

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

April 2, 2015

1:03 p.m.

**MEMBERS PRESENT**

Senator Click Bishop, Co-Chair  
Senator Peter Micciche, Co-Chair  
Senator Lyman Hoffman  
Senator Dennis Egan

**MEMBERS ABSENT**

Senator Bert Stedman

**COMMITTEE CALENDAR**

Presentation: Association Of Alaska Housing Authorities (AAHA), Rural Alaska Community Action Program (RurAL CAP), Alaska Community Development Corporation (ACDC), and Interior Weatherization, Inc. presenting their collective, statewide contributions and impact on Alaska energy issues and policy.

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

CAROL GORE, President/CEO  
Cook Inlet Housing Authority  
Anchorage, Alaska

**POSITION STATEMENT:** Commented on the Weatherization Program in Southcentral Alaska.

CRAIG MOORE, Vice President  
Planning & Development  
Tlingit-Haida Regional Housing Authority (THRHA)  
Juneau, Alaska

**POSITION STATEMENT:** Commented on the Weatherization Program impacts through the THRHA.

DAVID HARDENBERGH, Executive Director  
Rural Alaska Community Action Program (RurAL CAP)  
Anchorage, Alaska

**POSITION STATEMENT:** Commented on Alaska's Weatherization Program impacts for low income folks.

ETTA KUZAKIN, President  
Agdaagux Tribal Council  
King Cove, Alaska

**POSITION STATEMENT:** Related the Weatherization Program's impact on her family and others in rural communities around the state.

#### **ACTION NARRATIVE**

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**CO-CHAIR MICCICHE** called the Senate Special Committee on Energy meeting to order at 1:03 p.m. Co-Chair Micciche was present at the call to order.

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**CO-CHAIR MICCICHE** said the purpose of this meeting was to receive a presentation from the Association of Alaska Housing Authorities (AAHA), Rural Alaska Community Action Program (RurAL CAP), Alaska Community Development Corporation (ACDC), and Interior Weatherization, on their collective statewide contributions that impact on Alaska Energy issues and policy.

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**CAROL GORE**, President/CEO, Cook Inlet Housing Authority (CIHA), Anchorage, Alaska, said she serves most of Southcentral Alaska. It is one of the 14 regional housing authorities that are members of the AAHA. She said she represents a recipient and practitioners who understand first-hand the value of the state's investment in energy for homeowners who live across the state. Managing energy efficiency and housing costs results in safer, healthier, and more affordable housing and smart, strategic investments in energy efficient housing have an important economic impact for the state. The state's investment in energy efficient housing is critical to achieving sustainable communities.

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**CRAIG MOORE**, Vice President, Planning & Development, Tlingit-Haida Regional Housing Authority (THRHA), Juneau, Alaska, recognized two people in the audience that have a wealth of information on the Weatherization Program: Pat Shively, Executive Director of Alaska Community Development Corporation,

and the Weatherization Coordinator, Matthew Bell. Mr. Moore said he oversees the Weatherization Program at the Housing Authority as well as new construction and rehab projects.

MR. MOORE provided an overview of the state's Weatherization Program and the positive impacts it has brought to his region. THRHA serves rural communities in the Southeast Alaska Region from Yakutat to Hydaburg, he said, and few programs are as important to the well-being of the rural communities as this one is.

Since 2008, THRHA has received funding to weatherize 915 homes, and many more need this service. The average cost per unit is \$11,000 and this represents a significant infusion into the local economy. It has reduced heating costs, because many old rural homes are in the one-to-two star energy range, very inefficient, and are typically heated with fuel oil. Some are heated with wood. There is no natural gas heating in Southeast. They find that with insulating and sealing against heat loss, servicing heating systems and, in some cases, replacing failed or very inefficient heating systems with new energy efficient systems can often raise these homes to three or four star ratings.

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MR. MOORE said trained assessors use blower door tests, combustion analyzers, backdraft testing, IR cameras, fan flow measurements and their trained eyes to test and identify health hazards in the homes. They then take measures to reduce carbon monoxide, mold and mildew, poor indoor air quality and fire hazards making homes much healthier and safer.

MR. MOORE said this program has also provided much needed jobs in economically depressed communities and economic benefits to local businesses. Materials are purchased from local vendors and contractors are hired for many weatherization services; transportation companies benefit and local stores benefit from the cash infusion from wage earners. This all helps sustain the local economies.

He said Crews receive training in building science, energy efficiency which has also raised the level of knowledge about indoor air quality and health factors in the construction workforce. Workers are trained to identify and seal heat loss bypasses in attics, floors and walls, to test and repair defective heating systems and to call in heating contractors when failed systems need to be replaced. They test for adequate

ventilation and install high quality fans for good indoor air quality. These skills and knowledge are invaluable in the villages, a benefit that carries forward long into the future.

MR. MOORE said the Weatherization Program helps slow the outmigration of village families, because these jobs give young men and women a chance to earn good incomes and gain self-respect while they improve the quality of life for their elders, and it makes their homes more affordable to operate. These all affect their decisions to stay in their beloved communities and not move to the urban hubs.

MR. MOORE summarized that he sees benefits on a regular basis and he is thankful to be part of a program that so positively affects so many people.

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CO-CHAIR MICCICHE noted that he had used the program with astounding results.

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DAVID HARDENBERGH, Executive Director, Rural Alaska Community Action Program (RurAL CAP), Anchorage, Alaska, mentioned that Senator Micciche was probably talking about the Residential Rebate Program, which is also administered by AHFC, but it is a little bit different than the income eligible Weatherization Program for lower income folks.

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MR. HARDENBERGH thanked the committee for being able to review the measurable results and impacts of the Weatherization Program. He said the original concept for what has now become a national program was born here in Alaska and came out of the Community of Fort Yukon in the 1970s. Weatherization assistance provides income eligible households with energy efficiency improvements; it saves money, saves energy, keeps people healthy, extends the life of the home and creates skilled jobs. Seventy percent of the households served include a senior citizen or person with a disability and more than half of the households served include children under the age of six.

One of the factors that makes the return on investment in energy savings so compelling in Alaska is that low income Alaskans experience the highest energy burden in the country, Mr. Hardenbergh said. The energy burden for low income families in rural Alaska often exceeds 50 percent just for home heating fuel. Thus, a program that reduces the amount of fuel needed to

heat a home by 30 percent on a statewide average and more than 40 percent in much of rural Alaska can be life-changing for a low income family.

MR. HARDENBERGH said average rural families save more than \$2,300 a year on home heating fuel; statewide the average family saves \$1,300 a year after their homes have been weatherized, and the amount of savings to a family budget increases to more than \$4,000 a year in those parts of the state where both fuel prices and energy burdens are highest.

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CO-CHAIR MICCICHE asked if the program had spent \$10 million, an average of \$11,000 on 915 homes, so far.

MR. HARDENBERGH answered that the program serves Anchorage after taking it over from the Municipality about five years ago, and then along with some regional housing authorities they serve all of Western Alaska from the Y-K region all the way up through Nome and Kotzebue regions, as well as Juneau, along with the Housing Authority here.

CO-CHAIR MICCICHE asked him to consider savings per capita across the state in the future to demonstrate the value of the program.

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MR. HARDENBERGH said he had a number from AHFC which he would come to in a minute. He continued that the Weatherization Program also includes health and safety benefits ranging from smoke and carbon monoxide detectors to improve indoor air quality and the mitigation of mold and mildew problems; it improves Alaska's housing stock by adding more than 20 years to the lifespan of the average home. AHFC has calculated that the aggregate return on investment from previous years using the Weatherization Program was \$46 million this year. The economic impacts on local communities also resulted in wages paid to locally hired crews and payments made to local vendors.

He said that RurAL CAP works with dozens of local businesses in Anchorage and Juneau that provide materials and deliver services for the program. Economists at the University of Alaska Anchorage's (UAA), Institute of Social and Economic Research (ISER), found that energy efficiency programs were the most conservative and cost effective options for state energy policy, saving both energy and money, creating jobs and yielding a timely and low risk return on state dollars.

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MR. HARDENBERGH read several testimonials; a very favorable one came from an elder in Chevak where locally hired crews completed work on 107 homes last year from the more than 16,000 owners of homes weatherized since 2009.

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SENATOR HOFFMAN joined the committee.

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CO-CHAIR BISHOP joined the committee.

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MS. GORE said she is of Aleut decent and her mother was born and raised in the village of Ninilchik, one of 12 siblings who grew up in a one-bedroom home. Her great grandfather led mining and trapping expeditions at Cooper Landing; his name was Joseph Cooper.

She has worked with Cook Inlet Housing for 15 years that was making a huge difference in Mountain View where she was born and where there is a large concentration of very low income and Alaska Native people. During her time at Cook Inlet Housing she learned much about the responsibility at both the household and statewide levels connecting energy consumption, housing affordability and fiscal responsibility.

She said that Alaskan homes use more energy than homes in the Lower 48, but it is startling to know how much more. On average, Alaskan houses use nearly three times more energy per square foot than nationally. Consumption is high because of a combination of extreme climate and poor quality housing stock. Most of Alaska's housing stock is not energy efficient having been hurriedly built during the pipeline boom in the 1970-80s. Statewide, nearly 20,000 homes have an energy rating of one star, the lowest energy rating any home can have. Even in Southcentral, which has the most affordable energy in the state, residential energy costs are 50 percent greater than in cold climate regions in the Lower 48.

Across Alaska, high energy costs combined with high energy consumption have put a financial squeeze on both families and the state. Families in Interior Alaska pay on average more than \$8,000 per year in energy costs. The state also bears a fiscal burden due to the energy costs and consumption in programs like Power Cost Equalization and the Housing Assistance Program.

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MS. GORE said a very small program has had a long standing investment from the state from the late 70s called the Supplemental Housing Development Grant Program that is delivered through Alaska Housing Finance Corporation (AHFC). This program was designed to encourage the delivery of safe energy efficient housing throughout Alaska. Funds can be used for energy efficient design features and basic infrastructure. By statute, the Supplemental Housing Development Grant Program may match no more than 20 percent of development costs for any project. Historically, recipients have matched every dollar of state supplemental funding with \$5 additional and in her case, it's a 9:1 match. She said the Supplemental Housing Development Grant Program plays a critical role in ensuring that housing built and rehabilitated in rural Alaska is energy efficient.

MS. GORE said that Alaska doesn't have a statewide building energy code. However, the Supplemental Housing Development Grant Program mandates compliance with Alaska's Building Energy Efficiency Standard Program (BEES). In rural communities this both triggers energy efficiency requirements and helps to fund some of the costs of energy efficient design and construction. In turn, this reduces dependency on programs like Power Cost Equalization and the Heating Assistance Program.

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MS. GORE said there are clear examples of the impact of the Supplemental Housing Development Grant Program. The Tagiugmiullu Nunamiullu Housing Authority (TNHA), the regional housing authority based in Barrow serves Alaska's northern most communities. Recognizing the harshness of their climate, TNHA launched a Sustainable Northern Shelter Project to address the need for sustainable rural housing that uses very little energy.

Their housing model combines the time-tested method of earth banking with numerous innovative design and construction techniques. They worked with Cold Climate Research out of Fairbanks, which is also part of AHFC's structure. The resulting homes were designed to last 100 years or more and need just 18 percent of the heating fuel consumed by typical homes in the same climate. Best of all, the state's investment was just 15 percent of total costs, the remainder being funded by federal grant programs and federally guaranteed commercial loans. Sixteen of these homes are in their communities thus far.

The impacts of the Supplemental Housing Development Grant Program in rural Alaska extend beyond housing. Because the program is often used to close funding gaps and advanced developments that are otherwise infeasible, it has significant labor impacts throughout Alaska. The regional housing authorities employ more than 1,000 Alaskans and their activities support the employment of 2,250 Alaskans in total.

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MS. GORE said the impact of the Supplemental Housing Development Grant Program is not limited to rural Alaska; it is truly statewide. In Anchorage, Cook Inlet Housing Authority will soon break ground on Grass Creek North, a multi-phase development in East Anchorage that will consist of 100 apartment homes for families and seniors. Because of the relatively small investment of Supplemental Housing Development Grant Program funds of just one-tenth of the total costs, all homes in Grass Creek North will be built to new six-star energy efficient standards.

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MS. GORE said in urban and rural communities alike, the Supplemental Housing Development Grant Program helps regional housing authorities secure federal and non-state resources to develop and rehabilitate housing to energy efficient standards.

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SENATOR EGAN joined the committee meeting.

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MS. GORE said for example, in Anchorage's Mountain View neighborhood, Cook Inlet Housing Authority has facilitated approximately \$88 million in energy efficient housing redevelopment. The state's portion of that investment, excluding the debt that came from AHFC, has been just 8 percent. This redevelopment work made possible by a relatively modest state investment of state funds has stimulated economic development. Mountain View has attracted dentists, a telecommunications store, restaurants, a health clinic, a credit union and much more. The Supplemental Housing Development Grant Program is a small program that brings big things for Alaska. It helps secure non-state funding, closes development gaps, stimulates economic development and most critically it results in the production of energy efficient homes throughout the state.

CO-CHAIR BISHOP asked if Barrow homes would have the same 18 percent fuel savings.

MS. GORE answered probably not as much, but they are doing a couple of things: a new combination of two types of solar - one photo voltaic and one solo thermal - and one geothermal. They have the duty to measure the outcome and they have the Grass Creek site to measure against, which is only a five-star and not a six-star property. She would get those details to him.

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CO-CHAIR MICCICHE noted that the total savings of the program have amounted to \$46 million across Alaska for 16,000 weatherized homes.

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ETTA KUZAKIN, President, Agdaagux Tribal Council, King Cove, Alaska, related the Weatherization Program's impact on her family. She is a recipient of the program and is proud to have this opportunity to share how important it has been to her and others in communities across Alaska.

MS. KUZAKIN said she had lived in King Cove all of her life and works for the school district. She is married with three children. King Cove is located on the south side of the Alaska Peninsula, 625 miles southwest of Anchorage. It has an active federally recognized tribal government like many other Alaskan communities, an active progressive municipal government and a successful village corporation. King Cove is also home to another federally recognized tribe.

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She explained that their economy depends primarily on the year-round commercial fishing and seafood processing industries and they have a history of severe economic up and downs. Many in the community, like in most rural communities, struggle year to year to make ends meet.

MS. KUZAKIN said the Weatherization Program is "absolutely amazing" and she thought that recipients and community leaders across would say the same thing if they were able to be here today. She said 61 homes have been weatherized in King Cove since the program began. Little did they realize how such a relative small investment could have such a large impact on energy efficiency, cash savings, comfort and improved health and safety. This is a gift that keeps on giving. The average savings in diesel fuel appears to 35 percent and the \$80,000-100,000 that was previously being spent annually on diesel fuel is now available for families to spend on other critical needs.

MS. KUZAKIN said another great program's success in her region is Atka, a small very remote community near the end of the Aleutian Chain. It very carefully documented its 12-month pre and post-weatherization community fuel use for homes and realized an average of 43 percent savings, an average of \$4,100 per household. She provided a data sheet in support of these figures.

She said this program could mean the difference between a community keeping its school open or being forced to close it because of lack of students. It is hard to overestimate the importance this program or imagine a program that has a more direct significant impact on so many households in communities across the state.

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MS. KUZAKIN showed a picture of Agnes Gould, a handicapped elder from King Cove, whose home was weatherized this year. She had expressed to Ms. Kuzakin how grateful she and her family were for the reduction in utility bills, but also how much more comfortable she is, how she feels healthier and basically how her quality of life has been improved by the program. Her fuel use was cut in half by the improvements.

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MS. KUZAKIN also shared Janet Wilson's positive sentiments about the program and concluded by asking the legislature to continue the program at a level that allows the thousands of Alaskans still waiting patiently to receive the same benefits she and others have received.

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CO-CHAIR MICCICHE asked if the programs were originally funded at \$26 million and if the governor's current budget had \$6.6 million.

MS. GORE answered that was correct.

CO-CHAIR MICCICHE said the benefits are obvious.

MS. GORE commented that she knows these are tough times and tough decisions need to be made, and she wished them great wisdom.

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CO-CHAIR MICCICHE said that Alaska has a long way to go with energy efficiency and energy availability, particularly in the rural areas.

MS. GORE added that migration to urban areas is already being seen.

CO-CHAIR BISHOP agreed and noted a meeting he attended with the Department of Energy for Alaska. It was centered on rural energy and delivery using everything in the toolbox, including coal. He noted a study from a few years ago that said energy efficiency would save Alaska billions of dollars. The savings she has presented need to be replicated.

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CO-CHAIR MICCICHE said he appreciated all their comments and finding no further business to come before the committee, adjourned the Senate Special Committee on Energy meeting at 1:45 p.m.