

U.S. SENATE COMMITTEE ON  
**ENERGY &  
NATURAL RESOURCES**

SENATOR MARIA CANTWELL, *Ranking Member*



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**Opening Statement as Prepared  
Senator Maria Cantwell (D-Wash.)  
Field Hearing on Energy Innovation in Bethel, Alaska  
February 15, 2016**

“Thank you, Chairman Murkowski, for holding this oversight hearing. I’m pleased to be back in Bethel. I was here in August last time with you and we had the opportunity to hear from local leaders about challenges facing Western Alaskan communities – not the least of which is the high cost of energy.

“Alaskans are used to goods and services being more expensive than in the Lower 48 – anywhere from two to ten times more expensive. For households in rural Alaska, nearly half of total expenses sometimes go to pay energy bills.

“Nearly 90 percent of rural communities are dependent on diesel fuel for their primary energy needs. But as a result of the potential benefits of diversification, Alaska is also home to a rich variety of local and regional energy solutions driven by the unique challenges here—and I look forward to hearing about those innovations today.

“And, of course, as we talk about a lot at the Energy Committee, the cheapest electron is an electron saved. Energy efficiency is the cheapest and most available energy resource – generally costing about one-third the cost of new production. Perhaps even less here in Alaska, given the high cost of energy.

“I understand that Alaskans are masters at energy efficiency. Rural residents use half the energy of those in towns or cities because their energy costs are so high.

“I don’t need to tell anyone in this room that oil price fluctuations hurt Alaskan communities. That’s why diversification and new solutions are being deployed across Alaska to reduce the cost of energy and moderate the impact of price fluctuations.

Alaska’s harsh climate and remoteness separates the wheat from the chaff in terms of technology.

“That creates both challenges and opportunity – because Alaska innovates to make technologies more resilient to weather and maintenance requirements.



“And in terms of innovation, Alaska’s high price of electricity expands the playing field for new technologies, as it makes it cost effective to try new things.

“That’s why I applaud the State’s results-driven energy innovation programs, such as the Emerging Energy Technology Fund (EETF) and the Renewable Energy Fund to get critical financial resources to communities.

“After all, cookie-cutter solutions don’t work in Alaska with challenges like geographic isolation, limited local economies, cold-climate space heating needs, small and isolated electric grids, and others. But solutions adapted for Alaska can work in other locations where high energy prices create a barrier to economic development.

“I know many people in this room are working on harnessing what works here and exporting it to the rest of the world through programs such as the University of Alaska Fairbanks energy systems leadership program and the DOE-funded Islanded Grid Regional Resource Center which is a partnership between non-profits in Alaska and Maine.

“We heard back in July at an Energy Committee hearing about the obstacles to deployment that Alaska, Hawaii, and the U.S. Territories have with respect to reliable and affordable energy.

“New, lower-cost electric generating and transportation technologies are increasingly available, but there are typically two barriers to deployment:

- the lack of technical expertise to operate and maintain new technologies, and
- the lack the capital or credit needed to finance the transition to less-expensive fuels and equipment.

“I know we’re going to hear from Secretary Moniz about DOE’s efforts to address some of these barriers, and from Governor Walker and others about what the State of Alaska is doing. And other witnesses will give an update on what’s working and in what areas we need to do better.

“We need energy solutions developed by Alaskans for Alaskans with technical assistance from our robust network of national labs, academia, and the private sector.

“For example, the Pacific Northwest National Laboratory in Washington is pioneering smart grid control technologies that will prove useful in helping to balance energy loads with highly local generation – like solar or wind. That helps optimize the use of fuels and reduces system costs. Smart building technologies developed by PNNL are now being applied to small



commercial buildings like schools and health clinics, which can result in up to 20 percent reduction in energy consumption.

“I look forward to understanding how some of these technologies from outside the state could help advance incredibly successful in-state efforts like the Cold Climate Housing Research Center that is reducing energy use in homes by 80 percent with new building designs in Arctic communities.

“This trip comes in the middle of the Senate’s debate of our bipartisan effort to modernize national energy policy. Senator Murkowski has worked tirelessly – with me, with the Senators here today, and with many others – to pass a much-needed update to our nation’s energy policy, the first since 2007.

“If the bill becomes law, it will help to ensure that the nation continues to eliminate energy waste and to reinvest those savings in new technology and in innovation that will improve our economic competitiveness and our ability to create 21st century jobs.

“The bill promotes clean energy – including hydropower, geothermal, marine hydrokinetic, and biomass – and R&D to improve the electric grid including microgrid systems. It also expands DOE’s loan guarantee program and, for the first time, would allow DOE to lend to state energy finance entities. A potential candidate could be the state’s Emerging Energy Technology Fund.

“Importantly, these energy finance entities can then lend to smaller local projects that previously have not had access to DOE loan program funds. The bill also invests in a workforce strategy, to ensure training is available for the energy jobs of the future.

“I will continue to work with my colleagues on both sides of the aisle to direct federal resources where they’re most needed to transition the U.S. energy landscape.

“It’s our responsibility to put in place the tools remote communities can use to build viable economies. Rural communities in Alaska will continue to develop unique solutions that work for them, but they all need reliable and affordable energy.

“I look forward to continuing to promote innovation solutions for Alaska and the rest of the country and I look forward to hearing from the witnesses’ today.”

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