

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

January 26, 2023
10:16 a.m.

MEMBERS PRESENT

Representative George Rauscher, Chair
Representative Tom McKay
Representative Josiah Patkotak
Representative Calvin Schrage

MEMBERS ABSENT

All members present

[As of 1/26/23 there was a vacant seat on a committee of five.]

OTHER LEGISLATORS PRESENT

Representative David Eastman

COMMITTEE CALENDAR

PRESENTATION: CURTIS THAYER~ EXECUTIVE DIRECTOR~ ALASKA ENERGY
AUTHORITY

- HEARD

PRESENTATION: Pacific Northwest Economic Region

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

CURTIS THAYER, Executive Director
Alaska Energy Authority
Anchorage, Alaska

POSITION STATEMENT: Provided a PowerPoint presentation on the
status of the Susitna-Watana Hydroelectric Project.

BYRAN CAREY, Director
Owned Assets

Alaska Energy Authority
Anchorage, Alaska

POSITION STATEMENT: Answered questions during the PowerPoint presentation on the status of the Susitna-Watana Hydroelectric Project

MATT MORRISON, CEO
Pacific NorthWest Economic Region
Seattle, Washington

POSITION STATEMENT: Co-presented a PowerPoint, entitled "Global Challenges | Regional Solutions."

STEVE MYERS, Operations Manager
Pacific NorthWest Economic Region
Seattle, Washington

POSITION STATEMENT: Co-presented a PowerPoint, entitled "Global Challenges | Regional Solutions."

ACTION NARRATIVE

[10:16:22 AM](#)

CHAIR GEORGE RAUSCHER called the House Special Committee on Energy meeting to order at 10:16 a.m. Representatives McKay, Patkotak, and Rauscher were present at the call to order. Representative Schrage arrived as the meeting was in progress.

PRESENTATION(S): CURTIS THAYER, EXECUTIVE DIRECTOR, ALASKA ENERGY AUTHORITY

[10:17:28 AM](#)

CHAIR RAUSCHER announced that the first order of business would be the Alaska Energy Authority presentation.

[10:18:35 AM](#)

CURTIS THAYER, Executive Director, Alaska Energy Authority (AEA), provided a PowerPoint presentation, titled "Susitna-Watana Hydroelectric Project" [hard copy included in the committee packet]. He stated that AEA was established in 1976 by the legislature with the mission to reduce the cost of energy to all Alaskans. He added that AEA is also the lead state office for energy policy and statewide program development. He pointed out its involvement with the Railbelt. He stated that AEA owns the largest hydroelectric project in the state, Bradley Lake. He stated that AEA also owns the Alaska Intertie, which

is the fuel line from the Kenai Peninsula to Willow and Healy. He acknowledged that the state's ownership of the intertie saves the city of Fairbanks approximately \$37 million in energy costs.

MR. THAYER stated that AEA also runs the power cost equalization (PCE) program for rural Alaska, which provides approximately \$40 million a year. He added that AEA also is the authority over power houses, bulk fuel, upgrades, and deferred maintenance. He stated that it continues to work with federal partners for funding, and it performs energy ratings. He continued that AEA is involved with renewable energy, as the state also has biomass, windfarms, and hydro projects. He described AEA's involvement with grants, loans, and energy planning, as well as the electric vehicle (EV) planning for the state. He expressed the expectation that, with the help of the legislature, AEA will receive around \$200 million by the end of the year in federal funding.

[10:21:14 AM](#)

MR. THAYER stated that the majority of the work for the Susitna-Watana Hydro Project was conducted under the past two administrations. He stated that Administrative Order 271 had effectively halted the project in 2019, and as of 2022 no state funds have been spent on the project. He added that project updates have been provided each year to the legislature and to federal authorities, but no new work has taken place. He advised that for the project to advance, more updating would be needed.

MR. THAYER moved to slide 7, which illustrated the project history and the decline of funding available to AEA. He noted that slide 9 serves to answer the question, "Why Susitna-Watana?" He narrated the benefits of renewable energy and the potential savings to the state over the first 50 years of operation. He said that the project is a 100-plus year project. He pointed out that the projected estimates made in 2014 showed that the savings would be in the billions for the Railbelt communities. These savings would come from not using nonrenewable natural gas. He added that carbon emissions would also be reduced.

MR. THAYER noted that the project would be under the Federal Energy Regulatory Commission (FERC). He further noted that FERC licensing is still in the process of permitting for the project. He noted that the project still has investors and interest from the public. He advised that having a FERC license would remove

many of the risk factors. He shared that there are 58 FERC approved studies: 19 were advanced by FERC and 39 remain to require further investigations.

MR. THAYER, referring to slide 11, expressed the understanding that there are no current problems with the FERC filing, but it is still on hold. He pointed out that all proposed study modifications had been rejected by FERC; therefore, the data was deemed to be only useful for baseline information. The earliest studies were conducted in the 1950s, 1980s, and 2011, when the legislature unanimously granted AEA the authority to move forward with the project once again. In 2012, the AEA studies began until 2017; therefore, no further funding is available at present, and the project is in abeyance, [as shown on slide 12].

[10:26:36 AM](#)

MR. THAYER moved to slide 13 and showed the map of the project area and nearby communities. The project would create a 42-mile-long lake or reservoir to the east of the dam location. He continued that there was some concern about the effects of a dam on salmon. He stated that only a dozen Chinook salmon were observed above the proposed dam site, and he concluded that the fisheries would not be an issue despite the FERC rejection. He turned to slide 14, subtitled "Project At-A-Glance," and discussed the bulleted items, which read as follows [original punctuation provided]:

- Dam Height** -705 feet
- Dam Elevation** -2,065 Feet
- Reservoir Length** --~42 miles
- Reservoir Width**--~1.25 miles
- Installed Capacity** -618 MW
- Annual Energy** -2,800,000 MWh
- Cost**--~\$5.6 billion (2014\$)

MR. THAYER pointed out that the price tag has increased over eight years, adding that technological improvements will affect costs in the future. He moved to slide 15, subtitled "Engineering," and covered the information, which read as follows [original punctuation provided]:

- Size and generation optimized
- Design reviewed by International Board of Consultants
- Designed to withstand:
 - 10,000-year flood
 - Maximum credible earthquake of a magnitude 8.0

2014 Engineering Feasibility Report

MR. THAYER moved to slide 16 and discussed the benefit-cost and economic impact analyses completed in 2015, estimating that there would be \$11.2 billion in energy savings over the first 50 years. He shared the employment opportunities as listed on slide 17. These opportunities include preconstruction, construction, and operations employment, all of which would provide benefits to the state. He concluded his presentation on slide 18, subtitled "Project Timeline," which illustrated the entirety of the project from planning to power generation. He noted that the initial phase involves preparation, planning, collaboration, and environmental studies. He said FERC will review and make a determination on the feasibility of the project, which usually takes two years. He pointed out that the actual construction would last 9 to 11 years.

[10:32:17 AM](#)

MR THAYER advised that the dam would not be operational for about 15 to 20 years. He expressed the importance of the legislature taking the next steps to advance the project. He described the PCE process, stating that Railbelt energy cost is tied to PCE, and this benefits rural Alaska. In response to a committee question, he stated that the total aggregate cost for the proposed updates on slide 19 is \$5 million. He provided estimates of the costs associated with greenlighting the project. Studies and licensing are separate costs, he noted. In response to a follow-up question concerning any cooperation from other state departments on the project, he answered that under statute the purview of the project falls under AEA.

[10:36:27 AM](#)

BYRAN CAREY, Director, Owned Assets, Alaska Energy Authority, in response to a committee question concerning weather Norway had been used as a model for the state's project, stated that no formal research has been undertaken with respect to Norway. He reiterated this point, adding he was not familiar with the company Norsk Hydro. He stated that AEA had looked at Iceland because at the time of the Susitna-Watana project development, it was building a 700-foot dam for power generation and possibly internet cloud servicing. In response to a follow-up question, he stated that the obstacles and challenges to getting the project done is "about \$100 million." He said that the 2014 costs need to be updated for inflation and other factors. He

advised that the legislature and the governor need to assess whether this project should move forward.

[10:40:30 AM](#)

MR. CAREY, in response to a committee question, answered that the communities connected to the Railbelt would benefit directly from the project.

[10:41:56 AM](#)

MR. THAYER in response to a committee question about outside funding for the project and whether the \$5.6 billion would be needed from the legislature, answered that there are a number of countries who are interested in renewable projects. Furthermore, he said that there are companies that know how to contract and operate dams, and these companies would work with AEA in the regulatory process. He informed the committee that he is aware of a company that budgets \$5.6 billion a year for renewable [energy] projects, and it may be willing to invest in the [Susitna-Watana] project. He continued that establishing renewable energy is the purpose of the project; however, the cost per kilowatt has increased since the initial studies were conducted. He pointed out that the cost currently is 6 cents per kilowatt, and this is locked in for the long term. He summarized the presentation, and he reiterated that there are companies interested in seeing the project move forward.

[10:44:59 AM](#)

MR. THAYER, in response to a committee question, stated that after the \$100 million in funding is provided by the legislature, AEA would see a reduced role in the operation of the dam after construction. He said that the \$300 million already invested by the state in the project could possibly be recouped, as once the state has the FERC license, the options for recovering the costs of the initial \$200 million spent on the initial studies could be reassessed. Responding to a further question, he said that once the state obtains the license, there will be a value of potentially \$300 million for Alaska. He said that AEA could provide the funding history from 2009 to present, but the data from earlier than the 1980s came from different sources. He reviewed that the current sources of power to the Railbelt are natural gas, wind power, and the Bradley Lake hydroelectric dam. Mr. Thayer estimated that the Susitna-Watana dam could provide 50 percent of the necessary

power needed for Railbelt communities, but further studies are needed to quantify the actual savings.

[10:50:37 AM](#)

REPRESENTATIVE MCKAY questioned whether the project would create ice dams downstream and whether salmon would be able to make it upstream after the dam is constructed.

MR. CAREY expressed the opinion that salmon would not be affected. He explained that currently 99.9 percent of Susitna salmon divert to other streams and are not going to the proposed dam site. He said that sonar equipment monitoring streams above the proposed dam location had been used for one summer, with only 25 Chinook salmon counted above Devil's Canyon near the proposed dam site. He informed the committee that very few salmon make it past Devil's Canyon. He continued that fish passages are an option; however, there would be a cost, and this would require a feasibility study. He suggested that fish would need to make it up the dam and down safely.

MR. CAREY, addressing issues concerning winter operations, said that the dam would be operational all year. He explained that winter is the most expensive time of the year for Railbelt communities, so it would be essential to harvest power all year. He suggested that water flow during the winter would be high. He explained that ice flows already exist on the Susitna River, and ice flows would continue to occur after construction of the dam. He said there was modeling conducted to predict water flows. He confirmed that at least part of the reservoir would freeze up with thick ice in the winter.

[10:55:01 AM](#)

PRESENTATION(S): Pacific Northwest Economic Region
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CHAIR RAUSCHER announced the final order of business would be the Pacific NorthWest Economic Region presentation.

[10:55:26 AM](#)

MATT MORRISON, CEO, Pacific NorthWest Economic Region (PNWER), co-presented a PowerPoint, entitled "Global Challenges | Regional Solutions", [hard copy included in the committee packet]. He stated that PNWER is statutory, and Alaska is a founding member along with Washington, Oregon, Idaho, Montana,

and the Canadian provinces and territories of Alberta, British Columbia, Saskatchewan, the Yukon, and the Northwest Territories. He stated that the leadership of PNWER is made up of legislators from these areas. The mission of PNWER is to develop a framework for energy security and sustainability in the United States and Canada.

MR. MORRISON reiterated the state of Alaska is an energy "superpower" in the world, and the resources in the region are astounding. He urged the committee to take stock of the infrastructure and to utilize funding available from the federal government. He emphasized the need to attract, train, and sustain talent to the workforce of Alaska. He related an example from the pandemic when parents could not find baby formula in the grocery stores, as this had illuminated how supply could be affected. He expressed the opinion that a transition from fossil fuels to electric power needs to be made, and he questioned supply and infrastructure preparedness. He pointed out the need for electric charging stations.

MR. MORRISON outlined success stories in Alaska and suggested that states within PNWER know how to produce and transport energy. He pointed to slide 7, subtitled "Outcomes," which lists four issues that PNWER faces, [original punctuation provided]:

1. Develop a repository of information to share best practices between the states, provinces, and territories to achieve success in energy sustainability and security while increasing food production and developing critical mineral production. We need Alaska's success stories for this.

2. Work with the PNWER States Provinces and Territories to provide specific data and best practices on how our jurisdiction are planning for a transition toward a secure, sustainable clean energy future. What data can we bring from Alaska?

3. Work with the PNWER States, Provinces, and Territories, First Nations and Tribes to identify priority opportunities for environmentally sound, critical mineral development and related permit reform. What are Alaska's issues and challenges here?

4. Develop clear recommendations to both Washington,DC and Ottawa to develop a transition plan working with

states provinces, and territories on how best to move toward the goal of a secure and sustainable energy and food security future for our two great nations.

He emphasized the need to work with Ottawa and Washington D.C. toward mutual goals. He noted what Alaska can offer with respect to energy development. He emphasized the need to work with First Nations Tribes on what the challenges are for critical mineral development. He warned that rare-earth minerals will be depleted in roughly 10 years unless the country does something drastically different. He spoke about a work group that will be pulling together for the annual summit in Boise, Idaho for future recommendations.

[11:03:52 AM](#)

STEVE MYERS, Operations Manager, Pacific Northwest Economic Region, co-presented the PowerPoint. He stated that in 2022 PNWER had visited the U.S. Department of Defense (DoD) in Washington D.C. to discuss the program. He explained that the program originated from the federal Defense Protection Act, providing \$750 million in funding to private companies. He stated that this funding can be used to complete various impact studies, allowing projects to move forward. He offered to provide the committee with more details on how the application process works and answer any questions.

[11:05:08 AM](#)

MR. MORRISON described the Defense Protection Act to the committee. He moved to slide 10 and discussed the Legislative Energy Horizon Institute (LEHI). He said that LEHI is actively recruiting legislators to attend next year's working group. He then listed the statistical break down of active graduates still seated in the respective legislatures. He expressed his gratitude to be able to offer the LEHI program and informed the committee about the annual graduation ceremony. He pointed out that LEHI had an exercise for legislators to draft a 10-year utility plan. At the end of the exercise legislators compared their plans with the other legislators. He stated that the activity had provided a real example of utility costs at a hypothetical rate.

MR. MORRISON described his experiences in Alaska from the early 1970s. He expressed the opinion that Alaska is the new frontier and said the "world is watching," as this is where pioneering innovation begins. He advised that federal assistance is

available for communities. He suggested that Alaska has the opportunity to be a pioneer in innovation for community stability in villages, as this is a once-in-a-generation chance to gain federal funding to give Alaska energy independence.

MR. MORRISON highlighted the "Riv-Gen" project made possible by Senator Lisa Murkowski. He explained that the project is the longest marine project in North America, and it has survived two winters. He suggested that the project would benefit many of the villages that are still dependent on diesel fuel. He concluded the presentation by presenting a video on the Riv-Gen project. He expressed the opinion that the project is a great example of sustainable energy and innovation. He stated that upcoming funding for infrastructure is available, with \$90 billion from the U.S. Department of Energy. During the video he described how a generator would be fully submerged underwater, providing consistent power to communities, and he stated that the project is a public-private partnership.

[11:13:50 AM](#)

CHAIR RAUSCHER provided closing comments along with other committee members.

[11:15:27 AM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:15 a.m.