
**Alaska Energy Authority
BOARD MEETING MINUTES
June 25, 2009
Anchorage, Alaska**

1. CALL TO ORDER

Chairman Pat Galvin called the meeting of the Alaska Energy Authority to order on June 25, 2009, at 10:36 a.m.

2. BOARD OF DIRECTORS ROLL CALL

A quorum was established.

Members present in Anchorage: Chairman Pat Galvin (Commissioner, Department of Revenue); Commissioner Emil Notti (Department of Commerce, Community & Economic Development); and Vice Chair John Winther (Public Member). Commissioner Leo von Scheben (Department of Transportation & Public Facilities) arrived at 10:52 a.m.

Absent: Mr. John Kelsey, Public Member

3. AGENDA APPROVAL

The agenda was amended to move Public Comments after Executive Director Comments. The agenda was approved as amended.

4. PUBLIC ROLL CALL

Staff present in Anchorage: Steve Haagenson (AEA Executive Director); Chris Anderson (Deputy Director-Credit); Sara Fisher-Goad, (Deputy Director-Operations); Mike Harper (Deputy Director-Rural Energy); James Hemsath (Deputy Director-Development); Valorie Walker (Deputy Director-Finance); Bruce Chertkow (Loan Officer II); David Lockard (Project Manager); Chris Mello (Program Manager-RPSU/BF); Karsten Rodvik (Project Manager); Jim Strandberg (Project Manager); Butch White (Grants Administrator); Brenda Fuglestad (Administrative Manager); and Sherrie M. Siverson (Administrative Assistant).

Others present in Anchorage: Brian Bjorkquist (Department of Law); Tim Bradner (Alaska Journal of Commerce); Henrich Kadake (Mayor of Kake); David Case (Northwest Arctic Borough); Jodi Mitchell (Inside Passage Electric Cooperative); Katherine Eldemar (Sealaska); Robert Venables (Southeast Conference).

Joined the meeting in progress: Bryan Carey (Project Manager); Chris Rutz (Procurement Manager); and Mark Schimscheimer (Project Manager).

5. PRIOR MINUTES – February 26, 2009

The minutes were approved as presented.

6. OLD BUSINESS

There was no old business.

7. NEW BUSINESS

There was no new business.

8. EXECUTIVE DIRECTOR COMMENTS

Mr. Haagenson provided an overview of the documents in the board packets.

ALASKA ENERGY: A first step toward energy independence

Energy use in each community is composed of three major components: electricity, space heating, and transportation. A resource map was constructed that indicated the available resources for each community. As would be expected, every resource is not available in each community. The other observation was that even with a 30% wind penetration, the remaining 70% of the electrical energy would come from diesel. Diesel can be extremely expensive in rural Alaska. AEA is seeking development of a system using 100% wind for both electric and heat.

Artificial Geothermal

Wind can provide electricity and heat, but there is a need for assistance when the wind stops. When the wind stops, the hot water would provide heat and could be used to make electricity through a binary phase turbine, similar to the Chena Chiller Organic Rankine Cycle (ORC) generator used at Chena Hot Springs.

Storage

Alaska Center for Energy and Power (ACEP) is currently investigating energy storage technologies. These different technologies may lend themselves to more improved technologies better than others based on the expected storage times. The Cold Climate Housing Research Center (CCHRC) is looking at a large insulated thermal mass that would be heated in the summer time with abundant solar energy, and used as a thermal source for a heat pump to heat buildings in the winter.

Energy Conversion

The selection of a specific technology is critical for extracting stored energy and converting it to usable energy, but reliability is also a critical factor.

Community Sizing Model

A generic model, created in Microsoft Access, will be needed to integrate the various options into the community. Basic model variables will include: type and availability of local energy resources, end-use electrical energy by community, and end-use heating energy by community. The model will identify the necessary capacity to the energy supply, storage and conversion

systems that are either central or distributed to deliver the community end-use energy. The model will also detail the operations and maintenance costs for integrated systems to support a life-cycle cost analysis.

Capital Cost Model

A database will be developed to combine the community needs information with the Community Sizing model to yield:

- Capital cost estimates by community, region and state
- Cost of Energy by community, region and state
- Per Capita cost by community, region and state

Schedule

Schedule is attached with a November 30th end date.

There will be a Railbelt Regional Integrated Resource Plan (RIRP) Technical Conference on July 7 & 8, 2009. It is open to the public and everyone is welcome to attend.

Renewable Energy Fund HB 152

A public hearing is tentatively scheduled for July 15, 2009 for the proposed regulations for the Renewable Energy Fund Grant Program. After review by the Department of Law's Regulations Section, the 30 day public comment period will begin.

Brian Bjorkquist said that after public comment period, the proposed regulations will come back to the Board for adoption.

In response to question from Mr. Winther, Mike Harper said that funding from the Denali Commission is down approximately 50-75%. There is \$10 million for bulk fuel tank farms and power plants this year, down from \$20 million in previous years. He said approximately 3.5% of those funds cover administrative costs.

The next board meeting will be August 13, 2009.

9. PUBLIC COMMENTS

Henrich Kadake, Mayor of Kake, Alaska. Thank you for letting me speak for the people of Kake. The city of Kake is shrinking because of the economy. Approximately 10 years ago there were about 1000 people living in Kake when fuel and energy were cheap, and there were a lot of jobs. In the past three years they have lost about 480 people. The school system has dropped from 256 to 88 students. We are looking for a way to get some help to continue the work on our Kake-Petersburg Road and Intertie. I believe that it is going to be one of the biggest things that ever happened in Kake will be if the economy will be revitalized because right now we have nothing else. We are only a fishing village. We don't have a whole lot to offer anybody without cheap energy and good transportation. We are looking for some help to try to continue working on the road and intertie. The permitting part is the next step. I have been working with Steve and Jim and IPEC and Angoon and Hoonah. We've been working for the same thing because we are all under the same umbrella as IPEC as our provider. We realize the only way we are going to get cheap energy is working together. I just want to give you an idea where

Kake is. In the past two weeks I have had to lay 15 people off in our community because of a lack of funding and a lack of jobs. It's getting more and more difficult for our people to live there. I just wanted to come here today to let you know what is happening in my village. I know Kake is not the only village that is suffering, but the only way you are going to get something done is to come and ask and speak on behalf of your community. Thank you for giving me this time to comment.

In response to questions from Mr. Winther, Mayor Kadake said they are paying approximately 54 center kWh for electricity. He said the addition of a road would provide a gateway for our transportation. They would be able to produce more value-added products that could be shipped cheaply out of Kake. It might bring the price of milk down from \$7 gallon and electricity would do the same. The ability to ship and receive things cheaper, and create more jobs for the people in the community, would stimulate the Kake economy. The fishing fleet would not have to travel more than six hours to Petersburg to pick up ice, fuel and bait. They could leave their boats in Kake and truck their products to Petersburg saving hours of time and money. It would be an asset to everyone in Southeast. Kake is centrally located in the fishing industry.

Commissioner von Scheben said that DOT had been working on the Kake-Petersburg road for several years and although there were some legal issues, he thought the project was progressing.

Jodi Mitchell, CEO, Inside Passage Electric Cooperative (IPEC). I came with this group today to talk about the combined Kake-Petersburg project. The reason for the combined project is for accessibility to the power line to facilitate maintenance. There are other benefits to the road, access to emergency medical, shopping, air transportation. There are so many benefits from this road project. What we really wanted to kind of hit home, especially for the benefit of Commissioner von Scheben, is what we really need is for you to allocate funds to the project. I guess there is a Roads to Resources fund. I believe the governor put \$10 million in the budget for the project. We know you know we have a short season to do things and so whatever we can do this year saves us time next year. We also have some intertie money and we are working on getting permitting accomplished. We want to hit home the point that the two agencies, AEA and DOT, will continue to work together to get this project under way. We are very anxious. Kake is in really bad shape and we really need your help. The biggest thing is to emphasize the need to work together. This would take the community completely off diesel, which is exactly where we want to go. We are working with the leading entities in the community very closely and everybody supports this project.

In response to a question from Commissioner Galvin, Ms. Mitchell said that AEA has been great and there is no problem, she just wants to be sure both agencies are working hand in hand.

Commissioner von Scheben said that the timing is essential. He met with Steve Haagenson, Joel St. Aubin, Frank Richards, and Michael Black to talk about the cluster concept of connecting villages by roads and sharing services (one school, one power plant/transmission line, one medical clinic, one airport) so economy of scale kicks in. An analysis showed a factor of almost two-to-one in savings using economy of scale. Villages will need to start sharing assets. He will check on the status of the road and report back to the group.

Ms. Mitchell said this would extend the SEPA network (Southeast Alaska Power Agency) and asked for AEA and DOT support in "pushing" SEPA to build and own the intertie, which is the cheapest way to do it for Kake. If Kake built and owned the intertie, it limits the economics for the project. SEPA is the former Four Dam Pool entity.

Katherine Eldemar, Assistant to the President and CEO, Sealaska Corporation. Sealaska Corporation has a shareholder base of a little over twenty thousand and we are here today to express our general appreciation on the development of alternatives to diesel for the Kake area. Kake, along with other areas throughout Southeast do have some economic challenges and one of the key components, one of the constraints we've found as a for-profit enterprise is we are having difficulty with managing that component. Everything else being equal if you try and do business in Kake, or any of the other rural communities, the electrical bills will kill the endeavor. So, inasmuch as we are here, I won't repeat what the other experts have said, but we are in favor and in support of Kake having as expeditiously a road, as well as cheap power to its community.

Robert Venables, Energy Coordinator, Southeast Conference. Even though the challenges are severe and real, good progress has been made this past year and phenomenal progress has been made. Thank you very much to the Alaska Energy Authority because your support in Southeast Alaska has allowed us to do more work this past year than in previous years. Steve and many staffers have played a part in that, but none more than Jim Strandberg and we want to acknowledge his work down there as well. You can imagine when you go to a public meeting and you say "I'm here from the government to help," what kind of a response you get. Well it's only exceeded by when you go to a public meeting and say "I'm here and I'm bringing two government agencies to help you." It's really been inspiring to see the inter-agency cooperation because Southeast region has done a great job in helping us move this project here in Kake.

We just had public meetings in Angoon and Hoonah. We have a lot of initiatives which are leading to a further need for the integrated resource plan that Mr. Haagenson addressed. We are on the verge of having an integrated system from Metlakatla through Kake with the SEPA network. The little hiccup with the DOT has to do with a shortfall in funding that they need for this summer work season. They need some general funds. Mr. Hughes has a request in for the Roads to Resources fund that hasn't filtered up to the Commissioner's office. I apologize, Commissioner, if you felt a little sand-bagged with us throwing that out there. The governor put out a \$10 million dollar legislative authorization that went through for federal funds that will eventually flow to the project, but they need some general funds to get some field work done this year. There is a 300 foot corridor to the north that has been identified for road right-of-way that we want to do the intertie on and that is something that the Forest service is going to want us to keep to one corridor, not two. The community is behind that 100%. We have funds through HB 152 now to do the electrical portion. If the application for the Roads to Resources money can flow to the project then DOT can stay in step. It's disheartening to tell the people at Kake, that although we do mean fast track, it's still three to five years away. We're very anxious to get as much work done as we can during this summer season so we don't fall another year behind. I want to say thank you. The people of Kake, as desperate as they are, they've done a good bit of work developing a comprehensive economic development strategy to revitalize their community should the pieces of energy and transportation fall into place. Southeast Conference, as the State's ARDOR Regional Development Organization, go in there and help

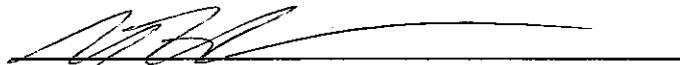
the communities, so we are embracing them on a number of levels and energy is the key. Thank you for your support.

10. BOARD COMMENTS

Mr. Winther complimented the group on their presentation.

11. ADJOURNMENT

There being no objection and no further business of the Board, the meeting was adjourned at 11:21 a.m.



Steve Haagenson, Executive Director/Secretary
Alaska Energy Authority