ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY
February 14, 2023
10:16 a.m.

MEMBERS PRESENT

Representative George Rauscher, Chair
Representative Tom McKay
Representative Mike Prax
Representative Calvin Schrage
Representative Ashley Carrick

MEMBERS ABSENT

Representative Josiah Patkotak
Representative Stanley Wright

COMMITTEE CALENDAR

PRESENTATION(S) REGIONAL RAILBELT COORDINATION

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

CURTIS THAYER, Executive Director
Alaska Energy Authority
Anchorage, Alaska
POSITION STATEMENT: Made opening comments on the PowerPoint presentation, titled "Modernizing the Railbelt Grid."

BRIAN HICKEY, Executive Director
Regional Railbelt Coordination
Alaska Energy Authority
Anchorage, Alaska
POSITION STATEMENT: Presented a PowerPoint presentation, titled "Modernizing the Railbelt Grid."

ACTION NARRATIVE

10:16:46 AM

CHAIR GEORGE RAUSCHER called the House Special Committee on Energy meeting to order at 10:16 a.m. Representatives Carrick, Schrage, Prax, McKay, and Rauscher were present at the call to order.

PRESENTATION(S) REGIONAL RAILBELT COORDINATION

10:17:48 AM

CHAIR RAUSCHER announced that the only order of business would be a presentation on regional Railbelt coordination.

10:18:58 AM

CURTIS THAYER, Executive Director, Alaska Energy Authority (AEA), stated that there is currently "historic" alignment between the Railbelt utilities and AEA. He stated that upgrading the transmission lines on the Railbelt is a necessary step in moving towards a higher usage of renewable energy sources. He said that $166 million has already been contributed by the utilities towards upgrading transmission. He said that a decrease in price per kilowatt (kW) on the Railbelt would also benefit rural Alaska due to the power cost equalization (PCE) program.

10:22:33 AM

BRIAN HICKEY, Executive Director, Regional Railbelt Coordination, Alaska Energy Authority, gave a PowerPoint presentation, titled "Modernizing the Railbelt Grid" [hardcopy included in the committee packet]. On slide 3, he pointed out that as part of the Grid Modernization and Resiliency Plan (GMRP), there is the consideration of connecting the Copper Valley Electric Association with the Railbelt. He stated that 75 percent of Alaska's population lives on the Railbelt, which generates 80 percent of Alaska's electricity. He stated that the Railbelt only has three single transmission lines, which results in the transfer of just 10 percent of the peak load. He said that any time one of these transmission lines is out of service, the area served is cut off from the rest of the Railbelt. In response to a committee question concerning lowering energy costs on the Railbelt in relation to energy funding for communities in rural Alaska, he stated that this would be addressed later in the presentation.

10:28:35 AM

MR. HICKEY continued to slide 4 and stated that Railbelt utilities are aligned on the challenges facing the Railbelt. He continued to slide 5 and stated that the utilities, AEA, and the Regulatory Commission of Alaska have created a vision that seeks a "collaborative future." Continuing to slide 6, he stated that the utilities and regulators have created a 12-to-15-year plan that will upgrade transmission along the Railbelt, costing approximately $2.9 billion. He said that all the proposed transmission lines would undergo the National Environmental Policy Act (NEPA) process. He said that Phase 1 of the plan would build transmission from Bradley Lake to Lake Lorraine, including both a rebuild of the current system and a second transmission line. He stated that rebuilding the current transmission lines and building a new system of transmission lines would be necessary for utilizing new and renewable sources of energy generation.

10:33:03 AM

MR. HICKEY stated that he has related to the U.S. Department of Energy (DoE) the opinion that Alaska's electrical grid would be a good place to test decarbonization of a grid because of the smaller size and subsequent cost.

MR. HICKEY continued to slide 7 and slide 8, expressing the opinion that the transmission project is important because Alaska currently lacks reliability in its transmission lines. He explained that the amount of natural gas available is decreasing and the Railbelt needs to look at other sources of energy generation, which requires improvements in transmission. He advised that the improvements in transmission and energy storage will increase efficiency and lower energy costs. He said the PCE program is tied to the cost of energy on the Railbelt, and that lowering costs on the Railbelt allows for more money to be contributed toward PCE.

10:34:54 AM

REPRESENTATIVE PRAX asked if the transmission project plan took the possibility of a natural gas pipeline from the North Slope into account.

MR. HICKEY answered that transmission upgrades are necessary regardless of the source of energy. In response to a follow-up question, he stated that the location and cost of the transmission was being considered.

REPRESENTATIVE PRAX expressed his concern that decarbonization would be shifting the dependence on hydrocarbons for dependence on the minerals needed for renewable energy storage.

10:37:48 AM

CHAIR RAUSCHER asked about the possibility of buying 10 micro-nuclear reactors as opposed to more transmission lines. He opined whether this would have a greater impact on reducing rates. He acknowledged that this plan is very unlikely.

MR. HICKEY answered that for the economy of scale to support such an action, it would require the participation of all Railbelt utilities. He added that enacting such a plan would still require the transmission lines to be upgraded because the utilities would need to be connected when the reactors were down for maintenance.

10:40:21 AM

MR. HICKEY continued with slide 8, noting that the Railbelt serves critical infrastructure, including: the Ted Stevens Anchorage International Airport, which is the fourth busiest cargo airport in the world; five military bases; mines for rare Earth minerals; and a federally designated strategic seaport.

MR. HICKEY moved to slide 9 and gave the background for the current transmission line proposals. He said that Governor Mike Dunleavy "challenged" the Railbelt utilities and AEA to create a plan to serve the future of the Railbelt. He noted that with the passage of the federal Bipartisan Infrastructure Law, there is increased opportunity for federal funding to aid in building new transmission. He said that GMRP was developed to improve the economy of scale and give the Railbelt opportunities for energy source diversification. He suggested that an additional effect would be a reduction in electrical rates.

10:42:52 AM

MR. HICKEY continued to slide 10, displaying a map showing Railbelt transmission and battery energy storage systems along the Railbelt. He showed the placement of existing lines compared to the lines being proposed. He pointed out the new line going from Soldotna to Healy and the line tying the Copper Valley electric system to the Railbelt. He mentioned the possibility of another potential hydroelectric project roughly the size of Bradley Lake called the Tiekel River Project. In

response to a committee question, he stated that there would be new transmission lines going through Anchorage.

MR. HICKEY continued that there is a new energy storage battery in Soldotna, with plans to add one in Anchorage and Fairbanks. On slide 11, he gave the three opportunities for federal funding: grid resilience, smart grid, and grid innovation. He noted that a third application was put in by the state, as the eligible entity. He stated that the first two applications were put in by the Matanuska Electric Association (MEA). He moved to slide 12 and pointed out that the state must be involved in the plan, as without funding from the state there would be significant rate increases. He advised that receiving federal funding would require the same amount of investment from the state.

MR. HICKEY stated that the federal government has moved forward with AEA's applications on grid resiliency and the smart grid, as seen on slide 13. He explained that out of 144 applications moving forward on the first topic, 10 grants will be awarded, and out of 157 applications on the second topic, 25 to 40 grants will be awarded. He said that the state is still waiting to hear back on the third topic, grid innovation. On slide 14, he said that the applications for federal funding are part of the first funding cycle in the Bipartisan Infrastructure Bill.

10:51:29 AM

REPRESENTATIVE PRAX asked if it was "worth the risk" to complete parts of the project individually without knowing if the state would receive federal grants for the other applications.

MR. HICKEY answered that in accepting this as the state's plan, the answer would be yes. He opined that the project needs to be completed "either way."

REPRESENTATIVE PRAX commented that the effects of not receiving federal funding could be increased taxes and less state money to fund other areas. He warned that there could be consequences for completing only part of the project.

MR. HICKEY responded that each part of the project has its own benefit. Upgrades to the Sterling to Quartz Creek line would reduce losses of energy produced by Bradley Lake by 3 or 4 percent. In response to a follow up question, he said that the math on the projects is part of the NEPA process.

10:54:38 AM

REPRESENTATIVE SCHRAGE asked how the planned funding of the project would be affected by the proposed spending caps.

MR. HICKEY expressed uncertainty.

10:56:19 AM

REPRESENTATIVE CARRICK asked if there was a priority list for the project in the event that the legislature decided to fund only part of it.

MR. HICKEY answered that part of the application process is listing the priorities within the project, and the work on this is currently ongoing. In response to a follow-up question, he said that Phase 1 of the project would require $1.26 billion of state funding, which would fund the transmission line upgrades up to the central region of the Railbelt.

MR. HICKEY continued to slide 15 and said that the plan would create benefits for rural communities, and these benefit plans are part of the application process.

11:00:51 AM

CHAIR RAUSCHER asked where the data for rural communities originates.

MR. HICKEY responded that the Regional Railbelt Coordination group is currently collecting this data and it has some data available from the previous census.

11:01:39 AM

MR. HICKEY skipped to slide 17 and reviewed the timeline for the grant selection process and when the proposals were submitted. He reiterated that the Regional Railbelt Coordination group has been invited to apply for the first two proposals and is waiting to hear back on the third. He stated that the amount of money for the grants would be approximately $50 million to $70 million for the first proposal, $15 million for the second proposal, and $300 million for the third proposal. There would not be any financial commitments immediately; however, what was said in the application would bind the financial commitments.

11:04:43 AM

REPRESENTATIVE SCHRAGE asked if it would be possible to subject the amount of money allocated during the reward negotiation process to oil revenues.

MR. HICKEY answered that the primary focus is to secure funding, if possible. He expressed the belief that the federal government would want something more specific when it comes to the numbers involved.

11:06:41 AM

REPRESENTATIVE CARRICK asked about the increased energy storage needs if more renewable energy is used in the future.

MR. HICKEY answered that there is more than one way to store energy, such as batteries and pond storage at hydroelectric plants. He stated that grid stabilization is the current priority, as energy used from storage would be quickly used.

11:10:04 AM

REPRESENTATIVE SCHRAGE voiced his concern that the speed of the process could make the Railbelt Reliability Council (RRC) less effective, and he asked what impact it could have on public input.

MR. HICKEY answered that the RRC should be placed in charge of the plan when it is finished being set up, but it will take some time to reach this point. He added that there will be much more time for public input when the NEPA process begins.

11:15:23 AM

CHAIR RAUSCHER asked when Alaska would receive the funding if the state's application were accepted.

MR. HICKEY stated that award negotiations would occur in the fall and winter of 2023, and the following NEPA process would take between three and five years.

11:17:47 AM

MR. THAYER reiterated that the Railbelt is in historic alignment with the need to upgrade the transmission system.

11:18:57 AM

The committee took a brief at-ease.

11:19:54 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:20 a.m.