his/her representative, senator, or a member of the House Special Committee on Energy, because he said he thinks that resource has great potential.

3:30:20 PM

MR. HANDELAND commented that the community of Nome is interested in any alternative that will save money on energy. Some people in town have determined that the cost of using electric heat, at \$0.36 per kilowatt, is still less expensive than buying diesel fuel with which to operate an oil fired boiler. He added, "But neither one is something that is sustainable by any of us for any length of time." He said the city has been following with interest the discussions occurring in Galena relative to the potential for some small-scale nuclear technology being introduced, which potentially may be available to smaller communities. He mentioned a company that is considering the licensing of facilities that would be either 10 megawatts or 50 megawatts, which he said would be too big for Nome and its surrounding communities. However, he remarked, "If nuclear technology could be used safely and less costly than potentially putting in more efficient transmission lines and interconnections to a grid system in rural Alaska, it might be feasible."

MR. HANDELAND expressed his appreciation to the committee for travelling to Nome for the meeting.

3:33:59 PM

CO-CHAIR MILLETT said she had anticipated hearing negative testimony, but she commended the residents of Nome for their

positive attitude and proactive approach to finding solutions to the energy challenge.

[3:34:43 PM](#)

MR. HANDELAND, in regard to a previous testifier's mention of the Northwest Alaska Career and Training Center (NACTC), noted that that entity is a cooperative venture between Nome Public Schools and Bering Strait School District. He offered further details.

[3:36:31 PM](#)

CO-CHAIR EDGMON recalled that during hearings last summer, there had been some reference to tax liabilities, in that if the state were to give money to a community to help it pay down its fuel cost, there would be a tax consequence. He asked Mr. Handeland if he could expound on that.

[3:37:50 PM](#)

MR. HANDELAND said he remembered an ongoing discussion and concern regarding "what it would actually do to PCE levels, as well." He said as a municipal utility, "we would see it simply as a reduction in our costs." He said as opposed to the PFD being a payment directly to an individual, "we would envision this as a payment directly to a utility." He said it would be helpful to have that also apply to heating fuel, but that would involve other vendors. He concluded, "If we could at least cut some of the energy costs, it might make some of the other high costs bearable."

[3:39:12 PM](#)

CO-CHAIR EDGMON indicated that he would be asking that question at an upcoming meeting of the Alaska Power Association. He said, "I do vaguely recollect there being some sort of a chain reaction from that money from the state to the utilities that would be passed on either to the utility or to the consumers in a way that wasn't really beneficial to the local community."

[3:39:50 PM](#)

JIM ADAMS stated his support of more tax credits to individuals rather than businesses, and highlighted the need for access to power, including power lines and railways.

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REPRESENTATIVE PETERSEN shared that he comes from farm country, and the power lines there were installed during the Depression by rural electric cooperatives that were loaned federal money. He suggested that perhaps that might be a program that could be recreated in Alaska, since the state is still a developing area.

[3:42:02 PM](#)

CARL EMMONS, Member, Nome Joint Utility Board, explained that because Nome must pay for its fuel in advance, even after fuel prices begin to go down in the urban areas of the state, residents in Nome will continue to pay the higher price until all of that fuel is used. Mr. Emmons concluded by telling the committee that Nome could use any assistance that the legislature can offer.

[3:44:45 PM](#)

MR. JACKSON reappeared before the committee to introduce Bryce Green and Robert Hafner who are two students involved in WCE's training program. He said Mr. Green is an example of a local young person who is training to work, and stay, in his community.

[3:46:43 PM](#)

BRYCE GREEN answered questions regarding his work on the wind turbine tower.

MR. JACKSON emphasized the value of hiring local employees when his company brings its product to a community.

[3:48:39 PM](#)

ROBERT HAFNER stressed that having a locally trained workforce can mean the difference between the failure or success of a project. He also expressed his excitement at working toward an environmentally sound goal.

[3:50:12 PM](#)

MR. JACKSON presented a "wind" map that shows that those areas in Alaska that have the highest energy costs are also in the richest wind source areas. He stated that this situation makes Western Alaska an area economically viable to start making

changes. He reported that nationally, the wind industry grew 50 percent last year, on top of a 45 percent growth the prior year. In 2007, there were \$9 billion worth of wind projects developed in the nation, and in 2008, there were \$17 billion worth. He offered specific examples of other states' growth in wind development; in fact, the total wind power in the nation is up to more than 25,000 megawatts. He said there is a tremendous opportunity for growth and improvement, and the state has the resources to justify it.

MR. JACKSON stated his belief that maximum value is achieved by getting the local community involved, including those who service, install, invest, and give community support. He talked about the trickle-down effect on a rural community from the economic stimulus of a wind project. He emphasized that the stakes are currently extremely high, as people are choosing between buying food or fuel.

[3:45:45 PM](#)

MR. JACKSON said when his company uses local investors and local construction, a project can be financed with a 10-year, 6 percent loan, provide a 10 percent return to a local tax equity investor, and provide a target energy sales rate of between \$0.19 to \$0.25 a kilowatt hour. Those are communities that are currently paying between \$0.50 and \$1.10 per kilowatt hour. He pointed out that without the success of the project in Nome first, his company cannot afford to go to a village without "having a base operation in a place like this to be able to source from." He talked about the uncertainty of the barge schedule as it relates to trying to ensure the completion date of a project, and talked about the effect of weather in Alaska on project schedules.

[3:57:58 PM](#)

MR. JACKSON said the company is at the point, in February, where it needs commitments for deposits and financing for projects in 2009. In fact, turbines are available for this construction cycle. He said grants and subsidies are not needed as federal incentives are in place. Furthermore, it looks like the bonus appreciation will be renewed, and there may be an investment tax credit rather than a production tax credit, because this is smaller turbine project, he noted. Mr. Jackson said it is sometimes difficult to get financing without a deposit or project status and vice versa. He described Alaska's Energy Loan Program as "the beginnings of a strong mechanism to help

finance rural energy projects in Alaska." The program is designed to go from zero to 100 percent financing, with zero to 6 percent interest rates, and fluctuates between almost being a grant program with a payback, to being a valid business loan, he remarked. Mr. Jackson said many projects are faced with the hurdle of a tight market right now, so he encouraged the state to consider increasing or accelerating that mechanism.

[4:00:31 PM](#)

MR. JACKSON, in response to a question from Representative Petersen regarding the barge and the timing of the project, said once the company has the turbines committed, they are scheduled to be on the barge. He indicated that an April meeting with BSNC and Sitnasuak Corporation last year put the company in a winter-time construction cycle, and if that were earlier, it would allow the company to be two months ahead of the barge cycle and, thus, do the projects in June, July, and August. He added, "And so, that's really our timeline. If it turns into April, ... the turbine might not be available." He noted that the company has been talking to a lot of local entities that have a tax liability and that can be investors. The bottom line, he concluded, is that this year's project is on the [earlier] schedule.

MR. JACKSON mentioned a study done on the benefits and effects of the Federal Tax Credit, which shows a greater than two-times return for the federal government on the investment in tax projects for the tax credit issued. Furthermore, he noted that the State of Oregon has a business energy tax incentive driving many of its wind projects. That incentive, he related, offsets a 50 percent tax credit on a small project, which over a period of five years has shown to be a benefit to the community and the state of approximately three times the cost. He said the states that create such incentives get successful projects. Mr. Jackson assured the committee that the company is in a position to move forward in Alaska without extra incentives; however, he emphasized the need for "a little bit of extra support."

MR. JACKSON opined that it would be a tragedy not to move forward this year with village installations. He said representatives of BSNC told WCE that the villages have an even greater need than that of the City of Nome, and the Sitnasuak Corporation echoed that sentiment. However, the company explained to those entities that it would not be possible to go to the villages first because a base was needed in Nome where to provide access to training, expertise, skills, and spare parts.

Furthermore, the company believes that it can take care of the village installations from Nome as long-term operation and maintenance is the most critical part of the project; it is critical to the industry that the turbines keep running. The week that the turbines are activated and the wind is blowing, the [diesel] generators begin using less fuel. He stated the biggest message to community was:

I can't take out all of your diesel consumption, but we can do something this year to at least reduce it - and not only to reduce it, but to take that first step that we can add to later on to reduce it even more.

[4:07:06 PM](#)

CO-CHAIR EDGMON said the State of Alaska does not have low-interest, incentive loan programs in place, and this is an issue that the committee will be discussing. He mentioned that he has sponsored legislation that would create an energy efficiency loan program for commercial fishermen; however, further testimony from Mr. Jackson would be helpful so that the committee can study incentive loan programs.

[4:08:42 PM](#)

JIM STIMPFLER referred to HB 66, regarding net metering. He said the "sea change" benefit of that proposed legislation is that it would turn meters back by allowing individuals and businesses to use alternative energy. The possible effect would be to "zero out" the electrical costs for a homeowner for home heating and even for a car in the near future. He opined it is the individual Alaskan resident who will benefit from the bill, while the power companies will lose revenue. Mr. Stimpfle said rate-payers will support net-metering but power companies will not. He pointed out that BSNC and NJUS have not negotiated a [power purchase agreement] for the current wind farm, thus BSNC has made a \$6 million investment with no revenue stream. He said HB 66, as written, is a good law, but it could be better. He relayed that 40 of the Lower 48 states have net metering laws and New Jersey's is the best as it allows individual homeowners and business owners to install 2 megawatt systems and "credits go forward for a whole year." He said he knows that Representative Seaton and his staff have worked hard to "keep the radar screen low for the power companies so they don't get bit too hard right up front." He suggested a possible change to the proposed requirement that power generation systems be on premises, emphasizing the importance of putting systems where

they will work best. He observed that the passage of HB 66 would be a great service to individual Alaskans, but would not cost the state a penny, because "we go out and buy \$20,000, \$50,000, \$100,000 systems to generate [power] connected to the grid." Mr. Stimpfle suggested Alaskans question who owns the grid and who would service it.

[4:16:31 PM](#)

CO-CHAIR EDGMON said the issue of net metering was brought up last year when Representative Seaton introduced the bill, and there were hearings held on the subject with opposition by some utility companies. Times are changing, however, he said, and there are increasing attempts to create energy at the local level. He talked about the need for balance, and said he invited Mr. Handeland's response to Mr. Stimpfle's testimony.

[4:18:21 PM](#)

MR. HANDELAND recognized that net metering is not a new concept; however, what makes it more difficult in Alaska is that the state is not connected to a grid and each of the individual companies or the utility in each village is its own entity that needs to be maintained. He suggested net metering may work in Anchorage and Fairbanks, where the utilities are "intertied." He said he does not know if some communities could feasibly continue to operate a power plant if everybody's bills were zero. He explained that it would be fine if the company could completely turn off the diesel generation, but in the winter, "that isn't really palatable to people." There are some communities that have decided to shut off their electric utility at 11:00 p.m. and start it again at 7:00 a.m., but that does not work for a majority of communities. Mr. Handeland said NJUS does not have a problem with these alternative systems and encourages residents to install them, but he does not think it is fair to the utility company to receive no revenue while remaining in "stand-by mode" to provide power to the customers.

CO-CHAIR EDGMON mentioned hearing from the Nushigak Cooperative in Dillingham that it already has the ability to put together a net metering policy without any statutory changes. He said, "So, this issue, I think, ... is just starting to take shape, and it may actually wind up in statute."

[4:21:07 PM](#)

MR. STIMPFLE said some villages are linked together; in fact, the Alaska Village Electric Cooperative (AVEK) has 53 villages in its system. He related various topics that have been in AVEK's newsletters; for example, opinions for and against net metering. In January, AVEK's president and CEO warned cooperative members against people like Mr. Jackson coming into the community to install private systems "connected to their grid," because companies such as Western Community Energy (WCE) are motivated by profit. Eventually, there will be a major switch to alternatives, and that change must be addressed at some point. He described PCE as "a dog chasing his own tail," and opined that Alaska may never have renewable energy because the state is "stuck with a diesel model that you've got to pay for." Mr. Stimpfle said addressing the issues of HB 66 will be a tough job.

[4:23:25 PM](#)

CO-CHAIR MILLETT pointed out that Representative Olson has introduced a net metering bill which takes into account the infrastructure costs borne by utilities.

[4:23:43 PM](#)

MR. HANDELAND related that Nome has adopted a net billing platform as opposed to net metering. He said, "Anything that somebody sends back is at the avoided cost, because we're not having to buy a gallon of diesel fuel to generate it. But they still would be responsible for covering the fixed cost." He said NJUS does not yet have a power purchase agreement with Banner Wind for several reasons. One reason, he advised, is that the project was initiated at the end of December, and it would not be prudent to rush into a contract, that may last up to 30 years, before seeing real data.

[4:25:07 PM](#)

CO-CHAIR EDGMON asked if the power purchase agreement has to go through the Regulatory Commission of Alaska or the Alaska Energy Authority Commission.

[4:25:28 PM](#)

MR. HANDELAND said he did not know the answer to that question. He said the City of Nome utility is regulated by the Nome City Council and the Nome Joint Utility Board. He suggested Mr.

Brown could answer the question with regard to what Banner Wind, as a power producer, "may have to do."

[4:25:56 PM](#)

FRED MOODY noted that he has worked in the electrical industry for 50 years. He offered his understanding that it was 1973 when the federal government passed a law regarding "co-generation." The reason for the law had to do with the existence of many military bases and other industry entities that ran their own generators and were not able to hook up to a utility because of the difference in cost ratio. The law provided that an entity with surplus electricity could hook up to the utility company, and the utility would pay the entity the deferred cost. He related an incident from 1971, when the City of Kenai was without power for seven days and could not use electricity from Wildwood Army Station because there was no law allowing the government to sell electricity to the utility company. Mr. Moody stated that the entities who put up the wind farms want to make money; however, they do not want to be a utility. The state requires those selling electricity must have a utility license and operate in a specific area. In the Lower 48, an individual can generate power, but must pay to use a utility's power lines and switchgear. He indicated that as long as costs are determined, no one will complain, except possibly someone with a 20 kilowatt windmill who has to pay to buy and sell electricity and can not "use your free system."

[4:30:16 PM](#)

MR. STIMPFLE said most people who believe in net metering want to use their own power first and the utility company's power second. Net billing is set up to force the reverse of that.

[4:31:21 PM](#)

CO-CHAIR MILLETT closed public testimony.

[4:31:35 PM](#)

REPRESENTATIVE PETERSEN remarked upon the vast amount of information received, and said it is possible to solve the energy problems if everyone works together. Sometimes, he opined, the government just has to get out of people's way to let progress take place.

[4:32:18 PM](#)

REPRESENTATIVE JOHANSEN thanked the resident of Nome and said he learned a lot today.

[4:32:34 PM](#)

REPRESENTATIVE TUCK thanked the people of Nome for their warm welcome and their determination and desire to solve the problems in their community and serve as a role model to solve the energy problems of the state.

[4:32:54 PM](#)

CO-CHAIR EDGMON concurred with the value of the committee's visit to Nome. He announced that the committee would be holding similar meetings in Bethel and Dillingham. He said Bush residents are resourceful survivors and will find answers to this issue. He encouraged those present to call with comments and suggestions.

[4:35:00 PM](#)

CO-CHAIR MILLETT thanked staff and others responsible for facilitating the meeting. She also thanked the residents of each community for their hospitality and their testimony on this challenging issue.

[4:36:44 PM](#)

#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 4:36 p.m.