HOUSE FINANCE COMMITTEE
March 20, 2025
9:03 a.m.

9:03:11 AM

CALL TO ORDER

Co-Chair Schrage called the House Finance Committee meeting to order at 9:03 a.m.

MEMBERS PRESENT

Representative Andy Josephson, Co-Chair
Representative Calvin Schrage, Co-Chair
Representative Jamie Allard
Representative Jeremy Bynum
Representative Alyse Galvin
Representative Sara Hannan
Representative Nellie Jimmie
Representative Neal Foster, Co-Chair
Representative Will Stapp
Representative Frank Tomaszewski

MEMBERS ABSENT

Representative DeLena Johnson

ALSO PRESENT

Curtis Thayer, Executive Director, Alaska Energy Authority; Tim Sandstrom, Chief Operating Officer, Alaska Energy Authority.

SUMMARY

PRESENTATION: ALASKA ENERGY AUTHORITY

Co-Chair Schrage reviewed the meeting agenda.

^PRESENTATION: ALASKA ENERGY AUTHORITY

9:04:12 AM

CURTIS THAYER, EXECUTIVE DIRECTOR, ALASKA ENERGY AUTHORITY, introduced himself and the PowerPoint presentation "AEA Update" dated March 20, 2025 (copy on file). He began on

slide 2 and reviewed the board of directors at the Alaska Energy Authority (AEA). He noted that only two members lived in Anchorage, and all other members lived across the state.

Mr. Thayer showed slide 3 and relayed that AEA's mission was to reduce the cost of energy in the state. He considered owned assets, and mentioned Bradley Lake Hydro Project, which was the "crown jewel." He mentioned the Alaska Intertie, which connected Willow and Healy and saved the Fairbanks community over $30 million per year. He mentioned the Sterling to Quartz Creek Transmission Line and mentioned the Swan Lake fire. He discussed starting $90 million worth of upgrades to the line, which had not been touched in 60 years.

Mr. Thayer continued to address slide 3 and highlighted the High-Voltage Direct Current Transmission Line (HVDC), also known as Grid Resilience and Innovation Partnerships (GRIP), for which the federal funding was no longer frozen or paused. He relayed that AEA was also responsible for the Power Cost Equalization (PCE) Program in rural Alaska, which was a $48 million program that served 192 rural communities and over 80,0000 Alaskans. He discussed rural energy activities, including rural power system upgrades and the Circuit Rider Program. He discussed AEA's activities in renewable energy and energy efficiency, including projects in biomass, electric vehicles, hydro-electric, solar, or wind. The team was also responsible for federal programs including the National Electric Vehicle Infrastructure (NEVI) Program, Solar for All, and Home Energy and High Efficiency Rebate Allocations.

Mr. Thayer discussed AEA's grants and loans dealing with the Renewable Energy Fund and the Power Project Fund. He mentioned that the largest loan in the portfolio was a hydro-project on Prince of Wales Island. He discussed energy planning and AEA's support for the Alaska Energy Security Task Force, update of the state energy security profile, creation of an electronic library (with up to 14,000 documents), Energy Data Resources, and work with the federal 40101(d) Grid Resilience Program. He added that AEA was also responsible for the Railbelt Transmission Organization (RTO) after the passage of HB 307 the previous year.

9:09:39 AM

Representative Galvin asked about Mr. Thayer's use of the term "unfrozen" in relation to federal funds. She asked if AEA was receiving funds.

Mr. Thayer responded that funding had been paused, and AEA had $404 million in federal funds. Of all the programs, one had been suspended (National Electric Vehicle Infrastructure) and was awaiting further guidance. Additionally, AEA had a $497,000 grant that it had not heard about from the project manager. He shared that federal project managers were starting to reach out. All the money owed to AEA had been paid, and everything was moving forward.

Representative Galvin asked if money was flowing to renewable energy from the federal government with the exception of the paused program he mentioned.

Mr. Thayer answered affirmatively with the caveat that AEA had asked for things in writing and the federal government had provided verbal but not written confirmation. He noted that AEA had followed up with letters outlining the verbal discussions to check for understanding and had not received any pushback.

9:12:01 AM

Mr. Thayer continued on slide 4 and discussed HB 307, which had incentivized new energy development by extending tax-exempt statutes to independent power producers. The bill was a result of the task force and AEA had seen positive results. It had established a distinct board of directors appointed by the governor. Also the previous year, the legislature authorized AEA to have its own direct hire employees. Prior to that, AIDEA employees were "leased" to AEA. He described that AIDEA and AEA were going through an "uncoupling." He clarified that the books and balance sheets had always been separate, but some employees and internal organization had been combined. So far, the process had been amicable.

Mr. Thayer discussed the creation of the Railbelt Transmission Organization (RTO), which was to establish and administer a non-discriminatory open access transmission line. The idea was for all parties to work together to get one stamp and file by July 1. He noted that there had been

a two-day meeting going at AEA that brought together all the utilities in a working group to determine the outcome. He noted that the parties had been separated for 50 years, and it was an interesting conversation. He addressed the last bullet on the slide related to reduced interest rates for Power Project Fund loans that were $5 million or more. He noted that AEA was working on getting the regulations set.

Mr. Thayer showed slide 5, "Owned Assets." He continued to slide 6, which addressed the Bradley Lake Hydroelectric Project. He explained that the project was the state's largest renewable energy source, located 27 air-miles northeast of Homer and providing low-cost energy to over 550,000 people on the Railbelt. He furthered that different utilities from an agreement 30 years ago had different percentages of the power. Chugach Electric had 56 percent of the power, Golden Valley had 17 percent; and it was the cheapest on any party's portfolio. Bradley Lake was 4 cents per kilowatt hour (KWH) while other sources could be as high as 17 cents. He explained that AEA was studying the Dixon Diversion Project, which would increase the annual energy production of Bradley Lake by 50 percent.

9:15:44 AM

Mr. Thayer continued to slide 7, "Dixon Diversion Project," and showed a three-minute video that iterated what was on the slide:

> 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.

The film cited that during the licensing and construction phase from 2024 to 2030, the project was expected to create 3,250 jobs, generate $260 million in labor income, and produce a total economic output of $584 million. In the operations phase, the annual operations and maintenance cost would be approximately $500,000 per year, which would generate additional jobs and economic output. The total cost of the project was $342 million. Benefits included substantial emissions reductions and natural gas displacement, job creation and economic stimulation during construction and operations, and potential for federal tax incentives to help support the project.

9:18:44 AM

Representative Galvin thought that presently Bradley Lake comprised about 10 percent of Railbelt energy.

Mr. Thayer agreed.

Representative Galvin pondered that after the Dixon Diversion Project, Bradley Lake would supply about 15 percent of Railbelt energy.

Mr. Thayer agreed.

Representative Galvin thought the video indicated a 50-year lifespan but understood that most hydro projects had about a 100-year lifespan.

Mr. Thayer responded that 50 years represented what AEA could finance.

Representative Galvin asked if Bradley Lake would likely meet the norm and last 100 years.

Mr. Thayer relayed that Bradley Lake was about 30 years old and was a fairly young hydro project.

Representative Stapp asked about Eklutna's hydroelectric power, which he understood was very inexpensive at 1.3 cents per KWH. He thought there had been talk about shutting it down. He referenced the establishment of the RTO and thought taking down Eklutna's hydroelectric would result in people paying more. He considered the structure of HB 307 and the mechanics of the Regulatory Commission of

Alaska (RCA) and surmised that the costs could not be passed down to other people up and down the Railbelt.

Mr. Thayer responded that AEA did not have a role or ownership in Eklutna Hydroelectric, which was owned by Chugach Electric and the Matanuska Electric Association. There had been a fish and wildlife study required to be done 30 years after the transfer to the two companies. He relayed that AEA had a seat at the table, and the governor would make the ultimate decision. The governor made the recommendation to move forward as-is, with the exception of having a study of pumped hydro, which was ongoing. The decision had been made not to tear the dam down, and he thought there were ways of making it more efficient and looking at fish issues. The parties also included the City of Anchorage.

9:22:21 AM

Representative Stapp asked if, irrespective of ownership, if something was removed, did the establishment of the RTO or Regulatory Commission of Alaska regulations have more of a say of how a change would impact the Railbelt.

Mr. Thayer responded that the answer was no. The RTO was concerned with transmission lines. As power was brought on, the source did not matter. He affirmed that Eklutna and others were governed by the RCA.

Representative Stapp asked about rates shifting because of a loss or change in utilities.

Mr. Thayer thought Representative Stapp's question could be better directed at the RCA. He thought there were upcoming confirmations for three RCA members.

Representative Hannan asked if the Dixon Diversion Project was already under construction.

Mr. Thayer relayed that project process had started in 2022 with public consultation. He shared that AEA had been doing the environmental and geological pre-engineering for the project and would be filing in January with the Federal Energy Regulatory Commission (FERC). He highlighted that the amendment to the FERC license would take 12 to 18 months, and drilling five miles through a mountain would take 6 to 8 months. He assumed the project would have the

FERC license by 2028, with completion by 2030. He shared that AEA would like to have the project completed sooner. He noted that it was almost 3 years into the public process and there was yet no opposition to the project. The FERC chairman had been to the site the previous fall.

Representative Hannan considered the scale of the project and asked about supply chain issues. She asked if Mr. Thayer anticipated concern over tariffs of Build America/Buy America (BA/BA) restrictions.

Mr. Thayer responded that it was not a federally funded project so BA/BA restrictions did not apply. He relayed that supply chain logistics and workforce were always an issue. He relayed that the project involved boring through a mountain, which involved a different skillset/trade. He relayed that the project had changed to a 14-foot diameter to utilize the most common equipment available. The project time frame and construction were based on what had been available, which was for the most part there. The project was still working on the size of the dam raise. All the factors had been taken into account for the schedule of the project.

Representative Bynum asked about the cost per kilowatt hour differential for the bypass project being added.

Mr. Thayer agreed to follow up with the information. He thought the additional cost could be more than 4 cents but would be less than the price of natural gas in Cook Inlet. He continued that AEA's cost estimate was $342 million. He considered the cost of the funds to borrow, including revenue bonds or low-cost loans.

9:28:50 AM

Representative Bynum asked if the additional kilowatt hour cost would be in addition to the additional megawatt hours the diversion would create, or an overall additional cost for megawatt hours created by the facility.

Mr. Thayer responded that the power would be separated from Bradley Lake. He mentioned tax credits, which were available and would offset the cost. There was an accounting firm looking at the matter and researching tax credits, which could affect the project cost up to $100 million.

Representative Bynum did not think the project took renewable energy credits into account.

Mr. Thayer responded in the affirmative.

9:30:12 AM

Mr. Thayer continued on slide 8 and GRIP, also known as the HVDC Line. He explained that AEA had secured $206.5 million with its utility partners through the U.S. Department of Energy's Grid Deployment Office. There had been 700 applications for 58 awards in the country for the competitive grant, and AEA had received the fifth highest amount in the country. The project would build a submarine cable from Nikiski to Beluga across the inlet to provide redundancy. He referenced the Swan Lake fire, which had cut off northern utilities from Bradley power for four months. The GRIP project would provide a second line. He played a video on slide 8, which addressed the project.

9:35:10 AM

Representative Galvin asked if a bridge had been considered rather than an underwater line. She had heard many people dream of a bridge across Cook Inlet.

Mr. Thayer responded that a bridge was not considered. The 40-mile segment would be from Nikiski, an industrial area, to Beluga. He estimated a bridge would be billions of dollars. He mentioned that AEA had used its data library to find twenty-year-old reports related to Beluga whales, which had saved hundreds of thousands of dollars. He noted that AEA had looked at alternatives but not at a bridge.

Representative Galvin understood that the area had what was considered one of the largest tides in the world and she was happy that research had been done.

Mr. Thayer relayed that AEA was trying to acquire a sample of what the cable would look like, which he thought was more armored than a telecommunications cable. He noted that there was a great deal of information available on Cook Inlet.

Co-Chair Schrage understood the video had talked about how more renewable power could be brought to the system by

reducing some of the capacity constraints. He asked if it was correct that the undersea cable allowed for more opportunities for development of tidal power.

Mr. Thayer responded in the affirmative. One of the biggest challenges on the Railbelt was capacity constraint. He noted that Bradley Lake was a 120-megawatt power plant that was served by 70-megawatt transmission lines. The lines were there first, and for the last 30 years no one had upgraded the transmission lines to maximize power out of Bradley. If introducing tidal/wind/solar power, it would not be possible to move due to capacity. He mentioned the age of the Sterling to Quartz Creek transmission lines. He explained that when the cost of power was lowered on the Railbelt, which helped the PCE and sent more money into rural Alaska.

9:40:25 AM

Representative Bynum asked about the operation and maintenance cost and asked if it included capitalization or long-term components.

Mr. Thayer agreed to follow up at a later time with the information.

Representative Bynum asked about the replacement cost of the line. He asked how the state was doing cost-recovery on the expense.

Mr. Thayer replied that any cost of transmission lines would be recovered through the RTO through the tariff being developed.

Representative Bynum asked about the existing transmission line route and understood it was also being upgraded.

Mr. Thayer answered affirmatively.

Mr. Thayer continued on slide 9 and the Sterling to Quartz Creek transmission lines. Near Hope, the line picked up the Chugach system and took it to Eagle River. He noted that AEA owned about 40 miles of the line. He explained that the 69 kilovolt (kV) line was decommissioned and removed; engineers were designing and procuring equipment for the upgrade of the existing 115 kV line to 230 kV. Construction had started on first section. He directed attention to the

photo on the slide that showed the old and new line. He noted that Chugach had replaced its old structures that looked very similar.

Mr. Thayer mentioned the challenge of work in the wetlands and taking Bradley Lake offline during the upgrade. There was a four-year project working within workable windows. The cost for the upgrade was estimated at $90 million and AEA had $12.5 million in debt service that became excess payments. The total bond had been $166 million, and the project was paid for without an increase to ratepayers. There had been a vote to move $50 million from a different transmission project to do the match for GRIP. Additionally, $12.7 million was through the state. He discussed the combined financing of the project.

9:45:21 AM

Co-Chair Josephson referenced the GRIP award, and asked if it meant that the state had to pay out $206 million. He asked if much of it was paid out of AEA's own efforts.

Mr. Thayer responded that there was a $206 million match, and the grant did not specify the source of the matching funds. He explained that the state gave $12.7 million the previous year, and AEA had been able to move $50 million towards the project. The funds were not defined as a state match, but rather a match from any non-federal sources.

Co-Chair Josephson understood that the answer was yes. He thought the state had believed erroneously that the grant award was a great achievement, but there was a caveat that AEA find matching funds.

Mr. Thayer relayed that the $206.5 just had to be a match from non-federal sources, and right now AEA had $63 million identified as matching funds and was short $143 million. The funding could come from any source. He responded that AEA had been approached about a public/private partnership, which it would look at. He hoped the committee and the AEA Board would help navigate some of the different funding opportunities. There had been discussion of a General Obligation (GO) bond for funding. He affirmed that AEA needed to secure the funding in the next year or two.

Co-Chair Schrage understood there were two things going on. He pointed out that rather than needed all the funds up

front AEA would be able to find financing over time as needed, and AEA had been able to find some of the funds from other sources than the state. He pondered that there was still the problem of needing to come up with more funds in the out years up to the $206 million.

Mr. Thayer responded affirmatively. He noted that AEA's current year budget was $14.7 million, so it would have to cover the federal match. In year three or four, the project would have to order the cable, which would be $60 million to $80 million. Costs would taper off until the project went into construction, and the grant stipulated the project must be completed in eight years. The project was in year one, and AEA had already identified a quarter of the matching funds necessary.

9:48:44 AM

Mr. Thayer continued to slide 10 and discussed Battery Energy Storage Systems (BESS) for grid stabilization of the Railbelt. Through bonding funds, AEA put $28 million in services to dampen oscillation issues related to Bradley Lake. The service was purchased from the utilities over the next 15 years. He continued that AEA had signed an agreement with Chugach Electric and the Matanuska Electric Association and was working with Kenai and Fairbanks. By doing the oscillation agreement, it lowered the cost of the batteries, which was a direct benefit to rate payers along the Railbelt.

Mr. Thayer moved to slide 11 and 12 and discussed federally funded programs. He highlighted the Grid Resilience Formula Grant Program known as 40101(d). There was $60 million available that required a $1.8 million match that was in AEA's current budget request. The program was moving ahead, and AEA was in the process of making awards of $20 million. There would be a second round that would be taking applications like the Renewable Energy Fund, and there would be $17 million awarded at the end of the year. The first award was going to Golden Valley Electric (GVA).

Mr. Thayer continued to slide 13 and the NEVI program. The program funding had been suspended pending a review by the Department of Energy. He understood the rationale for suspension of the $5 billion national program, which thus far had only been able to approve 52 charging stations. He noted that AEA's project had received approval and had been

waiting two years for funding for nine communities to have charging stations. He thought there would be more clarity in the fall.

Representative Galvin asked to go back to slide 12 and the award to GVA. She asked if the award would be just for grid resilience and not for rural Alaska, grid expansion, or other opportunities.

Mr. Thayer responded that the grant was not for new construction of transmission but was for resilience of the existing grid. The program was for 69kV and above, which was larger transmission lines. He continued that there was separate funding for rural Alaska that was up to $70 million, which was a larger program administered to rural Alaska directly from the Department of Energy (DOE).

9:52:55 AM

Co-Chair Schrage asked if the rural program had seen less of the money flowing because of the funding freezes that had been seen.

Mr. Thayer responded that AEA had only just had DOE start returning phone calls in the previous two weeks and had not had time to compare notes with colleagues in other areas. He noted that there was a period of time when the department was not returning communication via phone or email and was not paying its bills. The situation had changed, and DOE was now communicating. He did not know how fast the change was happening across all the funding sources. He qualified that AEA had been aggressive in reaching out, and the Congressional delegation had been helpful.

Co-Chair Schrage asked if there was any formal effort undertaken by AEA to monitor funding to other entities. He mentioned crossover impact within the state.

Mr. Thayer responded that the short answer was no, and that AEA had worked to identify crossover for projects it was managing. He qualified that AEA did not know all the federal funding that had been received, especially in rural Alaska. He commented that there had been a lot of money being handed out quickly by DOE for four years.

Mr. Thayer continued on slide 14, and the Solar for All competitive award that AEA was partnering on with the Alaska Housing Finance Corporation (AHFC). He described that AEA was developing solar in disadvantaged communities (primarily in rural Alaska), while AHFC was developing residential rooftop solar for low-income households. The grant did not require state matching funds. The program was proceeding. He noted that the photo on the slide was of the Houston Solar Farm, the largest solar farm in the state that AEA had helped fund through its renewable energy program.

Mr. Thayer moved to slide 15, and addressed Home Energy and High Efficiency Rebate Allocations, which involved $74 million and a partnership with AHFC. The funds flowed through AEA, but AHFC had the programs, and the two agencies had a Memorandum of Understanding (MOU). The two programs (Home Efficiency Rebates and Home Electrification and Appliance Rebates) were each $37.4 million with no state match required. He relayed that he had a meeting with Chief Executive Officer and Executive Director of AHFC Bryan Butcher in ten days' time. He noted that the program was going forward after being frozen, and he hoped to have funding by fall or winter of the following year.

Mr. Thayer advanced to slide 16 and the Black Rapids Training Site (BRTS) in Fairbanks, where AEA partnered with GVE to extend the transmission line to Black Rapids. The line was under construction, and the funding was moving forward with no state match required.

Mr. Thayer moved to slide 17 and some smaller awards that were pending. He listed programs that were proceeding, including: the Energy Efficiency Revolving Loan Capitalization, State Energy Program Funding, High Energy Cost Grants (Manokatok) – USDA Rural Utilities Service, Vehicle Technology Office Competition Federal Fiscal Year 2022 (ARED), the Energy Efficiency and Conservation Block Grant, and Training for Residential Energy Contractors (TREC). He mentioned the Energy Future Grant, which was the only unknown. He qualified that AEA had been unable to get ahold of the project officer for the program but noted that the officer probably had many programs over many states.

9:57:51 AM

Representative Galvin asked about number 4, the Vehicle Technology Office, which she assumed was not related to the national electric vehicle program.

Mr. Thayer responded that it was a separate program that required a state match the legislature had previously approved. The program primarily looked at electric charging in rural Alaska, not necessarily for vehicles but for snow machines and perhaps outboards and the conversion needed. The grant was not large and was $2 million in total.

Mr. Thayer played another video on slide 19, which summarized AEA's activity in rural Alaska. It mentioned AEA's activities assessing power houses, tank farms, and distribution systems in order to guide resources. The video addressed rural power system upgrades. It highlighted the Circuit Rider Program, which provided on site technical assistance and training.

10:01:41 AM

Mr. Thayer continued on slide 20 and the Power Cost Equalization (PCE) Program in 192 communities. He noted that AEA also did public facilities in rural Alaska. He mentioned being severely behind but now caught up with paying for PCE techs. He mentioned the circuit riders.

Co-Chair Schrage asked how many circuit riders there were currently as compared to 15 to 20 years previously.

Mr. Thayer relayed that there were currently four circuit rider positions, three of which were filled. He described challenging conditions. The state paid for the program, then reduced the funding. The federal government had increased funding at the time but had reduced the amount. He noted that AEA had a budget request of $710,000 for the PCE to pay the cost of the circuit riders, which all worked in PCE communities.

Co-Chair Schrage understood that there were considerably more circuit riders in the past.

10:04:05 AM

TIM SANDSTROM, CHIEF OPERATING OFFICER, ALASKA ENERGY AUTHORITY, responded that the numbers had stayed the same for the previous 12 years.

Co-Chair Schrage had heard of a lot of need for technical assistance and thought more circuit riders could be helpful. He understood the budget climate was tough.

Representative Hannan asked if school districts were excluded from PCE support.

Mr. Sandstrom responded that the reason schools and school districts were not eligible was due to statutes indicating that facilities getting PCE assistance could not be supported by other state funds.

Representative Hannan asked if it would make schools eligible if federal dollars coming to school districts fell away through the closure of United States Department of Education.

Mr. Sandstrom responded that the decision would be made by the RCA.

Co-Chair Foster asked if the $700,000 request for circuit rider training was a request from the governor in the capital or operating budget.

Mr. Thayer responded that the funding request was in the governor's budget and in the operating budget.

Co-Chair Foster asked about the circuit rider positions, one of which was vacant. He asked if there were situations where all four positions were required, or if most of the time three positions were sufficient.

Mr. Sandstrom responded that more circuit riders would be beneficial, and that three to four were at capacity just kept ahead of emergencies. He opined that there were cost savings in funding the positions because any emergency that was forestalled could equate to many times the cost of a circuit rider's annual salary.

Mr. Thayer responded that the circuit riders traveled in pairs in rural Alaska for safety and for assessing emergencies. With full staffing, the program could handle only two emergencies at one time.

Co-Chair Schrage asked how many emergencies there normally were at one time.

Mr. Sandstrom replied that the record was three electrical emergencies at once.

Co-Chair Schrage surmised that to handle three electrical emergencies there would need to be a minimum of six circuit riders to provide assistance.

Mr. Sandstrom explained that the program augmented the work of the circuit riders with private contractors, and there were several that were used on a regular basis. He noted that it was not as cost effective but was the only option.

Co-Chair Schrage asked to what extent were the private contractors being used.

Mr. Sandstrom relayed that the contractors were used about 30 percent of the time.

10:08:22 AM

Mr. Thayer continued on slide 21 and discussed rural power system upgrades. There were 170 communities affected. He referenced the before/after photos of a Tuluksak powerhouse shown on the slide. He referenced $300 million in deferred maintenance. He noted that the average powerhouse cost $6 million, and the average lifespan was 20 years. He mentioned the importance of training and the presence of circuit riders. He referenced a $2.5 million capital request as well as a request for $2.5 million in federal receipt authority. He noted that the Denali Commission had been generous in previous years with matching state funds.

Co-Chair Josephson asked if Tuluksak was served by the Alaska Village Electric Cooperative (AVEC).

Mr. Thayer responded that AVEC did not do power houses, which still fell to the responsibility of the state. He relayed that the statue put forth that AEA "may" but AEA had assumed the responsibility of "shall" to provide powerhouse upgrades to rural Alaska. He noted that AVEC provided some technical assistance, but there were 40 communities not served by the cooperative and were the smallest and most at risk.

Representative Bynum asked if the $300 million was unfunded deferred maintenance.

Mr. Thayer responded that it was $300 million and unfunded.

Representative Bynum asked if the deferred maintenance included fuel storage.

Mr. Thayer noted that bulk fuel was another $1 billion in deferred maintenance, which was a conservative number.

Representative Bynum asked if there was a reason the costs were not included in the rate of delivering power.

Mr. Sandstrom responded that AEA managed grant programs that built the facilities, which became the utilities. He continued that AEA did not have any input into setting rates. He thought Representative Bynum correctly observed that rates were most often not set at a level that allowed repair and replacement.

Representative Bynum asked if there was anything that prevented them from putting language in grants that would ensure covering repair and maintenance.

Mr. Thayer responded that it was a policy call. He noted that the work was in some of the highest cost energy areas of the state. He noted that PCE would cover from the floor up to $.75/kw, but many communities were higher. The highest community in the state was $1.75/kw. He thought additional costs were a policy call for the RCA or the legislature to decide how it wanted to recover the costs.

Representative Bynum asked for clarification that when Mr. Thayer referenced a policy call he was not talking about AEA, but rather the legislature.

Mr. Thayer responded in the affirmative, and relayed that AEA administered the program as it was set out, but conditions on funding would have to be set by the funders or RCA. He understood Representative Bynum's concerns.

Representative Bynum understood the need for reliable power for the state's communities but thought there was a trend of the state funding initial capital investment without a plan to take care of the investment into the future. He was interested in preventing the problem in the future.

Mr. Sandstrom shared that AEA provided a complete operations and maintenance plan and manual, including a business case study for rates.

10:14:20 AM

Representative Stapp asked if AEA had explored Jenbacher gas engines to create power. He asked what was the system that was maintenance-friendly with the most longevity.

Mr. Sandstrom responded that AEA did look at new technologies but generally found that the longer-lasting technologies cost much higher and often had exacerbated operations and maintenance with the complexity of the system.

Mr. Thayer continued on slide 22 and discussed a capital request of $2 million for bulk fuel upgrades with federal receipt authority of $2 million. He asked the committee to keep in mind that a bulk fuel tank upgrade the average was $11 million. For AEA, it often took multiple legislative sessions for a complete replacement. He directed attention to the before/after picture on the slide. He mentioned 3D modelling and having better real time information on the generators and bulk fuel capacities of the communities. By regulation, AEA kept a list of the 25 of the most critical need communities. He mentioned changes every year and that communities could get funding from other sources. He mentioned that all federal dollars from Infrastructure Investment and Jobs Act (IIJA) and other similar disbursements over the previous four years had allowed nothing in rural Alaska (for powerhouses or bulk fuel) because of dealing with fossil fuel. He commented that AEA had been able to supplement with wind or solar.

Co-Chair Schrage highlighted that there was $1 billion in deferred maintenance yet only a $2 million capital request, which he thought spoke to the inadequacy of what the state was doing.

Representative Galvin noted that as the committee had been looking at other deferred maintenance issues, she wondered how many issues were deferred maintenance or just needed replacement. She pondered concerns around maintenance issues because of new technology and thought if the state did not move forward it would be left behind. She mentioned

education and building the necessary workforce to move the state.

Representative Bynum thought the slide and reference to deferred maintenance and equipment failures was concerning. He asked if AEA had done any evaluation that had been paired with negative environmental impacts and costs associated with fuel farms failing.

Mr. Thayer responded that the Denali Commission had tackled the topic with a study. He noted that the top 25 power system replacements would cost $175 million, and the top 25 bulk fuel replacements would cost $300 million. He commented that even the smaller pieces were large. He relayed that AEA had worked with the United States Coast Guard on bulk fuel. He recounted getting a call the previous summer that the river was eroding. The bulk fuel was within five feet of the river and had to be pulled back.

Representative Bynum commented that all of the new technologies were pointless if the backbone of the state's utility systems was not healthy. He hoped that the state could come up with some different approaches to get the system healthy.

10:20:28 AM

Representative Jimmie was glad Representative Bynum brought up the point. She saw in District 38 that the tank farms were in danger from the eroding rivers, which continued to erode every year. Some tank farms were as close to the river as 20 feet. Community members had indicated there was a loss of 10 feet in one year. She asked if AEA had plans to bring the grid to Southwest Alaska or rural areas in the future.

Mr. Thayer thought one of the challenges in rural Alaska was the distance. He cited that to do transmissions lines cost was $1.5 million to 2 million per mile. He mentioned linkages between communities including a tie-line that AEA owned from Bethel to Oscarville. He relayed that there had been a look into what a grid would cost, but the amount was in the billions. In Southeast, communities were able to be linked, but the distance and operation/maintenance were challenging in rural Alaska.

Representative Jimmie mentioned tank farms and thought AEA would want to avoid costliness in the future.

Mr. Thayer responded that it was something AEA had to look at. He pondered that with the cost of the transmission lines to communities that were remote, there would be other considerations.

Co-Chair Schrage asked if it was fair to say that AEA wanted Alaskan communities to have more reliable and lower cost energy in whatever way possible, it was just a matter of cost and ability to invest.

Mr. Thayer agreed and pondered what would fit best for each community.

10:24:09 AM

Mr. Thayer continued to slide 23 and the Circuit Rider Program and PCE Endowment. The slide reviewed electrical emergencies in the past year. The slide showed the number of incidents per community. He noted that Venetie had 9 occasions of an electrical emergency.

MR. Thayer advanced to slide 24 and 25 and the Renewable Energy Fund (REF) Grant Program established by the legislature in 2008. He cited that 80 percent of the funds went to projects in rural Alaska. The state awarded 294 grants totaling $327 Million. There were over 100 projects in operation and 56 projects in development. The governor had restarted the program about four years previously. The legislature and the governor had awarded $17 million in round 15, and $10.5 million in round 16. This year's request was $21 million by the Renewable Energy Advisory Committee. The governor's budget had $6.2 million in it. The previous year the governor had $5.2 million, which the legislature added to before it was dropped.

Mr. Thayer continued to the 18 projects on slide 26, which were in ranked order by the economics of the project, energy savings, regional basis, type of technology. There was a line that indicated projects that could be funded, and if more funding became available, the line could drop to include more projects.

Mr. Thayer moved to slide 27 and addressed REF Annual Diesel and Natural Gas Displacement. The life of the

program saved roughly 13 million gallons of diesel per year. An independent third party had looked at the program and confirmed that it offset over 100 million gallons of fuel across the state over the life of the program.

Mr. Thayer continued to slide 28 and discussed successful REF projects. There were over 100 active projects. He mentioned several projects around the state and offered to provide a list of projects in every legislative district around the state that the program had funded. He noted that AEA maintained the list to achieve regional balance. Of the programs that AEA had been able to fund and get off the ground, the federal infrastructure funds over the past four years had been able to do $125 million into communities. He mentioned federal funds going to Old Harbor and Thayer Creek.

Mr. Thayer concluded on slide 29. He discussed AEA's team of roughly 50 people that would probably grow up to 70 people to address IIJA and GRIP funding.

Co-Chair Josephson commented on Mr. Thayer's good work.

Co-Chair Schrage thanked the presenters.

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ADJOURNMENT

10:29:18 AM

The meeting was adjourned at 10:29 a.m.