

BOARD MEETING MINUTES
Thursday, July 31, 2014
Ketchikan, Alaska

1. CALL TO ORDER

Chair Dick called the meeting of the Alaska Energy Authority to order on July 31, 2014 at 9:30 am. A quorum was established.

2. ROLL CALL: BOARD

Members present: Chair Russell Dick (Public Member); Vice-Chair Dana Pruhs (Public Member); Susan Bell (Commissioner of the Department of Commerce, Community and Economic Development (DCCED)); Crystal Nygard (Public Member); and Gary Wilken (Public Member).

3. ROLL CALL: STAFF, PUBLIC

Present in Ketchikan: Sara Fisher-Goad (AEA Executive Director); Michael Lamb (Deputy Director-Finance and Operations); Devany Plentovich and Teri Webster (AEA); Terry Wanzer (Best Western Landing Hotel); Tory Korn (Southeast Conference); Trey Atkinson (Southeast Alaska Power Agency (SEAPA)); Bob Sivertsen (SEAPA, City of Ketchikan).

Present in Anchorage: Sandra Moller (Deputy Director-Rural Energy); Sean Skaling (Deputy Director-Alternative Energy and Energy Efficiency); Krin Kemppainen (AIDEA); Brian Bjorkquist (Department of Law); Robert Venables (Southeast Conference); Miranda Studstill (Accu-Type Depositions).

4. AGENDA APPROVAL

The agenda was approved as presented.

5. PRIOR MINUTES - May 27, 2014

MOTION: A motion was made by Vice-Chair Pruhs to adopt the minutes of May 27, 2014. Motion seconded by Commissioner Bell. Motion passed.

6. PUBLIC COMMENTS

Mr. Tory Korn, on behalf of Southeast Conference and the community of Ketchikan, expressed his appreciation to the Board for holding their meeting in Ketchikan and for AEA's continued support in utilizing Southeast Conference for projects.

7. NEW BUSINESS

7A. Biomass program overview

Ms. Fisher-Goad introduced Ms. Plentovich, who has been with AEA as a biomass expert for five years. She has over 20 years of industry experience working with biomass projects and came from the private sector, Kimberly Clark. Ms. Fisher-Goad noted she and Ms. Plentovich spent the last day-and-a-half on Prince of Wales Island where biomass momentum is great. Ms. Plentovich has embraced the Alaskan process of community assistance in working with the communities, school districts, and folks that are very interested in biomass development.

Ms. Plentovich gave a detailed PowerPoint presentation describing biomass, the technology options, the current biomass programs, the accomplishments, and future plans. One of the main drivers for pursuing biomass in Alaska is the amount of energy that could be captured from burning scrap wood in the field from a timber harvest and used to displace diesel fuel. The forest residue biomass was the focus of the presentation. The economics of the biomass programs are somewhat marginal because of the high capital cost. However, the benefits of lowering heating costs and keeping cash flow in the community are positive through job creation and economic development. Biomass also supports the forest products industry by taking waste chips from sawmills and burning it for fuel. Wildfire mitigation has been performed in Tok by cutting back the overgrown forest and that wood is supplying heat to the school.

Vice-Chair Pruhs asked if forest residue biomass is the only type of biomass that has been used for fuel in Alaska. Ms. Plentovich noted the large municipal solid waste project is the landfill gas in Anchorage, which was funded through AEA, generating approximately 6.5 megawatts of electricity. Potential projects are being studied for the combination of municipal solid waste and forest residue to provide a viable biomass system for the hub communities, the size of Kotzebue. Biomass systems utilizing fish waste are also being studied for a solution for the small to mid-size fish processors. Vice-Chair Pruhs asked what percentage of biomass is forestry products. Ms. Plentovich noted about 95% of the biomass in Alaska is forestry products.

Ms. Plentovich provided an advantage comparison of the three main forestry technologies; cordwood, chips, and pellets. Vice-Chair Pruhs asked how often does the typical cord wood stove need to be serviced each day. Ms. Plentovich explained the cord wood boiler sizing is intended to provide normal operations from being stoked one to four times a day, depending on the cold temperatures. The cord wood system can be stoked additionally to get more energy.

Ms. Plentovich discussed the biggest challenge with biomass is having the community support of the system because it is hard work. It is important that all energy efficiency improvements are made to the buildings. The community must have a sustainable supply of biomass to ensure a successful system. AEA works very closely on every project with State Forestry and U.S. Forest Service to make sure overharvest of the forest will not occur.

Commissioner Bell asked if North Pole and Port MacKenzie were the only two places producing Alaska-sourced biomass pellets. Ms. Plentovich stated pellets are also being manufactured in Dry Creek and Ketchikan. A factory is in construction in Gulkana. Ms. Fisher-Goad discussed there is a sawmill operator on Prince of Wales Island who is working to develop a pellet system. She noted there are many parallels with biomass and the Interior Energy Project on the supply

and demand issues and making sure the full network is addressed and determining which loan programs are potentially available to assist in financing. This is a good opportunity to work more closely with other agencies on developing the biomass industry.

Ms. Nygard asked if the municipal solid waste is more economic in Anchorage at Joint Base Elmendorf-Richardson (JBER), for instance, because of the need for the extra fuel, in addition to the size of the population which will continue to generate the biomass. Ms. Plentovich explained the first biomass source to capture in an area with a large landfill is the landfill gas. It is the usually the most cost effective renewable energy solution.

One of the strengths of the biomass program is the MOU with 18 different organizations in the state working on biomass, called the Alaska Wood Energy Development Task Group. This group conducts pre-feasibility studies, which may lead into the design and construction of projects in Alaska. There are currently 18 pre-feasibility studies in progress and over 100 have been completed. Twenty of those have resulted in design and construction projects.

Vice-Chair Pruhs requested to see the economics of each project to know the value of the displaced fuel and if any savings have been accomplished for each project. Mr. Wilken requested to see the economic numbers of the projects as well, because the grants are intended as seed money and the program is not designed to fund biomass programs for schools and communities on an ongoing basis. The imbedded costs of maintenance and operation and personnel to run these projects needs to be disclosed to ensure the economic viability of the projects without additional grant money from the state.

Mr. Wilken asked how many acres does it take per day or per week to provide the Tok school system with their biomass needs. Ms. Plentovich does not have the Tok information in front of her. She stated Galena's system is slightly larger than Tok's and requires about 700 tons of biomass for one year, at 40 tons per acre. She stated this is approximately 20 acres of biomass per year for a large project and three acres for a small project. Ms. Plentovich believes this amount is not even scratching the surface of the allowable harvest.

Mr. Wilken stated those numbers seem to be a little low for the Tok school system and requested Tok's specific information on how many acres of the boreal forest does it take to produce the amount of wood to heat the boilers at Delta and Tok. Ms. Plentovich will provide that information. She advised both Tok and Delta also use wood waste from the Dry Creek mill.

Mr. Wilken requested the metrics used in determining biomass project success, so the Board can track these projects from the beginning. Ms. Fisher-Goad informed the 5-year mark is now being reached by some of the early REF projects and she will provide the success metrics to the Board.

Ms. Nygard requested the number of jobs that are being displaced in each community by utilizing a biomass source. Ms. Fisher-Goad stated she will provide the number of net jobs, because there is job creation associated with biomass projects.

Mr. Wilken asked if there is an effort to roll the cost into a rate base that sets money aside to help pay for these systems or if they are all public systems. Ms. Fisher-Goad advised these projects

are not normally producing rate-based electricity, but are providing fuel displacement savings. The value added is the money savings is staying in the community. The REF criteria is the system has to be for an eligible applicant and a public building. AEA does not fund residential programs, unless they are part of a heating utility or heating district. Currently, none have been funded beyond the feasibility stage. The experience data on previous rounds is being provided to the Legislature each year to assist in making informed decisions.

7B. Bradley Lake transmission update

Mr. Bjorkquist gave an update of the Bradley Lake transmission dispute. The two legs of Bradley Lake power transmission are the two lines from Bradley Junction to Soldotna Substation and one line from the Soldotna Substation to Quartz Creek. The Regulatory Commission of Alaska (RCA) has jurisdiction over the Soldotna to Quartz Creek line, but does not have jurisdiction over the Bradley Junction to Soldotna Substation lines. RCA granted Homer Electric Association (HEA) interim and refundable rates retroactive to January 1, 2014. This is a deviation from normal RCA practice, because of the complex jurisdictional issues to be resolved. This allows HEA the ability to collect revenues while RCA continues to review the complex issues and determine the appropriate rates.

Another deviation from normal RCA practice is the calculation of the transmission tariffs because of the non-jurisdictional parts of the HEA system. The segmenting of the HEA system by RCA created a special treatment of the transmission system costs. RCA has scheduled a two-week hearing beginning February 20, 2015, addressing the issue of RCA's jurisdiction over the Soldotna to Quartz Creek line and the issue of the cost to be included in the tariff rate for the Soldotna to Quartz Creek line.

Ms. Fisher-Goad commented Mr. Bjorkquist has done a phenomenal job in representing AEA's interest at RCA and maintaining an appropriate level of engagement in providing responses to RCA.

PUBLIC COMMENTS WERE RE-OPENED

Commissioner Bell asked if the Chair would consider briefly opening up for public comment at this point, since guests will be excused during executive session. There was no objection from the Board. Public comment were re-opened.

Mr. Terry Wanzer, owner of the Best Western Landing Hotel, asked if there were calculations regarding the moisture content in the biomass and the Btu's the source produces. In Southeast Alaska, an additional calculation of drying the wood is part of the total economic equation. He asked if this is a deterrent to projects in Southeast. Mr. Wanzer noted Ketchikan ships much of their landfill waste to Franklin, Washington, and he believes this is a travesty and the community could extract energy from this product. The landfill bill at his property is \$35,000 a year and he believes there should be a savings to this and the product should be used. Mr. Wanzer expressed the champion, as alluded to in the biomass presentation, will be the public and the private sector in commercial applications. His diesel fuel cost per month is \$15,000. Mr. Wanzer asked if the projects shown on Slide 17 are all public projects. Ms. Plentovich noted there is one private sector project shown.

Mr. Wanzer recommended the economics, including operation and maintenance, and the actual dollar amount of savings be transparent and advertised in all of the biomass paperwork. He expressed his appreciation to AEA for coming to Ketchikan. Chair Dick requested Mr. Wanzer provide his contact information to Ms. Plentovich and she will answer his questions.

Mr. Bob Sivertsen informed he ran a solid waste facility for a number of years and 42% of the material that goes into a landfill is wood and paper waste. The city of Ketchikan has about a 50-ton-a-day operation and half of that is the waste which is shipped south. He believes it would be helpful if AEA quantifies the types of systems that can be used in Southeast Alaska for the size of the projects in order to provide more efficient systems. Mr. Sivertsen believes pellet fuel from a local mill is important because available acreage for firewood in Ketchikan is difficult to obtain.

Mr. Morgan Berry, Deputy Director of Public Works for Ketchikan Gateway Borough, reported he met with Ms. Fisher-Goad and Ms. Plentovich earlier this week regarding the Borough's ongoing feasibility and construction of biomass projects. He expressed his appreciation for AEA meeting in Ketchikan.

Ms. Nygard asked Mr. Berry if the ships leave their biowaste in Ketchikan. Mr. Berry noted the Ketchikan Gateway Borough does not have purview over the solid waste and that is maintained by the city of Ketchikan. Mr. Sivertsen informed Ketchikan did accept regulated cruise ship waste at one point, but currently, all of the cruise ships keep their waste aboard ship and are offloading elsewhere.

MOTION: A motion was made by Vice-Chair Pruhs to go into Executive Session to discuss confidential information related to the FY 2016 Budget preparation and potential legislation and to encourage all of the guests to come to the Ketchikan Chamber luncheon today. Motion seconded by Commissioner Bell. The motion was approved.

7C. Executive Session - 2016 Budget preparation and potential legislation: 10:36 am.

The Board reconvened its regular meeting at 11:43 am.

Chair Dick advised no formal action was taken during executive session.

8. DIRECTOR COMMENTS

8A. Program & Project Fact Sheets

Ms. Fisher-Goad noted the new items in the fact sheets include the Alaska Affordable Energy Strategy, which is the SB 138 effort, and an additional fact sheet on solar energy.

8B. Next regularly scheduled meeting, Thursday, September 18

9. BOARD COMMENTS

Vice-Chair Pruhs expressed his appreciation to Ms. Fisher-Goad for her well-prepared presentation today.

Ms. Nygard expressed her appreciation to Ms. Fisher-Goad for addressing the issues before the session occurs and building the conversation now.

Chair Dick echoed his appreciation for the helpful presentation and all of the work Ms. Fisher-Goad has completed and will be undertaking.

10. ADJOURNMENT

There being no further business of the Board, the AEA meeting adjourned at 11:46 am.



Sara Fisher-Goad, Executive Director/Secretary
Alaska Energy Authority