

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

January 24, 2025

3:30 p.m.

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Bill Wielechowski, Vice Chair (via teleconference)
Senator Matt Claman
Senator Forrest Dunbar
Senator Scott Kawasaki
Senator Shelley Hughes
Senator Robert Myers

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION(S): 2025 ENSTAR NATURAL GAS UPDATE

- HEARD

PRESENTATION(S): ALASKA ENERGY AUTHORITY (AEA) PROGRESS UPDATE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

JOHN SIMS, President
ENSTAR Natural Gas Company
Anchorage, Alaska

POSITION STATEMENT: Presented the 2025 ENSTAR Update.

CURTIS THAYER, Executive Director
Alaska Energy Authority
Anchorage, Alaska

POSITION STATEMENT: Presented the Alaska Energy Authority (AEA) Progress Update.

ACTION NARRATIVE

[3:30:09 PM](#)

CHAIR GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Dunbar, Myers, Claman, Kawasaki, Hughes, Wielechowski (via teleconference) and Chair Giessel.

PRESENTATION(S): 2025 ENSTAR NATURAL GAS UPDATE

[3:31:02 PM](#)

CHAIR GIESSEL introduced a presentation by ENSTAR President John Sims titled 2025 ENSTAR Update.

[3:31:15 PM](#)

JOHN SIMS, President, ENSTAR Natural Gas Company, Anchorage, Alaska, introduced himself and said he was also the President of Cook Inlet Natural Gas Storage Alaska (CINGSA). He moved to slide 1 and said the presentation would be an update on the last 24 months from ENSTARs perspective of gas supplying Cook Inlet and on the recently announced exclusive agreement with Glenfarne.

[3:31:51 PM](#)

MR. SIMS moved to slide 2 and highlighted the unique duty and responsibility of the utility:

[Original punctuation provided.]

Utility Duty to Serve

This duty is not shared by producers, IPPs, or anyone else in this state. It is our obligation alone.

Sec. 42.05.291. Standards of service and facilities.
(a) Each public utility shall furnish and maintain adequate, efficient, and safe service and facilities. This service shall be reasonably continuous and without unreasonable interruption or delay.

[3:32:45 PM](#)

MR. SIMS moved to slide 3:

[Original punctuation provided.]

Establishing the Path Forward

April 2022: Hilcorp Announcement

- Creation of the Utility Working Group ENSTAR, Chugach [Electric Association (CEA)], [Matanuska Electric Association] MEA, [Homer Electric Association] HEA, [Golden Valley Electric Association] GVEA, [Interior Alaska Natural Gas Utility] IGU

MR. SIMS noted the Utility Working Group included all the utilities and began the work of evaluating potential projects that could meet the needs of utilities for natural gas along the railbelt.

February 2023: Approval of the creation of a Reg Asset, "we grant ENSTAR authority to defer all necessary and prudent third-party costs incurred during its participation in the multiparty working group for studying and securing long-term gas supplies in the Cook Inlet."

MR. SIMS said this mechanism was critical to ensure the recovery of costs specifically related to the project and necessary for the work to proceed. He said ENSTAR spent \$4.4 million evaluating and analyzing projects over the past 24 months.

June 28, 2023: [Berkeley Research Group] BRG & ENSTAR presented our key options to the commission, which included the Floating Storage Regas Unit (FSRU) and a variety of other [liquid natural gas] LNG solutions.

MR. SIMS said this was the first step toward identifying which projects could meet the [LNG] needs and what the estimated cost would be to meet those needs.

[3:34:48 PM](#)

MR. SIMS moved to slide 4 and discussed the evaluation process for each project proposal:

[Original punctuation provided.]

Assessment of Options

June 2023 - December 2024:

Over 30 [Confidentiality Agreements] **CAs** and [Non-Disclosure Agreements] **NDAs signed**

For each proposal:

- Does it make operational sense?

3:35:06 PM

MR. SIMS said the point was to look at each proposal to determine whether it would meet the needs of the utilities and to operate on the existing system or require that the system be boosted up.

For each entity:

- Are they fit? Are they able?

MR. SIMS emphasized that the evaluation process was long and drawn out to be sure that the projects being pitched were something that made sense and that the entity making the proposal would be a good partner and could be trusted to move forward as a developer.

3:36:06 PM

MR. SIMS said each utility had a different timeline for [contract] expiration from Cook Inlet gas. Homer Electric (HEA)'s contract with Hilcorp expired in 2024 and HEA became a customer of ENSTAR April 1, 2024. Matanuska's contract expires in 2028 and they have no gas supplies lined up, to his knowledge. He noted that Chugach Electric also expires in 2028. He said ENSTAR's contract with Hilcorp expires in 2023. He said the priority was to determine whether the proposed projects could meet the timeline of the utilities.

BRG created a prioritized system of scoring different options with guidance from the Utility Working Group. Options were scored based on ten criteria.

Uniformly, the top three criteria received the highest priority scores.

1. Schedule Risk
2. Reliability of supply during operations
3. Delivered cost of supply per Mcf
4. Flexibility/Scalability
5. Project Complexity
6. Permitting
7. Environmental impact
8. Size of direct investment by utilities
9. Local economic impact
10. Carbon efficiency

[3:37:29 PM](#)

MR. SIMS moved to slide 5, titled Cook Inlet Gas Negotiations and said while ENSTAR was reviewing the projects and entities, they were also negotiating with Cook Inlet producers to procure gas from Cook Inlet. He noted that, because ENSTAR's system surrounds Cook Inlet, from a cost perspective, providing gas from the Inlet made sense. Slide 5 contains a table illustrating the details of a contract between ENSTAR and Furie submitted December 31, 2024:

<u>Year</u>	<u>Volume</u>	<u>Price</u>
2026	3 BcF	with royalty relief, \$12.30 per McF without royalty relief, \$13.69 per McF
2027	9.5 BcF	No price specified
2028	10.77 BcF	No price specified
2029	9.12 BcF	No price specified
2030	7.2 BcF	No price specified

MR. SIMS said ENSTAR and the Cook Inlet producers were optimistic that Department of Natural Resources (DNR) would approve the contract. He said the prices for 2027 through 2030 were not specified because they would be driven by inflation. He said [inflation increase] was capped at 1.5 percent, and there was potential for deflation in the economy.

MR. SIMS pointed out that the contract begins in 2026 and there are significant [LNG] needs in 2025 that are not yet filled, for example, Homer Electric Association (HEA) would be served on an interruptible basis beginning April 1, 2025. ENSTAR was working on HEA's behalf to secure gas.

[3:39:19 PM](#)

MR. SIMS moved to slide 6 [Cook Inlet Natural Gas Storage Alaska] CINGSA - Well Side photos, and said ENSTAR worked on the CINGSA expansion over the past 24 months. He explained the photos were of a small storage facility run by ENSTAR, in partnership with [Cook Inlet Region Incorporated] (CIRI) and Northern Natural [Gas]. The site was originally developed in 2012 according to the needs at that time. Current expansion work will increase the facility's capacity by 2 BcF through additional compression and the drilling of wells 6 and 7, totaling seven wells. He said the expansion aims to deliver 65 million cubic feet per day in winter, ensuring pipeline pressure and [ability to provide] customer service. The project, initially budgeted at \$72 million, was estimated at \$67 to \$68 million due to cost-reducing measures. He reported that the

perforation of wells 6 and 7 was scheduled for the upcoming week.

[3:40:58 PM](#)

MR. SIMS moved to slide 7, photos of a large crane moving heavy equipment. He said the crane was one of the largest on the Kenai Peninsula and that it cost \$60,000 per day to use. He explained that supply chain shortages led ENSTAR to hold the crane unused at high cost to prevent losing access to it. He said the lack of resources and services are an unfortunate reality for [Cook Inlet] projects.

[3:41:47 PM](#)

CHAIR GIESSEL emphasized that services in Cook Inlet are limited for things [like the large crane].

[3:41:55 PM](#)

MR. SIMS concurred. He said the current project was impacted by the limited services, not only with the crane but also with [drilling] rig availability.

[3:42:12 PM](#)

MR. SIMS moved to slide 8, Gas Supply Communications. Slide 8 included screenshots of slides from a Department of Natural Resources (DNR) presentation to the House Resources Committee and a Wood MacKenzie presentation. He said, while ENSTAR was evaluating import projects, negotiating with Cook Inlet producers and expanding CINGSA, they were also doing a lot of listening. He emphasized that all the public presentations offered by different entities point to the fact that Cook Inlet gas will run short of the total demand. He noted the Wood MacKenzie slide bullet point communicating a nine percent success rate. He said there have been 34 exploration wells drilled in Cook Inlet over the past 15 years, with a nine percent success rate. He said these facts reinforce the idea that importing LNG to Alaska is an appropriate and prudent measure to serve their customers.

[3:43:48 PM](#)

MR. SIMS moved to slide 9 and discussed the public announcement on January 8, 2025 of the Glenfarne agreement signed in December 2024. He said the agreement was the culmination of 24 months of intense internal discussions and work. He noted the agreement allowed for the use of the Glenfarne name without fear of legal action, but there were still many details to be worked out. The exclusivity agreement involves a period of mutual project development aimed at reaching a joint development agreement. He

said the project's timeline would accommodate the various needs of the utilities starting in 2028, with a goal of completion by 2029 or 2030. He said specific details will be available in a few months. He expressed pride in the partnership and the ability to share the project publicly but emphasized that specific decisions had not been made:

[Original punctuation provided.]

Glenfarne & ENSTAR

December 16, 2024:

Exclusivity Agreement signed between Glenfarne Group, LLC and ENSTAR

- What is it?
- What it means

January 8, 2025:

Agreement went public

[3:46:11 PM](#)

SENATOR CLAMAN asked whether the public disclosure was the result of someone making it public when they weren't supposed to, or of a mutual decision between ENSTAR and Glenfarne.

[3:46:27 PM](#)

MR. SIMS explained that the information had to go public and the legislature had to be informed, but the January 8 announcement was not planned. He discussed the challenge of balancing the various perspectives and the need for information with the need for time and confidentiality to work through details of the agreement. He expressed pride in the decision by Glenfarne and ENSTAR to disclose information about their efforts.

[3:48:04 PM](#)

CHAIR GIESSEL noted that Glenfarne was also working with Alaska Gasline Development Corporation (AGDC). She asked whether there was conflict of interest for Glenfarne to work on two different projects related to the same topic.

[3:48:20 PM](#)

MR. SIMS said he did not think a conflict of interest existed. He said ENSTAR clarified, from the utility perspective, that it was important for ENSTAR to have control and confidence that a project can be developed and that it would be independent of the Alaska [liquid natural gas] LNG project. He expressed optimism

and enthusiasm about the potential for the Alaska LNG pipeline project, however he emphasized the importance of maintaining the independence of the Glenfarne-ENSTAR project.

[3:49:38 PM](#)

MR. SIMS moved to slide 10. Slide 10 includes a photorealistic rendering of the plans for the Alaska LNG export site:

[Original punctuation provided.]

Import Terminal Facilities

1. Cost-Effective optimized project
2. Aligned long-term infrastructure vision
3. Reliable gas supply

MR. SIMS highlighted the challenge of obtaining permits and explained that the project proposed by Glenfarne would offer the opportunity to leverage the existing permits for the Alaska liquid natural gas (AK LNG) project's export site. He noted that the Glenfarne proposal would impose a small utility footprint on the site.

MR. SIMS stated that the multiple permits required for the Glenfarne project were one of the reasons it was difficult to determine the time and costs necessary to move forward.

[3:51:26 PM](#)

SENATOR MYERS asked whether a LNG facility would require approval from the U.S. Maritime Department. He said he understood that approval [of the LNG project] would require the state to have a Coastal Zone Management Plan, which, he said, the state does not currently have. He asked whether ENSTAR or Glenfarne had investigated that.

[3:52:03 PM](#)

MR. SIMS said that is one of the many challenges ahead for this project. He said he could not speak to it directly, but he was aware of future challenges and future permitting needs.

[3:52:51 PM](#)

MR. SIMS moved to slide 11:

[Original punctuation provided.]

Highlighting the benefits at the Alaska LNG Site

1. Enhanced permitting and construction timeline reduced
2. Cost-effective gas supply
3. Increased reliability with reduced mooring and ice challenges
4. Flexibility on imported and local gas
5. Onshore reliability and efficiency potentially supported by LNG storage
6. Long-term support of Alaska Gas Pipeline

MR. SIMS expanded on the benefits of the Alaska LNG site depicted on slide 11. He said the [Glenfarne] project underwent extensive investigation, with over \$4 million spent on analysis, leading to the conclusion that it was the best solution.

[3:54:56 PM](#)

SENATOR DUNBAR raised concerns about the potential conflict of interest related to a tax reform discussion from the previous year. He said the tax reform primarily impacted a company whose business was primarily on the North Slope, and led to a letter from the company stating it would reduce investment in Cook Inlet and Cook Inlet gas [if the reform was implemented]. He noted the letter from the company was not well-received by the [Senate Resource] committee members and others, highlighting the sensitivity of the issue. He said, currently another company, involved in a multi-billion-dollar project, might face funding decisions that could impact a smaller but crucial project providing affordable gas to Anchorage and other areas. He questioned whether [Glenfarne] could use funding leverage in the larger project discussions, and he sought assurance about contractual or other protections to prevent this.

[3:56:48 PM](#)

MR. SIMS appreciated the questions and emphasized the value of the ENSTAR - Glenfarne project's independence from AGDC in financial terms as well as freedom from reliance on federal or state money. He said the ENSTAR - Glenfarne project should hold up on its own with just the utility contracts and the commitments of Glenfarne. He said he did not foresee an opportunity for it to be leveraged or taken advantage of.

[3:57:42 PM](#)

SENATOR MYERS noted studies for the path forward and a report released by ENSTAR in June, 2023. He asked when a follow-up report would be released and why it had not already come out.

[3:58:08 PM](#)

MR. SIMS emphasized the importance of radical transparency by the utilities and referenced ENSTAR's efforts to provide detailed reports on projects and pricing. He acknowledged signing 30 confidentiality agreements and non-disclosure agreements (NDAs), which restricted the ability to share information publicly. He highlighted the necessity of obtaining Regulatory Commission of Alaska (RCA) approval before charging customers for any project. He assured public disclosure before implementation of any charges.

[4:00:14 PM](#)

SENATOR WIELECHOWSKI noted a letter from the utilities to the attorney general approximately two years prior regarding concerns about the failure of the duty to produce gas in Cook Inlet. He asked whether [the utilities] received a response to that letter.

[4:00:39 PM](#)

MR. SIMS said, to his knowledge they had not received a response.

[4:00:51 PM](#)

SENATOR WIELECHOWSKI asked whether the utilities still had concerns about inadequate gas production in Cook Inlet.

[4:01:00 PM](#)

MR. SIMS said he does have significant concerns about Cook Inlet and was very thankful for the unusually warm [winter] temperatures. He said the market for Cook Inlet gas was very tight. The producers and utilities are challenged and are working collaboratively to be sure customers' needs are met; but he said he does have concerns for the present and for the future up through the time that Furie develops their project. He noted that there were execution risks for [the Furie] project and he was not sure what would be done [if the Furie project is not successful] other than bringing in LNG by truck.

[4:02:17 PM](#)

CHAIR GIESSEL asked to return to slide 10. She asked whether the tank depicted in the slide would have the capacity to hold the volume of LNG that would be delivered by a ship.

[4:02:40 PM](#)

MR. SIMS affirmed that the yellow tank is above-ground storage for LNG. He noted there was a cost per day for the ship to be moored as it is being off-loaded as well as up-front capital cost for an above-ground LNG tank. Evaluating the benefit of up-

front capital cost vs. operating costs is one of the analyses underway. He stated that Cook Inlet needs more [LNG] storage [capacity].

[4:03:31 PM](#)

CHAIR GIESSEL asked whether [the ENSTAR-Glenfarne project] would also use Cook Inlet Natural Gas Storage Alaska (CINGSA).

[4:03:35 PM](#)

MR. SIMS affirmed that they would still use CINGSA as well as other storage available in the market.

[4:03:43 PM](#)

SENATOR CLAMAN asked whether the Alaska LNG site would include underground storage in addition to the above ground storage.

[4:03:59 PM](#)

MR. SIMS said this facility would only have above-ground storage. He said there are other storage opportunities near-by, which is a huge benefit of the location as opposed to the west side [of Cook Inlet].

[4:04:36 PM](#)

CHAIR GIESSEL asked for confirmation that the facility [depicted on slide 10] for export does not yet exist.

MR. SIMS said that was correct.

[4:04:52 PM](#)

CHAIR GIESSEL asked for clarification that the property depicted on slide 11 was currently just empty property.

MR. SIMS affirmed that it was and he reiterated the objective to limit the footprint as much as possible to reduce the cost of land while providing a reliable supply of natural gas to customers. He said the project would use only land necessary to allow for import facilities.

[4:05:31 PM](#)

CHAIR GIESSEL asked whether the land [depicted on slide 11] was currently owned by AK LNG.

[4:05:36 PM](#)

MR. SIMS answered that it was not and, to his knowledge there were multiple owners.

[4:05:41 PM](#)

CHAIR GIESSEL asked whether the land was reserved for AGDC and AK LNG.

[4:05:47 PM](#)

MR. SIMS said those were some of the details currently being worked out.

[4:05:52 PM](#)

CHAIR GIESSEL asked whether [ENSTAR and Glenfarne] would be purchasing the land or leasing it.

[4:06:57 PM](#)

MR. SIMS said there are different ways to approach that; from a utility perspective, ENSTAR prefers to own and control the land. He said the details remain to be worked out.

[4:06:20 PM](#)

CHAIR GIESSEL expressed appreciation for the utilities' collaborative efforts. She also appreciated the attention brought to the lack of services [needed to support production in Cook Inlet].

[4:07:01 PM](#)

At ease.

PRESENTATION(S) : ALASKA ENERGY AUTHORITY (AEA) PROGRESS UPDATE

[4:08:11 PM](#)

CHAIR GIESSEL reconvened the meeting and introduced Executive Director Curtis Thayer to present Alaska Energy Authority (AEA) Progress Update.

[4:08:39 PM](#)

CURTIS THAYER, Executive Director, Alaska Energy Authority (AEA), Anchorage, Alaska, said the presentation to the committee titled Alaska Energy Authority (AEA) Progress Update would focus on projects in the Cook Inlet. He said AEA's focus was primarily upgrading energy transmission lines and looking for additional sources of power to displace natural gas.

[4:09:09 PM](#)

MR. THAYER moved to slide 2:

[Original punctuation provided.]

AEA History

AEA is an independent and public corporation of the State of Alaska created by the state legislature in 1976.

1976

Created to promote, finance, and construct power projects

AS 44.83.070: "The purpose of the Authority is to promote, develop, and advance the general prosperity and economic welfare of the people of the state by providing a means of financing and operating power projects and facilities that recover and use waste energy and by carrying out the powers and duties assigned to it under AS 42.45."

[4:09:36 PM](#)

MR. THAYER moved to slide 3 and highlighted some of the assignments for AEA:

[Original punctuation provided.]

Sec. 44.83.080 Powers of the Authority

In furtherance of its corporate purposes, the authority has the following powers in addition to its other powers:

- to issue bonds to carry out any of its corporate purposes...
- to enter into contracts with the United States or any person... ...for the construction, financing, operation, and maintenance of all or any part of a power project or bulk fuel, waste energy, energy conservation, energy efficiency, or alternative energy facilities or equipment...
- to acquire, construct, maintain, and operate power projects in accordance with the licenses or permits,

MR. THAYER noted that AEA owns the state's largest hydroelectric facility, Bradley Lake.

- to promote energy conservation, energy efficiency, and alternative energy through training and public education;

MR. THAYER said this duty was split with Alaska Housing who does the residential side and AEA does the commercial side.

- to acquire a Susitna River power project,...

MR. THAYER noted that AEA spent \$200 million dollars to acquire the Susitna River project; Governor Walker placed it in abeyance in 2015 and there has been no action taken on the project since.

- to perform feasibility studies and engineering and design with respect to power projects.
- Battery Energy Storage Systems

[4:10:39 PM](#)

MR. THAYER moved to slide 4 and emphasized the board's expertise in energy needs across Alaska and a good balance of perspectives and experience. He also noted that only two current board members reside in Anchorage:

[Original punctuation provided.]

AEA Board of Directors

[photos of the board members are included on slide 4.]

Clay Koplin

Chair Utility - Not Interconnected

Duff Mitchell

Vice Chair Financial Expertise in Large Power Generation

Adam Crum

Commissioner, Alaska Department of Revenue

Tony Izzo

Board Member Utility - Interconnected

Ingemar Mathiasson

Board Member Rural Energy Development

Jenn Miller

Board Member Expertise in Engineering

Julie Sande

Commissioner, Alaska Department of Commerce, Community, and Economic Development

Robert Siedman

Board Member Municipal Utility - Off Road System

[4:11:26 PM](#)

MR. THAYER moved to slide 5:

[Original punctuation provided.]

About AEA

AEA's mission is to reduce the cost of energy in Alaska. To achieve this mission, AEA strives to diversify Alaska's energy portfolio - increasing resiliency, reliability, and redundancy.

Railbelt Energy (Owned Assets)

- Bradley Lake Hydroelectric Project
- Alaska Intertie
- Sterling to Quartz Creek Transmission Line
- High-Voltage Direct Current Transmission Line

Power Cost Equalization (PCE)

- \$48 Million Program
- 192 Rural Communities
- 91 Electric Utilities
- 80,000+ Alaskans

Rural Energy

- Bulk Fuel Upgrades
- Rural Power System Upgrades
- Circuit Rider Program
- Electrical Emergency Assistance

Renewable Energy and Energy Efficiency

- Renewable projects: biomass, electric vehicles, hydroelectric, solar, and wind
- Federal programs: NEVI, Solar for All, and Home Energy and High Efficiency Rebate Allocations

Grants and Loans

- Renewable Energy Fund

[4:12:38 PM](#)

MR. THAYER said the renewable energy fund funded over 100 projects in Alaska to look at feasibility of projects. He said the Alaska legislature and the governor had funded almost \$45 million over the past four years and a total of \$300 million since inception and has displaced 85 million gallons of diesel fuel on a permanent basis through new renewable energy projects. He reported 100 operating [renewable energy] projects got their seed money from AEA.

- Power Project Fund

[4:13:36 PM](#)

MR. THAYER said the Power Project Fund is able to offer low-cost loans and highlighted renewable energy projects on Prince of Wales island and in Kodiak.

Energy Planning

- Alaska Energy Security Task Force
- State Energy Security Profile
- Electronic Library
- Energy Data Resources
- 40101(d) Grid Resilience Program

[4:14:47 PM](#)

MR. THAYER said the 40101(d) grid resilience plan was a \$70 million program through the Department of Energy. He said Fairbanks received the first three allotments, \$22 million and would be applying for a second round.

Railbelt Transmission Organization (RTO)

[4:15:21 PM](#)

MR. THAYER moved to slide 6:

[Original punctuation provided.]

House Bill 307: Integrated Transmission Systems

House Bill 307 is one of the most important pieces of legislation affecting energy policy for the Railbelt since Alaska statehood.

- The bill also **incentivizes new energy development** by extending tax-exempt statutes to independent power producers.

- This law also fundamentally **changes how AEA operates:**
 - **Established its own distinct board of directors** – better positioning the state's energy office to address Alaska's unique energy challenges and opportunities.
 - Authorized AEA to have its own **direct-hire employees.**
 - Created the **Railbelt Transmission Organization**, as a division of AEA, to establish and administer a non-discriminatory open access transmission tariff that provides for recovery of transmission costs and ancillary services and replaces wholesale charges assessed by each utility with a new mechanism that fairly recovers the costs of operating the backbone transmission system.
- Offers **reduced interest rates for Power Project Fund loans** that are \$5 million or more.

[4:16:46 PM](#)

MR. THAYER moved to slide 7, a map of Alaska marking the locations of AEA projects and services. He said the map was a snapshot of AEA activity today.

[4:17:13 PM](#)

MR. THAYER moved to slide 8, a map of Alaska's railbelt region, marking Cook Inlet transmission projects identifying areas which need upgrades. He said the map began at Bradley Lake and progressed to Fairbanks. He emphasized that the numbering was not a ranking. The goal was to identify opportunities to improve reliability and redundancy, improve delivery and maximize alternative energy additions to the system.

[4:18:05 PM](#)

SENATOR MYERS noted that the Grid Resilience and Innovation Partnership (GRIP) funding approved by the legislature last year was among funding placed on pause by the current administration. He asked whether Mr. Thayer expected the pause to impact funding and construction of Alaska GRIP efforts.

[4:18:44 PM](#)

MR. THAYER said there was a 90-day pause and review process initiated by the incoming administration, for all types of

projects, noting that this pause was common practice among presidents. He noted the president had specifically called out projects for off-shore wind and he said Alaska has no off-shore wind projects. He also speculated that funding for electric vehicle charging would receive scrutiny but did not expect that to impact Alaska. He said he expected infrastructure projects like transmission lines would move through the 90 day review process and be resumed. He noted upcoming meetings with Alaska's congressional delegation and with the National Association of State Energy Offices as well as a visit to the Department of Energy.

[4:21:20 PM](#)

MR. THAYER explained that the Cook Inlet transmission line project is funded by the legislature (\$12.7 million) and by AEA and the utilities (\$62.7 million) and can proceed with the state's portion of the project. He noted that there was an eight-year timeline to complete the project.

[4:22:14 PM](#)

MR. THAYER returned to slide 8 and highlighted projects that are in progress and/or have funding behind them. He specified current work on the Dixon Diversion, Bradley Lake, Soldotna to Sterling, Sterling to Quartz Creek, and Quartz Creek to Anchorage. He emphasized that 17 percent of the water from Bradley Lake at \$0.04 per kilowatt goes to Fairbanks. He said upgrading the line to improve efficiency to Fairbanks was critical. He noted GRIP projects and said there were other projects with federal funding underway in the Fairbanks area.

[4:23:58 PM](#)

SENATOR CLAMAN noted the interplay between the current funding pause and the apparent desire of the current administration to stop funding green power. He asked whether it was fair to proceed with projects, potentially resulting in people not receiving funds they expected to receive for work they've committed to providing.

[4:24:49 PM](#)

MR. THAYER said the funding is on pause, but that funding approved and signed by the president and approved by congress could not be withdrawn except by an act of congress. He said Alaska is not the only state with billions of dollars of needed infrastructure funding on pause and expressed confidence federal funding would come through.

[4:26:18 PM](#)

MR. THAYER continued with slide 9, Clean Energy Projects, consisting of a map identifying clean energy projects in the railbelt region. He highlighted the Dixon Diversion project and Kenai Peninsula solar project which were already underway. He pointed out the wind and solar power are interruptible power because the sun doesn't always shine and the wind doesn't always blow, so he said they displace natural gas as a fuel source during certain times of the year, but they are not a replacement [for natural gas]. By contrast, hydroelectric power is a replacement because that can be utilized anytime. The map includes wind projects, geothermal projects and hydro projects.

[4:27:21 PM](#)

MR. THAYER moved to slide 10:

[Original punctuation provided.]

Bradley Lake Hydroelectric Project

- Energized in 1991, the Bradley Lake Hydroelectric Project is **Alaska's largest renewable energy source**. It is located 27 air miles northeast of Homer.
- The 120 -megawatt facility provides **low -cost energy to over 550,000 people** on the Railbelt.
- Bradley Lake's **annual energy production** is ~10 percent of Railbelt electricity at 4.5 cents/kWh (or ~54,400 homes/year) and over \$20 million in savings per year for Railbelt utilities from Bradley Lake versus natural gas.
- AEA, in partnership with Railbelt utilities, **is studying the Dixon Diversion Project**, which would increase the annual energy production of Bradley Lake by 50 percent (the equivalent of up to 30,000 homes)

MR. THAYER played a video showing the Bradley Lake Hydroelectric Project development beginning in 1955 with a feasibility study through planning, construction and implementation to eventually produce some of the most economical energy on the railbelt. The video concludes with the Dixon Diversion proposal to increase production by up to 50 percent.

[4:30:38 PM](#)

SENATOR MYERS highlighted the dates for the Bradley Lake project and said he was not sure whether the extended timeline was encouraging or discouraging.

[4:31:08 PM](#)

MR. THAYER moved to slide 11:

[Original punctuation provided.]

\$342 Million (AEA bonds anticipated)
FY2026 Request - \$6.5 million

Dixon Diversion Project

AEA is studying the Dixon Diversion Project to optimize the Bradley Lake Hydroelectric Project's energy potential. Like the West Fork Upper Battle Creek Diversion Project, the Dixon Diversion Project would divert water from Dixon Glacier to increase Bradley Lake's annual energy production by 50 percent.

- Located five miles from Bradley Lake and would utilize existing powerhouse at Bradley Lake
- Estimated annual energy 100,000-200,000 MWh (the equivalent of up to 30,000 homes)
- Estimated to offset 1.5 billion cubic feet of natural gas per year in Railbelt power generation (equal to 7.5 percent of Alaska's unmet natural gas demand projected for 2030)
- Estimated completion is 2030

MR. THAYER said an AEA engineer studied the Dixon Glacier recession beginning with aerial photos from 1952 and proposed the project. He emphasized that diverting water from the receding Dixon Glacier to Bradley Lake would raise the level of the lake and increase the hydroelectric capacity by 50 percent. He said the utilities all support the proposal and it appears very do-able. The project could be completed by 2030.

[4:32:32 PM](#)

MR. THAYER played a video describing the development and expected benefits of the proposed Dixon Diversion Project. He pointed out that the diversion would be entirely underground and would create no footprint beyond a small diversion dam.

MR. THAYER said the project would cost about \$342 million. He said the Bradley Lake project was supported by revenue bonds through the utilities and AEA was considering revenue bonds as a source of financing for the Dixon Diversion project as well. Additional funds could come from federal tax credits. He noted

the tax credits expire in 2032, but that, if things remain steady, the project could qualify for ten to thirty percent. He emphasized that the Dixon Diversion would not add energy generation, rather, the storage capacity would increase, allowing the generators to be run for longer periods.

[4:35:51 PM](#)

CHAIR GIESSEL noted that Bradley Lake was considered too expensive when it first came on line. She asked what the cost per kilowatt hour (kWh) was initially.

[4:35:59 PM](#)

MR. THAYER answered that it was four cents per kWh compared to two cents per kWh from Cook Inlet at the time. He said the approval to proceed with the Bradley Lake project passed by one vote. He said the price for hydro power doesn't change as long as the facility exists. AEA expects Bradley Lake to last fifty years or more, generating power at four cents per kWh. He said AEA expects the Dixon Diversion will generate power below the current cost of natural gas, probably six or seven cents per kWh.

[4:36:55 PM](#)

CHAIR GIESSEL noted that the Bradley Lake dam is relatively young, pointing out that the dams in Juneau are over one hundred years old and still functional.

[4:37:03 PM](#)

MR. THAYER said there have been no issues with the Bradley Lake dam or the generators and the expectation is for that functionality to continue. He said it is a crown jewel and has supplied the railbelt with reliable power for over 35 years.

MR. THAYER said AEA requested \$6.5 million from the legislature to complete the Dixon Diversion study and proceed to Federal Energy Regulatory Commission (FERC) [application]. He said the chairman of FERC toured the Bradley Lake facility and Mr. Thayer shared with the chairman that the actual drilling work to accomplish the Dixon Diversion would take six to eight months, but securing approval for the project from FERC is expected to take eighteen to twenty-four months.

[4:38:15 PM](#)

CHAIR GIESSEL noted getting the power from the dam to consumers will require transmission upgrades via sub-sea cable.

[4:38:27 PM](#)

MR. THAYER moved to slide 12. The slide includes a map illustrating the area relevant to the points in the slide:

[Original punctuation provided.]

\$90 Million (Under Construction; AEA Bonds Existing)

Sterling to Quartz (SSQ) and Soldotna to Sterling Transmission Lines

In 2020, AEA acquired the SSQ Transmission Line, as part of the Bradley Lake Hydroelectric Project.

- **Location** - 39.4 miles of 115 kilovolt (kV) transmission and out of use 69 kV transmission from Sterling to Quartz substation (Kenai Lake).
- **Benefits** - AEA ownership ensures better cost alignment, reduce line losses, increased reliability, and more timely repairs and upgrades.
- **Status** - 69 kV line decommissioned and removed; engineers are designing and are procuring equipment for the upgrade of the existing 115 kV line to 230 kV. Construction has started on first section.
- **Cost** - Estimated cost to upgrade line is \$90 million for the SSQ transmission line and Sterling to Soldotna transmission line.

MR. THAYER said the current railbelt power generation capability and growing demand are significantly greater than the capacity of the 60-year-old transmission lines. He said there is also a huge amount of line loss, energy wasted. The 39-mile transmission line [upgrade] from Sterling to Quartz Creek is owned by AEA and is under construction. The upgrade has been fully funded using bonds and did not require funds from the state nor did it require raising consumer rates. He described the bonding and planning process to fund required projects and said GRIP or IIJA funds, which weren't available when planning began in 2022, may be applicable. He said AEA, in consultation with the [railbelt] utilities, approved moving \$50 million in two tranches, combined with \$12.7 million from the state for a total of \$62.7 million toward the required \$206 million matching funds.

[4:41:04 PM](#)

MR. THAYER moved to and narrated slide 13:

[Original punctuation provided.]

\$413 Million (Match of \$62.7 Million Secured; \$143.8 Million Future Need) FY2026 Request - \$1.5 Million

**Grid Resilience and Innovation Partnerships (GRIP):
HVDC Line**

AEA secured \$206.5 million for GRIP Topic Area 3: Grid Innovation through the U.S. Department of Energy's Grid Deployment Office. A cost share of 100 percent, or \$206.5 million, is required for a total project amount of \$413 million. The project includes constructing high-voltage direct current (HVDC) submarine cables as a parallel transmission route from the Kenai Peninsula to Anchorage.

The project addresses several challenges facing Alaska's Railbelt regions:

- Provides a **redundant pathway** between the Southern (Kenai Peninsula) and Central (Anchorage and Mat-Su) Regions
- Eliminates the **single-point-of-failure** inherent in the previous system (the system will still be subject to single point of failure between Willow and Healy)
- Allows for **more renewable power** to be added to the grid and distributed across the Railbelt
- **Increases the ability to share power** between the Southern, Central, and Northern Regions of the Railbelt, allowing the most economical power to be used at all times

[4:41:47 PM](#)

MR. THAYER played a video highlighting the need for transmission line upgrade, the proposal to accomplish the upgrade and the expected benefits.

[4:44:45 PM](#)

MR. THAYER moved to slide 14:

[Original punctuation provided.]

Submarine Power Cable's Attributes

Submarine power cables are designed for the transport of electric energy under the sea.

- Outside diameter - 4.5"
- Weight per foot - 20 Ibs. with standard armor (may spec for Cook Inlet)
- Length is about 35 miles under water
- Estimated lifespan is 50 years

Slide 14 includes an artist's rendering of the cable's layered components, labeled as follows from exterior to the core: outer serving, armoring, transversal reinforcement, plastic sheath, lead sheath, insulation system, and conductor.

MR. THAYER said this was the submarine cable laid between Fire Island and Anchorage, an AEA project. He emphasized the characteristics of the cable noted in slide 14 and said the two cables would be laid in a trench, providing redundancy in the system.

[4:45:25 PM](#)

MR. THAYER moved to slide 15:

[Original punctuation provided.]

Schedule

The statutory period for the project is eight (8) years and the construction schedule below is based on a design-bid-build process - a traditional project delivery method that consists of three distinct phases in sequence:

- **September 2024** - Award
- **First Quarter 2025** - Preliminary Engineering & Schedule
- **Second Quarter 2026** - Commence Full Design and Permitting
- **July 2027** - Complete National Environmental Policy Act (NEPA) Process
- **January 2028 to December 2029** - Long Lead Items
- **January 2030 to December 2031** - Construction

MR. THAYER said the undersea cable was on schedule and costs appear to be coming in better than expected. He said the grant

was written to allow for any available federal funding to go towards battery energy storage system in Anchorage or Fairbanks.

[4:46:02 PM](#)

MR. THAYER emphasized that all three projects: the Dixon Diversion, the Sterling to Quartz Creek Upgrade and the GRIP are all currently underway. He said they represent over 5,000 construction jobs and over a billion dollars in economic input in Alaska through 2030.

[4:46:48 PM](#)

MR. THAYER moved to and narrated slide 16:

[Original punctuation provided.]

Alaska Intertie

Constructed in the mid-1980s with \$124 million in State of Alaska appropriations, there is no debt associated with the Alaska Intertie.

- **AEA owns the 170-mile Alaska Intertie transmission line that runs between Willow and Healy.** The line operates at 138 kV (it was designed to operate at 345 kV) and includes 850 structures.
- **A vital section of the Railbelt transmission system,** the Intertie is the only link for transferring power between northern and southern utilities.
- The Intertie transmits power north into the Golden Valley Electric Association (GVEA) system and provides Interior customers with low-cost, reliable power – between 2008 and 2021, the Intertie **saved GVEA customers an average of \$30 million annually.**
- The Intertie provides benefits to Southcentral customers as well through **cost savings and resilience to unexpected events.**

MR. THAYER noted that during the cold spell in 2023-2024, power was being shipped where it was needed, illustrating the unity [of those in the railbelt transmission system] from Homer to Fairbanks.

[4:47:17 PM](#)

SENATOR MYERS noted that the slide says the system operates at 138 kV, but that it was designed to operate at 354 kV. He asked why that was and said it was his understanding that [transmitting] lower voltage leads to greater line loss.

[4:47:35 PM](#)

MR. THAYER said the decision was made based on funding available at the time, 40 years ago. He said they did build the towers [for the higher capacity], so they would need to re-string the wires. He noted that there would still be one line and not the redundancy of a second line, which would be required if the system were FERC regulated. He said the upgrade would be fairly straightforward.

[4:48:15 PM](#)

SENATOR CLAMAN asked how much line loss impacted the efficiency of power production and the ability to deliver power to different parts of the railbelt.

[4:48:35 PM](#)

MR. THAYER said it depends where and when the line loss occurs. He said the Sterling to Quartz Creek section includes some of the oldest line and some of the highest line loss that occurs. He said the loss could be as much as seven to ten percent. He emphasized that, especially with the expectation of increasing power by completing the Dixon Diversion, it was critical to increase the transmission capacity of the line and to provide redundancy. He noted the Swan Lake fire experience and said the transmission line was down for four months. He also said snow took down some of the lines for three or four days between Girdwood and Whittier during the past winter.

[4:49:36 PM](#)

SENATOR CLAMAN asked whether it would be possible to get more information for the committee specifically about line loss.

[4:49:46 PM](#)

MR. THAYER said he could invite an engineer to present to the committee.

[4:49:54 PM](#)

MR. THAYER moved to slide 17:

[Original punctuation provided.]

\$28 Million to Utilities

Battery Energy Storage Systems (BESS) for Grid Stabilization

- **Scope** - The BESS projects consist of an upgrade to the existing BESS system in the North, and new BESS systems in the Southern, and Central regions of the grid. The Northern BESS is located at Fairbanks, the Southern BESS is located in Kenai, the Central Region BESS will be located at Anchorage. BESS will be needed to fully realize the benefits of a 230 kV bulk power supply system, regulate energy from various generation, and increase resilience.
- **Benefits** - Increase system resilience, transfer capability, more efficient use of system, and lowers impediments to additional renewable generation development.
- **Schedule** - Estimated completion date is 2026: - Southern (Kenai) - In service - Central (Anchorage) - October 2024 - Northern (Fairbanks) - To be determined
- **Budget** - \$28 million in services to dampen oscillation

MR. THAYER said slide 17 depicted the Battery Energy Storage System (BESS) in Homer and that Anchorage also has a BESS. He said AEA was able to assist utilities with the purchase of BESS systems using their bonding process. AEA entered into agreements with the three utilities to provide \$28 million over the next fifteen years. He said some of the battery systems also qualified for federal tax credits which also lowered the cost. The batteries will help dampen oscillation issues and provide spinning reserve, reducing the need for gas generators to be constantly running to respond to blackouts.

[4:52:17 PM](#)

MR. THAYER moved to and narrated slide 18:

[Original punctuation provided.]

Railbelt Transmission Organization (RTO)

Owing to recommendations from the governor's Alaska Energy Security Task Force concerning the elimination of transmission wheeling charges and the establishment of a RTO, the Legislature passed House Bill 307, which

was signed into law on July 31, 2024. Under the law, the RTO is a division of AEA.

- The RTO operates through its governance committee comprised of a representatives from AEA, each Railbelt utility, and the Railbelt Reliability Council (as an ex officio non-voting member).
- Since the signing of House Bill 307, the RTO has held five public meetings, established a charter, and adopted bylaws modeled after the Bradley Lake Project Management Committee.
- The RTO submitted an application for a certificate of public convenience and necessity (CPCN) and a petition for waivers with the Regulatory Commission of Alaska (RCA) on December 20th, in advance of the January 1 st statutory deadline. The RCA will rule on the petition for waivers and determine whether the application is complete by February 18th.
- By July 1, 2025, the RTO shall file with the RCA a nondiscriminatory open access transmission tariff that provides for the recovery of Railbelt backbone transmission costs and related ancillary services, and replaces wheeling charges with a new mechanism that fairly recovers and equitably allocates the costs of operating the backbone system.

[4:54:01 PM](#)

SENATOR DUNBAR asked for clarification of the timeline for upgrades to the transmission system resulting in the removal of wheeling rates on the railbelt.

[4:54:29 PM](#)

MR. THAYER clarified that the July 1st, 2025 deadline was set by statute and is a hard deadline. He explained that this was a public process through the Regulatory Commission of Alaska (RCA) with public hearings and public comment periods and reviews. He said he thought it would take at least six months for the RCA to work through the submission. He hoped by next year to be working through the regulatory process. He noted some of the challenges would be determining which utilities were responsible for which transmission lines and how various contracts and cost structures

would be restructured. He reported that the utilities and AEA were meeting frequently to do that work.

[4:56:10 PM](#)

MR. THAYER thanked the committee for their support and offered to provide information and updates as needed.

[4:56:34 PM](#)

CHAIR GIESSEL expressed appreciation to AEA and the utilities for the collaborative approach they were taking.

[4:57:40 PM](#)

There being no further business to come before the committee, Chair Giessel adjourned the Senate Resources Standing Committee meeting at 4:57 p.m.