

Alaska Energy Authority
BOARD MEETING MINUTES
June 9, 2011
Anchorage and Juneau, Alaska

1. CALL TO ORDER

Chairman Short called the meeting of the Alaska Energy Authority to order on June 9, 2011 at 10:02 a.m.

2. ROLL CALL: BOARD MEMBERS

A quorum was established.

Members present: Hugh Short (Public Member); Gary Wilken (Public Member); Robert Sheldon (Public Member); Ron Arvin (Public Member); Susan Bell (Commissioner, Department of Commerce, Community, and Economic Development); and Jerry Burnett (Deputy Commissioner Department of Revenue).

3. AGENDA APPROVAL

MOTION: Mr. Arvin moved to amend the agenda as follows: Move Item B to Item C; Item C, Intertie Operating Agreement Status Update to Item B; add Item D, Executive Session to discuss legislative matters. Seconded by Mr. Sheldon. The agenda was approved as amended.

4. ROLL CALL: STAFF, PUBLIC

Staff present in Anchorage: Sara Fisher-Goad (AEA Executive Director); Peter Crimp (AEA Deputy Director-AEEE); Valorie Walker (AEA Deputy Director-Finance); Karsten Rodvik (Project Manager, External Affairs); Aaron Rhoades (AEA Human Resource Administrator); Chris Rutz (AEA Procurement Officer); Bryan Carey (AEA Project Manager); Jim Strandberg (AEA Project Manager); Karl Reiche (AIDEA Projects Development Manager); Linda MacMillan (AEA Accountant); Emily Binnian (AEA Project Manager); Amber Converse (AEA Intern); Shauna Howell (AEA Executive Assistant); Karin St. Clair (AEA Administrative Assistant); May Clark (AEA Administrative Assistant); and Teri Webster (AIDEA Administrative Assistant).

Others present in Anchorage: Brian Bjorkquist (Department of Law).

Public: Brad Evans (CEO Chugach Electric); Joe Griffith (ARCTEC & Matanuska Electric); Henri Dale (GVEA); Kirby Gilbert and Brian Sadden (MWH); Robert Venables (SE Conference Energy Coordinator); Tanner Vebch (Kiewit); Dana Martens (self); Paul Wiltse and Neal Gunn (TDX Power).

Participating via teleconference: Becky Long (Northern Susitna Valley Resident); Kathy Teisch (Concerned Alaskan); Richard Leo (Trapper Creek resident), and Joyce Wood (Talkeetna resident); and Deborah Webster.

5. PUBLIC COMMENTS (Verbatim)

Becky Long – Northern Susitna Valley Resident for 33 years (teleconference)

The Northern Susitna Valley communities have consistently been opposed to a Susitna Dam since the Army Corps of Engineers had meetings in the 1970's and 1980's. It is a blatant constitutional abuse that there is no state public process that has public hearings in the affected communities to approve going ahead with this massive hydro project. Yes, the upcoming FERC process has many public opportunities. But that is a federal process. We want a state process that involves the public to decide if the state should even apply for a FERC license. In an apparent effort to keep the cost of future electricity to 6 cents a kilowatt hour, AEA's current public project cost estimates is under \$5 billion. In reality, this cost estimate could be off as much as 40%. The \$4.9 billion cost does NOT include a road or a bridge. All of the access, including the upgrading and new construction of roads, bridges, and a possible railroad spur to the dam site must be included in the cost estimates. The transmission infrastructure costs are unrealistically low. The latest estimate of \$224 million is a joke. It must include an upgrade of the Anchorage-Fairbanks intertie. There is no line item for mitigation costs. Yes, mitigation might be included in a \$407 million line item for engineering, environmental and construction management, but we need to see a separate line item for mitigation because mitigation is important to the communities and economies of the Mat-Su Borough. The definition of mitigation according to the White House Council on Environmental Quality is avoiding, minimizing, rectifying, reducing, or compensating for impacts. An Idaho National Engineering & Environmental Laboratory report estimates mitigation for Susitna Dam could cost 25% of the project cost. That means mitigation for destroyed salmon and grayling fisheries and moose and caribou habitat would be at least \$1 billion. AEA does not accurately portray project costs.

Kathy Teisch – Talkeetna Resident (teleconference)

I'm a resident of Talkeetna. I agree with what Becky has just said. I would like to add that I feel that a project of this magnitude is way underestimated and could bankrupt Alaska. Oil production is down. Reserves are lower. How do oil companies get off without paying taxes, they are making record profits as it is now. One of the things that makes Alaska great is its wildlife. ...destroy a river...I think that this goes against everything we stand for.

Commissioner Bell arrived at the meeting.

Darrell and Deborah Webster of Talkeetna, AK joined the meeting via teleconference.

Darrell & Deborah Webster – Talkeetna residents (teleconference)

I'm going to speak on behalf of my community and on behalf of other communities about this project and the effect it has on the environment, safety issues, worst case scenarios, the Denali fault.

Richard Leo – Trapper Creek resident (teleconference)

Let me begin by asking if anyone has seen the new study by Jan Konigsberg regarding alternative energy costs for the dam. Is that report familiar to members of the Board? (Chairman Short said no, it isn't). Because the amount of documentation though small which will grow if the Jan idea indicates there are many alternatives to the dam to pursue renewable energy with the Railbelt which will significantly reduce costs for what the dam would entail. Rural energy sources such as natural gas will require more investment to be able to recover it more cost effectively. There's tidal power which has not yet as of this year is as viable as it will be in the coming years as technology increase. I encourage the Board to see that report. I don't know how to make it available to you, but now that you know it exists, I trust you will have the initiative to actually look for it. I want to emphasize there really are many alternatives to produce electricity efficient for the Railbelt at costs that will be ultimately less than what the dam would entail. I also want to point out the level of opposition grows. Especially in the valley now that the dam has been located and it's becoming to grow across the state as people are actually becoming aware that the project passed through the Legislature, the project's initial funding for studies. Rather than assume that this dam is a great idea it really does have enormous difficulty in the public aspect. Meaning nobody really wants electricity to be as expensive as the dam might produce. Also there is the danger of destroying fisheries, of the dam breaking, of losing the wild aspect of the country in tourism that major component of economic base. Not just that, but the cost in general for a dam of this size is vastly beyond what the public will be willing to accept. I strongly encourage the Board to look at and invest in the alternatives to meet our needs without the difficulty of this dam.

Chairman Short stated that Ms. Fisher-Goad has confirmed she will get the report by Jan Konigsberg and provide it to the Board.

Robert Venables, Energy Coordinator, Southeast Conference

I'm the Energy Coordinator for the Southeast Conference. I wanted to take a moment to recognize the efforts of the agency in Southeast and to thank the Executive Director and her many staff members that have been involved in quite a few projects down there. In particular, the Project Manager, Mr. Strandberg, has spent considerable time there. The primary project, of course, is the regional planning Integrated Resource Plan. The agency has done a commendable job in reaching out to the business community, the utilities and both municipal and tribal governments to have a very inclusive process that's moving forward well and I think could provide good guidance for generations into the future. The Reynolds Creek project is coming together very well and providing a model for some of the smaller energy projects that may be moving forward. They have lacked capacity in bringing them forward and the agency has done a remarkable job in building capacity with some of the smaller organizations. I think in the end this will provide good partnerships throughout the region for the private sector to utilize this infrastructure to create jobs and ultimately lower risks for both the communities and the states. I just wanted to recognize those efforts and thank the Executive Director and the agency for their work in the region.

Hearing no other public comments, Chairman Short closed the public comment period.

6. PRIOR MINUTES: January 13, 29 & 31, February 14 & 24, 2011.

The minutes from January 13, 29 and 31 and February 14, 2011 were approved as presented. The minutes from February 24, 2011 were approved as amended.

7. NEW BUSINESS

7A. Watana Hydroelectric Existing & Future Large Hydro Presentation

Ms. Fisher-Goad stated Bryan Carey, AEA Project Manager, and Brian Sadden, MWH Project Manager, will make a presentation to the Board for an opportunity to get updated on the Watana Hydroelectric Project. AEA Railbelt meetings were held in February to provide information regarding our decision to move forward with Watana and was not the start of any type of licensing phase. The FERC process requires a robust public comment and participation process in order for the project to move forward and we want to assure the Board and public that we are starting a process and it's not a shortcut of any kind, nor will we cut any corners.

Mr. Carey made a PowerPoint presentation to the Board. The presentation is available at www.susitna-watanahydro.org.

Mr. Wilken expressed concern about the 600 MW contemplated design. He said we should all believe that this is a 100-year project; and he understands why an 1,800 MW project from the 1980's may not work today. He recalled a previous Chugach study where there was 1,000 MW that needed to be replaced and now we are talking about a 600 MW dam; had two questions: 1) Why 600 MWs, why not more; 2) is the current design scalable? Mr. Carey said the 600 MWs is an approximate amount, which could be 550 or 650 MWs. The annual average would be 300 MWs if run 24 hours per day, 365 days a year. 600 MWs allows for the ability to increase the power output or do maintenance work. We will be working with the utilities to make sure the amount of energy from the project will fit in with their plans. If increases in demand are identified, the project can be "scaled up," in height, etc.

Mr. Wilken asked what keeps us from building a 1,000 MW project, why so small? Mr. Carey replied nothing prevents us from increasing the height or generator capacity, it depended on how much money the state wanted to contribute and how much power the utilities wanted to purchase. Mr. Wilken asked if it was a matter of height, or of a whole other structure. Mr. Sadden explained that the key in the output of any turbine generator project is head times flow. We know what the flow is and the head depends on project configuration. You can make it higher, get more head and therefore more power, but the key component is flow and there's no more flow in the river. If you want to store more water and you want to release it all in one flow, that's called "peaking plant" for a much higher output. A peaking plant would start infringing on the messages we are getting from environmental factors on flows, releases, etc. It's not just a lineal thing – make it bigger get more power.

Hydro projects of any significant size in the world, if they have a reservoir, will always have a significantly greater installed capacity than is normally generated, that's called "firm power." The more efficient the project, the higher the firm power. In this project, the number you should be looking at is the firm generation, which is 300 or 400 MWs, after that it becomes what you use in peaking and redundancy of units, in case one of them goes down – you still want to be

able to maintain project output. As we hone in on the optimization of size, we will look at things like whether we have a single redundancy or more, how high the structure is and therefore how much water storage there is, and what you are prepared to accept in draw down. The optimum project may not necessarily be the optimum project in 50 years due to changes in load and demand.

Mr. Wilken asked what it would take to make the dam a 1000 MW dam. Mr. Sadden said it would take installing more units, but you won't get 1000 MWs out of it, you will get 300 MWs. Based on 1980s studies, you would have an optimum installed capacity of 1,000 MWs if you went back to the large Watana structure. At that time the optimum installed capacity was 1,020 MW, but the firm power would not be much more than the 300 MWs. As engineers we are aiming to find the optimum installed capacity for the Railbelt system. From all the studies we've read, it looks like the optimum installed capacity for this project could be between 550-700 MWs. Optimum means for the consumer in efficiency. Efficiency is cost per kWh and many other factors being considered, such as non-financial, the environment, etc. Negative factors that occur when considering a 600 MW plant to a 1,000 MW plant include spending money on increasing storage which you may not fully utilize due to flow release constraints at various times of the year, a factor in optimization that didn't exist in the 1930s, but exists now.

Mr. Wilken questioned where in the design will we get another 400 MWs, will it be embedded in this design, or do we go to a different site – if someone asked that 30 years from now. Mr. Sadden replied the engineering goal is to make sure you don't make things more difficult for the future.

Mr. Wilken added he viewed this project as a 'big Bradley Lake' and asked if it be the cheapest power in the Railbelt for 70 percent of Alaskans for 100 years? Mr. Sadden replied he was sure it would and noted the Churchill Falls project in Newfoundland was built in 1972 and the power price remains the same from 1972 to 2041. Barring another incredible breakthrough in power generation which we are not seeing, this will be the cheapest power within 20 years.

Mr. Wilken said he was "not buying" the 600 MW plant, saying we are going to get one bite at this apple and we had better do it right and do it big. This isn't big.

Chairman Short asked Mr. Sadden to confirm that due to environmental constraints and the licensing of this plant, if we wanted to go to 1,000 MW, you are not quite sure we can, based on water levels and environmental issues. Mr. Sadden replied we are blessed because of all the studies done in the 1980s that provide us guidelines as to what environmental mitigation and releases are appropriate. By using those, we think that an installed capacity of about 600 MW is going to be the optimum at this time.

Mr. Sheldon asked, regarding the Newfoundland project, is it net or gross of inflation since 1972 that the power is the same price now as it was then? Mr. Sadden replied it's exactly the same price. It's not adjusted for inflation. This was a special case because the Quebec people conducted interesting negotiations. They were able to force the issue, but the project economics were based on the same power price. Mr. Sheldon asked if the uniqueness of that project was much different than what is being considered at Watana? Mr. Sadden replied it is unique in that most projects around the world the price is renegotiated to cover increases in operation and maintenance costs. That project happened to have an extremely long power

purchase agreement. Everybody is making money – Newfoundland, the state, the province and consumers. There's no subsidy going into it, it happens to be a very clear cut example of how low the price is of a significant sized hydro project over a long term.

Mr. Sheldon thanked him for the clarification, then directed a question to Ms. Fisher-Goad, saying we have a number of projects in queue; some are long tailed perhaps out in the future where they have no probability assessed to them. He followed up on Director Wilken's comments about 1,000 MW; if we can attempt to understand with other projects in queue for the planned rollover or retirement of some of the other generating facilities, how much can be satisfied with projects that we know are at least on the radar screen or perhaps are viable; can we have those numbers and schedule at a future meeting? Ms. Fisher-Goad replied we could provide additional information. Many projects were addressed in the Railbelt Integrated Resource Plan that could be useful. Regarding the optimum size of Watana, the first thing we did was identify the right project, then identify the right size. We received unanimous support for this project in the legislature. Many of the legislators in the 80's had concerns regarding the size we were looking at back then. The capacity issue is a valid question. We're trying to make sure that we meet our goal of 50% renewable energy by 2025 and also pursue a project, that although not everyone will be happy about, but support as indicated by the legislature that we are pursuing the right size project. We will also provide information on other Railbelt projects generation.

Mr. Sheldon said he looks forward to receiving the other reports also mentioned. Earlier we heard this was a normal process regarding project timelines, etc. He has received an extensive letter from Whitney Wolff, Talkeetna Community Council (TCC), that requested acknowledgement that we are aware of it and he wanted to say publicly that he received it and read it. The TCC's most significant concern was there "has been an overriding lack of public process or the process may have been sped up and "fast tracked," during the initial phase and asked Ms. Fisher-Goad if this is the normal process. Ms. Fisher-Goad replied it's been a normal process and reiterated that we intend to have a robust public process as required through the licensing phase, which will begin once legislation is signed. The first thing AEA had to do to get to a starting point to pursue this process was to gain legislative authority to own a new project. That was done publicly, with several AEA personnel testifying for the project.

Mr. Arvin said he attended the AEA briefing at the Palmer Rail Depot in March and the public process was explained that way. People came to the meeting expecting to give public comment then became aware that they could make public comments at a later date. Ms. Fisher-Goad stated those meetings were intended to be informational as to why Watana was selected and were not intended to be a give-and-take meeting process. Those types of meetings will be held in the future. Through the legislative process we tried to make sure legislators were aware this was just a starting point. We will provide the Board with an MWH document that shows detailed timeline opportunity for public comment. In November the Preliminary Decision Document was published explaining why we chose Watana, then we decided to hold five public meetings to describe the background information. The meetings were also held in Fairbanks and Kenai (added at the request of Senator Waggoner). While in Juneau this past session, we heard that people were very happy that a decision was finally made that we were going to pursue one project and stop studying multiple scenarios. We appreciate that Governor Parnell supported the concept right away then introduced legislation to allow us to move forward on the project.

Mr. Sheldon pointed out that some of the TCC's concerns are addressed in the January 13 & February 24, 2011 meeting minutes which can be found online.

Mr. Arvin asked if the *optimum* is 600 MWs and is that another word for *maximum*? Mr. Sadden said there are many maximums, i.e., maximum installed capacity, maximum dam. Optimum is the most efficient economic project given current conditions and populated future conditions. Mr. Sadden noted the 300 MWs is firm capacity and 600 MWs is installed capacity.

During the next six months we will reexamine the project layout in the light of engineering developments from the 1980s. In the 1980s embankment, impervious core (clay) and arch concrete were the only type of dams available. Bradley Lake is a concrete face rockfill dam and should be considered as a potential type for this location. By end of year we should decide the optimum layout and best type of dam to build.

Chairman Short said besides the graph provided, it would also be helpful to get a chart that shows what happens over a projected increase of electricity use and how it may decrease over time as a percentage of the overall energy of the Railbelt. It would also be helpful to show the cost of the proposed 600 MW dam versus a 1,000 MW dam and what the cost to the customer would be. He agrees that if we're going to build it, we should build it right and for benefit of future generations.

Mr. Arvin stated he also read the TCC correspondence and there seems to be three themes to it: temperature in the river, catastrophic event, and effect on wilderness space. When we are going through the gap analysis and environmental baseline, there's technology available that can very effectively model tsunamis and wondered if we could use that technology to forecast, as unlikely as it may be, to set minds at ease, what would be the outcome of a failure.

Mr. Sadden stated that's absolutely part of the process. The failure of a dam this magnitude is an extremely unlikely event. The general model used is called "Boss Dam Break" – an industry standard. The model simulates different dam failures, depending on what type of dam is built. It models the flood wave down the river and water levels at various locations. There has not been a major concrete dam failure since 1930. Since then, there have been increases in scientific and engineering techniques in the age of computers and modeling, etc. Any failure contemplated in a concrete dam would be foundation failure. Concrete dams don't disappear in a cloud of dust; there has to be a mechanism. Over the many hundreds of years of dam building, the foundation has always been the fundamental failure mechanism of a concrete dam. In this project hundreds of drill holes will be drilled. We will be using an extremely competent foundation called diorite. Mr. Arvin stated the dam failure is not a concern of his, but is to some people, and to receive a scientific based answer is good to hear especially for those on line.

7B. Intertie Operating Agreement Status Update

Ms. Fisher-Goad stated Intertie Project Manager, Mr. Strandberg and Mr. Bjorkquist, LAW, have been working with the utilities to renegotiate the Alaska Intertie Agreement. Approval of the new Intertie Agreement may be an action item at the AEA board meeting tentatively scheduled for June 23, 2011. We will review the amendments to the Agreement spelled out in the memorandum. Utility representatives are in attendance to answer any questions. AEA owns the Alaska Intertie and the Bradley Lake Hydroelectric Project.

Mr. Bjorkquist stated he would go over the highpoints of the renegotiated Agreement. If anyone has any questions, they should let us know before the next Board meeting to allow us time to prepare responses. Besides the utility reps, Henri Dale of GVEA operations is also in attendance to answer questions. AEA gave notice of termination of the Agreement in October 2006. The bases for the 2006 notice of termination included, among other things, a number of major repairs to the intertie were needed and not being undertaken; there was confusion as to who was responsible for what, and there were control issues. AEA and the Railbelt utilities exerted considerable effort in trying to solve and address those issues. There was a good faith effort on every part, but one of the problems of the Agreement was unanimous agreement was needed to amend anything in it and every solution was opposed or objected to. AEA gave notice of termination as a mechanism to amend the Agreement and fix what AEA perceived as difficulties and problems. The time of termination was originally October of 2010 and was extended to the end of June 2011. AEA owns the Intertie from Willow to Healy and the Healy Clean Coal Project. Under the Agreement, the Intertie also includes 25 miles of Intertie owned by MEA – 20 miles of that is now under RCA Order for joint use and interconnection, but it's still operated under the Agreement. The Intertie does two important things: 1) transmitting power, and 2) it's an asset that helps with the reliability of the Railbelt. Connecting utilities can share power in times of need and there's also stability aspects to it that the Intertie helps to provide.

Subsection A of the Agreement is the most critical aspect. The big problem we had with the Original Agreement was AEA was responsible for managing the asset starting in 1993 when the legislature mandated maximum utility control. From the AEA side, there was confusion as to what AEA's real managing role was and also giving the utilities control. An important aspect of this is while AEA under the Agreement contractually was to manage, the utilities paid for everything, resulting in the conflict of someone being a decision maker, but somebody else paying. There was tension between control and responsibility. Allowing the utilities a decision making role makes sense since they're paying. Under the amended Agreement, we are moving towards the Bradley Lake management model, which has worked successfully, where AEA and the utilities, under an Intertie Management Committee (IMC), take the first responsibility for managing the asset and making decisions for budget, maintenance and operations. The IMC will operate similar to how the Bradley Lake Project Management Committee operates, to allow AEA a proactive oversight role. AEA's step-in right can require things be done for safety and efficiency, etc. There will continue to be an Intertie Operating Committee (IOC), the technical committee that answers technical questions. They will report to the IMC with the IMC approving decisions. Participants and Users are new in this Agreement. Under the Original Agreement, the utilities are participants. They get to help manage the asset, but have to become a participant in order to use the Intertie to transmit power. We will continue to have participants, but they will be the IMC and will help manage it. We are adding a new category of entity of "User," that will not manage on the IMC, but will ultimately have access to and use of the Intertie. Regarding open access, under the existing Agreement, the division of capacity of the Intertie is divided by MITCR (Minimum Intertie Transfer Capability Rights), for power flowing north and flowing south. It's a contractual term, calculated based on individual utilities' load and will continue for at least two years. During the first two years one of the first tasks of the IMC will be to come up with a new mechanism for allocating power which is the open access concept under which IPPs and other non-Railbelt utilities will have the ability to secure contractual rights to move power over the Intertie. Once implemented, the open access process will be subject to review every three years. Establishment of the open access process will be done through a

public process and AEA must approve it. The contract has an alternative mechanism in that any other User will be able to gain access to the same extent the utility does in that they will be able to give a 24-month notice to gain a MITCR right if the IMC is unable to come up with an acceptable methodology. The User will have equal access to all of the participant utilities in the IMC. Gaining access under the existing Agreement was a 48-month process versus 24 months in the new Agreement. Access will be more readily available to all of the utilities, including Users and Participants than under the existing one. Regarding expenses and user fees, the basic concept is the utilities pay for everything – that will continue. One of the problems with the existing Agreement is making improvements to the Intertie have been difficult because the utilities have the right to terminate with 48 months notice which makes it hard to finance long-term capital projects. Now there's a provision that will allow the utilities and AEA to agree to longer term debt financing to solidify and limit termination rights.

Also new is establishment of a Reserve Fund for Intertie operations designed to alleviate past issues of having unfunded maintenance and repair projects. The Reserve Fund will be a separate fund for the operation and maintenance of the Intertie. It will be part of the Intertie costs allocated among the Participants and Users. The IMC will be responsible for planning and collecting for this fund and AEA will hold and control the fund.

Railbelt Reliability Standards. The existing Intertie Agreement has an addendum that AEA is not party to, but is the contractual vehicle by which the utilities have agreed amongst themselves how to operate reliability reserves to help the utilities and the Railbelt system work better. The amended Agreement will have a separate Agreement that will incorporate the same basic terms. The reason for a separate Agreement is that there will be a couple of utilities that will not be signatory to the Alaska Intertie Agreement. Having a separate Agreement will allow them to participate in the Railbelt-wide reliability standards. There's currently another important and somewhat related, effort begin undertaken by the Railbelt Reliability Committee (RRC) that was formed by the Railbelt Utilities. The RRC has been charged with developing Reliability Standards for use by the Railbelt Utilities. AEA is involved in the context of the Intertie and how it fits into the Reliability Standards and how the Railbelt is dealt with and what rules are imposed on individual utilities. We are trying to make this Amended Agreement flexible to address issues as we go forward and how the Railbelt and the utility market may change in the future. We have worked extensively in the past 1.5 years with the utilities on this; they are comfortable with where we are at. All of the utility governing boards are expected to be taking up this Agreement and approving it before the end of June as will the AEA Board.

Mr. Strandberg will present basic information and pictures about the Intertie to give the Board a better idea of what the Intertie is.

Mr. Sheldon asked if the additional upgrades, tasks, etc. would become part of AEA's obligation and ultimately the State of Alaska credit? Mr. Bjorkquist replied not necessarily. Normally, we could have debt financing that the utilities would be agreeing to pay under the Intertie Agreement. The existing Agreement provides that one of the costs of the Intertie is any debt costs. Currently there is no debt on the Intertie, a zero component each year. If there were debt financing, even if it were AEA bonds issued, the contemplation of the debt component would be paid as part of the annual operating budget and by allowing it to extend beyond four years we can make more rational financing choices to spread it out over the life of the improvement.

Mr. Strandberg stated the 170-mile long section of the Intertie that AEA owns is an important asset to AEA. As one of the largest transmission assets in the Railbelt, it was originally built for the expanded Susitna project. There is no debt service cost associated with the Intertie. The actual physical assets owned include a large transformer at the Teeland Substation on Knik Road and some significant system network control Static Var Compensator components, network stabilizers that allow us to reliably send power from one place to another. The main use of the Intertie is to move power from Southcentral Alaska to GVEA. The original cost in the 1980s was \$124 M and we move about 500,000 MWh/year with an average tariff rate between .3 and .5 cents/kwh. The Intertie is very attractive, economically, and is very important to the Railbelt utilities for their operation in maintaining lower cost energy for the ratepayers. He mentioned some of the new Agreement highlights that were covered by Mr. Bjorkquist. Up until now others were not interested in purchasing power; however, we are pleased to have Doyon Utilities and their client, US Army, from Fairbanks as a potential participant. Actual usage of the line in FY10 by GVEA was about 80% and the average load on the Intertie was 55 MW; we currently energize the Intertie at 138 kV about 1/3 of its capable voltage at 75 MW capacity. It's possible to raise the voltage to either 230 kV or 345 kV. Under our Railbelt Integrated Resource Plan published last year, the voltage standard for the network is 230 kV. At the Talkeetna River crossing we have a construction project to either replace two towers and possibly put a long span in due to the river moving – a good example of one of the R&R projects underway. We also have a major Static Var Compensator upgrade project underway.

Mr. Sheldon referenced the statement in the memo from Ms. Fisher-Goad, "Future amendments will require approval by 75% of IMC members, etc." asked if that was measured by actual participation, or rights under MITCR, is there a definition of this, as it's a crucial item adjusted from the original Agreement. Mr. Bjorkquist stated that the definition could be found in Appendix A, Page 2 of 7, Item 5, to the Agreement, as follows: "Annual System Demand – shall mean the highest hourly System Demand occurring during the 12-month period ending with the current month and that is used in the MITCR calculations." Mr. Dale explained that this is basically peak hourly demand of our consumers, as we are all winter peaking utilities. Since we work on a fiscal year instead of a calendar year, we look at the winter peak and whatever the highest load is.

Mr. Sheldon stated that based on MITCR calculations, he said he realizes there are rights as to how MITCR is calculated and was wondering if it shouldn't be based on actual participation. He said he was uncomfortable with the actual vote proceeding only on rights rather than actual load; because if an entity becomes financially strained, it may have a tremendous bearing on something going on with the Intertie merely because of its rights for load, rather than its actual participation; whereas the entities that may actually become involved with future participation due to financial strain of one of the parties. It's more important to actually look at actual participation. Mr. Bjorkquist stated we are talking about amending the Agreement and this is a limitation on when the Agreement can be amended and how much of the annual system load would be necessary for an affirmative approval of a change. In addition to any significant change to the Agreement, AEA would also have to be an affirmative vote. AEA would be there if there is a proposed change that was inappropriate for whatever reason, public policy, etc. AEA is a buffer in addition to this limitation on changing of the Agreement. Mr. Sheldon stated his concern is that in times of difficulty is usually the worst time to try to get agreement amongst everybody and if they're financially strained, one or two entities might be swing votes and how this calculation is put together. If they're not active participants, that's a potential problem

because in their financial difficulty, people do strange things, including large entities. He added that's where his discomfort lies, more for a protection of the other participants, rather than just merely the vote of the ones that are financially constrained. Mr. Bjorkquist stated contractually if you get into that position where you have problems occurring because you can't get approval to make a change necessary to make this work efficiently; assuming that you need a change of the Agreement, AEA would have the capability to give another notice of termination. This Agreement would be 36 months to take care of the problem. That would be the first place that AEA could enforce something if it were necessary to take care of a situation not being corrected by the collective group of utilities. If there were some consequence to not amending the Agreement that would affect the operation, efficiency or safety of the Intertie, it might be a circumstance where AEA, through its step-in rights, could take care of a situation while that might not be the most ideal, it would depend upon the circumstances. Mr. Strandberg clarified, in stating it's hard to predict which of the utilities would be selling power to GVEA in any given month at any given time. Mr. Sheldon stated this relates to the IPP conversation. Mr. Bjorkquist said there are also utility general managers present to comment on the Agreement, since it came out of negotiations involving the utilities.

Bradley Evans, CEO, Chugach Electric Association: (Verbatim)

There's so much more detail not addressed and it's difficult to have a conversation about the detail when you don't know about it. The Intertie not just transfers energy. I agree with the point Mr. Sheldon was making, but it also enabled us to reserve pool and spinning reserve pooling. On a continuous basis, our membership derives the benefit on whether we sell power across the Intertie or not – there's multiple layers of benefit. I do agree with the dynamics that sometimes when people are financially stressed that they make strange decisions. We have some people that are reluctant to want to fund improvement projects because they just don't want their fees to go up to be a participant. Basically, the way everything works now, is most of the R&R and O&M is paid for by the people who use it. The people who have the MITCR rights that don't use it pay only 16%-17% of the budget so it's already being addressed in some manner that way. I can be a participant and not have the high fee to be at the table and be a potential user of it. A little bit of that's been done, but the issue may become that when we go forward and develop a reserve fund, how are we going to fund it, how will it be allocated, and will it be allocated by the users. I think it makes more sense that if you're actually transferring power there's a stipend that you put into the reserve fund or something like that. We all receive a continuous benefit from it which a lot of people don't recognize because it's not scheduled and it's a concept that they're just not accustomed to recognize on a day to day basis. It's been a tremendous asset for the Railbelt and brought GVEA into the South central pool which lowers the threshold for all of us. If I have to split my reserves with ML&P, we have an agreement of 50/50, when we come in with GVEA, my reserve obligation and everything dropped into the 30 percentile. You can see I derive the benefit from that right away. We are very supportive of the asset and the Agreement. The Agreement's not perfect, we try to build in a way to move towards a more perfect point in the future because it was impossible to resolve all of the issues all at the same time based on the various needs and interests of the participants and also the open access issue.

Mr. Sheldon asked Mr. Evans what is the reticence in switching the calculation. Mr. Evans replied he didn't think there was one. He said it was something that at this point in time people are leaving out there to look at as we develop this. Mr. Sheldon stated that was good news and

that if over time more IPP's come on line and are actually participating in part of the load and for whatever reasons getting a greater and greater share to be heard, this is the base level where that begins. Mr. Evans stated basically everybody at the table is in agreement. There are some people that want to be at the table. Probably the reticent factor is for those who don't intend on using it and just don't want their fees to go up by, for example, when you have open access and when somebody pushes their share over the limit, it's usually cost-cause or cost-pay. They just want to make sure that they don't become part of the pay when they want part of the person who drove the reason for the change. That type of thing, protecting their self-interest, but he didn't believe there's a reticence at the table to readdress anything they do on the Intertie. It's an open very healthy debate, but not perfect.

Joe Griffith, President of ARCTEC – General Manager of MEA – General Manager AEG&T (verbatim)

Bradley (Evans) covered it well. It is a complex issue. He didn't mention the commercial terms and there is a scripter in the new Agreement of how the commercial arrangements would be made. I don't see any reticence either to a different way of doing it. I think in the end it will become a commercial arrangement and in all likelihood at some point in the future we will have what's called an Independent System Operator or Regional Transmission Operator that could perhaps be ARCTEC. Once you have that, a lot of these little fiefdom issues will wash out. There is also coverage in the Intertie connectivity agreements that require certain levels of participation and acting in good character. If you don't, there's punishment to the point of asking for injunctions and things like that. I think we've thought through this thing and every one of us around here who's done this has done it now for 20 some years. We have a pretty good idea of how it's going to wash out.

Mr. Sheldon stated he read the 1985 Agreement as amended multiple times. He said it seems that there's an interest among the Board for IPP's to gain access in ways that aren't as difficult as has been. While Susitna is sorely needed, there are other routes and other entities that have been attempting to make efforts recently. He said the term contractual rights is in this Agreement, but wondered if there wasn't another attack position that might be taken. He said he wanted to make that sure some of the original items from the original Agreement live on in the new Agreement. He said he would forward the citations to the Executive Director and Mr. Bjorkquist and that it's extremely important that AEA is made a participant. In the original Agreement, by definition, a participant is only considered a participant if they're selling to a non-participant and didn't know if AEA currently qualifies, and asked that question of Mr. Bjorkquist. Mr. Bjorkquist stated AEA could become a participant theoretically, but with consequences, and AEA doesn't need to become a participant because AEA has a role on the IMC without becoming one. The question is could AEA become a user of the Intertie that had a project and that's possible. AEA would have to sign a user agreement and then would be able to transmit power, but AEA has super rights on the IMC as the owner of the asset. It would not need to become a participant to have any of the rights that a participant has. Mr. Sheldon stated he understands AEA's super rights, but said AEA needs to become a participant to be a fail-safe. Under contractual rights is fine but would look more for a fail-safe and said the Board might want to consider that if AEA became an actual participant they could effectively sponsor an IPP on the grid at any of the tap places. We should make sure it's stipulated that AEA remains in charge of all the metering equipment in the new Agreement. Is it necessary to carry forward capacity statements for peaking requirements and IPP's that even if qualified to be brought onto the Intertie, how would it be calculated to participate effectively in any peaking arrangement.

That needs to be looked at very carefully. Consideration needs to be given to the IPP's as that could be utilized as a way to exclude IPP participation. These items need to be considered as well as the fail-safe – where AEA ends up being an insurer of access via its own tap points. The Douglas line in Wasilla would give the opportunity or maybe even allow us to experiment. It may not be a long-term deal, but AEA in an effort to see what the impact of the IPP's are, etc. may consider bringing on capacity for X amount of time, or whatever makes financing these IPP's accurate. He said he noticed there's quite a number of exceptions in the original Agreement related to proposed projects, or projects where they were believed to be coming on line at preferential rates, Bradley Lake, perhaps Susitna eventually, and a couple of projects that are not appropriate to discuss in open venue because of negotiation processes, but believes they might need to be contemplated to also have stipulations in the final Agreement as having potential access via AEA, the reason why AEA being named a participant is so important. Is there potential for consideration of some existing items that are available right now to allow their access as stipulated in the new Agreement? This is the perfect opportunity to pursue what he thought many Board members support how we assist the IPP's in gaining access.

Chairman Short asked for comments from the Board.

Mr. Arvin stated we should help facilitate that, but not today, and we should look into the whole avoided cost matrix issue, as relates to established utilities.

Mr. Sheldon stated that in the original Agreement there is no consideration of the term avoided costs that addresses who is given access. This is a way to leapfrog the normal process to actually get some experimental IPPs on line if this original language survives into the new Agreement, then avoided costs shouldn't be necessarily a question. Mr. Bjorkquist stated what we're dealing with is the Intertie Agreement which is access to the Intertie and moving power over the Intertie, which obviously is a component that IPP is going to sell to anybody. It's not dealing with any of the PURPA or Power Sales Agreement issues. Section 6.5 deals with potential taps. This Agreement was to give a more generic access where in 1985 there were specific AEA projects in mind. There's also a priority for AEA projects in two different sections. Most of the issues you are talking about are dealing with the open access. AEA will have to approve whatever we come up with. This is a topic that the utilities and the AEA board could be dealing with over the next two years to ensure that type of open access.

Mr. Sheldon stated that maybe this is a question not only for AEA to consider but perhaps the administration needs to be queried on this. If implementation is left up to the state, how do we actually get somebody to buy this power. As an experiment, we can throttle back the amount of generation produced at Bradley Lake. If AEA wants to take this on as an experiment / development there's a certain demand that Bradley Lake is responsible for satisfying. If we're bussing power up and down the Intertie, and perhaps if there is not room, or there is not sufficient demand, maybe as an experiment a good solution would be if you don't know who your lack of users are going to be you can retard Bradley Lake's generation. Mr. Bjorkquist stated Mr. Sheldon is getting into a completely different Agreement with different rights and we're also dealing with a larger group of Railbelt utilities having rights under the existing agreement. AEA, as an experimenter, will have some limitations on what it could do with respect to that other project because of the contractual rights of other utilities. Mr. Sheldon added he knew that everything he suggested is very controversial, but pointed out that IPPs have essentially gotten nowhere in the State of Alaska. There needs to be this insurance, as

contractual rights are not always successful in allowing timely access and can cause further delay through judicial processes that IPP's may be forced to engage for relief.

Mr. Griffith stated the reason IPPs have not been able to compete in this market is they can't compete with the co-ops. Their rate of return usually puts them out of business. He said he knows of two that are striving to do everything they can to sell power to MEA, but they simply cannot get the numbers down. We would have to pay more for their capacity than we can generate and that's never going to happen. Mr. Sheldon stated that's an avoided cost calculation basis. Mr. Griffith added it's avoided cost, but it's avoided energy and capacity and if they can't sell us the capacity on a firm basis that we can generate cheaper, then they have no project, and that's the limiting factor and has been for 25 years and every one of them has tried it. Avoided cost is real. Mr. Sheldon disagreed because he said a number of the matrix calculations are set by the utilities themselves. Mr. Griffith stated his books were wide open. Mr. Sheldon replied that he was not talking about books, but about theoretical maxims in which to place into the calculation, and that the Intertie Agreement is the proper place for an entity to potentially tap or have access. There's no discussion of avoided costs. There are other calculations which are more appropriate.

Chairman Short stated we need to conclude the meeting, noting we have a special meeting scheduled for June 23 to further discuss this matter. He said Mr. Sheldon was more than welcome to discuss this further at that time. If an Executive Session is needed for any reason, we can do so then.

Mr. Wilken said he was concerned with the process, in that we are just two weeks away from the June 23 meeting and three weeks away from the Agreement being signed and he had no idea what was being discussed, and suggested the Board take this issue and set it aside for now until we can have extended discussions on it. The Agreement is ready to go, this other matter is a big something that may fit somewhere and will create confusion. He suggested this matter be made an agenda item for a meeting after June 30. Mr. Sheldon said he would humbly disagree with the thoughtful analysis by Mr. Wilken. He said the limited time he has been on both the AEA and AIDEA Boards, because of time constraints, has been asked to do things on a number of occasions. Already the bell has rung on a couple of them, to where he regretted voting the way he did because they were pushed for time constraints. He said if this was an important enough issue, that the Board consider it an important part of its process, then perhaps this would have been provided to us sooner. Perhaps there should be an extension of a couple of weeks on our request since we do have the trump card on this Agreement. This is very important, he's asking for one addition that AEA become a participant, and then everything else follows.

Chairman Short stated he understood that, and thought perhaps Mr. Wilken understood little of what was discussed, and as far as AEA becoming a participant he said he didn't understand enough about that to make a rational decision. He suggested staff work with the Board with their concerns and come up with a solution prior to June 23. He said we are not going to fix it right now. Mr. Sheldon said he understood.

Mr. Arvin stated, he thought, with all due respect to Mr. Griffith, and he was uncomfortable in saying it, that part of the problem was Mr. Griffith's statement that IPPs just don't work and he thought there has to be something the Board could do to address that, probably not by June 23,

but believed the Agreement should state it needs to be considered in the long run. Mr. Griffith stated he did not think that should be done in the Intertie Agreement. Mr. Arvin stated maybe we could come up with a different policy mechanism and we need to understand how it would correspond to the Intertie Agreement. Mr. Griffith pointed out the Intertie Agreement is a method of how we're going to use the system that's already in place and we don't need to try to use it as a hammer to fix a commercial problem. Chairman Short said the discussion was a good one; however, it was not an agenda item.

7C. Executive Director's Comments – Legislative Update

Ms. Fisher-Goad said SB42 which allows us to move forward with the Susitna project has passed and is awaiting transmittal to the Governor.

The AEA Board quorum has been defined as four of seven members as opposed to the current statute of three of seven members; not picked up when the Board structure was changed last year.

Legislative approval is required for two Power Project Fund loans: 1) \$11 M to Haida Energy for the Reynolds Creek Project and 2) \$5 M to Cordova Electric for the Humpback Creek Project. AEA must still move through a process for approval of those loans which we are working through and will require Board action in July or August.

The Board expressed appreciation for the email updates.

7D. Executive Session to discuss legislative matters.

MOTION: Mr. Arvin moved to go into Executive Session to discuss legislative matters that are subject to deliberative process. Seconded by Mr. Burnett. There were no objections.

EXECUTIVE SESSION – 12:22 P.M.

The Board reconvened its regular meeting at 1:12 p.m.

8. NEXT BOARD MEETING DATE

The next Board meeting will be June 23, 2011 from 3:00 p.m. to 5:00 p.m.

9. BOARD COMMENTS

Mr. Wilken stated he appreciated the Watana presentation and requested a definition of "optimum." He said we need to have competitive taxes and reasonable regulation and discussed the pros and cons of a higher MW plant.

Commissioner Bell stated she also appreciated the comments and pointed out the Board does not have the technical expertise that staff has, but it's where we can make a policy decision.

Mr. Arvin stated he was aghast that we're spending our resources on solar panels and wind farms. He also discussed the size of Watana and apologized for missing the last meeting, as he had it scheduled for the wrong day, but will try to attend future meetings in person.

Deputy Commissioner Burnett discussed the Annex Creek Hydro project outside of Juneau which is still going strong after 100 years.

Mr. Sheldon stated that he was interested in learning about the State's silver resources and the potential for their involvement in solar projects. Certain types of solar projects require large amounts of silver. He also said that he is interested in learning more about Watana and the proposed schedules through completion.

Chairman Short stated taking care of the Railbelt is not taking care of Alaska land and said if it's good enough for the Railbelt, it's got to be good enough for rural Alaska. People are hurting in the villages. We need to find a solution.

10. ADJOURNMENT

There being no further business of the Board, the meeting was adjourned at 1:29 p.m.



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