ALASKA STATE LEGISLATURE
SENATE SPECIAL COMMITTEE ON IN-STATE ENERGY
January 24, 2013
7:30 a.m.

MEMBERS PRESENT

Senator Click Bishop, Co-Chair
Senator John Coghill, Co-Chair
Senator Peter Micciche
Senator Dennis Egan
Senator Bill Wielechowski

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Senator Giessel
Senator Huggins

COMMITTEE CALENDAR

ALASKA ENERGY AUTHORITY OVERVIEW

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

SARA FISHER-GOLD, Executive Director
Alaska Energy Authority
Anchorage, Alaska
POSITION STATEMENT: Provided an overview of the Alaska Energy Authority (AEA).

GENE THERRIAULT, Deputy Director
Statewide Energy Policy Development
Alaska Energy Authority
Anchorage, Alaska
POSITION STATEMENT: Provided an overview of the Alaska Energy Authority (AEA).

ACTION NARRATIVE

7:30:38 AM
CO-CHAIR CLICK BISHOP called the Senate Special Committee on In-State Energy meeting to order at 7:30 a.m. Present at the call to order were Senators Micciche, Egan, Wielechowski, Co-Chair Coghill, and Co-Chair Bishop.

CO-CHAIR COGHILL said the committee would look geographically at Alaska's in-state energy issues. He explained that energy was often divided between electrons: electricity transmission and generation, or hydrocarbon based for home heating and industrial use. He said the committee's intent was to address regional energy issues and end up with proper planning or provide policy with a plan element.

ALASKA ENERGY AUTHORITY OVERVIEW

7:33:13 AM
CO-CHAIR BISHOP announced the business before the committee was to hear an overview of the Alaska Energy Authority's (AEA) various energy related projects throughout the state.

7:34:21 AM
SARA FISHER-GOLD, Executive Director, Alaska Energy Authority (AEA), said the AEA mission was to reduce the cost of energy. She said reduced energy cost was done in a variety of ways in programs as follows:

- Investing in Alaska's Energy Infrastructure.
- Diversifying Alaska's Energy Portfolio.
- Energy Planning and Policy.
- Technical and Community Assistance.

7:36:03 AM
MS. FISHER-GOLD said AEA's infrastructure and large projects were as follows:

Bradley Lake Hydro Project

- State had provided a capital contribution of 50 percent. The cost of the project was over $328 million to build.
- Produces about 10 percent of the Railbelt's electricity.
- AEA-owned asset.

- Low-cost energy producer.
- The installed capacity is 120 megawatts and it does provide 4.5 cents/kWh power.

MS. FISHER-GOLD said there were outstanding bonds for the Bradley Lake Project until 2021. She noted that one of the unique situations on the Bradley Lake model was that the state invested 50 percent upfront for the project and the utilities would be obligated to continue paying the state for an additional 20 years after 2021.

CO-CHAIR COGHILL asked Ms. Fisher-Gold to explain where the Bradley Lake Hydro Project was located.

MS. FISHER-GOLD answered that the Bradley Lake Hydro Project was located in the Homer area. She noted that the Homer Electric Association provided for the project's operations. She explained that the operation was in the Kenai Peninsula area and provided power for the entire Railbelt region up to Fairbanks.

CO-CHAIR BISHOP asked Ms. Fisher-Gold to explain Bradley Lake's power capability versus actual output. He noted that there was talk on upgrading lines to maximize the project's output.

MS. FISHER-GOLD responded that the installed capacity was the 120 megawatts and the energy produced was 10 percent of the Railbelt's electricity. She explained that Bradley Lake's output was 560 gigawatt hours.

CO-CHAIR BISHOP asked to verify that Bradley Lake's current maximum output was 90 megawatts.

SENATOR MICCICHE replied that Bradley Lake's electrical output became unstable at 90 megawatts.

MS. FISHER-GOLD responded that the installed capacity was different from typical output levels. She noted AEA's Battle Creek Project to divert additional water to increase Bradley Lake's hydroelectric power output.

7:39:34 AM
CO-CHAIR COGHILL noted that Senator Giessel, Chairman for the Senate Resources Committee Chairman was in attendance.

SENATOR MICCICHE commented that the [Battle Creek Project] would increase Bradley Lake's output by ten percent and bring the useable capacity to approximately 99 megawatts.

MS. FISHER-GOLD explained that one of the unique situations with the AEA owned projects was that management was done in conjunction with the Railbelt utilities. She said a 1993 change to the statutes allowed for the concept of maximum utility control for the operation and management of AEA projects. She noted that Bradley Lake was operated and managed by the Bradley Project Management Committee (BPMC), a group made up of members from [Railbelt] utilities and AEA.

She addressed additional infrastructure and large projects as follows:

Alaska Intertie

- AEA-owned with no outstanding debt.
- Operated by AEA and Railbelt utilities.
- Runs from Willow to Healy.

Susitna-Watana Hydro

- New project with an installed capacity anticipated to be 600 megawatts, which would provide roughly 50 percent of the electricity in the Railbelt.
- SB 42 had authorized AEA to pursue licensing to own and operate the project. This is the first new project that AEA would own and operate since the Bradley Lake Hydroelectric Project.

She said AEA was created in 1976 to primarily own and operate hydroelectric projects. She explained that even though AEA divested certain projects, AEA would continue to own projects in addition to pursuing the Susitna-Watana Hydro Project. She noted that AEA built and owned the Four Dam Pool Project which served: Kodiak; the Copper Valley Region; and the Southeast Alaska communities of Petersburg, Wrangell, and Ketchikan. She said the utilities formed the Four Dam Pool Association and purchased the projects in 2001. She noted that the joint action agency was ultimately split up in to Kodiak owning the Terra Lake Project, Copper Valley Electric Association owning the Solomon Gulch Project, and Southeast Alaska Power Agency (SEAPA) owning the Two-Dam Project of Swan Lake and Tyee Lake projects. She noted that SEAPA owned the intertie that connected the Swan Lake and Tyee Lake projects. She explained that the joint action agency remained, but the owning utilities were all municipally owned utilities in Southeast Alaska.

7:42:59 AM

MS. FISHER-GOLD noted that AEA had owned the Larsen Bay Hydroelectric Project and sold it two years ago to the city of Larsen Bay.

She addressed a map that was titled: Alaska Energy Authority Projects Under Construction Summer 2012. She explained that the map provided a broad representation of the variety of AEA programs: Renewable Energy Fund Projects, AEA managed Rural System Upgrade Programs, and Energy Efficiency Projects. She noted that several of the AEA managed Energy Efficiency Projects were from the Federal Stimulus Fund via the Energy Efficiency & Conservation Block Grant (EECBG). She remarked that AEA was not just about a large hydro project or the Railbelt. She said AEA had a broad portfolio of projects that impacted the entire state.

7:44:07 AM
SENATOR MICCICHE noted that AEA was a state agency that owned a significant portfolio of energy projects. He asked what the current overall value was for state-owned energy projects.

MS. FISHER-GOLD answered that AEA owned the Bradley Lake Hydroelectric Project and the Alaska Intertie. She stated that the cost to build Bradley Lake was $328 million and the Intertie was over $100 million. She noted that the projects were depreciating in value.

SENATOR MICCICHE asked about the smaller rural projects where AEA had been involved and the state did not technically own, but project assistance was provided for funding and management.

MS. FISHER-GOLD responded that AEA had provided operational management and training services on behalf of small communities. She noted that some small communities do not have the technical or management capabilities to build and operate projects. She explained that AEA services include managing the payroll of the local workforce, providing construction management oversight, and paying contractors for the work to be done. She said reimbursement was received from the specific funding sources that included federal funds via the Denali Commission and the state of Alaska. She noted that the state had extended AEA funding to continue building Rural Power Systems Upgrade (RPSU) projects in addition to bulk fuel projects. She summarized that AEA did not technically own previously mentioned projects and cited 1993 legislation that restricted AEA from owning new projects. She explained that SB 42 was required in 2011 in order to pursue the Susitna-Watana Hydroelectric Project.

GENE THERRIAULT, Deputy Director, Statewide Energy Policy Development, Alaska Energy Authority, said even though AEA owned Bradley Lake and Alaska Intertie, the policy was AEA would work with local utilities and pass off as much day to day control to them.

7:46:59 AM
MS. FISHER-GOLD addressed AEA programs for renewable energy as follows:

Renewable Energy Fund (REF)

- State Goal: 50 percent renewable electricity by 2025.
- HB 152 (2008) authorized AEA to manage program, reauthorized in 2012 for another ten years.
- 227 projects approved totaling $202 million.
- More than 60 projects currently under construction.
- Round 6 recommendations projects. AEA provides recommendations in rounds on an annual basis. Round 6 recommendations information will be provided to legislature today. AEA provides analysis detail of all projects that have come in. The list is developed in funding levels, there is a $25 million funding level and a $50 million funding level. An in-total recommended projects fund of roughly $56 million for 60 projects that will be recommended
- By 2016, 12.3 million gallons of diesel and natural gas equivalent will be displaced annually. Results: $45 million in annual savings.

CO-CHAIR COGHILL asked if the Round 6 recommendation would be submitted as a report to the legislature.

MS. FISHER-GOLD answered yes. She said the legislation that authorized the renewable energy fund was a unique recommendation program. She revealed that AEA was not appropriated money to issue grants. She explained that AEA was required to go through a solicitation process every year and provide the legislation with a ranked projects list. She said the legislature determined how far down the list to fund.

7:49:19 AM

MS. FISHER-GOLD addressed AEA programs for emerging energy technology as follows:

Emerging Energy Technology Fund (EETF)

- SB 220 (2010) created fund. Senator Wielechowski was the Co-Chair of the Senate Resources Committee at the time that helped usher through that legislation.
- The key difference with REF, EETF does provide AEA with the funds to actually issue the grants. Once AEA goes through the process, the grants are issued. AEA is required to conform to a very detailed regulatory process in order to get the projects recommended and funds granted.
- Through Denali Commission matching grant, $8.9 million available. It was a 50/50 match between state funds and federal dollars.
- First round, 16 projects selected for funding (2012).
- Priority for the funds was for Alaska businesses, utilities or nonprofit, and tribal or local governments for emerging technologies. AEA was looking for demonstration projects that could be demonstrated and commercially viable within 5 years.

CO-CHAIR COGHILL addressed EETF projects and explained that the committee's intent was to maintain a regional view. He asked if the emerging technologies generally fell into the more rural areas.

MS. FISHER-GOLD responded that the EETF projects were statewide and some had a rural perspective. She noted that one of the grantees was [Hatch and Williams Advanced Engineering]; a company that was developing a flywheel for a wind-diesel hybrid system that would help to regulate the wind powder coming into a diesel system. She explained that the wind-diesel system would have an application in rural Alaska.

She noted that the Altaeros Energies Helium Balloon Wind Turbine as an EETF grantee. She said AEA had funded a broad variety of projects: hydrokinetic, diesel generator energy efficiency, power and storage capabilities, and biomass heat pumps. She noted that EETF was not focused solely on renewable energy. She explained that hydrocarbon and fossil fuels based projects were also eligible for the program.

CO-CHAIR COGHILL stated that the committee would be looking at emerging technologies, especially for smaller communities. He said he was interested in seeing what applicants emerged and fell out of the vetting process. He cited an example that three or more in-river hydrokinetic variations existed.

7:53:03 AM
MR. THERRIAULT explained that EETF projects were driven by economics. He cited an example of a technology that produced power at 20 cents per kilowatt-hour might not make sense in Anchorage, but would in a rural setting when competing power cost was 50 cents per kilowatt-hour. He explained that the program was not rural-targeted, but economics often dictated that rural applications made the most sense.

CO-CHAIR COGHILL said the reason he brought up the rural aspect was due to the committee's focus on geographic and economic regions. He explained that the committee would be looking for ways to help regions benefit from an energy policy strategy.

MS. FISHER-GOLD stated that AEA had an EETF partnership with the Alaska Center for Energy & Power (ACEP) at the University of Alaska-Fairbanks (UAF). She explained that ACEP assisted AEA in managing the EETF program via data collection and technology analysis. She said when legislation was created for AEA to examine programs for its energy portfolio, a gap existed between research and development at the university level and commercialized technology. She noted that EETF was created to develop demonstration projects in order to broaden AEA's portfolio of options in Alaska.

CO-CHAIR COGHILL asked if ACEP would assist AEA in reviewing the potential EETF applicants.

7:56:09 AM
MS. FISHER-GOLD answered yes.

She addressed AEA Programs as follows:

Energy Statistics

- Summary and analysis of electricity generation and use across Alaska.
- Annual report for the last three years. Prior updates were only done every five to ten years.
- Provides a baseline to measure how AEA was doing with its goals. One goal was passed via HB 306

regarding the 50 percent renewable energy electricity by 2025. The other one that comes into AEA's Efficiency and Conservation Programs is improving efficiency by 15 percent by 2020. AEA has a methodology through its statistics collection to measure how AEA was meeting the energy efficiency goal.

Efficiency and Conservation

- State Goal: improve efficiency 15 percent by 2020. AEA works in partnership with the Alaska Housing Finance Corporation (AHFC) to recommend and put forth residential programs that assist AEA in attaining the efficiency goal.
- AEA's focus is on commercial buildings, rural public buildings, industrial facilities and electrical efficiency in the diesel systems installed in rural Alaska.
- Statewide outreach and education.
- Support for multi-stakeholder group, Alaska Energy Partnership.
- Coordination between State agencies.
- Alaska Commercial Energy Audit Program.
- Village Energy Efficiency Program.

7:57:42 AM
CO-CHAIR Bishop recognized that Senator Huggins was present at the committee meeting.

SENATOR MICCICHE stated that the committee's focus was on a statewide energy plan for both urban and rural areas. He noted AEA's goals relating to renewable energy, commercial viability, and improving efficiency. He asked if there was an independent clearing-house to verify where the state was in meeting its energy goals.

MR. THERRIAULT answered that AEA was the clearing-house. He said AEA followed the policy that was established by the legislature and the administration. He stated that HB 306 and SB 220 were 2010 bills that established a lot of the state's energy policy direction. He said the empowering authority was provided to implement the energy policy. He said it was his responsibility to make sure AEA was implementing policy and achieving the set goals for programs. He stated that he would be the point person for the committee to contact to track down specific information.

MS. FISHER-GOLD explained that AEA was working on an "energy cheat sheet" that showed the AHFC and AEA energy programs. She noted that the Alaska Industrial Development & Export Authority (AIDEA) had a new program, the Sustainable Energy Transmission and Supply Development Fund (SETS). She explained that SETS would play a significant role in financing energy projects in the future.

CO-CHAIR COGHILL addressed the difference between industrial base electricity and industrial base hydrocarbons.

MS. FISHER-GOLD stated that AEA had a high level statistical overview for statewide electricity.

SENATOR WIELECHOWSKI asked if AEA had a list of state expenditures for energy projects over the last 20 to 30 years.

MS. FISHER-GOLD answered that a ten year list of AEA funded and constructed projects could be provided. She said she would provide the committee with a report from the Office of Management and Budget (OMB) on total funding for energy programs beyond what AEA encompassed.

8:03:24 AM
MS. FISHER-GOLD addressed Community Concept-Nightmute as follows:

Bringing Together Many Partners

- Partnerships: AEA, Alaska Village Electric Cooperative (AVEC), Association of Village Council Presidents (AVCP)-Housing, Nightmute, Denali Commission, RuralCAP and Alaska Building Science Network.
- Comprehensive assessment of the community's energy need.
- Successes:
    - Lighting and weatherization upgrades in 13 community buildings and 4 teacher housing units.
    - 59 percent energy savings.
    - Average building went from two to four Star energy rating.
    - Average building fuel consumption went from 961 gallons/year to 423 gallons/year.

MS. FISHER-GOLD explained that AEA was able to go into communities and provide a comprehensive review of their energy needs with their Village Energy Efficiency Program (VEEP). She said VEED allowed AEA to address community facilities, lighting retrofits, and upgrades. She noted that VEEP was particularly effective in high cost rural communities where 60 cent per kilowatt-hour was not unknown.

CO-CHAIR COGHILL asked if reporting would come through AHFC or AEA.

MS. FISHER-GOLD answered that the VEEP report would come through AEA.

CO-CHAIR COGHILL asked if information was available on specific energy efficiency results.

MS. FISHER-GOLD answered yes.

CO-CHAIR COGHILL stated that the committee would address energy conservation, new energy technology, as well as the use of oil or gas.

MS. FISHER-GOLD replied that energy efficiency was AEA's top priority.

CO-CHAIR COGHILL commented that his Fairbanks constituents addressed the city's improved energy efficiency and their consternation over receiving higher utility rates afterwards.

8:06:54 AM
CO-CHAIR BISHOP asked Mr. Therriault to address the Nightmute Project. He inquired if it made any difference what hydrocarbon was used as fuel. He noted that efficiency was the key and cutting the fuel use by 59 percent was a great outcome.

MR. THERRIAULT replied that AEA's authority directive was to lower the cost of energy for Alaskans. He explained that the directive was not just to lower per unit price, but to lower people's average energy bill.

SENATOR WIELECHOWSKI asked what happened to Nightmute's fuel bills.

CO-CHAIR COGHILL inquired if the 59 percent savings was attributed specifically to Nightmute.

SENATOR WIELECHOWSKI asked if AEA had a number on what the kilowatt-hour or diesel cost difference was.

MS. FISHER-GOLD responded that she did not have a specific number on the energy cost difference. She noted that the electrical rates were 53 cents per kilowatt-hour.

CO-CHAIR COGHILL commented on Nightmute and addressed the challenges from the Power Cost Equalization (PCE) program. He explained that PCE was directed towards residential use and businesses were left out. He asked if businesses would be included within the conservation measures.

8:08:46 AM
MS. FISHER-GOLD answered that AEA was working on increased funding and financing for commercial efficiency upgrades. She said the Alaska Department of Commerce, Community, and Economic Development (DCCED) offered business entities a loan program for alternative energy and energy efficiency. She noted that the PCE Program did not cover commercial facilities. She explained that the Renewable Energy Program would impact an entire community's displacement of diesel fuel and not just the 33 percent that were eligible for the PCE Program.

CO-CHAIR COGHILL commented that entrepreneurs should not be discouraged in communities. He explained that residential homes may realize lower costs, but enterprising businesses were vital to a community.

SENATOR WIELECHOWSKI asked what Ms. Fisher-Gold's thoughts were on expanding the PCE Program to include businesses in rural Alaska.

MS. FISHER-GOLD replied that legislation was introduced in the House to address the PCE Program for businesses. She said AEA would provide fiscal impact analysis when the bill was heard. She explained that she did not have a position on whether a commercial business should be included in the PCE Program. She said a small amount of commercial businesses were included in the PCE Program in 1999, but were removed during the same year. She explained that the PCE Program was a $40 million program that would require additional funding if commercial customers were added. She noted that schools were not included in the PCE Program.

8:11:35 AM

SENATOR WIELECHOWSKI asked if Ms. Fisher-Gold had a sense of the cost for including schools and businesses.

MS. FISHER-GOLD answered that AEA had not completed the analysis and noted that the House bill had not been scheduled. She said the AEA report would address the current costs and estimate the commercial impact.

MR. THERRIAULT responded that AEA's report would allow legislators to consider the fiscal impact from adding entities to the PCE Program. He noted that attention would have to be given to assure that the PCE endowment would continue to cover residential demand.

CO-CHAIR COGHILL commented that the policy call on PCE highlighted the challenges for businesses in smaller communities. He said it was important for the committee to continue looking at ways to assist businesses, especially in regional areas with energy supply issues.

8:13:07 AM
MR. THERRIAULT addressed Senator Coghill's statement that residents in his district were encouraged to conserve energy and rewarded with higher electricity rates. He noted that increased fuel costs may have had an impact on rates during Fairbank's energy conservation. He explained that reduced consumption would force a utility to spread its fixed costs on fewer kilowatts, but the increase in fixed cost per unit of energy would be minimal.

He addressed Senator Wielechowski's question on Nightmute's impact on fuel consumption. He said the amount of fuel that each residence used was cut dramatically. He explained that the use of power was probably reduced, but the cost per kilowatt-hour may have gone up. He stated that the overall annual energy bill went down.

He said AEA was addressing loans and programs to assist businesses. He noted that the state faced added risk in providing loans to smaller businesses that may declare bankruptcy.

He said AEA was not seeing the desired program activity levels from schools. He explained that a program existed for incentivizing schools to take on energy efficiency measures. He said lower program activity may be attributed to school districts being geared towards a Capital Improvement Project

(CIP) request process. He stated that AEA would try to figure out ways to remove barriers and reshape programs to increase participation levels that policy makers had hoped for.

CO-CHAIR BISHOP asked if consideration should be given to centralizing energy loans from a one-stop-shop. He inquired if the state was doing a good enough job in educating school districts that funds were available outside of the CIP request.

MR. THERRIAULT answered that he addressed energy programs with Commissioner Hanley from the Department of Education and Early Development.

8:17:04 AM
MS. FISHER-GOLD noted that Mr. Therriault's role was to address issues and make sure AEA was able to effectively deliver programs to its customers. She noted that AEA continued to review programs and find ways to improve.

She explained that AEA's Power Project Fund (PPF) was as follows:

- Loans to upgrade or develop small-scale electric power facilities.
- Includes bulk fuel storage, transmission and distribution, waste energy, energy conservation, energy efficiency and alternative energy facilities and equipment.
- State assistance for a project more than $5 million requires Legislative approval.
- Low interest rates.
- $42 million in PPF (half in application process).
- Chena Hot Springs geothermal power plant.

She said PPF had been under-utilized in the past due to utility cooperatives having alternate funding sources, but noted recent participation had increased. She explained that PPF required legislative approval for a project that had state involvement or assistance of more than $5 million. She noted that AEA would address the application process to provide a user-friendly format that in turn provided AEA with the proper information to evaluate projects.

She addressed AEA's Rural Energy Programs as follows:

Bulk Fuel and Rural Power Systems Upgrades

- Help utilities improve efficiency, safety and reliability of power systems.
- Completed $304 million in rural bulk fuel and rural power system upgrade projects since 2000, in partnership with Denali Commission.
- Thirteen projects under construction next year.
- Circuit rider technical assistance in 53 communities (FY 12).

Training and Technical Assistance

- Training for power plant operators, advanced power plant, bulk fuel, electric utility manager, Power Cost Equalization.
- Energy specialists assisted 40+ communities to advance to project-ready status.

MS. FISHER-GOLD stated that AEA had a hands-on approach when assisting rural communities in building energy infrastructures. She noted that AEA invested a significant amount of time to make sure rural communities were trained. She said AEA worked with the Alaska Department of Labor and Workforce Development to send individuals to power plant training at AVTEC-Alaska's Institute of Technology. She explained that PCE training was provided for utility clerks to assist in accurately expediting reports and monthly payments. She noted that AEA received funding for two new energy specialists to provide rural communities with technical assistance for energy grant applications.

8:20:45 AM
She explained the Rural Energy-Power Cost Equalization (PCE) as follows:

- Provide economic assistance in rural Alaska where electrical rates can be three to four times higher than in urban Alaska.
- Available to community facilities and residential customers.
- Regulatory Commission of Alaska (RCA) sets rates, calculations based on use, costs and efficiencies.
- Approximately 77,341 people live in the 183 participating communities (FY 11).
- PCE payments at 100 percent totaling $39.5 million (FY 12).

- $788 million PCE Endowment.

MS. FISHER-GOLD explained that the PCE Program's endowment funding was based upon a monthly market value average over a three year period. She noted that the program's endowment received a $400 million appropriation in 2011 and the appropriation was working its way through the three year average. She said the program would realize a significant increase for the upcoming fiscal year with the 2011 appropriation being fully realized in 2016.

SENATOR WIELECHOWSKI noted that friends from Fairbanks had asked if PCE funds might be expanded to include energy cost assistance for interior areas like Fairbanks.

MS. FISHER-GOLD answered that there had been legislation in past years for Fairbanks to receive PCE funds. She noted that any legislation would require AEA to provide cost information if PCE funds were considered for more communities. She explained that eligibility for PCE was based upon community size and 1984 fuel usage. She noted that PCE was not an expandable program without legislation. She noted that Fairbanks was paying 22 cents per kilowatt-hour and some PCE communities were paying less than Fairbanks. She explained that some of the PCE communities had 14.5 cents per kilowatt-hour floors that paid up to 95 percent of the first 500 kilowatt-hours. She said based upon the PCE program formula, some PCE communities could be paying 15 to 16 cents per kilowatt-hour for 30 percent of the total kilowatt-hours produced.

8:24:03 AM
She addressed AEA's Supporting Regional Solutions-Regional Energy Planning as follows:

- Energy Pathways led to regional planning.
- Address unique challenges while capitalizing on regional resources.
- Locally driven and community-vetted blueprint for sustainability.
- Objective to provide specific, actionable recommendations.
- Includes electric, heat and transportation energy.
- Previous plans: Railbelt Integrated Resources Plan and Southeast Integrated Resources Plan.

MS. FISHER-GOLD said the Energy Pathways Plan was put forward in 2008 by Steve Haagenson, AEA's former Executive Director. She said the plan was completed in 2010 and noted that AEA was working on the further development to provide communities with an inventory of what was available to reduce the cost of energy. She said energy planning would be regionally lead and locally driven.

8:25:24 AM
She addressed AEA's Supporting Regional Solutions-Lessons Learned: Building Blocks of Energy, as follows:

- What keeps the lights on? Is this a safe and efficient source of power:
- Can renewable energy sources be integrated?
- Is there potential for economic development?

She explained that AEA reviewed energy sources and noted that rural Alaska was often diesel based. She said smaller power systems evaluations were made in addition to ensuring system safety and efficiency. She noted that AEA looked at renewable energy integration as well as energy rate impact on economic development.

She addressed Supporting Regional Solutions, Five-Step Process to Developing a Plan, as follows:

1. Preliminary planning and stakeholder's identification.
2. Resource inventory assessment/data analysis.
3. Develop and review draft energy plan alternatives.
4. Solicit comments on draft.
5. Final Document.

She noted that in Step 4, the regional leaders in the plan were solicited for comments. She said AEA provided assistance that was specific to projects or the technology that was sought out.

She identified an AEA map on the Alaska Regional Energy Plan. She explained that the map roughly followed the Alaska Native Corporations' boundaries. She noted that regional planning was not limited to boundaries and shared resource opportunities were sought out.

CO-CHAIR BISHOP commented that trusting local knowledge for planning was positive.

MS. FISHER-GOLD addressed Supporting Regional Solutions-Calista Region as follows:

Uniqueness:

- Large region with largest population, including 56 villages.
- High energy and transportation costs.

Resources:

- Wind in the coastal areas.
- Exploring feasibility of hydropower at Chikuminuk Lake.
- Community clusters: brings potential for energy interties.

She said the Calista Region plan was one of the first plans that AEA initiated beyond the Southeast Integrated Resource Plan. She noted that the Nuvista Light & Power group would be involved with the Chikuminuk Hydroelectric & Alternative Energy Project. She explained the community clusters for potential energy interties included: Tooksook Bay/Tununak/Nightmute, Alakanuk/Emmonak, and St. Mary's/Mountain Village/Pilot Station. She said the Calista Region was looking at the community clusters beyond energy infrastructure and noted school facilities as an example that could benefit from a larger region.

8:29:53 AM
She addressed the Current Regional Plan Contracts as follows:

- Ahtna Region: Copper Valley Development Association.
- Aleut Region: Southwest Alaska Municipal Conference (SWAMC).
- Bering Straits Region: Bering Straits Development Council.
- Bristol Bay Region: SWAMC.
- Calista Region: Nuvista Light and Electric Cooperative.
- NANA Region: Northwest Arctic Borough Economic Development Commission.

- Doyon Region: Direct grant to Tanana Chiefs Conference from the Denali Commission.
- Working with Chugach, Kokiak and Arctic Slope Regions.

MS. FISHER-GOLD said AEA had been holding Regional Planning Group meetings to make sure that the regional planners could get together and look at some of the roadblocks. She noted that AEA was primarily trying to work with the [Department of Commerce, Community, and Economic Development's] Alaska Regional Development Organizations (ARDOR). She explained that ARDOR encompassed regional leaders with economic development roles and provided a good segue for regional planning impact on economic development efforts.

8:31:12 AM
She addressed Supporting Regional Solutions-Ahtna Region as follows:

Uniqueness:
- 17 communities on the road system.
- Federal land ownership.
- Large seasonal load growth.
- Village corporations merged with Ahtna Regional Corporation to form on land owner.

Resources:
- Biomass.
- Hydropower.
- Interties and transmission.

She explained that the Ahtna Regional Corporation's focus was on biomass and noted that the region's potential to connect with the Railbelt Region.

She addressed Energy Policy Development and Coordination as follows:

- Deputy Director for Statewide Energy Policy Development.
- Coordination of energy plans on statewide level.
- Coordinate multi-agency efforts.
- Serve a lead on Alaska's energy policy development.

- Individual project analysis and vetting.
- Transmission planning.
- Working with AIDEA on LNG trucking.

MS. FISHER-GOLD stated that Mr. Therriault would provide the committee with information on policy development and coordination.

MR. THERRIAULT said legislation had been introduced in the Senate regarding access and the issue pertained to removing physical impediments for energy users. He explained that access to biomass was a key issue and noted Alaska's tremendous biomass resources. He revealed that existing state statutes with regards to biomass access were geared towards harvesting timber for dimensional lumber or other use. He said the desire for biomass access as an energy source may facilitate change in regulations and statutes. He explained that a clear policy call was required from the legislature to assure that Alaskans had access to biomass as an energy source.

He said there was an issue with traditional access across lands. He said an example would be finding a potential hydro spot for development and addressing whether the power could be wielded to its possible consumers. He stated that consideration would have to be given to allow for crossing state lands or legislatively designated areas.

8:35:10 AM
He addressed the policy to increase energy efficiency by 15 percent by the year 2020. He said AEA had to work in-house to determine how attaining the efficiency goal would be measured. He noted that a report was delivered to the legislature regarding AEA's proposal on efficiency measurement and departmental coordination in measuring whether the goal was being achieved. He said AEA's goal was to consistently provide empirical data that showed whether funded programs were achieving their policy goals.

He referred to the "disconnect" to get school districts to fully understand how to get access to funded programs. He noted that schools would have an impact on measurable energy efficiency gains in government owned infrastructure. He said AEA's intent was to include schools into a measureable matrix to monitor goal achievement.

He addressed the 2025 goal for 50 percent of the state's electrical needs to be supplied by alternative and renewable

energy sources. He said AEA believed the state would reach its goal if current projects were ultimately deployed. He noted that Alaska's electrical load was Railbelt focused and success was largely dependent on the Susitna-Watana project.

8:37:47 AM
MR. THERRIAULT noted that the state's blessing and curse was its vast array of energy alternatives. He disclosed that an AEA team had been assembled to assist the legislature in the vetting projects and proposals.

SENATOR WIELECHOWSKI asked if Alaska was better off pursuing localized and regional energy project or running transmission lines throughout the state from the Susitna-Watana Hydro project. He asked how widespread an energy project's delivery plan should be.

8:40:17 AM
MS. FISHER-GOLD replied that Alaska's challenge was its great distances between resources and load. She explained that building a transmission line was not always the answer to reducing energy cost. She said there was a cost associated with building a transmission system in addition to making sure that the developed energy generation was cheaper than the intended delivery location's existing alternatives.

MR. THERRIAULT said the state had an energy plan that was established by the legislature through legislation that set goals and programs to achieve the goals. He explained that funding was provided to make sure the programs were moving forward to achieve the goals. He noted that one size did not fit all and addressed the Energy Pathways Plan for regionalized planning efforts. He explained that the concept to deliver energy across a large area was a challenge due to geographic remoteness and load parameters. He said a copper wire could be stretched over a large area, but very low demand could result in line delivery losses that equal or exceed the intended load coverage. He said AEA intended to work with geographic areas to economically assess what made the most sense.

8:43:56 AM
SENATOR WIELECHOWSKI inquired what Alaska would look like in 50 years. He asked if a village's energy would be supplied by their wind farm or solar panels, statewide transmission lines, or regional hubs that supplied power in a geographical area. He explained that a 50 year energy outlook was a critical exercise

for the committee and AEA to consider due to the large investments in energy projects.

MR. THERRIAULT responded that the investments being made would bring about less fluctuation in the price of power due to the focus on alternative and renewable energies. He noted that there were two metrics for users of power: cost and certainty. He said a business considering an investment would have to estimate their power costs for multiple years. He explained that the power cost might not be as low as a business may want, but a business plan could be built around how the cost could be met.

8:45:51 AM
MS. FISHER-GOLD addressed AEA's Active Energy Projects regarding funding for various programs and the FY14 Budget Summary.

CO-CHAIR BISHOP thanked Ms. Fisher-Gold and Mr. Therriault for their AEA presentation.

8:47:41 AM
There being no further business to come before the Senate Special Committee on In-State Energy, Co-Chair Bishop adjourned the meeting at 8:47 a.m.