

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

February 3, 2015

10:17 a.m.

MEMBERS PRESENT

Representative Jim Colver, Co-Chair
Representative Liz Vazquez, Co-Chair
Representative Benjamin Nageak
Representative David Talerico
Representative Cathy Tilton
Representative Matt Claman
Representative Adam Wool

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION: INSTITUTE OF THE NORTH

- HEARD

HOUSE JOINT RESOLUTION NO. 8

Urging the federal government to empower the state to protect the state's access to affordable and reliable electrical generation.

- HEARD & HELD

PREVIOUS COMMITTEE ACTION

BILL: HJR 8

SHORT TITLE: FEDS ALLOW STATE TO MAKE ENERGY CHOICES

SPONSOR(S): REPRESENTATIVE(S) TALERICO

01/23/15	(H)	READ THE FIRST TIME - REFERRALS
01/23/15	(H)	ENE, RES
02/03/15	(H)	ENE AT 10:15 AM CAPITOL 17

WITNESS REGISTER

NILS ANDREASSEN, Executive Director
Institute of the North
Anchorage, Alaska

POSITION STATEMENT: Provided a PowerPoint presentation on various Institute of the North activities, including the 2013 Arctic Energy Summit.

JOSHUA BANKS, Staff
Representative Dave Talerico
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Introduced HJR 8 on behalf of Representative Talerico, prime sponsor.

ACTION NARRATIVE

[10:17:08 AM](#)

CO-CHAIR JIM COLVER called the House Special Committee on Energy meeting to order at 10:17 a.m. Representatives Talerico, Tilton, Claman, Wool, Vazquez, and Colver were present at the call to order. Representative Nageak arrived as the meeting was in progress.

PRESENTATION: INSTITUTE OF THE NORTH

[10:18:37 AM](#)

CO-CHAIR COLVER announced that the first order of business would be a presentation by Nils Andreassen, Executive Director, Institute of the North.

[10:18:40 AM](#)

NILS ANDREASSEN, Executive Director, Institute of the North, began his presentation with a review of Arctic energy issues derived from policy tours and energy summits hosted by Institute of the North ("Institute"). Mr. Andreassen informed the committee the Institute is the center for Alaska's Arctic policy. The Institute's vision is: Effective land and resource governance resulting in individual and collective prosperity - a vision that began with founder former Governor Hickel's belief in Alaska as an owner-state. The Institute's mission is: To inform public policy and cultivate an engaged citizenry - which is focused on understanding and conveying the opportunities and obligations of the Arctic. To accomplish its mission, the Institute convenes different groups in forums that include the public sector, industry, the private sector, and community leaders. He said fundamental challenges facing Alaska and Alaska's Arctic are declining oil production and price,

infrastructure deficit, increasing changes and activity, state and national fiscal constraints, and increasing international and national attention, with a "huge disconnect between local concerns, state concerns, and national attitude." Mr. Andreassen reviewed four fundamental lessons for Alaska from Iceland:

- Choose competitive resources on which to focus.
- Spend time to develop a comprehensive plan on how to develop the chosen resources.
- State or national government must own the power grid infrastructure and allow communities to develop the resource.
- Export value-added product so that the main industry is energy intensive.

MR. ANDREASSEN presented a different model from Norway:

- Export non-renewable resources - oil and gas - and develop renewables for domestic use.
- Co-invest in production and infrastructure sharing risk and reward.
- Build regulatory capacity for effective and efficient development of resources.

[10:24:21 AM](#)

MR. ANDREASSEN presented a chart entitled, "Iceland and Alaska by the Numbers" which illustrated significant differences in population and geography (slide 4]. He pointed out that installed electricity generation capacity for both entities is similar, but power consumption is much higher in Iceland. He concluded that Iceland has successfully focused on one or two sources in its energy portfolio, and Alaska can do so with natural gas. The energy mix in Iceland is 80 percent of its primary energy supply from renewables for electricity production and heating, and 20 percent from imported fossil fuels for transportation and fisheries; Iceland continues to transition away from fossil fuels. In 2010, Iceland's electricity profile indicated 73 percent of electricity supports the aluminum industry; raw materials are imported and aluminum is smelted and exported. Hydropower provides electricity at \$0.02-\$0.03 per kilowatt hour (kWh) which attracts industry to Iceland; the Karahnjukar Hydropower Plant is similar to size and design of the proposed Susitna-Watana Hydro project in Alaska. The Fjardaal Aluminum Smelter is connected to the hydropower plant

thus connecting the energy resource to industry, and excess power is returned to the electrical grid. Energy intensive industries total one-quarter of Iceland's exports; another one-quarter is fisheries, and another one-quarter is tourism.

[10:29:27 AM](#)

MR. ANDREASSEN returned attention to comprehensive planning, and explained that Iceland's municipalities and local utilities drove the process to transition from imported fossil fuels to renewables. As an aside, he related that consumers reduced their energy costs by twelvefold. Value-added industry that is supported by low-cost geothermal and hydropower ranges from fish to aquaculture to biomedical products. Iceland's master plan for the utilization of renewable energy resources was developed by its university in partnership with the government, and evaluated 80 possibilities for hydropower and geothermal power plants. He further described the evaluation process and the categorization of Iceland's energy resources, and opined that the plan is a fundamental approach to energy resources beyond policy (slide 10 entitled, "Iceland Energy Planning"). Iceland has a circumferential electric transmission grid which serves almost all of its communities with electricity at a cost of \$0.08-\$0.11 per kWh. Originally developed by the private sector, the government "took it over" and guarantees power to its residents. He said guaranteed access to the transmission system allows competition to occur.

[10:34:19 AM](#)

MR. ANDREASSEN concluded that the lessons for Alaska from Iceland are:

- Fiscal prudence.
- A careful approach to projects.
- The government is a guarantor and not a financier of projects.
- Long-term decision-making on infrastructure and a willingness of the society to sacrifice for future prosperity.
- Strategic planning on an intentional and expert level.
- Export expertise.
- Straightforward economic development strategy with diversification and cluster development.
- A master plan for energy development provides clarity to limit delay and litigation.

MR. ANDREASSEN then provided a snapshot of Norway in 2010. He acknowledged that Norway differs from Alaska in that its population is larger and residents have a higher income, a lower rate of unemployment, and a very different social contract with their government. In addition, the nation has a very high level of taxation and a different method of delivering services; however, Alaska can evaluate some of Norway's processes, and he listed the following factors of Norway's licensing system:

- Selects tracts to license for a six-year initial term after extensive consultations with stakeholders.
- Conducts initial seismic and publishes the results.
- Instead of bonus bid and royalty, industry submits an application consisting of a work plan, financials, and safety record.
- Licenses are awarded by the Norwegian Petroleum Directorate (NPD) to an applicant or group of applicants who can extract the most value; licenses include a six year "drill or drop" provision.
- All approvals are included in the license.
- Licenses may include Petoro, the state-owned investment company that contributes upfront capital and participates as a partner.
- Private industry and Petoro are part of the decision process.

[10:41:44 AM](#)

MR. ANDREASSEN further explained that through the state's direct financial interest (SDFI), the Norwegian government participates directly with private industry in the development of resources. As part of its active role, the state substitutes definitive work and investment commitments, and active participation, instead of a passive, royalty role. He stressed that SDFI creates alignment of interests between the state and the producers, who gain certainty, stability, co-investment, and a guaranteed rate of return. The state gains an understanding of the investment, access to data, and an understanding of "oil and gas process." In fact, Norway transitioned away from a bonus and royalty system because that system impaired investment decisions. He suggested that SDFI could be added in Alaska as an option in new leases with the creation of an organization - similar to the Alaska Permanent Fund Corporation - to administer the state's interests. Mr. Andreassen reviewed Norway's investment incentives to development: reduced risk; reduced

upfront costs; shared risk and co-investment through SDFI; alignment between industry and the state; predictability; quick permitting; and tax stability. He continued that the above lessons from Norway are important for Alaska's domestic energy and its general approach to energy resources. Conclusions from the Norway tour are as follows:

- NPD serves the purpose of the Department of Natural Resources (DNR) and the Alaska Energy Authority (AEA), Department of Commerce, Community & Economic Development (DCCED), and carries the public's interest.
- Oil and gas for export; develop renewables for domestic energy consumption.
- Government take maximized through state-owned enterprise and investment in infrastructure.
- Stability plus returns result in private sector confidence.
- Postage stamp rate for domestic power greater connectivity.

MR. ANDREASSEN opined a lesson learned by the Institute's research throughout the Arctic nations is that some governments have effective criteria and the ability to judge a project based on specific merits. This is an area that could be explored by the committee to develop a plan to move from the state's current energy policy to an implementation plan, and then develop a system to track projects and expenditures. The goal would be to improve Alaska's ability to use criteria, strategy, and system to make decisions and prioritize projects, especially in an environment of fiscal constraints. This would be accomplished in concert with state agencies.

[10:49:45 AM](#)

MR. ANDREASSEN then presented the following recommendations:

- Consolidate oversight.
- Oversee projects to ensure state return on investment and benefits.
- Standing committees of the House Special Committee on Energy and the Senate Special Committee on Energy.
- Evaluate energy projects with a focus on basic infrastructure.
- Encourage better outreach and communication from state agencies.
- Encourage and support private investment.
- Leverage state resources for infrastructure.

- Implement energy strategy as a key element of fiscal policy.

MR. ANDREASSEN turned attention to the 2013 Arctic Energy Summit - hosted by the Institute - which presented the themes of richness, responsibility, and resilience. The summit took a cross-sectorial approach, with the understanding that the private sector will lead energy development, public entities will respond, regulate, and manage activity, and both will utilize academia and non-governmental organizations to advance projects. Richness is defined as renewables, non-renewables, and efficiency and conservation. Responsibility is a commitment from all eight Arctic nations to risk mitigation and response ability. Resilience is the ability to respond and adapt to change; implementing responsibility in energy development now will strengthen resilience. From the summit, the following research and projects were proposed:

- Grid connectivity research.
- Measurements of government support from all Arctic nations.
- How communities are benefitting from energy development.
- Effective policies for the development of renewable energy.
- Financial vehicles to support energy development.
- Guides to northern energy efficiency and conservation.

MR. ANDREASSEN informed the committee that the Institute will be hosting the 2015 Arctic Energy Summit in Fairbanks, 9/28-30/15. The themes will be "Energy Contributing to a Lasting Future," "Security," and "Affordability." Outcomes will be reported to the Arctic Council's Sustainable Development Working Group. He encouraged members to participate in the summit.

[10:56:21 AM](#)

CO-CHAIR COLVER suggested the committee may want to hold a hearing during the summit.

REPRESENTATIVE NAGEAK asked where in Alaska a real project could be researched.

MR. ANDREASSEN advised the Alaska Center for Energy and Power (ACEP) has the ability to research and test projects "on the ground" and garner an understanding of costs and benefits.

REPRESENTATIVE NAGEAK recommended that the committee contact ACEP.

CO-CHAIR COLVER clarified that the committee could consider contacting ACEP regarding the implementation of the recommendations.

REPRESENTATIVE WOOL asked about the ownership of the grid in Norway.

MR. ANDREASSEN was unsure and offered to provide an answer. In further response to Representative Wool, he said the government of Norway strives for a 100 percent return on the state's resources, but that is unacceptable to industry; factors in garnering the state's rate of return are a 78 percent tax and co-investment.

REPRESENTATIVE WOOL asked whether Norway's oil and gas production is comparable to that of Alaska.

MR. ANDREASSEN said he was unsure of the current rate of production and offered to provide that information.

CO-CHAIR COLVER expressed his understanding that only one environmental challenge is allowed on a Norway project.

MR. ANDREASSEN explained that Norway minimizes delay by conducting negotiations prior to licensing, and then allows one subsequent lawsuit.

[11:01:40 AM](#)

The committee took an at ease from 11:01 a.m. to 11:02 a.m.

HJR 8-FEDS ALLOW STATE TO MAKE ENERGY CHOICES

[11:02:04 AM](#)

CO-CHAIR COLVER announced that the next order of business would be HOUSE JOINT RESOLUTION NO. 8, Urging the federal government to empower the state to protect the state's access to affordable and reliable electrical generation.

[11:03:19 AM](#)

JOSHUA BANKS, Staff, Representative Dave Talerico, Alaska State Legislature, introduced HJR 8 on behalf of Representative Talerico, sponsor. Mr. Banks explained that the U.S.

Environmental Protection Agency (EPA) Clean Power Plan applies to all fossil fuel power plant generation - including coal, gas, oil, and naphtha - by plants that produce power in excess of 25 megawatts (MW), with the exception of power plants at military bases in Alaska and at the University of Alaska (UA). Although well-intentioned, the plan would likely lead to much higher electricity costs as indicated by a study [entitled, "Energy Market Impacts of Recent Federal Regulations on the Electric Power Sector," and dated 11/14] provided within the committee packet. He said the study states that nationwide there could be an increase in electrical costs as high as 37 percent. The Clean Power Plan is based on inaccurate assumptions; for instance, that the largest source of carbon emissions in Alaska is from power plants. In fact, power plants in Alaska account for about 25 percent of carbon emissions. The remaining 75 percent of stationary source carbon in Alaska is from operations on the North Slope. Another assumption is that lower cost natural gas and renewable energy sources are available; however, in the near-term these sources are not available in the Interior. In fact, even if natural gas were available in Fairbanks, the current projected cost is \$20.00 per million Btu (MMBTU). The final purpose of HJR 8 would be to protect Alaska's sovereignty. The Tenth Amendment to the U.S. Constitution states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." Mr. Bates opined the powers of Congress or the executive branch do not include the power to regulate carbon emissions in America. Therefore, this is the states' responsibility. He expressed his belief that the State of Alaska has the means to make effective decisions to deal with the problems of climate change, and to do so without hurting Alaskans. The resolution urges the federal government to leave decisions in regulating energy production at the state and local level in order to protect access to affordable and reliable electrical generation. Mr. Banks said he expected some changes would be made to HJR 8 as it was currently written.

[11:07:25 AM](#)

REPRESENTATIVE NAGEAK directed attention to the bill on page 1, lines 9-10, which read:

WHEREAS the Regulatory Commission of Alaska should be empowered to make decisions with methodology based on the lowest production costs for electrical generation;

REPRESENTATIVE NAGEAK asked whether the rationale of the resolution was to get more coal generation.

11:08:14 AM

REPRESENTATIVE TALERICO was unsure about the intent to generate more coal-fired power, but the intent was to maintain what is in production at this time. In the Interior, the most affordable power is from coal. Although power production is available from other areas of the state, the "bottleneck" is the lack of transmission lines at the electrical intertie. He recalled the committee's previous discussion of "pancake" rate tariffs. Currently in the Interior, coal-fired power costs 4.9 cents per kilowatt hour (kWh), and hydroelectric (hydro) power costs 5.8 cents per kWh due to the pancake tariff rates. Representative Talerico said his concern was for the cost to customers in Fairbanks which is then passed along to surrounding remote communities.

REPRESENTATIVE NAGEAK referred to testimony last year that the cost of power generation in rural Alaska could be reduced by the use of microgrids to connect nearby communities. He suggested considering the idea proposed by the Alaska Village Electric Cooperative, Incorporated (AVEC). He then asked for an explanation of the benefits of placing a 1.5 percent cap on electricity rate increases.

REPRESENTATIVE TALERICO said the issue of a cap was being discussed with state agencies, the Regulatory Commission of Alaska (RCA), and the utilities. He said he asked the co-chairs to hold the resolution in order to gather more information and create a better document; furthermore, various agencies would be bringing recommendations to the bill sponsors.

REPRESENTATIVE NAGEAK directed attention to page 1, lines 14-15 which read:

WHEREAS utilities, communities, residents, and commercial entities should be protected from any attempts to close a coal-fired power plant in the state; and

REPRESENTATIVE NAGEAK asked for examples of coal-fired plants that would be closed.

REPRESENTATIVE TALERICO referred to an [unidentified] EPA document provided in the committee packet, noting it is 300

pages long. His interpretation of the document - and his primary concern - was that the plan calls for reducing carbon pollution by focusing on the power producing industry. In Alaska, most of the carbon produced is not from power plants, unlike in the Lower 48. Coal power plants are the cheapest sources of energy in the Interior, and if they become "a target" the price of energy would rise without an impact on Alaska's carbon emissions.

[11:14:17 AM](#)

MR. BANKS directed attention to page 23 of a study provided in the committee packet entitled, "Energy Market Impacts of Recent Federal Regulations on the Electric Power Sector" and dated 11/14. Energy Ventures Analysis estimated a reduction in the generation of coal from 31 percent in 2012, to 20 percent in 2020, likely requiring the closure of coal-fired plants throughout the country.

REPRESENTATIVE NAGEAK observed his district has the cleanest-burning coal in the world and he supports generating power with coal using the best technology; however, the industry needs to be proven. Coal-fired plants should not be closed, but improved for the benefit of the environment and consumers, and the federal government should help pay.

CO-CHAIR VAZQUEZ informed the committee it would hear an upcoming presentation regarding microgrids.

[11:17:18 AM](#)

CO-CHAIR COLVER opened public testimony on HJR 8. After ascertaining no one wished to testify, public testimony was left open.

CO-CHAIR VAZQUEZ stressed the importance of reliable and affordable energy to the well-being and economic success of the state.

REPRESENTATIVE WOOL directed attention to the bill on page 2, line 2, which read:

WHEREAS the loss of other traditional electrical generation methods may cause natural gas plants to be overused or used in ways that exceed their engineered design; and

REPRESENTATIVE WOOL inquired as to whether natural gas is a traditional method of electrical generation, and if natural gas plants have been shown to be exceeding their engineered design.

REPRESENTATIVE TALERICO advised that coal-fired generators have been around in the Interior since before World War II; this method is a traditional source along with diesel and naphtha. In the event 25 MW of daily production were shut down in Healy, and another 20 MW in Fairbanks, it would be difficult - if not impossible - to energize the grid. He expressed his willingness to make additions or deletions to the language of the resolution.

REPRESENTATIVE WOOL asked if the proposed improvements to the electrical grid would change the priorities of HJR 8.

[11:23:30 AM](#)

REPRESENTATIVE TALERICO opined improvements to the grid are critical to the economy; however, affordability is still important. The cost of oil and natural gas fluctuates, but the coal market remains more stable. He stressed the value of many diversified sources of energy production coming together to provide stability in energy costs.

REPRESENTATIVE NAGEAK expressed his passion about lowering energy costs. During the previous legislative session, the committee discussed biomass, natural gas, coal, hydropower, tidal, and geothermal sources of energy that are available on a regional basis; in fact, most regions have different sources on a local basis, like biomass, run-in-the-river, and coal generation. He encouraged the committee to focus on developing resources that are available in each region.

CO-CHAIR VAZQUEZ will request related testimony from the Alaska Power Association. She urged for research on the use of coal.

[11:29:52 AM](#)

HJR 8 was held over.

PRESENTATION: INSTITUTE OF THE NORTH - CONCLUSION

[11:30:33 AM](#)

REPRESENTATIVE CLAMAN summarized from Institute of the North's presentation that the state needs to develop a long-term plan,

and to look seriously at further investment in infrastructure, as opposed to investment in production. He asked, "How do we fit into the 'live within our means,' to that whole picture?"

MR. ANDREASSEN advised that the state's current energy policy is aspirational and not directive; state agencies have tried to operationalize the policy, but further clarity is needed on what the legislature expects in terms of a strategy and implementation of the policy. Other nations have been able to better prioritize how to move forward by upfront planning. These steps can be taken through legislative committees to develop, formulate, and operationalize the energy policy. Better strategic planning would result in a different kind of decision-making and better returns. Regarding infrastructure, he said all Arctic nations are well-endowed with resources; however, Alaska has not done as well as others "connecting those dots from supply to market." Iceland has two priorities: investing in people, and providing the right infrastructure so that people can gain prosperity from economic development. He acknowledged that state investment in human and physical infrastructure is challenging in an environment of fiscal constraint. Mr. Andreassen related that Iceland's solution is affordable energy, for which all Arctic states should strive.

[11:35:51 AM](#)

REPRESENTATIVE NAGEAK, referring to testimony heard last year, stressed that Iceland has a large amount of power from geothermal, which allows it to support energy intensive industry.

[11:36:51 AM](#)

CO-CHAIR VAZQUEZ recalled it was suggested at a previous hearing that the state could form an energy infrastructure fund, in partnership with the private sector, to finance projects.

[11:38:42 AM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:38 a.m.