HOUSE FINANCE COMMITTEE
April 15, 2021
1:35 p.m.

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CALL TO ORDER

Co-Chair Foster called the House Finance Committee meeting to order at 1:35 p.m.

MEMBERS PRESENT

Representative Neal Foster, Co-Chair
Representative Kelly Merrick, Co-Chair
Representative Dan Ortiz, Vice-Chair
Representative Ben Carpenter
Representative Bryce Edgmon
Representative DeLena Johnson
Representative Andy Josephson
Representative Sara Rasmussen
Representative Adam Wool

MEMBERS ABSENT

Representative Bart LeBon
Representative Steve Thompson

ALSO PRESENT

Alexei Painter, Director, Legislative Finance Division

PRESENT VIA TELECONFERENCE

Meera Kohler, Retired President and CEO, Alaska Village Electric Cooperative.

SUMMARY

PRESENTATION: POWER COST EQUALIZATION

Co-Chair Foster reviewed the meeting agenda.

^PRESENTATION: POWER COST EQUALIZATION THEN and NOW

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MEERA KOHLER, RETIRED PRESIDENT AND CEO, ALASKA VILLAGE ELECTRIC COOPERATIVE (via teleconference), provided a PowerPoint presentation titled "Power Cost Equalization Then and Now: Presentation to the House Finance Committee," dated April 15, 2021 (copy on file). She began on slide 2 showing a historical map of Alaska's early electrification. She shared that 1890 was the first time there was any history in Alaska accompanied by the gold rush days. At the time, Alaska had a population of 32,000, about the same number of people that Alaska Village Electric Cooperative (AVEC) currently served. By 1900, Alaska's population had doubled because of the gold rush in various parts of the state, mostly in Nome. Electricity was scarce and only available in those communities where there was some sort of resource development activity underway. For example, at the time, gold mining was going on in Juneau. As a point of interest, Alaska Electric Light and Power, the electric utility that currently served Juneau, opened in 1893.

Ms. Kohler continued that Nome also had gold mining activity and electrified with diesel power. Cordova's Kennecott Copper Mine started in the early 1900s and with it came electricity. Many people were not aware that the first oil development was in Katalla, an area in Southeast Alaska between Cordova and Yakutat. Anchorage was a tent city of about 2,000 people. Its first electric plant was a 9,000 kilowatt (kW) coal-fired steam system. It was all of the demand that existed at the time. The hydroelectric project that currently operated in Eklutna and served Eagle River, Matanuska Electric, and Anchorage, was developed in the late 1920s by a private developer. It was later sold to the Municipality of Anchorage and eventually taken over by a small Alaska power administration. Alaska had a federal power administration to manage the two major power projects - the Eklutna project and the Snettisham project that served Juneau.

Ms. Kohler recounted that until the Rural Electrification Act was passed in 1935, following the depression, there was no rural electrification anywhere in the country. She noted that 90 percent of rural Americans did not have access to electricity which was true for rural Alaskans as well. The first electrification that took place under the Rural Electrification Act was when the pioneers were resettled from the Midwest to the Palmer area. About 1,000 families were resettled. They started the effort to develop Matanuska Electric Association so that they could receive power from the Eklutna Project. The Matanuska Electric Association was formed in 1940. Shortly afterwards, other cooperatives formed.

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Ms. Kohler highlighted that Alaska was the most heavily cooperative state in the nation. She indicated that at least 75 percent of Alaska's population was served by an electric cooperative rather than by a municipal utility or an investor-owned utility which was the norm in the Lower 48. The rural hub communities were energized in the early 1960s such as the communities of Naknek, Dillingham, and Kotzebue. They were all diesel-fired utilities.

Ms. Kohler moved to slide 3 to discuss village electrification. There were about 200 very small, scattered, and hard-to-reach villages in Alaska. It remained a challenge to reach them but less so, as there was air traffic and barge service available. There were cases of spotty electricity in the villages mostly because large commercial enterprises, such as the Alaska Commercial Company, established large stores in communities where there was typically fish processing or other activities taking place. They would energize nearby homes or businesses during the time they were in operation. The same applied to schools. Schools that had self-generation that occurred on a seasonal basis would extend power to some of the homes and businesses around them. There was virtually no village central station service before 1960.

Ms. Kohler pointed out there was also no Alaska Energy Authority (AEA) in the 1960s. The Alaska Energy Authority was originally formed as the Alaska Power Authority established in 1972. The Alaska Public Utilities Commission (APUC) was established and became more ubiquitous in the early 1970s. Currently they were the Regulatory Commission of Alaska (RCA).

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Ms. Kohler turned to slide 4 titled "Seeking the Way Forward." Rural Alaska wanted to have power which led to a movement to bring electricity to the villages. Governor Hickel, in his first term in the mid-1960s, appointed a task force which included Willie Hensley, Dian Carpenter, Jimmy Hoffman, Morris Thompson, and David Peterson. They looked for solutions to bring electricity to villages in Alaska. They were dedicated to their job meeting several days at a time as often as a couple of times per month. The task force identified the cooperative model as the best fit. The Alaska Village Electric Cooperative was incorporated in 1967 and required funding. The funding source for AVEC was a $5.2 million loan from the Rural Electric Administration (REA), currently known as the Rural Utility Service (RUS).

Ms. Kohler continued that the RUS was highly skeptical that a cooperative model could succeed. The villages were remote and not connected to each other. In order for the cooperative to function, it had to have a headquarters distant from the villages it served. Anchorage was selected as the headquarters location rather than Bethel, as Bethel was too small and did not have enough hub-related activity. A condition of AVEC membership was that a community had to have a working government of some kind that could provide direct oversight in the communities of the village operations. The requirement triggered a wave of municipalities to form in rural Alaska.

Ms. Kohler elaborated that the majority of second-class and third-class cities were established for the sole purpose of getting electricity from AVEC. She reported that AVEC executed agreements with the village municipalities in which the cooperative would build a plant and own the facility while the local government would hire the power plant operators and provide supervision of the power plant operation. The arrangement allowed AVEC to have a more meaningful operation in the villages. She noted that 80 percent of the residents had to sign up for service paying a $5 membership fee and becoming a member of the cooperative. Another requirement was that the Bureau of Indian Affairs, the entity operating the schools in the villages at the time, had to sign up to be an anchor tenant guaranteeing to buy electricity of an amount sufficient to carry a large portion of the operating costs in each community. She explained that without the schools as anchor tenants the cost of electricity in the villages would be much higher than it was presently.

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Ms. Kohler advanced to slide 5 which provided a picture of Alaska before the Trans-Alaska Pipeline System (TAPS) went into operation in 1977. There was virtually no transmission in Alaska other than a transmission line built by Chugach Electric in 1968 to connect a power plant in the Beluga River gas field to Anchorage. The gas field was developed in the 1960s and was heavily subsidized to make it a functional source of energy for South Central Alaska. It was a pillar of Southcentral electrification. Most of the homes and businesses in Anchorage were heated with diesel fuel and coal until TAPS was built and Enstar was able to bring gas into Anchorage.

Ms. Kohler reported that Fairbanks relied on local heavy oil and coal. Presently Fairbanks remained reliant on those sources of power, although it imported a significant portion of its power from South Central Alaska with the intertie the state built. Diesel fuel was the primary energy source elsewhere in the state. About 120 megawatts (MW) of hydro power existed in the state: The Eklutna Project; the Cooper Lake Project which produced 20 MW and was built in the mid-1950s by Chugach Electric; the Snettisham Project in Juneau; and a few small projects scattered throughout Southeast Alaska.

Ms. Kohler addressed slide 6 titled "Then Came Oil - 1977." Oil came and along with it came royalty and taxes. The state was swimming in revenues and began trying to judicially spend its wealth. The state did an excellent in recognizing that underpinning all economic development and activity was a reliable and affordable energy system. The state started looking at how it could deliver affordable energy across its expanse.

Ms. Kohler continued that the state started on a transmission project to build a tie line to Fairbanks. It would allow Fairbanks to start importing energy from South Central Alaska. The Susitna mega project had been considered in the 1950s but had been shelved. The project was reignited in the late 1970s. The Alaska Energy Authority (AEA) was formed to develop these hydro projects. She noted that the Bradley Lake Project outside of Homer was started when the Four Dam Pool projects were built - hydro projects in Valdez, Kodiak, Ketchikan, and one that served Wrangell and Petersburg. She reported that a massive study was commissioned to identify projects that could help reduce the cost of power across the state.

Co-Chair Foster recognized that Representative Rasmussen had joined the meeting.

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Ms. Kohler moved to address slide 6 to explain the evolution of Power Cost Equalization. As the state was doing studies to find solutions for rural Alaska, the oil embargo occurred in the late 1970s. At the time the cost of oil skyrocketed dramatically increasing the cost of fuel to rural Alaska. The state implemented a short-term, 1-year Power Production Cost Assistance (PCA) Program. It was specifically aimed at the high cost of diesel fuel. The utility was subsidized directly to reduce the cost of fuel for their communities.

Ms. Kohler continued that the following year the program was transitioned out and replaced with the Power Cost Assistance Program. The program was never intended to be a long-term program, rather, it was intended to self-extinguish within 5 years. She elaborated that the floor (the minimum to which the electric cost would be lowered) and the ceiling (the maximum assistance that would be given) came together quickly over a 4-year period. The program essentially phased out within a 5-year period. During that time, the legislature received a report from Stone and Webster, the company who did a massive study, and determined that there was not silver bullet solution for Alaska. The company recommended that a long-term permanent subsidy be put into place until such time as new and less expensive generation and transmission options came into being. It became the Power Cost Equalization (PCE) Program. There was a straight transition from the PCA Program to the PCE Program.

Ms. Kohler under the PCE Program, any utility that used diesel to generate at least 75 percent of its electricity during the full calendar year of 1983 would automatically be eligible to participate in the program. If they were eligible in 1983 due to their 1983 production, even if they were later able to generate their power by other sources such as hydro, solar, nuclear or wind, they still remained eligible for PCE.

Ms. Kohler continued that the cost of power was equalized to the average of the cost of power in Anchorage, Fairbanks, and Juneau. At the time the amount was set at $.085 per kilowatt hour (kWh). The amount was actually slightly higher than the cost per kWh in the three communities, but the amount was a fair compromise. The ceiling was set at $.525/kWh. She detailed that if a utility incurred costs that were higher than $.525/kWh the costs above $.525/kWh were not considered in the PCE rate.

Ms. Kohler furthered that at the time, in 1984, there were one or two communities whose cost of electricity was more than $.525/kWh. She noted Lime Village, a very small Interior community, with a population of 19-20 people. Their power had always been very expensive because small quantities of fuel were flown in. At the time, the cost was more than $1/kWh. Presently, the cost was over $2/kWh. She reiterated that costs about $.525/kWh were not covered.

Ms. Kohler cited that all users of electricity were eligible for PCE on the first 750 kWh used. Community facilities providing a public service such as street lights, city halls, girls' and boys' clubs, and water and sewer treatment facilities, were eligible on all of the kWhs they used. It was determined by a formula: 70 kWh was the allowable limit every month for each resident of the community that they could use community facility PCE. As a practical matter it was more than enough for most communities. Very few communities went above the threshold of their community facility PCE usage.

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Ms. Kohler advanced to slide 8. She would provide a quick overview of AVEC and tell members where AVEC was presently. As she pointed out earlier, AVEC was incorporated in 1967 and, by the end of 1968, had already built generation and distribution facilities to serve three communities. The intent of AVEC was to develop electric service for up to ten communities per year. She noted that in those days the cost to build a generation and distribution facility in a village was typically less than $100,000. Currently, the cost was 20 to 50 times that amount. Presently, Avec served 58 communities. The cooperative just added a 59th community, the community of Twin Hills. It was not yet completely an AVEC community but, it would be soon. Twenty of the communities received part of their power from renewables. In the community of St. Mary 49 percent of the electricity that was consumed in 2020 came from wind. She thought it was a remarkable number.

Ms. Kohler reported that AVEC had 49 power plants and served a population of 32,000. The cooperative represented about 38 percent of the total PCE population and about 41 percent of the total PCE that was consumed. The smallest AVEC community was less that 100 in population. She noted Shageluk was the smallest AVEC community, with at least 4 or 5 communities with less than 100 people. She reported that Anvik and Shageluk competed to be the smallest community every year. Bethel was the largest AVEC community with a population of more than 6,000. She offered perspective that Anchorage had a population of almost 300,000. The average size of an AVEC community, other than Bethel, was less than 400. She added that over 90 percent of the population AVEC served was Alaska Native.

Ms. Kohler posed the question on slide 9: "Why are we subsidizing Rural Alaska?" She answered that it was the compromise that was reached in 1984 when the legislature recognized there was no other answer to bring affordable power to rural Alaska. By comparison, in 1985, the cost of diesel for the average PCE utility was $1.17 per gallon which was 25 times the cost of 1,000 cubic feet of gas in the Railbelt - a remarkable difference. Another issue was that billions of dollars were being spent or committed to reduce power costs for urban Alaskans. She added that Railbelt communities in South Central Alaska were presently and had always been heavily subsidized in terms of what the cost of the natural gas used to generate all of the electricity and space heat. By contrast, in Rural Alaska PCE only impacted 30 percent of the electricity sold and did not touch heat. Even in the present day the taxes on Cook Inlet gas were capped at $0.177 per thousand cubic feet. It equated to about $.025 per gallon of diesel fuel.

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Ms. Kohler addressed the PCE Endowment Fund on slide 10. The fund was established in 2000 via House Bill 446. It followed chronic underfunding of the PCE Program. After the first few years of the program being established, there was an annual battle at the legislature about who would support funding for PCE. There was a constant rural-urban jockeying which made it clear something had to be done to preserve the program. Establishing an endowment fund for rural power ensured that the source of funding came out of the endowment rather than the general fund.

Ms. Kohler discussed how the PCE Endowment Fund was capitalized. In 2001, the fund received $100 million from the Constitutional Budget Reserve (CBR). At the time, it was determined that the Four Dam Pool Hydro projects were going to be sold back to the communities they served for about $70 million and was added to the $14 million in reserves totaling $84 million. In FY 07 Governor Murkowski authorized a deposit of $182.7 million into the endowment fund, and a final deposit of $400 million was made in FY 12. The total deposited into the endowment fund was approximately $765 million to fully capitalize it to spin off enough money to provide for PCE into the future. She pointed out that in 2008, when there was an enormous spike in the cost of oil, the cost of PCE was almost $50 million. The state needed to have a corpus large enough to earn that kind of money.

Ms. Kohler reported that the fund had done well. Part of the reason for its success was the inclusion of language requiring that the amount available for PCE was 7 percent of the average balance of the preceding 3 years. Once the fund was fully capitalized, it spun off enough money to pay for PCE. However, it took several years before it was fully funded. At the end of March 2021, the value of the fund was $1.13 billion. In FY 19 the fund earned $74 million, and in FY 20 it earned $48.3 million. In the current fiscal year $56.4 million had been withdrawn to pay for PCE and municipal assistance.

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Co-Chair Foster recognized that Representative Edgmon joined the meeting earlier.

Ms. Kohler continued that in 2016 SB 196 was enacted and proposed changes to the way the endowment fund was invested and operated. Originally when the fund was created, it was expected and invested to yield a return of 7 percent per annum, which meant that it was very high risk. As a result, when the state had a serious downturn the value of the fund declined 40 percent. She noted that the same decline was seen with the Permanent Fund and other funds of the state. It was too high of a risk to tolerate. The bill changed the return to 5 percent which led to the fund being more conservatively invested.

Ms. Kohler continued that the legislation also limited the amount that could be withdrawn to 5 percent of the corpus. The bill included language that allowed 70 percent of the excess earnings of the fund above the amount needed for PCE to be available for other purposes. The bill also defined how the excess earnings could be used. The first $30 million of excess earnings could be used for municipal assistance revenue sharing. Anything above that up to $25 million could go to the renewable energy fund or be used for rural power system upgrades or bulk fuel facility upgrades. Any remaining funds after the specified uses would stay in the corpus of the fund.

Ms. Kohler reported there had not been a year in which there were so much excess earnings that the municipal assistance was funded at $30 million and the renewable energy fund was funded at $25 million. The best the fund had performed was 3 years prior when the excess earnings funded municipal assistance at $30 million and the renewable energy fund at $15 million.

Ms. Kohler would discuss how PCE was funded on slide 11. The governor's budget included PCE in AEA's operating budget. The funding source for the program was typically the PCE Endowment Fund, as was the case in the current year. An alarm sounded for some people a couple of years prior when the governor pegged the general fund as the source to fund the PCE program. There had been talk about rolling the endowment fund into the general fund which would have meant struggling to finance the program similar to the struggle from 15 years prior.

Ms. Kohler continued that the governor's budget included the funding for PCE. The legislature would decide on the final amount and the funding source. If the legislature appropriated less than was needed for the program, the Regulatory Commission of Alaska (RCA) would prorate the PCE rate for all utilities to match the amount that was available. Between 1992 and 2007 PCE was prorated for 15 years, sometimes by as much as 50 percent of what was needed. The endowment fund was intended to replace general funds to fund PCE, and there had been no draws on the general fund since 2014. Once the endowment fund approached the full funding level, it could spin off enough in earnings under the 3-year average scenario to fully pay for PCE. Since 2008, PCE had cost a total of $424 million of which $349 million had come from the endowment fund.

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Ms. Kohler reviewed the mechanics of PCE on slide 12. In order to be eligible for PCE, 75 percent of the power that was generated had to have been from diesel fuel. A utility submitted a very detailed cost and operational data to the RCA. The Regulatory Commission of Alaska then determined which of the costs were eligible, sometimes rejecting certain costs, then computed the PCE rate. In turn, the utility billed its customers for its tariff and showed the amount of PCE credit on each bill. She indicated there was specific language required to appear on bills that indicated the PCE credit paid by the State of Alaska. the customer was required to pay the bill after the PCE credit was applied.

Ms. Kohler continued that the utility took all of its bills and submitted a request to AEA for a reimbursement of the PCE credits applied to its electric bills. In turn, AEA reviewed the reports and reimbursed the utility for PCE. The utility had to file an annual updated report with the RCA detailing the prior year's activities. Based on the report, the RCA recalculated the PCE rate. Every time a utility had a fuel cost change up or down the utility was required to file the change within 30 days so that the PCE rate could be appropriately adjusted up or down based on the fuel cost. The RCA reviewed non-fuel costs every 3 years to 5 years or upon the utility's request. However, it was typically triggered by the RCA's schedule.

Ms. Kohler would look at the changes that took place between 1985 and 2020 on slide 13. The floor, which was $.085 when the program started, was up to $.2063/kWh. It had increased 2.5 times. In 2008, the ceiling was raised from $.525 to $1.00. A number of utilities, at least 25 or 30, were above $.525. There were about 8 to 9 utilities above $1.00 per kWh. The amount of electricity eligible for PCE was reduced in two tranches but was currently 500 kWh per month per consumer. Eligible electricity had been reduced by one-third from 750 kWh to 500 kWh. All commercial customers were taken off of PCE and could no longer receive it. Fuel costs had increased modestly. Although it had gone up 127 percent. In FY 20, the average cost was $3.07 KWH per gallon of diesel compared to $1.17 when it started in 1984. She pointed out that efficiency had increased 32 percent. The fuel cost per kWh had gone from approximately $.1033 to $.1901. She continued that non-fuel costs per kWh were up 37 percent. She indicated that figures worked out to less than 1 percent per annum. They were $.14 in 1985 and $.193 in FY 20. The full cost of the PCE program in FY 86 was $17.8 million, and in FY 20 it was $29 million.

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Ms. Kohler presented the program changes since FY 86 in a table on slide 14. The total number of Alaskans served went from 62,000 in FY 86 to 82,000 in FY 20. Kilowatt sales had doubled from 225 gigawatt hours (GWh) to 456 GWh. Power Cost Equalization sales had gone up modestly from 108 GWh to 131 GWh. She continued that when the program started 48 percent of electricity sold in rural Alaska was eligible for PCE. Presently, the number was 29 percent. She highlighted the change in fuel cost per gallon which had gone from $1.17 to $3.07. The fuel consumed had gone from 21 million gallons to 28 million gallons, a 33 percent increase while total sales had doubled. The total utility cost between fuel and non-fuel costs had increased from $55 million to $174 million. She pointed to the bottom of the chart that showed the percent of total costs that PCE covered. In FY 86 the amount was 32.4 percent while in FY 20 it was only 16.6 percent. The point was that 83.4 percent of all costs were carried by local communities.

Ms. Kohler advanced to slide 15 to address the most common question that she received. She was commonly asked whether most of PCE went to overheads. She responded in the negative. She explained that of the total amount of PCE that was allocated only one-third of fuel costs were covered and none of the non-fuel costs were covered. In other words, it covered one-third of non-fuel costs and nothing else. She thought the PCE Program was modest but supportive of rural Alaska. It kept the lights on and local governments open. She speculated that without PCE the cost to small municipal utilities and community facilities would double or triple overnight. Rural communities would no longer be able to pay their utility bills. She welcomed any questions.

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Representative Josephson stated he was missing something fundamental. He heard her say that the cost would be 2 to 3 times higher, but the percentage of the total cost covered by PCE was 16.6 percent. He wondered how both could be true simultaneously.

Ms. Kohler answered that it was an interesting conundrum. She explained that community facilities received PCE on all of their kWh. In the case of a water facility in a location where the cost of fuel was higher, PCE would end up reducing their electric bills by 60 percent to 70 percent because of the way the rates were structured. For example, AVEC had a declining rate structure. For municipalities AVEC structured its rates so that they received highest at best value for their electricity. They actually paid less than a residential user for their electricity and they received PCE for all of their kWhs. In a typical community residential users would receive PCE for the majority of the kWh they used in the summer. In the winter electric usage tended to be higher and the PCE would not apply to all of the usage. The community facility represented only about 30 percent of the PCE that was provided. However, it was much more of a substantial cost-reducing factor for municipalities than for home owners. She reiterated that 70 percent of all electricity that was sold did not receive any PCE distorting the value of those who receive it.

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Representative Wool surmised that the total electricity cost of $174 million [slide 15] included commercial customers that did not receive PCE. Therefore, the 16 percent of total costs covered by PCE would have a much larger impact on the individual users potentially doubling or tripling costs to residents. He asked if he was correct. Ms. Kohler replied in the affirmative.

Representative Wool referenced a statement made by Ms. Kohler that Railbelt communities received subsidies for natural gas. He hoped Fairbanks was excluded.

Ms. Kohler responded that Fairbanks received a chunk of its electricity from the Bradley Lake Hydro Project which was state subsidized. Fairbanks also bought economy energy when it was available. The transmission line that brought Southcentral and Fairbanks economy energy was Chugach Electric. She was trying earlier to quantify economy energy. She explained that when the intertie was energized Fairbanks was 100 percent dependent on oil and coal. At the time they only had Healy 1. The majority of Fairbank's electricity came from heavy oil.

Ms. Kohler recalled that Fort Knox's electric bill went down by 50 percent when the economy energy started flowing up the transmission line from Southcentral Alaska. Currently, she did not believe Fairbanks was getting nearly as much economy energy. She relayed that economy energy resulted from all of the systems on the common transmission line having to maintain a set amount of spinning reserve to provide stability to the system. If a generator went down, the spinning reserve would crank up to provide the energy that went down. It was a substantial size of spinning reserves, typically 100 MW. The spinning reserve was surplus electricity that could be used on an interruptible basis to satisfy the needs of the Southcentral utilities. It was shipped to Fairbanks for use. Fairbanks was just paying the incremental cost of the gas that was used to generate electricity. It was not a substantial portion of Fairbanks' energy source like it had been 20 years prior. The balance had changed over the years.

Ms. Kohler agreed with Representative Wool that Fairbanks' cost of energy was substantially higher than Southcentral Alaska. However, the fact that the floor for PCE was at nearly $.21 per kWh, pointed out that the average cost of kWh for Anchorage, Fairbanks, and Juneau was quite high. She confirmed that Fairbanks was, by far, the highest. Her cost of electricity in Anchorage was about $.22 per kWh while Fairbanks' cost was $.24 per kWh. Juneau's average cost was $.12 to $.13 per kWh.

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Representative Wool stated that Fairbanks did get a portion of its electricity from Southcentral and from Bradly Lake. He argued that the spinning charges were high. He knew that PCE went to offset electric bills. He asked if there had been discussions about overall energy costs since other sources of power other than diesel were being used. He wondered if there was a way to fold them altogether. He suggested that the PCE money could be spent to overall energy. He knew he was not asking a simple question.

Ms. Kohler responded that her pet project for many years had been to embrace a plan to tie together all of Alaska electrically. Alaska lacked a transmission grid even though it had a transmission system, a radio transmission system between Anchorage and Fairbanks. However, the vast majority of Alaska's landmass was unserved by any type of transmission system which is what necessitated having a power plant every 30 miles to 40 miles to serve rural Alaska. It was the reason there were 40 power plants. The state had managed to build some generation but would always be a fraction of energy needed to power communities. Until rural communities could be tied together, it would be difficult to bring down energy costs in all directions. She agreed that PCE offered some benefit to the cost of electricity for a homeowner and did nothing for the cost of heat.

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Co-Chair Foster referenced Representative Wool's remark that Fairbanks might not be as much of a recipient in terms of state assistance. He noted that the PCE program was a program to help support rural Alaska. He had been asked why the state was supporting rural Alaskans' energy needs. He typically responded that the state had supported the entire state. He referenced slide 6. He explained that it had started when the 4-dam pool was first proposed. The state was going to make a substantial investment in four dams to help certain parts of the state. It was a deal that was struck in order to help Alaskans statewide in their energy needs. The Bradley Lake Project was later added to the list along with the transmission line that was already mentioned that ran to various other parts of the state. It was a grand package that helped Alaskans overall.

Co-Chair Foster explained that the PCE Fund was a fund with spin-off earnings that paid for assistance to rural communities. There were other more recent things the state paid for. He noted that a little under 10 years ago Anchorage had started to see brownouts and there was a need to spur exploration in the Cook Inlet. The state spent about $1 billion in tax credits to help with exploration.

He mentioned that the state did not tax the natural gas that came out of Cook Inlet which was gas that fed Southcentral. There were numerous things that had been done to help both the urban and rural parts of the state. He suggested that some of the things resulting from state assistance were in the form of hard infrastructure whether it be the hydro project at Bradley Lake or a transmission line. They were things that could not be easily liquidated. On the other hand, the PCE Fund had always been of interest to some people and a bit of a target. However, the fund was the best the state could come up with as a compromise because of the rural communities being spread all over the state. His answer to the common question he received about why rural Alaska received PCE funding was that the entire state had received assistance.

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Ms. Kohler pointed out that the state had spearheaded and taken ownership of the interior utility gas project. The state had put a significant amount of free and low-interest money into that project. It also heavily subsidized a natural gas storage project that was built to boost electric gas supply for Southcentral Alaska. The incentive to encourage the development of gas fields, recognizing that the Alaska market was a small one. The cost to develop natural gas in Cook Inlet and to keep it flowing was quite high and had been deliberately subsidized in the form of reduction tax credits, reduced royalty taxes, and no production taxes. She asserted that energy was the underpinning of any economy. Even with the subsidies in Southcentral Alaska, the cost of energy in the whole state was high. She thought the state needed to continue working towards reducing energy costs.

Representative Edgmon thanked Ms. Kohler for the comprehensive presentation. He looked at Alaska as a high-cost state in all areas. Alaska had tried to equalize costs whether through community assistance, bypass mail, oil tax credits for the Southcentral area, or PCE. The Power Cost Equalization Program had been around for many years. He hoped the endowment would continue to grow and serve its purpose well into the future. He recalled doing research and found that the only place with a similar program to PCE was Nova Scotia. He asked if the PCE Program was unique to Alaska.

Ms. Kohler believed PCE was unique. The only examples that she could think of that were similar were in national regimes. She cited Norway as an example. The country had proactively enacted a policy in which the cost of electricity was the same no matter where a person was located in the country. A similar type of program operated in Canada. She believed that the cost of power in most communities, at least in British Columbia, was equalized. She had driven to a small community in British Columbia on vacation. She inquired about the cost of electricity there. The person she asked had no idea what they paid per KWH but indicated their bill was $36.00 every 2 months. They were paying the same rate as people in the more populated areas of B.C. but were powered by diesel generation.

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Representative Edgmon emphasized Alaska's uniqueness in terms of the challenge of providing some equality of power. He thought it was interesting that the governor had recently introduced a bill to create a green bank in the state. He thought that with the passage of that bill, the state might have the opportunity to revisit the whole issue of the energy challenge in the state that continued to be daunting.

Representative Rasmussen asked if there were projects that had been identified more recently that would expand infrastructure in the energy sector. She thought there might be an unintended blessing from COVID with funds from the federal government for infrastructure. She thought an area of focus might be to work on some of the projects that would reduce the cost of energy. She believed that both residents and private sector businesses would benefit from such projects.

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Ms. Kohler replied there was always a long list of energy projects. The Alaska Energy Authority recently published a request for proposals to look at the next round of projects that might be partially financed through the renewable energy fund. The fund was for renewable energy and energy conservation including recovered heat. The Alaska Energy Authority had a list of projects that had been submitted, but in terms of larger major projects there were not any. She reported that AVEC had a small hydro power project they had been pursuing for years in Old Harbor. The project cost was $10 million and would serve about 250 people. The cooperative had not been able to find the money for the project.

Ms. Kohler believed the state needed to embrace a larger project rather than the smaller one-off project. She suggested some sort of large generation transmission hub project that could begin to tie hubs together making power available for resource development. She noted that Donlin Creek continued to move in the direction of a gas pipeline project to serve themselves. She thought it would be wonderful to build a transmission line that could carry liquified natural gas from Canada. She mentioned the Susitna Dam project being shelved in 1986. It would have been a 1600 MW project and could have produced power for about $.04 per kWh. The state did not pursue the project. She asserted that the state needed to be ambitious about developing large scale generation which would foster business. The world needed more energy, and Alaska had the resources. The smaller projects in rural Alaska would not take the state anywhere in a meaningful way. They were expensive projects that would not generate high capacity or reduce the cost of power significantly.

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Representative Rasmussen asked what Ms. Kohler would suggest as the next step for the legislature in facilitating an early planning stage. She asked if it would be more appropriate to come from the executive branch as an RFP for a consultant or whether there was something else to act on.

Ms. Kohler believed the legislature could appropriate $5 million to $10 million for the specific purpose of developing a long-range ubiquitous affordable energy plan/ project for Alaska. The administration could direct it to the Alaska Industrial Development and Export Authority (AIDEA) or AEA. She thought AIDEA would be the appropriate entity to tackle the issue. She did not want to hear about the loads not existing. They did not exist because the state did not serve them. She stated it was a classic case of "build it, and they will come."

Representative Johnson thanked Ms. Kohler for her presentation. She shared that she had been the president for the Conference of Mayors about 5 years previously. She explained that when the mayors got together, the conversation would inevitably move to the topic of how much everyone paid per kWh. She had been asked how much she paid which she did not know at the time. She went home and looked at her electric bill which showed she was paying about $.15 per kWh compared to other areas of the state. It had been an eye opener for her to find that the highest paid amount in the state was about $.85/kWh. At that point she decided she would never complain about an electric bill again.

Representative Johnson believed she currently paid about $.22/kWh because Matanuska Electric Association (MEA) had added additional generators for combined fuel. It was astounding to see how much people paid outside of the Railbelt and how fortunate the Railbelt was to have the energy it did. She spoke of having spent time working at the Susitna-Watana Dam site in the 1980s and thinking the project would move forward. She agreed that energy was not a pie that ever got filled. She really appreciated the presentation and considered it to be visionary. She asserted that the more people knew about the topic, the better.

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Representative Wool referred to claims that solar and wind would not significantly decrease electric costs or solve the high energy cost problem. Rather, something akin to a distribution of power would be a better pursuit. He argued that getting distribution to several communities spread throughout the state would be cost prohibitive and not really feasible. He thought the distances would be too great. An advancement in technologies would be a better solution. He reviewed several possibilities. He asked her to comment about the unlikelihood of a technological breakthrough.

Ms. Kohler answered that AVEC had put together the "Alaska grid" that would build a backbone transmission system that would be tied to major generation sources such as gas-fired power plants that already existed across the state. She mentioned several locations. There was a massive industrial operation that was taking place in at the North Slope presently. They were using gas powered generation because it did not cost much. If a 2GW generation project was development the state could be use the North Slope gas and reducing the cost of electricity on the North Slope to about $.04/kWh.

Ms. Kohler suggested that a transmission grid could use a high-voltage direct current (HVDC) which was less expensive to build and had little to no losses in transmission. It would then radiate across the state to hub communities such as Kotzebue, Nome, and Bethel. It would form a grid, although not all communities could be connected, a substantial number of them could be connected. She reported working towards the HVDC concept which was being used for tens of thousands of miles of transmission being built across the world. Connecting entire countries was becoming possible with this very feasible and viable technology. She continued to review her vision.

Representative Wool did not realize that the HVDC, the Nicola Tesla versus Thomas Eddison, war was still going on. Ms. Kohler answered in the affirmative and indicated it was and was doing very well.

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Representative Josephson referenced slide 9 of the presentation. Ms. Kohler had stated that the cost of the original village plant like the one in Kalskag was presently 20 to 30 times greater. He asked her if she recalled saying something to that effect.

Ms. Kohler referenced slide 9. She replied that in 1985, the first full year of PCE, the cost of fuel to the PCE facilities was about $1.17 per gallon. The cost of Railbelt gas at the time was $0.35 per 1000 cubic feet. She reported that 1000 cubic feet was about 7.5 gallons of diesel fuel. The equivalent cost of natural gas per kWh and diesel per kWh was 25 times in rural Alaska.

Representative Josephson recalled that she had stated that the typical powerhouse used to be $100,000 and now it was many times that amount.

Ms. Kohler responded that Representative Josephson was absolutely correct. She elaborated that at the time when the state first built the power plants and borrowed the first $5.2 million from REA, the cost to build a system locally which included 3 generators and a distribution center to serve about 100 meters was projected to be about $50,000. The cost today to serve about 200 meters with a 1500 KW plant would be about $3 million for the plant and with a tank farm and a distribution system the cost would between $5 million and $6 million. The cost was substantially more the 50 years prior.

^POWER COST EQUALIZATION PROGRAM AND FUND: LEGISLATIVE FINANCE DIVISION

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ALEXEI PAINTER, DIRECTOR, LEGISLATIVE FINANCE DIVISION, provided a PowerPoint presentation titled "Power Cost Equalization Program and Fund: House Finance Committee," dated April 15, 2021 (copy on file). He would be talking more about how the state funded the PCE program and how the PCE endowment worked in practice.

Mr. Painter began with slide 2 providing a brief background about the find. The PCE program began in FY 85 and was funded with UGF appropriations through FY 94. Starting in FY 94 the legislature created the Power Cost Equalization and Rural Electric Capitalization Fund. It was originally capitalized from an appropriation out of the Railbelt Energy Fund. However, the fund did not provide enough funding to fully fund the PCE Program. There was some discussion in the late 1990s about a new funding source. The legislature created the PCE Endowment. The Legislative Finance Division (LFD) eventually deactivated the code for the PCE and Rural Electric Capitalization Fund that was still on the books but was without funding.

Mr. Painter continued that the PCE Endowment Fund began in 2000 with a capitalization from the Constitutional Budget Reserve (CBR) and the proceeds from the sale of the Four Dam Pool Hydro Electric Project. The earnings of that were currently used to fund the PCE Program.

Mr. Painter turned to a bar chart on slide 3 which showed the history of how the PCE program had been funded since FY 00. He indicated that the red showed the PCE and Rural Electric Capitalization Fund which underfunded the program. Eventually, there were the last few payments out of that fund and unrestricted general funds began to supplement the program in FY 09. The PCE Endowment Fund began fully funding the program in FY 15. He pointed out the trend of the actual funding amounts. The fund was underfunded in the early 2000s, the funding amount spiked, then the amount started to decrease in the previous few years as oil priced had declined. There had been a small decrease in the amount required for the PCE Program.

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Mr. Painter advanced to slide 4 showing the history of the PCE Endowment balance. He pointed to the $100 million capitalization money from the CBR, the increase resulting from the sale of the Four Dam Pool Hydro Electric Project, another deposit in FY 07 from the general fund, and another deposit in FY 12. The growth since then was the result of investment earnings. Currently, the fund balance was just over $1.1 billion. He highlighted the substantial growth in investments in the strong markets over the past decade.

Mr. Painter indicated that slide 5 showed the same information as the previous one but was in a table form. The information was from the Treasury Division of the Department of Revenue (DOR). The actual returns could be seen on the slide. There had been some negative years in the bad markets because the funds were invested more aggressively in the past. There were negative figures in FY 01, FY 02, FY 08, and FY 09. There had been some significantly strong returns since then. In a couple of years there had been earnings of more than 20 percent. In the current year, the earnings so far had been about $105 million through March 2021.

Mr. Painter reviewed slide 6 titled "AS 42.45.085 - Use of PCE Funds." In terms of the use of the funds from the endowment, there was a Point of Market Value (POMV) payout that was a limit of how much could be spent on the POMV [PCE] Program. From a practical sense with the current fund balance, the cost of the PCE Program did not approach the limit. The limit was 5 percent of the fund value. Since the fund value was over $1 billion and the program was about $32 million the limit was not an issue. In 2016 the legislature passed a bill that allowed the earnings of the endowment to also be used for additional programs.

Mr. Painter moved to the following slide, slide 7 which provided a visual to AS 42.45.085 (d) the "PCE waterfall." Starting with the PCE Fund balance, the statute stated to take the prior year earnings and subtract the current year

PCE budget to arrive at the excess earnings. The legislature was allowed to spend 70 percent of the excess earnings and 30 percent went right back into the PCE Endowment Fund. The statute indicated that the first $30 million could be used for the Community Assistance Program and any remaining funds up to $25 could be used for various energy programs such as the Renewable Energy Grant Fund, the Bulk Fuel Revolving Loan Fund, or rural power system upgrades. If there were any remaining funds, which there never had been, they would be returned to the PCE Fund.

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Mr. Painter relayed that slide 8 showed how the PCE waterfall worked in practice in the current fiscal year. He explained that the earnings in the prior year referred to FY 20 because it was the prior closed fiscal year. The current year (FY 21) PCE budget was $30.6 million which rendered $17.7 million in excess earnings. He conveyed that 30 percent of the excess earnings equaled $5.3 million and went back into the fund. The mount available for appropriation, $12.4 million, could be appropriated to the Community Assistance Fund. Since that amount was less than $30 million the waterfall stopped.

Mr. Painter continued that the governor's budget included the appropriation of $12.4 million to the Community Assistance Fund. He concluded his presentation and was available for questions.

Representative Josephson asked where the employees who administered the PCE Program were housed. Mr. Painter answered that the program was administered by AEA. The Alaska Energy Authority's programs were administered by employees of AIDEA. There was a time in the 1990s when the program was administered by the Division of Energy within the former Department of Community and Regional Affairs. He explained that when the department was dismantled, that function moved to AEA.

Representative Josephson relayed that if the program was fully administered by a corporation, the Hickel versus Cowper case suggested that the fund was not sweep-able. A previous attorney general stated recently that the fund was sweep-able. The legislature's attorney stated it was not sweep-able. He asked if LFD took a position.

Mr. Painter answered that LFD did not take a position on legal matters. From a practical standpoint, the legislature had not passed a bill defining what was sweep-able. The administration's interpretation was the operative interpretation until a statute was passed to change it or a lawsuit overturned it. He reiterated that LFD did not have an opinion on the matter.

Co-Chair Foster announced an amendment deadline for HB 169 for Friday at 5:00 p.m. He reviewed the schedule for the following morning.

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ADJOURNMENT

3:04:43 PM

The meeting was adjourned at 3:04 p.m.