

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

February 9, 2023
10:18 a.m.

MEMBERS PRESENT

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

MEMBERS ABSENT

Representative Josiah Patkotak

COMMITTEE CALENDAR

PRESENTATION(S):UPDATE BY UTILITY COMPANIES

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

ARTHUR MILLER, CEO
Chugach Electric Association
Anchorage, Alaska

POSITION STATEMENT: Offered information and answered questions on the PowerPoint, titled "Railbelt Electric Energy System and Energy Transition."

JOHN BURNS, CEO
Golden Valley Electric Association
Fairbanks, Alaska

POSITION STATEMENT: Offered information and answered questions on the PowerPoint, titled "Railbelt Electric Energy System and Energy Transition."

TONY IZZO, CEO
Matanuska Electric Association
Palmer, Alaska

POSITION STATEMENT: Offered information and answered questions on the PowerPoint, titled "Railbelt Electric Energy System and Energy Transition."

ACTION NARRATIVE

[10:18:08 AM](#)

CHAIR GEORGE RAUSCHER called the House Special Committee on Energy meeting to order at [10:18] a.m. Representatives Rauscher, McKay, Wright, Prax, Schrage, and Carrick were present at the call to order.

PRESENTATION(S):UPDATE BY UTILITY COMPANIES

[Contains discussion of HB 50.]

[10:20:09 AM](#)

CHAIR RAUSCHER announced that the only order of business would be the continued update on utility companies.

[The presentation was a continuation from 2/2/23.]

[10:23:08 AM](#)

ARTHUR MILLER, CEO, Chugach Electric Association, answered questions on the PowerPoint, titled "Railbelt Electric Energy System and Energy Transition." He gave a comparison analysis for the price of Cook Inlet natural gas and the Henry Hub market price. He stated that over the years the Railbelt utilities have fared better in pricing than the Henry Hub market price. Regarding renewable energy, he stated that the Railbelt utilities are working together in some areas, while working independently in others. He said that Chugach Electric has placed a high emphasis on transitioning to renewable sources of energy by exploring renewable energy opportunities. He stated that it is currently studying the possibilities for a large-scale wind and a large-scale solar project; however, one of the challenges with renewable energy sources is integration with the current system. He said that Chugach Electric has a goal of reducing its carbon emissions by 35 percent by 2030 and 50 percent by 2040; however, this is providing the goal would not create a substantial increase for the ratepayers.

MR. MILLER stated that Chugach Electric and Matanuska Electric have collaborated on installing a 40-megawatt (MW) battery in

Anchorage. He said that Chugach Electric has increased its number of customers in the net-metering program in order to increase its ability to integrate renewable sources of energy into the system.

[10:33:05 AM](#)

JOHN BURNS, CEO, Golden Valley Electric Association, stated that the utilities are working together to add renewables to their systems; however, the primary obligation of the utilities would be to ensure the lowest rates possible to customers. He maintained that the utilities would work to add renewable energy sources, but they will not do so in a way that affects reliability or cost. He said that in 2003 Golden Valley Electric Association installed a 25-MW battery, the largest at the time. Golden Valley is in the process of replacing this battery, but the prices of batteries have continued to increase. He stated that this is a problem because Golden Valley customers already pay the highest rates on the Railbelt. He explained that integrating 25 MWs of electricity generated by wind has not brought down the rates for Golden Valley because of regulatory and integration costs.

[10:37:01 AM](#)

MR. BURNS stated that Golden Valley built a solar farm in 2018 with a capacity of half a MW, and it is continuing with a community solar program. Golden Valley currently has 681 members participating in the program. He said that the utilities continue to pursue renewable sources of energy, but they prioritize reliability and costs. He added that the transmission of electricity would be a major factor in obtaining the goal of using more renewable sources of energy. He said that the greatest constraints on transmission are in Southcentral Alaska, and he advised that this is where the transmission work should begin. He stated that improving transmission would require a large initial investment, and he compared the eventual payoff to the initial cost of the Bradley Lake hydroelectric project with its later payoff.

MR. BURNS, answering a question from the initial presentation, stated that coal is the cheapest form of energy generation currently available. He said that Golden Valley currently has plans to shut down the Healy 2 coal power plant because of issues with its reliability.

[10:45:14 AM](#)

TONY IZZO, CEO, Matanuska Electric Association (MEA), stated that the four biggest issues facing the Railbelt utilities are natural gas supply, diversification of energy generation, transmission, and legislative action. He said that MEA has a goal to reduce carbon usage by 28 percent by 2028 and has already achieved a reduction of 27 percent. He said that a major contributor to this is the Willow Solar Farm, which provides 1.2 MWS of electricity generation. He said that the Willow Solar Farm is a part of the Renewable Independent Power Producers (IPP), which MEA has partnered with on renewable energy projects. He said that MEA is working with Renewable IPP to build a 6 MWS solar farm, which would be the largest in the state. He said that the amount of energy generated by the new solar project would not be a large amount; however, it would still contribute towards the goal of energy diversification. He said that the Renewable IPP projects allow MEA to have greater efficiency without having to run its own sources of energy generation at maximum capacity. He said that the shares of energy for the utilities from Bradley Lake are based on the historical demands of each system. The utilities are working together to find the most efficient ways to generate energy regardless of the source. He said that MEA will use Chugach Electric's Anchorage battery because of the scale involved in having its own battery.

MR. IZZO stated that MEA has created an electric vehicle charging program, which provides 50 level 3 chargers at no cost to the customer. He said that in exchange, the customer would provide data to MEA in order to gain a better understanding of how electric vehicle charging affects the power grid. He said this effort would be to understand the demand for electric vehicle charging at certain times so MEA can manage the load. He said that MEA has chosen not to place a limit on net metering, adding that 414 members now make up 3 percent of MEA's total load.

[10:54:13 AM](#)

CHAIR RAUSCHER asked Mr. Burns when he expects the Healy 2 plant to be fully shut down.

MR. BURNS answered that the original plan was to have it shut down by the end of 2024; however, the plan is dependent on securing another 30 to 50 MWS for Golden Valley Electric Association. He said that both commercial and residential members want Golden Valley to reduce its emissions, and he said

that one measure the utility is taking to achieve this is adding a selective catalytic reduction (SCR) system to Healy 1. He said that Golden Valley also plans on adding large scale wind projects and a large battery for storage.

[10:56:48 AM](#)

CHAIR RAUSCHER asked about the effectiveness of Senate Bill 123, passed in 2020, [during the Thirty-First Alaska State Legislature].

MR. MILLER answered that the Railbelt Reliability Council (RRC) is still in the process of being formed. He said that its certificate of public convenience and necessity (CPCN) has been approved by the Regulatory Commission of Alaska. The operating tariff for the RRC is still under review, which he said is a normal procedure. He related that there is a budget and inception rate under review, which would allow the RRC to hire a CEO and begin operations.

[10:59:17 AM](#)

REPRESENTATIVE PRAX asked if the transmission line upgrade was a key component for the accomplishment of the utilities' other goals.

MR. BURNS answered that transmission is "vitaly important." He added that the utilities are more focused on the efficiency of the power generation than the specific location of its generation. In response to a follow-up question concerning the balance between the cost of power transmission and the cost of power generation, he answered that a good transmission system allows the different utilities the flexibility to use cheaper forms of generation when it is available.

REPRESENTATIVE PRAX asked if transmission upgrades are necessary to take full advantage of a conceptual project like the Susitna-Watana Hydroelectric Project.

MR. BURNS answered that generating power is the first step, and once this occurs the focus can shift to better transmission.

REPRESENTATIVE PRAX remarked that there were previous transmission projects that had failed in the past and suggested that the utilities should provide a picture of what the transmission plan would really look like.

MR. BURNS answered that there is a plan in place for transmission system upgrades.

[11:06:38 AM](#)

REPRESENTATIVE CARRICK asked if the three energy storage facilities represented the full amount of energy storage, and she asked if there is a point in which energy storage becomes a barrier for transmission.

MR. IZZO answered that the Kenai and Fairbanks storage facilities are operational, while the Anchorage facility is not yet finished. He said that there is a deficit in energy storage batteries partially because the majority of the Railbelt's energy comes from natural gas. He said that there are currently limitations with battery technology, and he noted that the utilities do not have the same kind of resources available as in the Lower 48.

REPRESENTATIVE CARRICK asked how the state should invest in energy storage.

MR. IZZO answered that the utilities do not rely on a single powerplant in a single location; however, he allowed that the transmission system is lacking. He explained that having a better transmission system reduces the burden of energy storage and allows the utilities to receive energy generated by others, and this helps lower the cost for members.

[11:15:49 AM](#)

REPRESENTATIVE WRIGHT questioned the life expectancy of the batteries and whether there are any possible alternatives.

MR. BURNS answered that long-duration energy storage can last up to 50 years.

[11:16:43 AM](#)

REPRESENTATIVE SCHRAGE asked what the RRC's role has been in the discussions about energy storage and transmission.

MR. MILLER answered that the nine utility stakeholders are represented on the RRC board. In response to a follow-up question, he stated that the evaluation process is still ongoing, and the other stakeholders' involvement has been

minimal. He said that the utilities have expressed interest in transmission projects to the federal government.

[11:20:00 AM](#)

REPRESENTATIVE SCHRAGE expressed the importance of collaboration within the RRC because of the natural gas situation.

MR. BURNS responded that the amount of collaboration has varied and said that the goal is to lower electricity prices as much as possible. He reiterated that transmission is important regardless of timing or the source of the power generation used.

REPRESENTATIVE SCHRAGE asked about the overall cost benefit analysis of building more transmission lines versus building more smaller scale renewable energy projects. Considering the move towards a higher usage of renewable energy, he asked about the future cost of natural gas.

MR. IZZO answered that the U.S. Department of Energy has invited the utilities to create a formal application on two of the proposals, and the utilities are waiting to hear back on another application. He said that the utilities do not expect to receive the full amount of money; however, he expressed the hope that they receive an amount to allow transmission upgrades, which would open the door to future projects.

[11:27:44 AM](#)

MR. IZZO, returning to the battery storage question, stated in addition to lithium-ion battery storage, there is thermal storage, pumped hydro storage, and nuclear storage. He said that thermal storage is a longer duration type of storage.

[11:29:11 AM](#)

MR. MILLER, returning to the natural gas situation, stated that this is the greatest challenge facing the utilities. He stated that transmission is "critical," and the utilities have already contributed \$166 million towards upgrades on the transmission and energy storage systems on the Railbelt. He said that the utilities' preference is for in-state natural gas, and storage facilities would continue to be needed for natural gas. He said that the current storage facilities have a capacity of 11 billion cubic feet (Bcf) but that the current demand is 70 Bcf.

MR. MILLER stated that the utilities continue to look for new technologies. He said that with the current technology, the utilities are "driven by economics" and rushing to 100 percent renewable energy could have an adverse impact on rates. He expressed the desire to see the usage of renewable energy increase, but at a rate that will not affect the cost.

MR. BURNS added that the utilities benefit from acting as a system rather than on their own. He said that without upgrades to the transmission system, the utilities will continue to be stuck in their own areas.

[11:35:51 AM](#)

REPRESENTATIVE PRAX asked if a smaller scale natural gas pipeline from the North Slope had been reconsidered.

MR. MILLER answered that there are two natural gas pipelines currently being considered.

REPRESENTATIVE PRAX commented that the previous Artic Fox pipeline proposal was on a smaller scale than the two currently being considered. He expressed the opinion that Artic Fox also warrants consideration.

[11:39:07 AM](#)

CHAIR RAUSCHER asked what percentage of the utilities' energy is being generated from renewable sources versus carbon sources.

MR. IZZO answered that MEA generates approximately 16 percent of its energy from renewable sources and 84 percent from natural gas. He said that the percentage can vary slightly because of factors such as the amount of rainfall affecting the amount of hydroelectric power generated.

MR. MILLER answered that Chugach Electric generates approximately 21 percent of its energy from renewable sources and 81 percent from natural gas. He concurred with Mr. Izzo that the percentage has the potential to vary and stated that the numbers he gave are the average.

MR. BURNS answered that Golden Valley Electric Association generates approximately 17 percent of its energy from renewable sources and approximately 83 percent from coal and diesel.

[11:41:12 AM](#)

CHAIR RAUSCHER asked what a "realistic" percentage of energy generated by renewable sources would be by 2040.

MR. MILLER answered that Chugach Electric tied its carbon reduction goal to something it believes to be achievable. He said that Chugach Electric has a goal of 24 percent renewable energy by 2030 and a 42 percent reduction on carbon by 2040.

MR. BURNS answered that Golden Valley has a carbon reduction goal of 26 percent by 2030, but this number is dependent on its ability to effectively manage costs.

MR. IZZO answered that MEA supported Senate Bill 123 and the RRC. He said that MEA does not plan to build new generation on its own. He suggested that working with the other utilities would create better reliability and efficiency. He said that these factors make him hesitant to place a specific number on carbon reductions.

MR. IZZO stated that even if MEA were to achieve 40 percent renewable energy generation by 2040, it would still need 4.4 Bcf of natural gas. He said that this shows the importance of finding new sources of energy generation and upgrading transmission. He maintained that without this the utilities will continue to have issues in the future.

[11:50:12 AM](#)

CHAIR RAUSCHER asked what the effect would be if the government "got out of the way" and allowed the RRC to regulate new plans for the utilities going forward.

MR. IZZO answered that it would be beneficial, as RRC has the technical knowledge and tools to face the issues of Railbelt energy transmission.

[11:51:04 AM](#)

REPRESENTATIVE MCKAY asked what the effect would be if HB 50 were passed, and the utilities were mandated to buy carbon tax offsets.

MR. MILLER answered that the costs would have to be passed on to the ratepayer.

MR. IZZO concurred.

MR. BURNS concurred.

[11:52:54 AM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:53 a.m.