

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

February 4, 2013  
8:06 a.m.

**MEMBERS PRESENT**

Representative Doug Isaacson, Co-Chair  
Representative Charisse Millett, Co-Chair  
Representative Neal Foster  
Representative Pete Higgins  
Representative Shelley Hughes  
Representative Benjamin Nageak

**MEMBERS ABSENT**

Representative Andrew Josephson

**COMMITTEE CALENDAR**

OVERVIEW(S): WEATHERIZATION PROGRAMS UPDATE 2013 ALASKA HOUSING  
FINANCE CORPORATION

- HEARD

OVERVIEW(S): ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY  
LNG TRUCKING PROJECT

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

DAN FAUSKE, CEO/Executive Director  
Alaska Housing Finance Corporation (AHFC)  
Anchorage, Alaska

**POSITION STATEMENT:** Provided opening remarks prior to the  
PowerPoint presentation entitled, "AHFC Energy Programs Update."

JOHN ANDERSON, Program Officer  
Alaska Housing Finance Corporation (AHFC)  
Anchorage, Alaska

**POSITION STATEMENT:** Provided a PowerPoint presentation  
entitled, "AHFC Energy Programs Update."

STACY SHUBERT, Director  
Governmental Affairs & Public Relations  
Alaska Housing Finance Corporation (AHFC)  
Anchorage, Alaska

**POSITION STATEMENT:** Answered questions during the presentation by Alaska Housing Finance Corporation entitled, "AHFC Energy Programs Update."

TED LEONARD, Executive Director  
Alaska Industrial Development and Export Authority (AIDEA)  
Department of Commerce, Community & Economic Development (DCCED)  
Anchorage, Alaska

**POSITION STATEMENT:** Provided a PowerPoint presentation entitled, "Energy Project Overview," dated February 2013.

MARK DAVIS, Deputy Director  
Investment Finance & Analysis  
Alaska Industrial Development and Export Authority (AIDEA)  
Department of Commerce, Community & Economic Development (DCCED)  
Anchorage, Alaska

**POSITION STATEMENT:** Participated in the PowerPoint presentation entitled, "Energy Project Overview," dated February 2013.

NICK SZYMONIAK, Project Economist  
Alaska Energy Authority (AEA)  
Department of Commerce, Community & Economic Development (DCCED)  
Anchorage, Alaska

**POSITION STATEMENT:** Answered a question during the presentation by the Alaska Industrial Development & Export Authority (AIDEA).

#### **ACTION NARRATIVE**

[8:06:02 AM](#)

**CO-CHAIR DOUG ISAACSON** called the House Special Committee on Energy meeting to order at 8:06 a.m. Representatives Hughes, Nageak, Foster, Higgins, Millett, and Isaacson were present at the call to order.

#### **OVERVIEWS (S): WEATHERIZATION PROGRAMS UPDATE 2013 ALASKA HOUSING FINANCE CORPORATION**

[8:06:54 AM](#)

CO-CHAIR ISAACSON announced that the first order of business would be an update by the Alaska Housing Finance Corporation (AHFC) on weatherization programs.

[8:08:19 AM](#)

DAN FAUSKE, CEO/Executive Director, Alaska Housing Finance Corporation (AHFC), advised that the successful energy and weatherization program is a good example of a government fund achieving its stated goals and bringing a benefit to the people of the state from Barrow to Ketchikan.

[8:09:27 AM](#)

JOHN ANDERSON, Program Officer, AHFC, introduced the PowerPoint presentation entitled, "AHFC Energy Programs Update." He informed the committee that beginning in 2008, major funds for the energy and weatherization program have come to AHFC through a capital appropriation of \$300 million, and with subsequent appropriations the total funds received to date are \$510 million [slide 2]. Accomplishments to date are: home energy rebate program - 17,908 homes completed; new home rebate program - 1,751 homes completed; and weatherization program - 8,513 homes completed. This is a total of 28,000 homes made more energy efficient, which is over 10 percent of the housing stock in Alaska. In response to Co-Chair Isaacson, he clarified that this number is over 10 percent of the occupied units in Alaska.

CO-CHAIR ISAACSON observed that if over \$500 million has been spent on the program and the average amount spent per home is \$18,888, it will cost \$6 billion to weatherize every eligible home.

MR. ANDERSON said correct.

[8:12:00 AM](#)

REPRESENTATIVE HUGHES asked how apartment units are counted.

MR. ANDERSON answered that rental units are included through the weatherization program; condominiums (condos) and owner-occupied units of multi-unit structures are eligible for the rebate program. In further response to Representative Hughes, he said the four units in a fourplex would count individually as four [homes].

CO-CHAIR MILLETT noted that many houses built in the last 10 years do not need energy efficiency measures or weatherization, but the program should target houses built pre-1990 and those in dire need. She asked for a ratio of completed urban homes to rural homes, so the committee can discuss how to make the rebate program available to lower-income owners or those in rural Alaska, perhaps by bonding contractors or establishing "cost-equalization" for rural applicants.

MR. ANDERSON responded that expenditures along the urban-to-rural split are about 70:30 when both programs are combined, thus the rebate program has shown to be more beneficial to urban Alaska. On the other hand, the weatherization program shows a 70 percent benefit to rural homeowners. Alaska Housing Finance Corporation is seeking options to try to help those without the cash needed to participate in the rebate program; one idea proposes a 1 percent heating conversion loan. He pointed out that of 40,000 home energy rebate program applicants 40 percent have decided not to participate, usually because their houses received an energy rating above Four Star Plus.

[8:15:56 AM](#)

CO-CHAIR MILLETT advised it was never the legislature's intention to weatherize every house in Alaska, but to target older homes.

CO-CHAIR ISAACSON asked how many Five Star and Five Star Plus energy rated homes are in Alaska.

MR. ANDERSON was unsure of the total, but said over 1,751 Five Star Plus new construction homes have been rebated. In further response to Co-Chair Isaacson, he offered to provide statistics on Four Star and above rated homes as well.

REPRESENTATIVE HIGGINS understood that the program will rebate up to \$10,000, but an applicant doesn't need \$10,000 to apply for an energy audit.

MR. ANDERSON confirmed that if an applicant spent \$1,000 that is the rebate they would receive. The "set" rebate levels begin at \$4,000 and increase up to a maximum of \$10,000.

CO-CHAIR MILLETT stressed that an applicant must pay for the weatherization up-front, and some residents do not have the cash in the bank to pay the contractor. This is the flaw in the

legislation that she wants to address for those who most need the weatherization and savings.

8:18:48 AM

REPRESENTATIVE HIGGINS indicated that the weatherization program is the "free" program that does the same thing.

MR. ANDERSON stated the rebate and weatherization programs are creating safer, better quality, and more affordable heating sources in Alaska's homes. In addition, 4,000 jobs have been created or retained since 2008. A study by the Institute of Social and Economic Research (ISER), University of Alaska Anchorage, reported 1,780 indirect jobs and 407 jobs gained from spent energy savings [slide 5].

8:20:46 AM

CO-CHAIR ISAACSON ascertained the quality of the jobs gained is not reported.

MR. ANDERSON said correct.

8:21:06 AM

REPRESENTATIVE NAGEAK asked whether the 407 jobs gained from spent energy savings would be for vendors.

MR. ANDERSON said according to the ISER study, impacts were on jobs ranging from clerical staff to stocking shelves, and he offered to provide copies of the report to the committee. Mr. Anderson then explained that AHFC now has a database sufficient to extrapolate the estimated benefits accumulated from the rebate and weatherization programs since 2008 as follows: Almost 6 trillion Btu have been saved, which are equivalent to over 400,000 barrels of oil, [23,567,420] one hundred cubic feet (CCF) of gas, [17,077,840] gallons of fuel oil, or [690,721] megawatt [hours] of electricity saved annually [slide 6]. These estimates, which are derived from AkWarm energy rating software, put the savings at around \$37 million per year from 28,000 homes made more energy efficient by the rebate and weatherization programs. Mr. Anderson observed that the savings are spent locally and are recirculating through the economy [slide 7]. An additional estimate was that 8,275 Anchorage homes that were weatherized through the rebate program saved enough energy to power 3,437 homes in the Anchorage area for one year, or the Performing Arts Center, Egan Convention Center, Sullivan Arena,

Robert Atwood Building, and Dena'ina Center for almost nine years [slide 8].

CO-CHAIR ISAACSON asked how the aforementioned estimates were computed.

MR. ANDERSON explained that AkWarm modeling software computes the cost of energy, and the entire energy use of a structure, at the time of the rating. Currently, an average home in Alaska uses 281 million Btu per year. The cost savings estimated in the presentation were based on the time of each individual rating, thus the savings are an average since 2008.

[8:25:14 AM](#)

REPRESENTATIVE HUGHES asked Mr. Anderson to project when the state will recoup its investment of \$510 million.

MR. ANDERSON said that information will follow later in the presentation. He turned attention to AHFC's specific programs, saying the weatherization program is designed for low-income residents; in 2008 changes were made so that an applicant's income can go up to 100 percent of the median income of the U.S. Department of Housing and Urban Development (HUD) poverty income guidelines. Clients are ranked in seven priorities in favor of the elderly, homes with children, and families with disabilities [slide 9]. The weatherization program is focused on health and safety, energy efficiency, homeowner education, comfort, and building durability [slide 12]. Additional benefits are the resulting local employment and training, and a community-type approach [slide 13].

REPRESENTATIVE FOSTER asked how AHFC decides which village will be weatherized in a given year.

MR. ANDERSON answered that in 2008 AHFC requested a five-year work plan from local agencies, although because of current funding levels the planning is now done year-to-year. The regional housing authorities are most familiar with each area and provide information on their region's biggest needs; AHFC then selects over 100 communities each year. As of 12/31/12, the weatherization program has expended almost \$200 million and is expected to expend to grantees \$230 million for 10,500 units completed by the end of the grant cycle on 3/31/13. Fiscal Year 2013/2014 (FY 14) grants are being prepared for the upcoming work season [slide 14]. Mr. Anderson acknowledged that the weatherization program does not reap as much in savings as the

rebate program for many reasons, one of which is that AHFC is the contractor for the work, and health and safety matters surrounding the residences are taken care of before a job can be completed. Still, the average cost savings per year per resident is \$1,336 from the weatherization program [slide 15]. When looking at savings by region, the NANA Regional Corporation, Inc. (NANA) region is receiving the highest energy savings per home, and Anchorage receives the lowest. He added that in urban Alaska AHFC spends \$11,000 per unit; in rural or remote Alaska the average is \$30,000 per unit due to the cost of materials, and logistics [slide 16].

8:31:25 AM

CO-CHAIR ISAACSON observed the Interior does not benefit as much compared to outlying areas, and asked whether that is because of the quality of housing.

MR. ANDERSON indicated yes. There is a lot of old housing in Fairbanks and Anchorage with life-safety issues and/or heating conversions. These improvements are substantial but do not result in energy savings as great as those from air sealing and insulation.

CO-CHAIR ISAACSON asked for a description of the differences between the energy rebate and weatherization programs.

MR. ANDERSON explained that AHFC's goal for both programs is energy efficiency. In fact, the greatest return on investment for either program is from air sealing and insulation; however, in some cases after safety investments to the heating systems are made "there's not much left else to do on the house." In response to Representative Higgins, he confirmed that 807 was the number of houses in the sample for Fairbanks [slide 16].

REPRESENTATIVE HIGGINS asked whether the weatherization program has a maximum expenditure level per house.

MR. ANDERSON stated that in urban, or road-system Alaska, \$11,000 per unit is the maximum spent by the weatherization program. In remote areas not connected by roads, the average is \$30,000 per unit. However, the agencies are allowed flexibility to determine how much is spent on each site.

8:35:08 AM

REPRESENTATIVE HUGHES requested clarification on the state's role in the weatherization program, and on income requirements.

MR. ANDERSON referred to the weatherization program, and explained the state is the contractor and applicants apply to one of seventeen agencies to see if they qualify, based on income. The rebate is open to everyone, but a homeowner cannot participate in both. In further response to Representative Hughes, he said applicants to both programs apply to the agencies. For the rebate program, AHFC directs applicants to a call center from where they are dispatched to an energy rater in their area to begin the process.

MR. FAUSKE added that individuals performing the work are not state employees. The corporation has contracted out the call center and the contractors that it uses are independent agencies. Although AHFC has oversight over the program and the work, its staff is at a bare minimum.

MR. ANDERSON agreed, and said that AHFC writes the policies and procedures that the grantees are required to follow, although they are independent entities.

REPRESENTATIVE HIGGINS asked how many applications are received from each region.

MR. ANDERSON did not know, but he said most agencies have a waitlist and the weatherization program averages over 3,000 units per year. The difficulty for AHFC is to ensure that applicants are not approved and waiting for programs that may not be funded.

[8:39:29 AM](#)

STACY SHUBERT, Director, Governmental Affairs & Public Relations, AHFC, interjected that the waitlist through Rural Alaska Community Action Program, Inc. (RurAL CAP) - the agency in Anchorage - is 170 units as of 12/12/12. In further response to Representative Higgins, she said the waitlist was for the weatherization program.

REPRESENTATIVE HUGHES asked for the income guidelines for a family of four to be eligible for the weatherization program.

MR. ANDERSON said income limits for a family of four are: in the Municipality of Anchorage, \$85,200; in the Fairbanks North Star Borough, \$84,600; in the Kodiak Island Borough, \$71,100.

Prior to 2008, AHFC was following the 2012 U.S. Department of Energy (U.S. DOE) poverty income levels, and still must do so regarding any federal funds it receives.

CO-CHAIR ISAACSON requested a copy of the income guidelines.

REPRESENTATIVE FOSTER compared income limits in Anchorage and Dillingham, noting that a person in Dillingham making \$50,000 per year would be over the limit, but the same income in Anchorage would qualify for the weatherization program.

8:43:03 AM

MR. ANDERSON advised that AHFC has encouraged all affected entities and the Native regional corporations to study these guidelines; in fact, NANA has begun a review. The state does not set the levels and what considerations regarding the cost of fuel, for example, are unknown. A review is forthcoming from U.S. Senator Lisa Murkowski. He then directed attention to the home energy rebate program, explaining that it is open to all Alaskans, has no income requirements, and is limited to owner-occupied residents. The homeowners pay up front for the cost of the improvements and are then rebated after the required as-is and post-AkWarm rating [slide 17]. The rebate is based on the improvements that were made and how the home benefitted from the work. Since 2008, 1,751 Five Star Plus new homes qualified for a total of \$13.1 million paid in rebates [slide 18]. One change to the program is that a resident can re-apply for a different home. The rebate program has meant that \$209.1 million has been spent on energy efficiency improvements by a combination of state and individual investments [slide 19]. Individually, of 17,000 rebates, the average consumer has spent at least \$11,000 between the average state contribution of \$6,389 and the average homeowner contribution of \$4,792 [slide 20]. Mr. Anderson stated that the program is meeting the original intention of the 2008 legislation. Based on the average energy savings per home, the homeowner's investment is paid back in 3.3 years [slide 21]. Regionally, the pay-back in Fairbanks is 2 years [slide 22].

8:47:39 AM

MR. FAUSKE recalled the total investments by the homeowners put approximately \$25 million back in the economy.

8:48:09 AM

MR. ANDERSON restated that total energy savings are about \$37 million per year. He continued, saying the average savings from the rebate program is 103 million Btu per year or an average home energy use reduction of 34 percent [slide 23]. At this time, 32,294 as-is ratings have been completed, and the number of completed rebates is near 18,000. The statewide waitlist numbered 511 as of 1/25/13 [slide 25]. In September 2012, the waitlist dropped, so there was an advertising campaign primarily in Southcentral to encourage participation.

MR. FAUSKE cautioned that aggressive advertising could bring in more applications than available funding. Initially, AHFC made a commitment to the legislature not to get ahead of funding so that Alaskans know the money is there once they have applied. Prior to another advertising campaign the AHFC administration must look at the funding levels.

REPRESENTATIVE HUGHES asked whether advertising has targeted residents in Fairbanks.

MS. SHUBERT informed the committee that AHFC had not advertised either program since inception in 2008, leading to concerns that people in rural communities were not aware of the programs. Recently, targeted mailers were sent to 100 rural communities and there was a six-week radio campaign in Fairbanks that led to an increase in applications. The corporation is reluctant to advertise again due to the status of funding.

[8:52:50 AM](#)

CO-CHAIR ISAACSON expressed his belief that residents in the Interior right now are strapped for cash and credit-poor. The possibility of a long waiting period for the rebate is frustrating, and people are moving away instead of upgrading their houses - which is tragic for the economics of Fairbanks and for the state. He asked how long the delay is for the rebate payment.

MR. ANDERSON said AHFC issues the rebate payment within 40 days to 60 days.

REPRESENTATIVE NAGEAK observed that those above the low income level can take this opportunity to review the literature on energy savings and examine their personal needs. He shared the benefits of replacing the heating system in his home and his plans for future upgrades.

MR. ANDERSON reviewed the Second Mortgage for Energy Conservation program. To date, 147 loans have been made, and the average interest rate for this program is 3.5 percent [slide 30]. He was unsure as to why the program is not more popular.

REPRESENTATIVE FOSTER asked if a fourplex would qualify for the second mortgage program.

MR. ANDERSON indicated yes, if the unit is owner-occupied.

CO-CHAIR ISAACSON asked for clarification on whether condominiums (condos) and townhomes are included.

[8:56:50 AM](#)

MR. ANDERSON opined condos would not be eligible for the second mortgage loan because the condo association must be involved. However, condos are eligible for the rebate program and his staff works closely with condo associations and owners to facilitate the rebate program. He directed attention to other programs, beginning with the Alaska Energy Efficiency Revolving Loan Program (AEERLP) which is a \$250 million public facilities loan program started with federal funds received from the American Recovery and Reinvestment Act of 2009 (ARRA). The AHFC staff saw the potential benefit of saving energy in Alaska's public and commercial facilities, leveraged the ARRA funds, and created an available loan capacity of \$250 million [slide 33]. Over 1,200 public buildings were benchmarked and investment grade audits were conducted in 327 buildings. Investment grade audits are an in-depth energy look at each facility using AkWarm ratings [slide 34]. After two years, AHFC developed a white paper and some of the major findings are: adopt and enforce energy codes; require publically-owned buildings track their energy use; and establish accountability [slide 35]. Mr. Anderson said the process revealed that "no one was tracking their energy use." Additional white paper findings are: over 5,000 public buildings exist in Alaska; there are around 20,000 total commercial facilities; the estimated energy cost of the public buildings equates to approximately \$641 million each year; and with an average savings of \$25,000 per public building, the potential statewide annual savings would be \$125 million [slide 36].

CO-CHAIR ISAACSON asked whether Siemens is in charge of this program.

MR. ANDERSON advised that Siemens Government Technologies (SGT) is one of the Energy Service Companies (ESCO) that is involved.

9:00:25 AM

CO-CHAIR ISAACSON recalled the experience in North Pole was that the rater took approximately two years to come. However, "it seems to provide promise to municipalities."

9:00:48 AM

MR. ANDERSON surmised the City of North Pole (North Pole) did not apply for a loan through AHFC.

CO-CHAIR ISAACSON said North Pole qualified for a grant through the state.

MR. ANDERSON said the aforementioned loan was from the Department of Transportation & Public Facilities (DOTPF), which follows the same model, but its loan program was from \$10 million of ARRA money appropriated to DOTPF. In further response to Co-Chair Isaacson, he noted there was no redundancy between programs; in fact, DOTPF is in charge of its own buildings and had prior experience with ESCO contractors. Similarly, AHFC gave the University of Alaska a direct appropriation to pay for an investment grade audit.

MR. FAUSKE added that the program is self-sustaining because the energy savings guaranteed by the contractor will be sufficient to service the indebtedness necessary to pay for the improvements being made. The program can continue indefinitely as municipal governments and others are enticed to save energy and the program will pay for itself. Hospitals in the state are interested in participating, but the program is restricted to municipally- or government-owned facilities. Including hospitals could have a huge impact on local communities and the cost of delivering services.

MR. ANDERSON turned attention to the Alaska Retrofit Information System (ARIS) and explained that it is a comprehensive database with the capability to provide statistics and outcome reports on the rebate and weatherization programs, and the AHFC white paper [slides 37 and 38]. The database is evolving and AHFC is optimistic about its future use by DOTPF, the Alaska Energy Authority (AEA), and all other state agencies to track energy use. Mr. Anderson then concluded his presentation by saying

that the team and programs at AHFC create jobs, save energy, and affect lives in a positive manner.

[9:06:26 AM](#)

REPRESENTATIVE FOSTER agreed and observed that large projects get a lot of attention, but programs like this provide a quick pay-back on investment, and help the people living in the most energy inefficient homes.

REPRESENTATIVE HIGGINS agreed.

REPRESENTATIVE NAGEAK agreed.

REPRESENTATIVE HUGHES agreed.

CO-CHAIR ISAACSON said, "The best savings in energy is the dollar not spent." He then cautioned that regional stability still needs to be attained for the long-term.

**OVERVIEW (S): ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY  
LNG TRUCKING PROJECT**

[9:09:34 AM](#)

CO-CHAIR ISAACSON announced that the final order of business would be a presentation by the Alaska Industrial Development and Export Authority (AIDEA).

[9:11:06 AM](#)

The committee took an at-ease from 9:11 a.m. to 9:15 a.m.

[9:15:47 AM](#)

TED LEONARD, Executive Director, Alaska Industrial Development and Export Authority (AIDEA), Department of Commerce, Community & Economic Development (DCCED), informed the committee AIDEA's mission is to promote, develop, and advance economic growth and diversification in Alaska through financing and investment. This is accomplished by providing access to long-term commercial and development financing - at a reasonable cost - by using AIDEA's strong balance sheet: an AA+ credit rating and approximately \$1.1 billion in net assets [slide 2]. In AIDEA's energy finance tool box are the following: can own all or part of an energy project; can co-invest with a corporation or a limited liability company (LLC) that owns a project; can

purchase up to 90 percent of a loan from a qualified financial institution up to \$20 million for an energy project or for energy conservation; can provide direct financing or guarantees for up to one-third of the capital cost of a qualified project; and can issue revenue bonds for a qualified project [slide 3]. Currently, AIDEA owns two large energy projects, the [Snettisham Hydroelectric Project] which is leased to Alaska Electric Light and Power (AEL&P) in Juneau, and the Endeavour-Spirit of Independence jack-up rig (Endeavour) now located in Homer and en route to oil and gas leases.

[9:18:54 AM](#)

MR. LEONARD recalled last year the legislature directed AIDEA to invest in "qualified" energy projects which are limited to those involved with transmission, generation, conservation, and storage or distribution of heat or electricity; liquefaction, regasification, distribution, and storage or uses of natural gas; and distribution or storage of refined petroleum products. He advised that the aforementioned definition is vital to AIDEA's loan participation and the Alaska Sustainable Strategy for Energy Transmission and Supply (ASSETS) programs [slide 4]. Other definitions revolve around AIDEA's development finance program which serves to promote natural resource development; for example, Endeavour was financed through the development finance program. Mr. Leonard called attention to slide 5, which was a chart illustrating phases of AIDEA's development project analyses used to decide which projects to finance and how the projects are financed. There are four phases to advance a project: the first phase is to see if the project matches AIDEA's statute; the second phase is the feasibility analysis; the third phase is the due diligence analysis of the business plan and recommendations to AIDEA's board of directors; and the fourth phase is the final structuring and moving forward with the project [slide 5]. As an aside, he reported on the status of the Endeavour, which was a strategic investment to support oil and gas exploration in Cook Inlet. The authority's investment is approximately \$23.6 million out of a total cost of \$120 million thereby leveraging about \$96 million. Currently, the Endeavour is completing refurbishment in Homer, and the general manager, Buccaneer Energy, announced the goal is to have the Endeavour drilling in late March and April. The Endeavour is projected to drill three exploratory wells this year [slide 6].

[9:23:41 AM](#)

MARK DAVIS, Deputy Director, Investment Finance & Analysis, AIDEA, DCCED, stated that one of AIDEA's projects this year is to work on legislation for the governor's energy plan. Part of the plan is to explore the possibility of building a liquefied natural gas (LNG) plant on the North Slope and trucking the gas to Fairbanks. After reaching Fairbanks, the gas would be distributed for heating purposes and would be available to utilities for electrical generation. The goal is to provide lowest-cost energy to the Interior as soon as possible. The plan includes a cost benefit analysis and is designed to advance quickly so that the project is operational within 30 months to 36 months. Involvement by the private sector is encouraged and forthcoming legislation provides for \$355 million to garner additional private investment [slides 7 and 8].

[9:25:10 AM](#)

REPRESENTATIVE HIGGINS asked for the current development analysis phase of this project.

MR. DAVIS recalled that in 2008 DCCED concluded that trucking gas from the North Slope to Fairbanks would be competitive if the price of oil stayed above about \$65 per barrel, thus the project has already met the suitability assessment and is moving into phase 2. In further response to Representative Higgins, he said if the project is approved in the spring, the stated goal is to have gas flowing into Fairbanks in 30 months.

MR. LEONARD pointed out there is a schedule at the end of the presentation.

MR. DAVIS said the plan is to liquefy the gas on the North Slope and AIDEA received 16 responses to its request for information. The proposed plant is to be movable and may be relocated should Fairbanks develop another source of gas.

CO-CHAIR ISAACSON asked for a description of the responses.

MR. DAVIS explained AIDEA received four types of offers: two turnkey offers including a plan, real estate, and engineering work; three offers were for financing only; two were "pure engineering" offers to work on the design; and others were from firms that do not provide financing but will design, build, maintain, and operate the plant for a given amount of money. He continued, noting that for the trucking plan the gas would be liquefied at a small, movable 9 billion cubic feet (Bcf) plant that would process enough gas to supply the areas of primary

demand - Fairbanks and North Pole - and the byproduct of propane. The LNG would be temporarily stored and regasified, utilizing gas storage credits and AIDEA's bonding authority to finance the construction of storage and the Fairbanks distribution system.

[9:30:17 AM](#)

REPRESENTATIVE HIGGINS asked for the size of the system needed to distribute gas to Fairbanks proper.

MR. DAVIS answered that the Alaska Energy Authority (AEA) has estimated 7 Bcf to 9 Bcf is needed to distribute gas to the core area, depending on the design of the system, and the entire area would need 18 Bcf to 20 Bcf. The present goal is for 7 Bcf to 9 Bcf.

REPRESENTATIVE HUGHES asked whether the distribution system would be constructed simultaneously and would also be ready in 30 months.

MR. DAVIS advised it is desirable for the distribution system to be built at the same time, and financed by local improvement district (LID) funds. In further response to Representative Hughes, he said 30 months to 36 months is "an aggressive, but doable timeframe."

CO-CHAIR ISAACSON said:

And just to clarify, that ... would be to start in an area that is already non-certificated at the moment, and so the certificated area currently owned by FNG - Fairbanks Natural Gas - they would presumably become more aggressive in their area, and then, starting it in the non-certificated area to meet it. But, 80 percent penetration still is anticipated to be three to five additional years.

MR. DAVIS agreed.

[9:33:24 AM](#)

REPRESENTATIVE NAGEAK surmised the liquefaction plant would be located in Prudhoe Bay.

MR. DAVIS said it would be on the North Slope in one of the production areas near a present source of gas. In further response to Representative Nageak, a regasification plant and gas storage would be built in Fairbanks.

REPRESENTATIVE NAGEAK asked whether transportation of the LNG is part of the cost of the project, or will be done by private firms.

MR. DAVIS expressed his belief that trucking is not part of the project cost, but that a firm, or firms, would have to be hired to provide transportation.

MR. LEONARD added that a private utility is presently trucking LNG to Fairbanks and has a regasification facility there now. In response to Representative Hughes, he said when AIDEA studied the trucking project four years ago, there was sufficient demand and the project made sense; however, the two large industrial tenants, Golden Valley Electric Association (GVEA) and Flint Hills Resources were not "willing to step up to the plate." In response to Co-Chair Isaacson, he confirmed that the existing regasification plant and storage are not adequate to handle the projected additional volume.

CO-CHAIR ISAACSON asked for descriptions of two other aspects of the project, the ability to supply natural gas to Cook Inlet and the potential to supply propane to rural communities along rivers.

MR. LEONARD stated that the 9 Bcf plant is designed mainly to meet the needs of the Interior. The plant would be built with the ability to add 4 Bcf modules up to a maximum of 20 Bcf. The turnkey offers included gas contracts also up to 20 Bcf, thus the challenge is whether Cook Inlet demand is enough to pay for the expansion.

[9:38:18 AM](#)

MR. DAVIS informed the committee the governor's proposed Interior energy plan legislation intends to use AIDEA financing leveraged with the private sector to achieve the best debt service for the project. The details of the finance plan are as follows: \$50 million in general fund (GF) appropriation to AIDEA; \$150 million authorization for AIDEA to issue bonds for the distribution system at an interest rate of 3 percent; and \$125 million in recapitalization of the Sustainable Energy Transmission and Supply Development Fund (SETS) would provide a

financing structure. Finally, \$30 million in natural gas storage credits is added in to equal \$355 million.

REPRESENTATIVE HUGHES asked how much private investment the plan leverages.

MR. DAVIS explained the request is for \$175 million, in addition to the \$50 million in equity and \$125 million in loans. Construction of the plant will cost in the range of \$220 million, and the working capital must be provided. This will be a range of about \$30 million to \$40 million, maybe more, with the private components. The bonds will provide a beginning, and the entire project could be privatized after the state "get[s] it going."

REPRESENTATIVE HUGHES further asked for a dollar amount.

MR. DAVIS advised \$220 million is needed to build the plant and the proposed legislation directs \$175 million. In further response to Representative Hughes, he confirmed that this is an immediate shortfall of \$55 million, and more money is needed "down the road."

MR. LEONARD said the total estimated cost for the distribution and production facilities is about \$800 million to \$900 million for the medium- and high-density areas of Fairbanks. This is a typical financing package, with 50 percent in SETS loans, mezzanine financing of 30 percent, and the equity from the private sector of about 20 percent. The goal over the long-term period is that the SETS loan would be repaid at the 3 percent range. Mr. Leonard pointed out the value of moving forward now, when the interest rate environment for long-term infrastructure is at an historic low.

[9:43:54 AM](#)

REPRESENTATIVE NAGEAK asked how the GF \$50 million appropriation directly reduces the cost of energy.

MR. DAVIS explained that the \$50 million would be put into the potential cost of the LNG plant. The flow of gas from the plant would be divided into two sectors, one sector for utility use primarily for heating and the second sector for commercial use to be sold to defray the cost; the \$50 million would be applied to utility use as an equity infusion and that would reduce the rate to ratepayers. The expected utility price per thousand cubic feet of natural gas (Mcf) is \$10.33 for wholesale LNG and

\$13.49 to \$17.29 for natural gas to homes, and those prices are dependent upon using the \$50 million [slide 13].

CO-CHAIR ISAACSON asked whether the reduction to the consumer due to lower percentage rates on debt service has been calculated.

MR. DAVIS said the interest rates and the amortization are modeled on slide 15. There is a relatively small change in the cost per Mcf of gas from an interest rate of 0.0 percent to 3.0 percent. The difference in amortization between 15 years and 30 years is also small. The proposed legislation uses this kind of leveraging from AIDEA, along with the "window of opportunity" from low interest rates, which has a very favorable effect on the delivered price to consumers in Fairbanks.

CO-CHAIR ISAACSON said he did not see any difference in the two models shown on slide 15.

[9:47:31 AM](#)

NICK SZYMONIAK, Project Economist, AEA, DCCED, agreed there was not much difference on the models shown on slide 15. He explained that if the interest rate or amortization period were changed there is a slight increase in the cost of plant debt [shown as a blue bar on each of the models on slide 15]; on a 15- or 30-year amortization for example, a change in the interest rate from 0.0 percent to 3.0 percent results in an increase of about 25 cents per Mcf.

[Audio indistinguishable on recording from 9:49:03 a.m. to 9:49:25 a.m.]

[9:49:37 AM](#)

REPRESENTATIVE HIGGINS repeated his statement to Mr. Szymoniak, saying he understood that the cost of the plant is not as great as that of the trucking or the natural gas portions of the project; therefore, even if the state pays down the plant entirely, it will not make much difference.

{Audio indistinguishable on recording from 9:50:00 a.m. to 9:50:51 a.m.}

MR. LEONARD pointed out the finance impact on price for the total capital expenditures (CAPEX) amortized over 15 years is \$1.51 per Mcf and amortized over 30 years is \$0.95 per Mcf

[slide 14]. A 15-year loan is repaid "more up front [and] that's going to be less in the long range." He agreed with Representative Higgins that CAPEX is not the main driver of the total cost of the gas from the plant.

REPRESENTATIVE HIGGINS surmised the "worst case" is \$17.29 per Mcf for the cost of gas to each home [slide 13].

[9:51:34 AM](#)

MR. LEONARD explained the range of cost is based on how many houses are affected and whether low-density areas are included.

REPRESENTATIVE HIGGINS observed that the projected cost of gas is a little more than half of the present cost of oil.

MR. DAVIS estimated a reduction of 40 percent to 50 percent from the cost of oil, although the cost is affected by how many customers pay for distribution [slide 13].

CO-CHAIR ISAACSON emphasized the importance of lowering the price as far as possible in order to incentivize residents to abandon heating with wood, heating oil, and coal to address looming constraints caused by air quality issues in Fairbanks. He advised keeping the cost of natural gas to \$15 per Mcf is the equivalent cost with wood.

MR. DAVIS assured the committee AIDEA is aware of this situation; in fact, the goal is \$10 for the wholesale price of LNG, but the delivered price is determined by the degree of distribution, which may be reduced by real property assessments such as those used in other states.

CO-CHAIR ISAACSON asked whether there is proposed legislation that allows an assessment to attach to the home rather than to the homeowner.

[9:54:36 AM](#)

MR. DAVIS said no, and advised that would be a local matter to be addressed by the Fairbanks North Star Borough (FNSB) and local communities. In further response to Co-Chair Isaacson, he opined there is no legal barrier "to having things run with property as long as they're in your assessment."

REPRESENTATIVE HUGHES asked whether the \$50 million in GF would be transferred to AIDEA all at once and which entity collects interest on those funds.

MR. LEONARD assumed the \$50 million would be a direct transfer to AIDEA. He explained that each year AIDEA's board of directors calculates its net income and must declare a dividend between 30 percent and 50 percent of its income back to the state. So far - including this year's declaration - AIDEA will have paid \$345 million to the state; therefore, even on the SETS loan the state will earn 50 percent of the 3 percent interest charged. Furthermore, the \$50 million in GF will be used quickly without accruing much interest, but any interest earned will be applied to offset the cost of the plant.

CO-CHAIR ISAACSON encouraged the committee to consider that the impact to the state treasury is secondary to stabilizing the regional economy and directing benefits to residents.

REPRESENTATIVE NAGEAK questioned whether after 30 years the price of natural gas would drop to \$0.95 per Mcf.

MR. LEONARD clarified that the \$0.95 per Mcf is the CAPEX cost blended into the cost of the gas; theoretically, after a 15-year amortization period, if the plant is still operating, the cost of gas would be reduced by \$0.95, and after a 30-year amortization period, the cost of gas would be reduced by \$1.51 [slide 14].

MR. DAVIS continued to schedules and milestones, saying AIDEA has completed advertising for letters of interest, and has almost completed its internal evaluation of responses. The next steps are to issue preliminary analyses of solicitations and to develop contracts for firms to assist AIDEA with the project [slide 16].

[9:59:56 AM](#)

MR. LEONARD shared that AIDEA's philosophy is to utilize experts in the private sector to support its small professional staff of 15; in fact, the private sector is key on any analysis and development of a project.

MR. DAVIS gave the example of the Endeavour: AIDEA assigned one staff person to the project and contractors did the rest of the work. To complete the AIDEA overview, Mr. Davis called attention to other potential energy projects, including a

propane distribution system for 17 small Alaskan communities using LID financing and anchored by schools or municipal buildings.

REPRESENTATIVE FOSTER asked how spread out a distribution system can be before becoming uneconomic.

MR. DAVIS stated the small communities under consideration are on tidewater, so the propane can be brought in by barge which is economic. However, if there were a source of propane from a LNG plant, transportation along the Yukon River could become economic. Changing rural Alaska over to gas will solve the problems associated with fuel oil such as particulate emissions, cost, and pollution. In further response to Representative Foster, he said the current project is only looking at villages on tidewater because AIDEA has a certificate of public convenience and necessity (CPCN) for those areas.

REPRESENTATIVE NAGEAK asked whether it is feasible to have a plant on the river and closer to the villages.

[10:04:22 AM](#)

MR. DAVIS posed the possibility that another source of gas is brought into Fairbanks. In that case, the LNG plant that has been designed for the present project could be moved to a different location and produce LNG from a future pipeline that would then be transported to villages, or to mines in the Ambler area and along the Kobuk River. The intent of the business plan for this project is to address the situation in Fairbanks now, move to a plan to help rural Alaska, and develop a power source for the mines to create jobs.

REPRESENTATIVE NAGEAK asked Mr. Davis to keep the committee apprised of these projects.

[10:06:13 AM](#)

MR. DAVIS acknowledged prior to the passage of Senate Bill 25 last year, AIDEA's statutes limited its actions to the development of natural resources and its revolving fund is still directed to that work; however, at this time AIDEA has the new SETS fund that is now available for energy projects.

MR. LEONARD stressed that AIDEA is a development finance authority and does not set or design economic development or energy policy, but helps to promote the state's policies.

10:07:09 AM

MR. DAVIS clarified that the utilities approached AIDEA for help with financing after they had a design for a propane system.

CO-CHAIR ISAACSON referred to the difficulties surrounding the Healy Clean Coal Plant (HCCP) and asked what lessons AIDEA learned.

MR. LEONARD said AIDEA has learned how to structure contracts so that AIDEA is in partnership with the private sector and does not completely own many projects. The private sector needs to be involved with the analysis and design of a project, and work and build together with AIDEA. As an aside, he said AIDEA is now working in partnership with GVEA, and HCCP is expected to be running within the next two years.

MR. DAVIS noted the structure of the Endeavour project, and stated that every investment AIDEA is making includes an exit strategy to respond to changing market conditions. Returning to other potential energy projects, he pointed out AIDEA is becoming involved with energy efficiency retrofits for commercial buildings.

10:11:00 AM

CO-CHAIR ISAACSON stressed the lessons learned from HCCP.

10:11:13 AM

#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at [10:11] a.m.