

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

March 19, 2019
11:02 a.m.

MEMBERS PRESENT

Representative Grier Hopkins, Chair
Representative John Lincoln
Representative Ivy Spohnholz
Representative Tiffany Zulkosky

MEMBERS ABSENT

Representative Zack Fields, Vice Chair
Representative Lance Pruitt
Representative George Rauscher

COMMITTEE CALENDAR

PRESENTATION: ALASKA ENERGY AUTHORITY - OVERVIEW & UPDATES

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

CURTIS THAYER, Executive Director
Alaska Energy Authority (AEA)
Anchorage, Alaska

POSITION STATEMENT: Presented a PowerPoint titled "AEA Overview."

ACTION NARRATIVE

[11:02:29 AM](#)

CHAIR GRIER HOPKINS called the House Special Committee on Energy meeting to order at 11:02 a.m. Representatives Hopkins, Zulkosky, Spohnholz, and Lincoln were present at the call to order.

PRESENTATION: ALASKA ENERGY AUTHORITY - OVERVIEW & UPDATES

PRESENTATION: ALASKA ENERGY AUTHORITY - OVERVIEW & UPDATES

11:02:53 AM

CHAIR HOPKINS announced that the only order of business would be a PowerPoint presentation titled "AEA Overview."

11:03:30 AM

CURTIS THAYER, Executive Director, Alaska Energy Authority (AEA), presented a PowerPoint titled "AEA Overview" and introduced slide 2, "AEA's mission is to reduce the cost of energy in Alaska." He explained that AEA was created in 1976 and was an independent agency as well as a public corporation governed by a board of seven directors, which they shared with Alaska Industrial Development and Export Authority (AIDEA). He reported that AEA developed finance, as well as operating and maintaining energy systems, loan programs, the PCE (power cost equalization) endowment distribution, Railbelt utilities and intertie, and the Bradley Lake dam. He moved on to slide 3, titled "AEA works with communities to provide safe, reliable and affordable energy solutions." He pointed to the map on the slide, stating that this was a snapshot for where AEA projects were located.

11:05:19 AM

MR. THAYER introduced slide 4, "AEA Programs and Projects" and paraphrased from the slide, which read:

Bradley Lake Hydro • Alaska Intertie • Bulk Fuel Upgrades • Rural Power System Upgrades • Rural Utility Assistance • Power Cost Equalization • Renewable Energy Fund grants • Power Project Fund Loans • Alternative Energy & Energy Efficiency • Energy Project Development & Finance

MR. THAYER moved on to slide 5, "Bradley Lake Hydroelectric Project," stating that this project was AEA's largest asset and was currently valued at \$450 million. He shared that it was constructed with \$328 million, half of which was raised through bonding and the other half was through appropriations from the State of Alaska. He paraphrased from the slide, which read:

Produces ~ 10% of Railbelt electricity, 4.5 cents/kWh
• Benefits members of • Golden Valley Electric • Matanuska Electric • Municipal Light & Power • Chugach

Electric • Homer Electric • City of Seward • Battle Creek Diversion Project: \$47M, will add ~10% energy

CHAIR HOPKINS asked about the funding mechanism.

MR. THAYER replied that it was currently being bonded.

CHAIR HOPKINS asked if this was through AEA or the utilities.

MR. THAYER replied that this was through both AEA and the utilities, as the utilities paid into some of the bonding. He reported that the Bradley Lake bonding would be due in two years.

CHAIR HOPKINS asked if the percentage breakdown to the utilities would remain the same.

MR. THAYER replied that the percentage would remain the same and he referenced the Bradley Lake hydro agreement between the aforementioned six utilities.

[11:07:52 AM](#)

MR. THAYER paraphrased from slide 6, "Alaska Intertie," which read:

170 miles from Willow to Healy • Allows Golden Valley Electric Assoc. (GVEA) to connect to and benefit from lower cost power • Improves reliability within Railbelt system • Operated by AEA and Railbelt utilities • \$27.4M savings for GVEA in FY2018

MR. THAYER pointed out that neither Seward or Homer were included as they were not on the Railbelt.

CHAIR HOPKINS asked whether Golden Valley Electric Association (GVEA) also bought power from Chugach Electric.

MR. THAYER expressed his agreement and added that GVEA also bought power from Bradley Lake. In response to Chair Hopkins, he explained that the shared transmission with TRANSCO was not a new concept. This would be an agreement between the utilities, as AEA was not a party to this agreement because AEA did not have a distribution system and did not put power into the transmission system. He added that only four of the six utilities had signed on, and he opined that there were still some issues to be worked out.

CHAIR HOPKINS asked if AEA should be a partner in a transco [transmission company].

MR. THAYER replied that, although AEA already owned 170 miles of the transmission line, they did not see a need to have a seat "at the table because a lot of it deals with the distribution of their power." He pointed out that AEA did not have any rate payers as customers. He offered his belief that this was "an area where government's not best to be in."

[11:11:22 AM](#)

MR. THAYER paraphrased from slide 7, "Bulk Fuel Tank Farm Upgrades (BFU)," which read:

- Builds code compliant fuel storage facilities •
- Preventing spills and contamination •
- Decreasing the per unit cost of fuel by allowing the community to purchase bulk quantities •
- 118 projects completed since 2000

MR. THAYER added that State of Alaska funding had contributed almost \$10 million into the project, as well as almost \$1 million in matching funds from the Denali Commission. He pointed out that there were 195 communities, and there was a life cycle with on-going maintenance.

[11:12:27 AM](#)

REPRESENTATIVE LINCOLN asked if there was a list of communities and how would an interested community become part of this.

MR. THAYER offered that there was a list and that AEA was able to build four to five each year, with a build schedule already scheduled for a few years.

REPRESENTATIVE LINCOLN asked if there was any anticipation of significant changes to the program.

MR. THAYER said there was capital funds money remaining through the next few years, and there were discussions with the Denali Commission to continue a partnership. He said that about 30 percent of Denali Commission money went to bulk fuel or the powerhouses.

[11:13:43 AM](#)

REPRESENTATIVE LINCOLN asked if this was capital funding which AEA already had or was it anticipated.

MR. THAYER replied that this was funding which AEA currently had. He explained that this funding was included with the PCE formula, which would first be distributed to PCE, then to community assistance, and finally 70 percent of the excess earnings would go into bulk fuel or the powerhouses.

REPRESENTATIVE LINCOLN asked if the currently proposed changes to the PCE and its endowment would put an end to this AEA program.

MR. THAYER explained that under the current proposal, the PCE funding would go into the (Constitutional Budget Reserve) CBR which would instead create a competitive environment for capital funding as well as operating funding for AEA.

CHAIR HOPKINS asked if AEA could ensure the program would be funded in the future.

MR. THAYER said that AEA planned to continue its operation of the program, regardless of the outcome to the budget situation. He pointed out that PCE was still fully funded in the current proposed budget but would receive its funding out of the operating fund, instead of from its endowment. He acknowledged that the endowment model was a better guarantee for predictable revenue.

[11:16:36 AM](#)

MR. THAYER directed attention to slide 8, "Rural Power System Upgrades (RPSU)," which read:

Improving power system efficiency, safety and reliability • Builds code compliant facilities providing stable and reliable power • ~10% to 20% efficiency improvement in diesel generation • 86 projects completed since 2000

MR. THAYER added that there were 195 communities, with powerhouse upgrades only completed for those 86 communities. He reported that, as about 80 small villages in Rural Alaska were not tied to a utility, the community ran the powerhouses and without the expertise, there was a higher need for maintenance and a shorter life expectancy. He reported that there was

greater success when there was staff training. He noted that there were three to four new projects each year in Rural Alaska. He pointed out that the federal Diesel Emissions Reduction Act (DERA) also contributed funding.

[11:19:24 AM](#)

MR. THAYER moved on to slide 9, "Rural Utility Assistance," and reported that in FY2018 there had been 103 circuit riders with rural utility worker assistance in Rural Alaska; 38 community trainings; and 6 communities assisted with electrical emergencies.

CHAIR HOPKINS asked if there was work to lower the diesel fuel needs of community buildings and homes so there was less demand.

MR. THAYER replied that primarily the work to lower the cost in partnership with the communities was for work on the powerhouses. He referenced the Energy Efficiency program from years past.

REPRESENTATIVE ZULKOSKY discussed her earlier work with renewable energy for a non-profit and stated that the "low hanging fruit" was energy efficiency. She pointed out that significant investment into inefficient systems did not afford much opportunity for cost savings.

[11:21:40 AM](#)

MR. THAYER introduced slide 10, "Power Cost Equalization (PCE) Program," which read:

- 195 communities served • Disbursed \$27M in FY2018 •
- Regular communication with rural utilities helps identify problems early • Supported by AEA rural utility assistance • Online portal will increase efficiency and accuracy of reporting

[11:22:55 AM](#)

MR. THAYER directed attention to slide 11, "PCE is only one small piece of the community energy cost pie." He reported that the total PCE reimbursement was about 14 percent; while the non-PCE rate payers, such as commercial buildings, government buildings, and schools which receive federal dollars accounted for 86 percent.

11:23:28 AM

MR. THAYER shared slide 12, "PCE Endowment FY2019 Appropriations," and reported that the earnings from the PCE Endowment was \$112 million. Of that, \$32.4 million went to AEA for power cost equalization and about \$381,000 went to administer the program. He added that \$120,000 of this went to the Regulatory Commission of Alaska (RCA) and an additional \$360,000 went to the Department of Revenue for fund management cost. He reported that there was a balance of about \$79 million, of which, per the formula, 70 percent of these unobligated earnings equaled \$55 million. Of this \$55 million, \$30 million went to the Community Assistance Program, \$14 million went to the Renewable Energy Grant Fund, and \$11 million went to the Rural Power Systems Upgrades. He offered his belief that there would be upcoming earnings of about \$78 million, which would lower that amount for Community Assistance Program, the Renewable Energy Grant Fund, and the Rural Power Systems Upgrades.

REPRESENTATIVE LINCOLN asked if bulk fuel was included in the Rural Power Systems Upgrades.

MR. THAYER replied the Rural Power Systems Upgrades needed additional funding for what was budgeted.

REPRESENTATIVE LINCOLN asked if the PCE fund was within AEA.

MR. THAYER replied, "yes."

REPRESENTATIVE LINCOLN asked if the appropriation for these programs still went through the Alaska State Legislature for approval and required the signature of the governor.

MR. THAYER explained that it was now pre-determined in statute.

REPRESENTATIVE LINCOLN asked if it was dispersed directly from AEA, and not subject to the appropriations process.

MR. THAYER explained that AEA first received funding from the endowment for the PCE, and then, dependent on the remainder of the earnings, the formula was used for the Community Assistance Program, the Renewable Energy Grant Fund, and the Rural Power Systems Upgrades.

REPRESENTATIVE LINCOLN asked whether the mechanics for the appropriations were through AEA or through the legislature to go through the appropriations process.

MR. THAYER said that he would get back to Representative Lincoln with that answer.

[11:26:25 AM](#)

CHAIR HOPKINS asked about the board reaction to maintain the PCE program without the endowment fund should the governor's proposal move forward.

MR. THAYER relayed that the board had discussed this, and he pointed out that AEA was still fully funded, even though this process created a more competitive environment. He pointed out that during prior competitive environments, PCE did not ever receive the full funding requested. In response to Chair Hopkins, he said this would have happened from the mid to late 1990s to the 2000s.

CHAIR HOPKINS asked if AEA received funding for staff.

MR. THAYER replied that about \$250,000 was paid for staff, travel, and administration of the program. He reported that there were three people dedicated to the program, a program manager and two clerks. He added that there were shared services which dispersed the money to the communities.

[11:28:21 AM](#)

MR. THAYER addressed slide 13, "Renewable Energy Fund (REF)," which read:

\$268M invested in REF by the State • Boosted renewable energy market in Alaska • Leveraged hundreds of millions of federal and private dollars • 73 operational projects, 56 in development • Displacing ~30 million diesel equivalent gallons annually • ~\$74M in fuel savings in 2018

CHAIR HOPKINS asked if the committee could receive a list of the communities which had received funding for projects through the REF from 2008 - 2019 per the map on slide 14.

[11:29:26 AM](#)

MR. THAYER shared slide 15, "REF Funding by Energy Resource (\$ millions)" and listed hydro, wind, biomass, and heat recovery projects in that order for having received the most funding. These were followed in funding for heat pumps, some transmission, a little ocean/river and a little bit of solar. He noted that the funding had been "across the spectrum."

[11:30:12 AM](#)

MR. THAYER moved on to slide 16, "Power Project Fund Loan Program," which read:

- \$27.5 committed or disbursed for 18 loans
- \$10.7 million uncommitted
- Flexible loan program
- Covers all aspects of supply side system
- Relies on unique, in-house technical expertise for evaluation of loan viability and regulatory compliance
- Loan applications are also vetted for economic and finance viability
- Critical resource in shift from grant funded to debt financed energy projects
- Participation continues to increase

REPRESENTATIVE ZULKOSKY referenced slide 15 and asked what projects were included in the \$14.6 million spent on transmission. She asked if any of this specific funding could be used to help communities prepare to bring projects on line by addressing energy efficiency issues as a foundational step.

MR. THAYER asked if she was referring to the planning and design phase for projects.

REPRESENTATIVE ZULKOSKY asked if energy efficiency projects qualified under this fund as a precursor to renewable energy projects.

MR. THAYER replied, "yes, they do."

REPRESENTATIVE ZULKOSKY asked for any additional information related to this.

[11:32:33 AM](#)

REPRESENTATIVE SPOHNHOLZ, also referring to slide 15, asked what qualified as heat recovery.

MR. THAYER said that he would "get back to you on that." He added that part of the heat recovery was from the diesel

generation by the power houses. He noted that there was an issue with the generators, as EPA did not care for the marine generators used in Rural Alaska.

REPRESENTATIVE SPOHNHOLZ asked if the EPA concerns were for emissions.

MR. THAYER expressed his agreement. He pointed out that the marine generators were more robust, while generators with all the emissions [controls] had a greater rate of failure and were costly to repair or replace.

REPRESENTATIVE SPOHNHOLZ asked if these additional emissions capacities made the generator more complicated.

MR. THAYER expressed his agreement.

[11:34:11 AM](#)

MR. THAYER discussed slide 17, "\$29.5 million approved for 18 active projects." He reported that eight loans were disbursed for diesel powerhouse, six loans were disbursed for hydro, two loans for wind, and one each for biomass and distribution systems.

[11:34:42 AM](#)

MR. THAYER shared slide 18, "Alternative Energy & Energy Efficiency." He said that there were programs which focused on commercial buildings, rural public buildings and facilities, and statewide outreach and education. He mentioned the Remote Alaska Energy Efficiency program and the 64 megawatts of installed wind capacity throughout the state. He noted that there were 20 operating biomass systems, and that AEA had assisted with 70 hydro projects. He noted that Alaska was now 30 percent hydro, with Kodiak Island being the champion with wind and hydro projects.

REPRESENTATIVE SPOHNHOLZ asked where was the most opportunity for wind power which was not currently being taken advantage.

MR. THAYER reported that AEA had done an analysis of energy opportunities in Alaska in 2000 and was currently updating that analysis as technology for renewables had changed. He added that battery [technology] had also advanced during this time. He said that AEA hoped to have that report completed by the end of the year.

CHAIR HOPKINS reflected that often the implementation and the cost for many of these energy projects was not feasible. He asked about the 64 megawatts of wind power in Alaska, with half of that being produced on Fire Island. He asked about Eva Creek wind production, noting that he thought it was larger than Fire Island with a planned expansion of generation.

MR. THAYER said that this was a private project and not an AEA project. He added that the State of Alaska had invested \$25 million in the transmission line.

CHAIR HOPKINS offered his understanding that there was a plan to build an additional transmission line to expand Fire Island. He asked if AEA had any part in this.

MR. THAYER said that AEA had not been approached about any future intentions for Fire Island.

CHAIR HOPKINS asked if AEA would offer any assistance with funding that project.

MR. THAYER offered his belief that this would be a conversation with the governor and the legislature.

[11:39:05 AM](#)

MR. THAYER shared slide 19, "Energy Project Development & Financing," which read:

Planning, evaluation and project development assistance • Data collection & reporting • Utility business assistance • Financing (e.g. Power Project Fund loans) • Critical federal partnerships (e.g. Denali Commission)

MR. THAYER reported that, as Alaska Village Electric Cooperative, Incorporated (AVEC) owned and operated about 80 healthy utilities, he was in discussion regarding the future AVEC takeover of ownership in many of these other communities. He pointed out that AVEC had a very good track record.

REPRESENTATIVE ZULKOSKY pointed out that AVEC always indicated that it was up to the local community to opt in for working with AVEC. She asked if AEA was adequately funded to provide the capacity for building and planning throughout Rural Alaska.

MR. THAYER said, "the short answer is no." He offered his belief that there were often opportunities to increase the powerhouses and the bulk fuel, as there was a greater demand than AEA had time, resources, and personnel. He stated that it was a policy call for the legislature to determine the balance. He reported that AEA had 30 staff with an additional 30 people in services shared with Alaska Industrial Development and Export Authority (AIDEA). He expressed his concern for knowing the condition of the 195 communities in Rural Alaska and knowing what AEA could do to predict the life span with a rotation of maintenance. He declared that there was always a need for more money for these projects.

[11:43:07 AM](#)

MR. THAYER presented slide 20 "AEA provides energy solutions to meet the unique needs and opportunities of Alaska's rural and urban communities."

MR. THAYER addressed the Volkswagen settlement and paraphrased from slide 23, which read:

Volkswagen violated the Clean Air Act and they were caught. A lawsuit followed, resulting in the VW Settlement. 23 • Alaska is a beneficiary, allocated \$8.125 million • AEA is the designated Lead Agency for Alaska • The State's Beneficiary Mitigation Plan outlines which of the 10 eligible Environmental Mitigation Actions (EMAs) Alaska will fund • 50% on school buses • 10% on public transit • 10% on commercial marine vessels • 15% on rural prime power • 15% on Electric Vehicle charging infrastructure

[11:44:56 AM](#)

REPRESENTATIVE SPOHNHOLZ asked about the process for application and distribution.

MR. THAYER explained that there was an application process for communities to apply for the grants, which would be evaluated, and the money then dispersed based on the grant proposals.

REPRESENTATIVE SPOHNHOLZ asked if the applications would come from the local governments.

MR. THAYER replied, "yes."

CHAIR HOPKINS asked about the working relationship between AEA and AIDEA.

MR. THAYER explained that this was a unique relationship as there were two very distinct and different missions. Alaska Industrial Development and Export Authority (AIDEA) focused primarily on finance and opportunity and as a conduit for bonds and banks for economic development; whereas, AEA focused primarily on energy in Rural Alaska. He pointed out that AEA shared with AIDEA the services of about 30 people for accounting, bookkeeping, procurement, and contracting and that the two were co-located in the same building. He reported that the costs of the shared services and the building were split equally between AEA and AIDEA. In response to Chair Hopkins, he said that AEA had about 30 staff while AIDEA had about 25 staff, and with the shared services, there were 82 staff for both agencies.

[11:47:59 AM](#)

REPRESENTATIVE ZULKOSKY asked to clarify that AEA operated under the AIDEA board structure.

MR. THAYER replied that the two agencies shared the same board, although there were separate board meetings. He pointed out that primarily AEA were engineers and AIDEA were bankers.

REPRESENTATIVE ZULKOSKY asked how having a shared board served to accomplish the AEA mission, if board members were "thinkers in nature and might not be as familiar with energy issues."

MR. THAYER replied that for the current board structure, this was not the case, as there were two members who were the commissioners of the Department of Commerce, Community & Economic Development and the Department of Revenue, along with five public board members. He pointed out that the vice chair, a public member, knew as much as anyone about renewable energy. He added that this was a very diverse board.

[11:49:50 AM](#)

REPRESENTATIVE ZULKOSKY asked if there was any rural representation to offer a village Alaska perspective.

MR. THAYER replied that, as five members of the current board were new, he did not know any more of their background other

than their bio. He added that these included the two new commissioners and three public members.

REPRESENTATIVE ZULKOSKY asked about the selection process for the board members.

MR. THAYER explained that they were selected and served at the "pleasure of the governor."

[11:51:17 AM](#)

CHAIR HOPKINS asked if Mr. Thayer saw any change in the structure of AEA under the new administration.

MR. THAYER replied that, to his understanding, there would not be any changes and that the governor was "dedicated to the mission of AEA." He shared that there might be some opportunities to "grow the mission."

MR. THAYER added that there had not been any reduction in budget or personnel, or any changes in structure, with the new budget.

CHAIR HOPKINS pointed out that a change for funding of AEA into the general fund "certainly changes the sustainability of all these important programs." He expressed his concern with this flexible revenue system and the future of AEA.

MR. THAYER replied that he shared that concern.

[11:53:38 AM](#)

ADJOURNMENT

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