



City and Borough of Sitka

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Coast Guard City, USA

Senate Committee on Energy and Natural Resources
Testimony by Robert Potrzuski
Sitka, Alaska

Thank you, Senator Murkowski, for holding this hearing on an important topic for Alaska's future. I'm Robert Potrzuski, Deputy Mayor of Sitka, Alaska. I'm in town today to kick off the observances marking the 150th anniversary of the United States purchasing all of Alaska's 365 million acres from Russia, completing the westward expansion of America from "sea to shining sea."

It was 150 years ago that William H. Seward signed the treaty purchasing Alaska for about 2 cents per acre – a very good deal for America, indeed. I'm here because the transfer actually took place in October of that year in my hometown of Sitka, where the transfer officially occurred at Castle Hill, overlooking Sitka's harbor. I hope you will join us at the top of the hill this October on Alaska Day.

Over the past 150 years the federal government has played a major role in Alaska. It largely allowed Pacific Northwest interests to deplete our salmon stocks in the 1930s. It allowed industrialists to mine our minerals, and in some cases built infrastructure that supports Alaska to this day. It fueled a major military buildup during WWII and the Cold War that strengthened Alaska's economy. Given events in East Asia and the Arctic today, Alaska's strategic position may well prompt additional federal military spending in our state.

But the federal government has had a more checkered history in funding other vital infrastructure development in Alaska. The state, the equivalent of one-fifth of the lower 48 states, has too often been late to the party when federal funding was being handed out. While Alaska has received "extra" funding for years to help build a surface transportation network, it still has only .1 percent of as many road "lane" miles as the top six states with the same total acreage. While Alaska has received some "extra" help in building safe drinking water and sanitation sewer systems, there are more than 30 villages in Alaska without running water and more without flush toilets. Thankfully Sitkans have not used "honeybuckets" since the days of Russian ownership.

But I'm here today to talk solely about energy infrastructure and why federal assistance is so vital to my city, my region and throughout the entire State of Alaska.

While the lower 48, as we call it, benefitted greatly from the Rural Electrification Program, that funded electricity installations to homes and farms in the 1930s, early 40's, 50's and 60's, Alaska only entered the Union in 1959, and somewhat missed out on the aid. To offset the downturn in REA funding, two separate, but clearly not equal programs were established for Alaska. The High Energy Cost grant and loan program was created in the Rural Utility Service in the 1990s, but funding, never robust, has ebbed in recent decades and today barely provides Alaska between \$5 million and \$7 million a year.

While the federal government paid for large-scale power projects in the Lower 48: Hoover Dam, the Tennessee Valley Authority in the Southeast, the Bonneville Power Authority that bought clean, cheaper hydropower to the Pacific Northwest, Alaskans only received assistance in the late 1960s through establishment of the Alaska Power Administration, predecessor to today's Alaska Energy Authority. And it built only two projects, the Eklutna hydro project near Anchorage, that largely powered the Elmendorf AFB and the Army's Fort Richardson; and the Snettisham hydroelectric project to power the Capital of the state, Juneau. Funding for the agency disappeared after those lone projects, even though the U.S. Forest Service in a study in the late 1940s identified upwards of 200 sites, largely in Southeast Alaska, that could have provided clean renewable hydro energy to state communities. The APA was bought out by the State of Alaska, when the federal government wanted to get out of the business of providing power assistance during the Clinton Administration.

The State of Alaska during times of high oil revenues certainly has tried to replace the void left by the general federal pullout in power assistance. In the early 1980s, the state funded hundreds of millions of dollars to build hydro projects that has provided lower-cost power to many in urban Alaska, such as the Blue Lake and Green Lake projects in my City of Sitka, the Tye Lake project for Wrangell and Petersburg, the Swan Lake project for Ketchikan, the Terror Lake project for Kodiak, and the Bradley Lake project for Homer. Alaska has studied, on several occasions, the huge Susitna River-Watana hydro project to help power Southcentral Alaska. The state again early in this decade funded the Alaska Renewable Energy Fund, which has provided just over \$200 million in assistance for construction of renewable energy projects, largely wind and hydro projects in more than two dozen towns and villages.

Alaska has stepped up when it could. Between fiscal years 2011-2013, Alaska funded \$1.219 billion in energy projects, at a time when the federal government provided a total of \$21 million to Alaska projects through the Rural Utility Service's High-Cost grant and loan programs, and when the federally-funded Denali Commission energy funding, first created by Congress in the Energy Policy Act of 2005 (then authorized at \$55 million a year), had provided another roughly \$30 million.

Congress in the past – at least the Alaska Delegation -- has tried to help, especially in my region. Senator, your father Frank Murkowski, won passage of legislation in 2000 (PL. 106-511) of an authorization to provide 80% of the \$480 million cost of building an intertie transmission line throughout Southeast Alaska to allow electricity to be generated by large hydro projects and then distributed to the smaller villages in the region. That is important because while Juneau, Ketchikan, Wrangell, Petersburg and Metlakatla have benefitted from federal or state-funded hydroelectric projects, many towns in the region have not.

While Juneau residents pay about 13 cents per power, Ketchikan about 14 cents, and Sitkans used to pay 11 cents in 2014, the villages of Angoon, Hoonah and Klukwan last year were paying 59 cents, before the state Power Cost Equalization subsidy cut that cost to residential customers to “just” 36 cents per kWh. Conditions have improved in the past year because of lower diesel fuel prices for electricity generation, but still the cost is far too high to promote economic development. While Congress actually appropriated about \$60 million of the now 17-year-old intertie authorization for my region – enough to partially fund a single phase of the power line between Swan Lake and Ketchikan – and spent a bit more on engineering of a Kake to Petersburg line and some for a Ketchikan to Metlakatka line -- about \$320 million of the authorization remains on the books – likely to never be fulfilled. With the demise of federal funding, the state began to look toward biomass and other renewables to make power more accessible to the “stranded” electrical systems in the region.

Senator, I know you have tried mightily to aid. In the 2007 Energy Independence and Security Act, you created a Renewable Energy Deployment grant program to provide 50% matching grants to build all types of renewable energy in Alaska, and also geothermal energy projects in High-Cost regions of the nation. It was and still is a great idea. Unfortunately it was never backed by the White House and thus never funded by Congress. You also have worked to have all forms of hydroelectric generation considered as renewable energy that would have opened hydro projects to tax-related assistance such as the Production and Investment Tax Credit programs and the Clean Renewable Energy Bonds program (CREBS). I know you had such a provision in last year’s Energy bill. I am hopeful that such a bill will soon be resurrected and hopefully passed to provide vital financial, licensing and regulatory assistance to construction of renewable energy projects nationwide, and especially in Alaska.

Actually I’m here today to encourage this Congress to take some steps to get back into the game and to help Alaskans secure renewable energy.

Alaskans on average pay nearly the highest costs for energy in the nation, averaging nearly 21 cents per kilowatt hour, about 40% higher than the nation as a whole. But rural Alaskans: those living in small villages in Southeast, and those in western, northern and southwestern Alaska, pay the absolute highest amounts in the nation. Alaska, as I just mentioned, has a program that helps to subsidize energy costs in rural areas—the Power Cost Equalization Program. While Sitkans don’t qualify for such aid, more than 190 communities, where 83,000 people live, do.

Last year they had energy costs that averaged 57 cents per kilowatt hour – nearly six times the national average. Worse, most rural villagers, outside of Southeast Alaska, last year paid more than 60 cents per kilowatt of electricity – far too many are paying 70, 80 or even over \$1 per kilowatt hour. No wonder that studies by the University of Alaska have found that rural Alaskans often have to pay up to 49% of their disposable incomes just for energy, compared to 3 to 6% on average for residents in the Lower 48.

How can residents survive at such costs, and how can economic development, or new natural resource activities compete in the global market place given such costs? There are numerous examples of businesses that have had trouble surviving or starting in Alaska because of power costs. In nearby Hoonah, the town's café started to turn off its refrigeration units and leave the doors open at night to keep their food cold to save on power. The new mines proposed at Niblack and Bokan Mountain on Prince of Wales Island, south of Sitka, have had to deal with high energy costs in developing their mine financial plans. Seafood processing plants have had to wrestle with high electricity costs in determining how much they can pay the region's fishermen for their catch. Up north, the leading factor supposedly delaying construction of the proposed Donlin Creek gold mine is the costs involved in building a natural gas pipeline to fuel electricity for the mine. The lack of plentiful low-cost electricity has kept Alaska from cracking the industries of the 21st century, such as being the location of internet server "farms" – even though Alaska's colder climate, much like Iceland's, would be perfect for such high-tech businesses in the future.

I am here to encourage Congress and the Trump Administration not to forget the funding of renewable energy projects in development of any national infrastructure package. Sitka is a great example.

The Blue Lake hydro project, first licensed in 1958, along with the smaller Green Lake project in 1979, provided Sitka the power that its former timber mill and the town's Coast Guard Base and native boarding school needed for decades. The town recently totally financed the \$140 million expense of raising the height of the Blue Lake dam by 83 feet so it could generate another 16.9 megawatts of power or an additional 33 gigawatt hours a year. We have never received a penny of federal assistance for the project, although thankfully Alaska State government did provide grants to help lower the debt servicing on the project. It is great for the environment as hydro produces no carbon, does not contribute to ocean acidification – a leading concern of our fishermen – and is clean with no negative impacts on wildlife. That is why the Sitka Conservation Society and all environmental groups so strongly backed the Blue Lake project expansion. But Sitkans are paying heavily at the moment for the expense of this project, partially as a downturn in our economy produced a surplus in our power generation – paying roughly half of the per kilowatt hour cost towards debt associated with the Blue Lake project, for our assembly's decision to protect the environment – something we were encouraged to do by our former President.

Now Sitka has other electrical needs. We need to rebuild a 40-year old electrical substation, a project that will cost \$3.9 million. We need to rebuild the 40-year old transmission line that serves 95% of the community, another \$4 million cost. We need to overhaul the 40-year old Green Lake hydro project, another \$4.2 million expense. And we need to rebuild the 40-year-old emergency fuel-backup power systems in the event of low rainfall years – another \$2.2 million expense – all at a time when Sitkans are paying for their new hydro generation.

New federal assistance would be helpful.

But Sitka is not the only place in Alaska in need of energy aid. Just in Southeast Alaska, looking at the grant requests made to the Alaska Energy Authority last year for aid under the state's formerly better funded Renewable Energy Fund, Metlakatla is seeking \$10 million for a submarine cable to gain power from Ketchikan, or \$26 million to build a new hydro project at Triangle Lake. Kake needs \$5.7 million to build a hydro project on Gunnuk Creek. The village of Angoon needs \$12 million to build the Thayer Creek hydro project. The village of Tenakee is seeking \$5.5 million to build a hydro project on Indian River. The village of Hoonah needs \$7 million to build a hydro project on Water Supply Creek and the tiny village of Elfin Cove needs \$3.7 million for a hydro plant on Elfin Cove Creek. The National Park Service needs \$5 million for a power line to tap into the existing Falls Creek hydro project at Gustavus, which will get the park off noisy and costly diesel-fired generation. Klukwan is seeking \$9.4 million for the Walker Lake hydro project, and Yakutat needs \$8 million to build a wave marine hydrokinetic power plant. And Juneau needs aid with a geothermal-inspired heat pump based distributive heating system proposal involving construction of more hydro power, either at Sweetheart Lake or at Lake Dorothy. All of these are largely shovel-ready, sound projects – they just need some federal assistance to make them more economic to proceed.

Across Alaska, there are dozens more projects from Crater Lake hydro project in Cordova to the Old Harbor creek hydro project in Prince William Sound, from the Yerrick Creek hydro project at Tok to the Cosmo Hills hydro project at Ambler. Ignoring the “big ticket” hydro projects, the state could properly spend \$1.2 billion on renewable energy projects tomorrow – projects that would finally bring the state's electric infrastructure into the 21st Century, while promoting economic development and job recreation – all goals of our new President. Alaska today finds hydro projects providing the state with 24.9% of its total energy needs. Towns like Kodiak and Sitka are nearly totally powered by renewable energy. We need to expand that trend statewide.

The Alaska Energy Authority back in 2010 completed a statewide energy planning effort. The plan called for Alaska to improve energy efficiency and conservation by 20% by 2020, and to be dependent on renewable energy for 50% of the state's total electricity consumption by 2025. It estimated that Alaska, just in the Railbelt – the urban communities between Homer and Fairbanks – would need to spend \$7.3 billion on energy generation and distribution till 2030. And the plan projected that the rest of the non-Railbelt portions of the state will need \$5 billion in upgrades by 2030 – a nearly \$13 billion price tag. But we have to do more now, not sometime in the future.

I know a later witness, Mr. Chris Rose of the Renewable Energy Alaska Project, will talk more about the importance of renewable energy - all forms of renewable energy - and energy infrastructure spending and the need to fund sound projects. Alaska has a lot of infrastructure needs, from the Ambler mining district road to a road to Umiat to promote oil development in the National Petroleum Reserve Alaska, from access to proposed mines in Southeast, from a natural gas pipeline to bring Alaska's North Slope natural gas to tidewater, to perhaps a gas line to power electrical generation from a central power plant to energize dozens of villages in the Bethel region of Southwest Alaska with cheaper, cleaner energy.

But I'm from a town that backs hydroelectric development. For my money power is everything. To paraphrase a line from the movie Apollo 13, "Energy is everything, without electricity, nothing else matters." That is especially the case in our internet, information-powered society. And for my money the best use of funds is to build clean, renewable hydroelectric energy, not necessarily by damming streams, but by tapping mountain lakes and diverting a bit of water from streams through penstocks. Sitka's experience proves that hydro is clean, non-carbon energy that should be utilized to the greatest extent possible when it can be done without harm to wildlife or the environment. We Sitkans care about fish.

Please help Alaska – especially now that the state's oil wealth is currently ebbing. Finance construction of an electrical and energy infrastructure that will put the state on a sound footing for the decades ahead. Adding energy to a national infrastructure package and perhaps implementing the decade-old Renewable Energy Deployment grant program, would both be good steps. Thank you.