

ALASKA STATE LEGISLATURE
JOINT MEETING
SENATE RESOURCES STANDING COMMITTEE
SENATE SPECIAL COMMITTEE ON ENERGY
KODIAK ISLAND BOROUGH ASSEMBLY CHAMBERS

September 1, 2009

5:40 p.m.

MEMBERS PRESENT

SENATE RESOURCES

Senator Lesil McGuire, Co-Chair
Senator Bill Wielechowski, Co-Chair
Senator Hollis French
Senator Bert Stedman
Senator Gary Stevens
Senator Thomas Wagoner

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Lesil McGuire, Chair
Senator Lyman Hoffman
Senator Bert Stedman
Senator Bill Wielechowski

MEMBERS ABSENT

SENATE RESOURCES

Senator Charlie Huggins, Vice Chair

SENATE SPECIAL COMMITTEE ON ENERGY

Senator Albert Kookesh

OTHER LEGISLATORS PRESENT

Senator Johnny Ellis
Senator Joe Thomas

COMMITTEE CALENDAR

State Energy Plan

PREVIOUS COMMITTEE ACTION

No Previous Action to Report

WITNESS REGISTER

JEROME SELBY, Mayor
Kodiak Island Borough

POSITION STATEMENT: Commented on Kodiak Island Borough energy issues.

CAROLYN FLOYD, Mayor
City of Kodiak

POSITION STATEMENT: Commented on Kodiak energy issues.

MAGGIE WALL, representing herself
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

ELAINE O'BRIEN, representing herself
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

DONNA JONES
Sustainable Kodiak
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

ROD MURDOCK
Alpha Appliance
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

DARRON SCOTT
Kodiak Electric Association
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

STEVEN TAUFEN, representing himself
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

BOB BRODIE, representing himself
Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

THERESA PETERSON, Outreach Coordinator
Alaska Marine Conservation Council

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

JUDY FULP, representing herself

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

ROLAN RUOSS, small business owner

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

SWITGARD DUESTERLOH, small business owner

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy and ocean acidification issues.

STOSH ANDERSON, representing himself

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

PAT HOLMES, representing himself

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

JOANN GOYNE, representing herself,

Kodiak, AK

POSITION STATEMENT: Commented on Kodiak energy issues.

LAURIE MURDOCK, representing herself

Kodiak, AK

POSITION STATEMENT: Her philosophy is, "Burn calories, not fossils."

ACTION NARRATIVE

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State Energy Plan

CO-CHAIR BILL WIELECHOWSKI called the joint meeting of the Senate Resources Standing Committee and the Senate Special Committee on Energy to order at 5:40 p.m. Present at the call to order were Senators McGuire, Stevens, and Wielechowski.

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CO-CHAIR WIELECHOWSKI recounted that their flight was late this morning, but they toured Kodiak Electric Association and the wind farm, as well as Alaska Aerospace. "The hospitality has

been fantastic." The purpose of their visit, he said, is to hear from the people of Kodiak about their ideas for a statewide energy plan.

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JEROME SELBY, Mayor, Kodiak Island Borough, said that Kodiak uses a combination of hydro, wind and diesel and he hoped that villages like Ouzinkie could benefit from the same kind of combination. One more other type of energy might be beneficial and that is tidal generation, which is being researched. Kodiak has a 5-6 knot current, and one would think serious energy could be generated from that. A lot of coastal Alaska shares that resource.

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MAYOR SELBY said that they have a lot of things going on, but they do need some help with retrofitting public facilities with updated equipment. Kodiak has a 40-year old high school that has boilers that are 40 years old as well. Coming up with money for these projects is daunting, but that would be another piece of improving energy use in the state of Alaska.

Senators Wagoner Hoffman, Stedman and Thomas joined the meeting.

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CAROLYN FLOYD, Mayor, City of Kodiak, said she hadn't prepared remarks, but she hoped they were looking at ways to decrease the cost of energy in the communities. They have partial wind power on Pillar Mountain, and if tidal could be perfected in the future, that would be another source of energy they could really use. Whatever the project is, though, it requires money. "So, show us the money, okay?"

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MAGGIE WALL, representing herself, said she does a radio show about the legislature called the LegHead Report, and she thanked them for coming to Kodiak and all the other communities around the state. She said she was always struck by how willing legislators are to hear what people have to say. She always encourages people to learn how it works and to participate in the legislative process.

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ELAINE O'BRIEN, representing herself, said she is "Lanie Welch" on the radio. She urged them to reconsider the Chuitna coal strip mine in upper Cook Inlet. It is a project by Pack Cole, a Delaware corporation that would take 1 billion tons of coal from

this area and over 22 square miles of fish habitat. While, she said she wasn't going to stress the 12-mile long partially enclosed conveyor belt from the mine that will transport the coal onto massive two-mile long docks that will jut into Cook Inlet into cape-class vessels that will then go by Kodiak, she was going to point out that this mine could set a precedent for taking traditional salmon set net sites by eminent domain.

She wanted mostly to emphasize that every bit of this coal - coal is the largest source of green house gases in the world - is going to Asia where it will all be burned and come back in the form of CO₂, which will be dumped into the Pacific Ocean. The chemistry doesn't lie, she said, the cold waters of the Bering Sea and the Pacific are already showing the signs of ocean acidification. So, Cook Inlet would get this methyl mercury trade off back for this strip coal mine.

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Secondly, she urged them to look into the possibilities posed by a really exciting technology called algae bio fuels. A Cape Cod project on cold water algae is finding that like anyone else in the cold, they retain the fat and produce more oil. Exxon has reportedly invested \$600 million in bio fuels using cold water algae.

She has learned that algae can be turned into bio fuel in just three weeks compared to six months for vegetable oils. Algae bio diesel also has a composition that is almost identical to petroleum diesel, but it is more efficient and produces lower emissions. These facilities could be operated in the remotest regions of Alaska.

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Thirdly, she said she belonged to the right-to-dry movement in which people use clotheslines for drying clothes for half the year. Adopting this concept could save 3.3 percent of the U.S. CO₂ output. She brought this up because since the 1970s development restrictions have banned clotheslines in most of the U.S. According to Project Laundry List, 60 million people live in 300,000 association-governed communities nationwide, most of which restrict outward drying. Condominium and home owner groups say they have the right to ban practices that drag down property values, and clotheslines top the list.

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MS. O'BRIEN had pamphlets on turning fish byproducts into other products - to everything from high heel shoes to salmon bikinis.

In Kodiak they are turning it into fish meal and oils, and actually using some of the fuel to fire their reduction plant, another energy conscious thing they are doing.

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SENATOR STEVENS asked her concerns about the effects of the coal mine on the fisheries.

MS. O'BRIEN said she sees the difficulties people in Seward have with their coal dust problem. If you are talking about a 12-mile long partially-covered conveyor belt, and Pac Rim says they are going to spray the coal with water to keep the dust down - "Well, it could be frozen in October." She worries about the impacts of smothering coal dust on streams, not just for fish, but for all living creatures. Why go for this known culprit of global warming causation when Cook Inlet has so many other energy resources to look at - like the tides, wind and geothermal.

SENATOR WAGONER remarked that Cook Inlet doesn't have the biggest tides in world; they are third or fourth. Going back to her statement about exporting coal into China, he asked if she realized this is one of the lower-sulphur coals; so every ton of it put into that market would displace high sulfur content coal. Would that make a difference in her opinion?

MS. O'BRIEN answered no difference whatsoever.

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DONNA JONES, Sustainable Kodiak, said this organization is a loose coalition of a whole lot of different community groups and individuals from all kinds of interests. If you want to increase energy, it's a no-brainer to conserve first. { She also supported expanding the current energy rebate program for homes by extending it to nonprofits, schools and other public buildings, businesses and apartment buildings that are a major source of inefficient energy use.

She also suggested mandating higher efficiency standards in residential and commercial construction; and state and borough buildings should be built to efficient green building standards. A lot of work has been done in this area, for one thing and buildings are not only efficient, but pretty, too. Super insulation is good, especially for remote villages instead of flying in oil.

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She suggested doing a state matching fund for the upcoming federal appliance rebate program and a small rebate program for people who can't do their whole house at once - for things like LED light bulbs, weatherization materials and insulation products.

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MS. JONES strongly urged protecting small Alaskan farm and ranch lands from development. Once this land is developed, it's almost impossible to get it back. Alaska is at the end of the supply chain in the U.S., and we need to keep this food growing farm land available now and later for local food production. This is important because as oil becomes scarcer and more expensive, the price of shipping is going to sky-rocket for food.

She encouraged walk-able mixed-use neighborhoods that establish things like trails. Rich Seifert from UAF, "the energy guy," suggested looking at using some of the Permanent Fund money to make permanent energy changes in the state.

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ROD MURDOCK, Alpha Appliance, Kodiak, said over the last two-year period he has been able to cut heating costs in half by using an air source heat pump. Others have done the same. He would be putting in a test heat pump in one of the Kodiak Electric Association's buildings in the next week or two. Off the shelf instruments and gadgets that make energy more efficient can be easily found especially on the Internet. Many of them don't have any emissions and don't use a drop of oil.

CO-CHAIR WIELECHOWSKI asked how much a heat pump costs to install in an average house.

MR. MURDOCK replied for a 1,500 ft. house it would be cheaper to install than oil-driven heat equipment.

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DARRON SCOTT, Kodiak Electric Association, thanked them for looking at their wind farm on Pillar Mountain. The only other point he wanted to share today is if they are inclined to fund future renewable energy projects. He said they were recipients of \$4 million grant through renewable energy funds, which helped this project be very successful. But there could potentially be other ways to administer that money and one idea is that production incentives could be used instead of direct grants.

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STEVEN TAUFEN, representing himself, related that he and a partner tried to develop Adak Power and Electric years ago. The whole situation in Adak was very instructive about how the state failed to insure that the public-serving assets promised under base realignment and closure flowed through to the public. That ended up having severe effects on the cost of electricity and the cost of fuel to fishing fleets.

It was also instructive about how a Native Corporation usurped those powers and was price gouging on fuel - not charging itself for electricity while overcharging the fishing fleet. All these things got seriously in the way of development in Adak. Adak remains troubled to this day and has new lawsuits. He believes that the Knowles agreement still stands, and the state is still obligated to make sure the public servicing assets that were under the Navy go through and serve the public to this day.

He explained, that at that time it was their conceptualization that 25-million gallon fuel tanks that served the Navy as a fuel station could have been used to serve Western Alaska, the Aleutian Island, Bristol Bay, and the AYK region, because (as discussed with the Alaska Village Electrical Cooperative (AVEC), it was possible with that volume to do more upfront engineering and collective buying and supplying - especially at the right times on the world market.

MR. TAUFEN said what really was instructive about Adak is that emergency declarations were ignored and the RCA had difficulties policing "that place." Only when they got a stronger magistrate did things begin to change.

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They need to consider that Native companies fuel operations and intend to make profits on them, but those advantages can have detrimental effects on fleets and villages as is believed to be happening in the Gulf of Alaska.

MR. TAUFEN said the topic he is best known for is abusive transfer pricing, the means by which global corporations transfer values through their products among their affiliates around the world "to cheat the United States out of the economic benefits and the taxes." This has sorely harmed the State of Alaska both in timber and fisheries.

So when he hears Ms. Welch and others express their concerns for coal and when he hears about issues like the Pebble Mine, he thinks they have to keep in mind that Alaska, for all of its

resource dependency, does not have a state resource sovereignty commission, unlike several other states and commonwealths.

He said that he had talked to a few legislators about forming a resource accountability and transparency board, so they know the true value of our exploited resources in world markets. Since then he has advance to the idea of the commission. Underneath such a commission they could have individualized resource accountability and transparency boards. He estimated that the state loses about \$2 billion/yr. because of its failure to know those true values and police them properly. Alaska needs to get at least an adequate severance for its resources as laid out in the Alaska Constitution.

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BOB BRODIE, representing himself, said the Alaska Housing Energy Program was a huge success. It saved many consumers many thousands of dollars on their future energy costs. He supported expanding that program, if the funding was available, to apartment buildings, as well - starting with 4-plexes. Many people who work in marginal jobs rent, and their rents are tied to the cost of oil when it goes up.

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SENATOR HOFFMAN said one of the discussion points they had when they put the energy efficiency program together was to see that direct benefits went to individuals, and while they knew expanding the program to apartments would save energy money, how could the state justify benefiting businesses rather than individuals. How would that savings be passed on to the individuals versus to the people running the businesses?

MR. BRODIE replied that it would have to be thought out, but there should be a way to do it.

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THERESA PETERSON, Outreach Coordinator, Alaska Marine Conservation Council, said it is a community based organization made up of fishermen, subsistence harvesters, and coastal Alaskans who rely directly and indirectly upon the ocean. She said seeing the wind turbines spinning on a mountain on a remote island in the North Pacific clearly illustrates the future for energy in Alaska. "If we can do it here, it can be done in many areas." She said as leaders, they should keep networking to find such solutions.

Kodiak has a number of individuals taking an enormous initiative to reduce their energy usage. Fishermen are re-outfitting their boats with more fuel efficient engines, and a number are just running at lower rpms to decrease fuel consumption. She has just returned from summer set net fishing at the southern end of the Island where many of the camps have solar panels, wind generators and water turbines at work - just small scale renewable energy sources. "Who'd 'a thought Kodiak would be so progressive?"

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She urged them to continue to enact legislation that will encourage conservation, innovation and getting away from fossil fuels. Ocean acidification makes conservation and alternative energies even more urgent. "The time to act is now." She thought the state should start to forego new industrial developments that pose substantial risks to the resource base everyone depends on; this would include the proposed lease sales in Bristol Bay that is far too rich with the world's largest salmon run, crab and halibut, cod and groundfish fisheries.

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JUDY FULP, representing herself, said she sits on the Kodiak Borough Assembly, and grew up in Kodiak and Seward. She really appreciated their coming to Kodiak and the support they gave to the energy assistance program. Besides oil development, fishing and tourism, this is the most important thing Alaska can do at this stage. She said energy is at the top of her husband's list, too. As a state, he thinks we are positioned for the future because we have the long coastline with wave and wind action.

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ROLAN RUOSS, small business owner, said he has an Air taxi in Kodiak and saw the run up in fuel prices like the fishing fleet. Energy efficient homes are a good idea, and he thought it might be worth exploring spending Permanent Fund money on a North Pole refinery. With the Matanuska Dairy in mind, he thought it might at least be worth exploring the risk in the committee.

CO-CHAIR WIELECHOWSKI said the committee had presentations on that issue; and there were many different opinions on it.

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SWITGARD DUESTERLOH, small business owner, said she is a fishery scientist and has become interested in ocean acidification. She is researching the topic and working with the Kodiak School

District on getting young people into the sciences especially with the upcoming ocean acidification and climate change.

MS. DEUSTERLOH said she believes ocean acidification has come to us because of the increase of CO₂ in the atmosphere caused by the extensive use of fossil fuels. Comparing America per capita to any other industrialized nation with the same standard of living, we use a much larger proportion of fossil fuels. Why is that the case? That is where we need to start with an energy policy - no waste of energy, but it doesn't have to mean a lower standard of living.

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Alaska has a lot of scattered, small communities and has problems with getting things and energy to these communities. Localized projects are needed on a community basis, not just big projects, she stated, and we need to get away from digging up fossil fuels that haven't been used yet. The whole problem of increased CO₂ in the atmosphere comes from us digging up fossil fuels that have been deposited for a long time by nature that were not meant to be in the cycle. If we use something like bio fuels, that is not a new addition to the CO₂ in the cycle. It won't do anything in the short term to reduce CO₂, but it won't increase the world's budget of CO₂ in the long term either.

MS. DEUSTERLOH said a new technology turns old plastic into diesel fuel, for instance, and those kinds of solutions need to be found and applied in our state.

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STOSH ANDERSON, representing himself, said he is a commercial fisherman and is also on the board of Kodiak Energy Association. He said that it's important that the energy plan relates to all components of the local small communities. The plan needs to be very flexible and it will ultimately guide funding. Legislator's job is to allocate the funding; and it's the people's job to ask for it.

He agreed with Mr. Scott that funding should be performance based, so the state isn't funding boondoggles. A majority of utilities in the state are non-grid utilities and renewables are very capital intensive. Without a constant output, they don't contribute any capacity to the utility system. He reminded them that utilities need 100 percent backup and failures have to be allowed for. It takes a lot of money to put good systems in place that include peak demand and emergency backup.

Even though hydro is the backbone of their system and they have three wind turbines, which are very symbolic of what Kodiak is doing, they still need to have 125 percent of diesel generation capability in case the power lines go down or whatever.

He thought more electricity would be used for space heating and running vehicles in the future, and that is very appropriate for Kodiak as well as other communities in Alaska. He perceived that with improvements in battery technology, more and more electric vehicles would be seen in this state. But, because of this, the utilities will have an increased demand, and that means capital investments of 225 percent for every kilowatt they are adding to the system. They will need a lot of help in financing and guidance on how to reach those goals.

MR. ANDERSON emphasized that they need to honestly address what is happening with ocean acidification; it's a reality, not just a pipedream. "It's going to cripple our communities if we don't consistently work at reducing our input on the carbon side, but also finding ways to reduce the ocean acidification after it's in the water." These technologies need to be developed as time goes on.

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SENATOR STEVENS said he appreciates all Mr. Anderson has said and done, and he is proud to show these folks what the people in Kodiak have taken a chance on doing. "It's pretty remarkable." In the end, they know that hydro will be cheaper than electricity generated by wind - by about half. So, he asked him to talk briefly about the expansion of the Terror Lake project, which he thought was almost more exciting than the wind project.

MR. ANDERSON said the hydro facility is the backbone of their utilities. Other water sources are available that could feed the watershed to Terror Lake, but it would be very capital intensive to bore tunnels through mountains. Their average peak loads are currently 23-25 mgW; Terror Lake currently can put out 20 mgW. So whenever the processes are at full capacity they have to run diesel generation. The wind plants can be going, but they don't have any capacity to add to the system. To make the system work ultimately and to reduce the carbon footprint, they need to put another turbine in Terror Lake, which wouldn't make sense because there isn't enough water to run three turbines year-round, if renewables weren't contributing to the system at the same time. So, Terror Lake can be used as a long-term energy storage device. A third turbine would cost \$15 million.

Four or five smaller projects are being looked at, he said, and permits are available to expand the wind farm, but until they have experience with integrating it with their system, it is not prudent to spend money on them. If they ever harness tidal energy, Terror Lake will be the key, because that will be the storage device. Tides are cyclical, so when they aren't running is when Terror Lake would pick up the slack. Federally, he said, hydro projects are not considered renewable, especially new ones. So, it would really help them if they could get renewable energy funding to add to Terror Lake.

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CO-CHAIR WIELECHOWSKI remarked that they passed a resolution urging the federal government to classify Alaska hydro as renewable; now they have to see what happens.

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PAT HOLMES, representing himself, agreed with all of the speakers so far. He asked them to remember that the Bush is an integral part of the state; the folks that live there are "darn special." He supported renewing energy assistance funds. It took him seven months to get an audit here in Kodiak; probably half of the town hasn't been able to get one. It's even more difficult to get an audit in the villages. He supported Mayor Selby's comments on the school and public building retrofits; the school is cinder block and it will need some help in the remodel, for sure.

He said that people in Atka were paying 45 cents kWh before the cost of fuel went up. "It's just incredible what people have to pay in the rural areas." Town has a lot of things that are advantageous, but addressing the whole state - balancing rural and urban areas is a tough job.

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JOANN GOYNE, representing herself, agreed that the energy efficiency program has been quite successful and she also thought it should be expanded to address apartment complexes and commercial buildings. They could let the professional organizations that manage these properties use their expertise in putting together a partnership with the state to the effect that if they make structures energy efficient that the rebate will go back to the tenants. She saw this work successfully in California when Proposition 13 passed in the 1970s.

[6:52:32 PM](#)

LAURIE MURDOCK, representing herself, said her philosophy is, "Burn calories, not fossils." She rides her bicycle to work three days a week even though their roads are not very bike-friendly.

Encourage people to not drive cars, she urged, by developing mass transit. Having electric cars would be a great way to get around their town. She is a member of the Solid Waste Advisory Board for the Kodiak Island Borough and, while she is not here in that capacity, she is here to encourage coastal communities in Alaska to begin recycling programs. Perhaps a coastal recycling plan could work at reducing emissions and waste going into landfills.

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CO-CHAIR WIELECHOWSKI thanked everyone for testifying and adjourned the meeting at 6:56 p.m.