ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY
February 5, 2014
8:02 a.m.

MEMBERS PRESENT

Representative Doug Isaacson, Co-Chair
Representative Charisse Millett, Co-Chair
Representative Neal Foster
Representative Pete Higgins
Representative Shelley Hughes
Representative Benjamin Nageak
Representative Andy Josephson

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION: ALASKA ENERGY AUTHORITY

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

SARA FISHER-GOAD, Executive Director
Alaska Energy Authority (AEA)
Department of Commerce, Community, and Economic Development (DCCED)
Anchorage, Alaska
POSITION STATEMENT: Presented an overview of the Alaska Energy Authority.

WAYNE DYOK, Project Manager
Susitna-Watana Hydro
Alaska Energy Authority (AEA)
Department of Commerce, Community and Economic Development (DCCED)
Anchorage, Alaska

POSITION STATEMENT: Provided a presentation on the Susitna-Watana Hydro project.

ACTION NARRATIVE

8:02:04 AM

CO-CHAIR DOUG ISAACSON called the House Special Committee on Energy meeting to order at 8:02 a.m. Representatives Higgins, Hughes, Nageak, Josephson, and Isaacson were present at the call to order. Representatives Foster and Millett arrived as the meeting was in progress.

PRESENTATION: ALASKA ENERGY AUTHORITY

8:03:09 AM

CO-CHAIR ISAACSON announced that the only order of business would be an update on the roles and responsibilities governing the Alaska Energy Authority (AEA) by Sara Fisher-Goad, Executive Director. To introduce this topic, he paraphrased from [legislation passed in the 26th Alaska State Legislature] AS 44.99.115 Declaration of state energy policy, as follows:

> Alaska recognizes its economic prosperity is dependent on available, reliable, and affordable residential, commercial, and industrial energy to supply the state's electric, heating, and transportation needs.

CO-CHAIR ISAACSON informed the committee more information is forthcoming on the closure of the Flint Hills Resources oil refinery - the largest oil refinery in Alaska - and on the status of instate oil refining.

CO-CHAIR ISAACSON resumed paraphrasing from the above statute:

> The state also recognizes that worldwide supply and demand for fossil fuels and concerns about global climate change will affect the price of fossil fuels consumed by Alaskans and exported from the state to other markets. In establishing the state energy policy, the state further recognizes the immense diversity of the state's geography, cultures, and resource availability.

CO-CHAIR ISAACSON stated Ms. Fisher-Goad has been asked how AEA can institute a comprehensive and coordinated approach to support energy efficiency and conservation.

8:05:47 AM

SARA FISHER-GOAD, Executive Director, AEA, Department of Commerce, Community & Economic Development (DCCED), provided a PowerPoint presentation entitled, "Alaska Energy Authority Overview." She first pointed out the challenge that Alaska has diversified resources, but because it is a very large state, the amount of electrical energy produced and used in each region varies greatly [slide 2]. Also, the cost of energy varies from communities that are supplied with natural gas as is Anchorage, to rural areas that rely on diesel fuel for heating. The cost of electricity is consistently higher in less populated areas. An additional challenge - related to projects recommended for funding by AEA's Renewable Energy Fund Grant program - is that by statute new projects are to be directed at areas where the cost is highest, and are also to be regionally spread. Ms. Fisher-Goad noted that the lowest cost of electricity is in Juneau, Ketchikan, Wrangell, and Petersburg, which are supplied by mature hydroelectric (hydro) projects [slide 3]. Sources of energy also vary from a heavy dependency on diesel fuel and a small amount of energy generated from wind and combined cycle sources in the Lower Yukon-Kuskokwim (YK) region, to the Railbelt, which is heavily dependent on gas, steam, or combined cycle, and with additional supplies from hydro, wind, and diesel [slide 4].

8:09:34 AM

REPRESENTATIVE HUGHES asked for a description of the cost of energy by region.

MS. FISHER-GOAD acknowledged slide 4 shows only the sources of energy by region for heating and electricity.

REPRESENTATIVE HIGGINS asked whether the Interior was included as part of the Railbelt.

MS. FISHER-GOAD said yes, the Fairbanks and Tanana Valley areas are included in the Railbelt. In further response to Representative Higgins, she said although Fairbanks does not have natural gas, slide 4 combines both heat and electricity, and the Railbelt includes the Anchorage area, which has significant supplies of natural gas.

REPRESENTATIVE HIGGINS suggested the Interior should be shown separately from the Railbelt, "because that really tells the story."

MS. FISHER-GOAD agreed. However, slide 4 is a broad look to demonstrate the idea of how complex the regions are. For example, Southeast generally has lower cost electrical generation, but there are still many small communities without hydro in the Southeast region that are dependent on expensive diesel; thus within regions there is great disparity, as is the case in the Railbelt with the difference in energy costs between the Interior and Southcentral.

8:12:34 AM

REPRESENTATIVE NAGEAK asked whether AEA has further information on the sources of energy for other areas of the state that are missing from slide 4.

MS. FISHER-GOAD said yes, in AEA's Alaska Energy Statistics report, and offered to provide additional information as slide 4 does not represent the differences in the entire state. In further response to Representative Nageak, she said AEA would provide information on local sources of geothermal, wind, and solar energy.

CO-CHAIR ISAACSON agreed with the need to separate the Interior from the Railbelt because it is not accurate to say 100,000 people in the Interior have sources of energy that they do not; also not represented are constraints on transmission lines. He stressed that the complex situation in the Interior must be understood properly in the context of air quality and ground water contamination issues.

MS. FISHER-GOAD informed the committee the goal of AEA's annual statistical report is to provide useful analyses and summary information to stakeholders, legislators, nonprofits, and utilities.

8:16:17 AM

REPRESENTATIVE HUGHES suggested presentations for legislators should include all areas of the state for a complete picture.

MS. FISHER-GOAD assured the committee AEA seeks to provide useful information in its statistical report. The primary

mission of AEA is to reduce the cost of energy; however, the long-term benefit of this may not mean that tomorrow the cost of kilowatts hours may be less than today, but that ten years from now, the cost should not be higher. This task influences AEA's choice of which projects and programs to develop. There are four primary areas of work AEA uses to reduce the cost of energy: planning and policy; investing in energy infrastructure; diversifying Alaska's energy portfolio through funding and grant programs; providing technical and community assistance [slide 5].

8:19:23 AM

REPRESENTATIVE NAGEAK said a program to reduce the cost of energy in Alaska should include the effect of federal land use policies on finding oil and gas, and other sources of energy. In many areas, land use policies in the state and the permitting process "gets in the way of a lot of things in terms of trying to reduce the cost of energy," especially in rural Alaska where most of the land is owned by the federal government.

MS. FISHER-GOAD agreed the situation described by Representative Nageak is part of the overall picture of energy and resource development. She returned to the presentation and said AEA is now Alaska's Energy Office - after taking over from the Alaska Housing Finance Corporation (AHFC) last year - for the purposes of administering planning funds from the U.S. Department of Energy and taking a greater role in energy planning and development [slide 6]. As Alaska's Energy Office, AEA sits on the board of directors of the National Association of State Energy Officials (NAESO). Other tasks of Alaska's Energy Office include acting as the lead on Alaska's energy policy and development; coordinating regional energy plans on a statewide level; monitoring state energy goals; coordinating multi-agency efforts such as the Interior Energy Plan; maintaining a role in project analysis through the Emerging Energy Technology Fund and the Renewable Energy Fund Grant program; transmission planning [slide 6].

CO-CHAIR ISAACSON asked why the Emerging Energy Technology Fund was not funded in the governor's budget.

MS. FISHER-GOAD advised that AEA is processing Round 2 of applications to the Emerging Energy Technology Fund; there is a portfolio of about 16 projects from Round 1, and from Round 2 will be funding a "handful of projects on emerging technology." In further response to Co-Chair Isaacson, she explained that

without additional funding there will not be another solicitation for emerging energy technology.

8:25:56 AM

REPRESENTATIVE HUGHES surmised fiscal year 2014 (FY 14) funds were distributed, there is a smaller amount of funding still available for FY 15, and funding for FY 16 will be zero.

MS. FISHER-GOAD clarified that AEA received $2 million in FY 14 for projects that are being evaluated now and funding will soon be announced; however, the FY 15 budget, which is before the legislature now, does not have funds for Round 3 of emerging energy technology. She then directed attention to slide 7, which was a graph showing AEA's coordination with other agencies, stakeholders, non-governmental organizations (NGOs), on slide 8, slide 7 illustrated the relationship that AEA has with entities, and specifically that its work and programs, such as diesel displacement, are a direct result of policy direction and funding through the legislature. For example, the Renewable Energy Fund Grant program is a successful process that AEA developed and has seen through its seventh round of projects. The governor provides leadership and policy direction as does AEA's board of directors, along with the legislative and executive branch process. Ms. Fisher-Goad advised other examples of agency coordination on energy programs are AEA's work with AHFC on energy efficiency issues, and with AHFC and AEA's sister agency, the Alaska Industrial Development and Export Authority (AIDEA), on the Interior Energy Project (IEP). Furthermore, AEA and AIDEA share services, financing functions, boards of directors, staff, and a building. There are also shared facets of programs such as the Sustainable Energy Transmission and Supply (SETS) and Power Project Fund (PPF) loan programs, and shared responsibilities on the due diligence of loan applications and loan servicing. The agency also has a relationship with the Alaska Center for Energy and Power (ACEP) to assist with data collection and analysis, with the Department of Military & Veterans' Affairs (DMVA) on emergency response in rural communities, and with the Department of Transportation & Public Facilities (DOT&PF) to supply power to airports and on potential transportation corridors. Regarding federal agencies, AEA is providing information to the U.S. Department of Defense Energy Initiatives Task Force on the use of renewable sources of energy on military bases, and to the U. S. Department of State on Arctic policy issues related to energy. These are examples of AEA's core function as a resource for technical expertise to a variety of agencies.

8:34:33 AM

MS. FISHER-GOAD continued, noting that AEA retains analyses of energy statistics from its management of state programs and projects, and continues to fulfil its mission of sharing said information [slide 7].

CO-CHAIR ISAACSON inquired as to AEA's role in the coordination of energy policy development with all of the interested agencies.

MS. FISHER-GOAD responded that AEA's energy policy development follows its energy pathway to planning on a regional level. Although regional plans must be "owned" by regional entities, AEA examines regional plans and provides internal technical resources, and those from other agencies, to ensure consistency within the state. The intent is for regional plans to address the priorities of each region in order for the development of energy projects that translate into economic drivers, such as proposed liquefied natural gas (LNG) production in the Fairbanks and North Slope Borough areas. This potential production raises the possibility that compressed natural gas can play a role in the future of coastal Alaska as well. Communities and local utilities also seek assistance from AEA regarding economics.

CO-CHAIR ISAACSON summarized that AEA is able to "tap the network, when someone has an issue," and brings components together to solve a particular regional problem.

MS. FISHER-GOAD agreed.

8:39:46 AM

REPRESENTATIVE HUGHES asked for AEA's point of contact in each region, and whether AEA facilitates the development of regional plans. She further asked, "Do you ever assemble them all and talk about how that feeds into the statewide plan ...?"

MS. FISHER-GOAD explained that through appropriations, AEA funds entities like the Alaska Regional Development Organizations (ARDORs), Division of Economic Development, DCCED, and the Southwest Alaska Municipal Conference (SWAMC), to help with regional planning. The Southeast Conference was helpful in the development of the Southeast Alaska Integrated Resource Plan. In fact, her agency does bring regional planners together to exchange information on similar issues, often in conjunction

with Alaska Municipal League (AML) meetings. She offered to provide additional details on the coordinators in each region.

REPRESENTATIVE HIGGINS asked for more information on the specific projects that are currently underway. He remarked, "I guess what I would like to know is what exactly do you oversee, what projects are you talking about?" Slide 8 showed several AEA projects such as the Power Cost Equalization (PCE) program, the Power Project Loan Fund, Rural Power System Upgrades, and Bulk Fuel Upgrades; he characterized AEA's role as that of a broker - bringing parties together - but not as a source of funding, and restated his interest in AEA's role in overseeing programs.

8:43:41 AM

MS. FISHER-GOAD explained that the funding AEA has to provide programs and projects comes primarily from general fund (GF) appropriations - AIDEA funding is not used. The two agencies have shared employees, and costs for their services are allocated accordingly. She said AEA has approximately 400 projects "on the books" including rural energy infrastructure and renewal energy fund projects that are overseen. Again, more information will be provided to the committee about who is working on rural energy planning.

CO-CHAIR ISAACSON expressed his belief that energy program coordination is important in understanding some of the projects because of "all of the players that are involved." Government agencies gather information in a different way, and he asked how AEA ensures that it has access to the most current resources and technical expertise from all of the entities.

MS. FISHER-GOAD referred back to slide 7, and said AEA knows what is available from different organizations, but sometimes is in a different role; for example, as a member of the governor's Subcabinet on Economic Development. There is interest in scheduling quarterly meetings with state agencies to discuss energy, energy policy, and program development, but it is hard to digress from the implementation of existing programs. In the past, there were regular regional meetings during the writing of Senate Bill 220, energy-related legislation that was passed in the 26th Alaska State Legislature. She then referred to slide 8, and noted that programs must be assigned to the proper agency.

8:50:52 AM

CO-CHAIR ISAACSON read from AS 44.99.115 (4)(B) as follows:

> By using one office or agency, as may be specified by law,

CO-CHAIR ISAACSON suggested that the AEA board is constrained by law as it is only able to fund energy projects, and asked whether the legislature needs to restructure the statute so that AEA can complete long-term planning and implementation, and so there is a clear vision that AEA is a clearinghouse.

MS. FISHER-GOAD disagreed that the statute is a restriction, but instead the administration has created an opportunity for AEA to "take the lead on energy policy and development" whether specified by law or not. There have been good results from the programs the legislature has asked AEA to develop and manage. She assured the committee that AEA has shown through the development of programs that the statute does not need to change. Her agency is also funded for specific projects which enable it to provide coordination and leadership; thus the legislature has a variety of ways - and also through funding - to enable AEA to function.

CO-CHAIR ISAACSON cautioned that AEA's success is tied to support from the administration, which could be withdrawn. He expressed his concern that AEA's coordinated approach should be described in statute to prevent roadblocks. Co-Chair Isaacson relayed his experience as the mayor of North Pole.

8:55:11 AM

CO-CHAIR MILLETT recalled her years studying statewide energy issues and deciding that one state energy plan does not work for Alaska, because each region of the state is very different. She opined the structure of AEA is sufficiently broad and flexible so the agency can work with other departments and is not limited to one mission. In addition, it was found that AEA's cooperation with AIDEA, AHFC, and the Department of Health and Social Services (DHSS) is a pliable system that will function after a change in administration. The existing structure allows AEA to use other organizations; in fact, one of the best outcomes from AEA is the use of pathways to explore the needs of communities. It is nearly impossible for the legislature to write an energy plan for the whole state, because communities seek to write their own energy plans and decide what resources

to utilize. The perception may be that AEA is spread out and not coordinated, but the agency is in an advantageous position statutorily. She warned that "if we do narrow down [the] focus or narrow down [the] ability ... the statute would disallow [AEA] to do some of the things [it is] able to do on a cooperative basis with other agencies." She expressed admiration for AEA's accomplishments such as the Renewable Energy Grant Fund, and she restated that AEA's statutory authority should not be restricted. Representative Millet said she was reluctant to make any changes as AEA is able to respond to the tasks assigned to it by the legislature. Energy planning with AEA is not broken.

9:00:30 AM

CO-CHAIR ISAACSON observed AEA holds "flexible coordination" but there are statutory constraints because its board of directors is only authorized to fund energy projects, and thus is not involved in policy implementation, which is a weakness. He urged for giving the board a greater influence on operations, policy, and implementation.

MS. FISHER-GOAD advised that AEA projects are not directed by the board but are projects that have been funded by the legislature. As with the Renewable Energy Grant Fund program, AEA vets and ranks projects and provides its recommendations to the legislature. For the last six rounds, the legislature has funded projects following the recommendations of the AEA board, which indicates this is "a good, objective process." The executive branch has influence also.

CO-CHAIR ISAACSON surmised the AEA board has a minimal impact.

MS. FISHER-GOAD reiterated that AIDEA and AEA board members are the same. The AEA board members are involved with issuing bonds and managing outstanding bonds and the assets that AEA owns. The AEA board also approves loans over a certain threshold. When the board meets there may be more action items under the structure and function of AIDEA. The AEA board is very interested in the agencies work in implementation and at an upcoming strategic planning session she expects to discuss the synergy between AIDEA and AEA, and AEA's role in economic development, as a project to reduce the cost of energy often has a large economic development component and benefits to a community in a different way. Ms. Fisher-Goad expressed her interest in guidance from the board on the evaluation of that

type of project. This guidance is always in conjunction with the legislature, the executive branch, and stakeholders.

9:06:26 AM

CO-CHAIR ISAACSON summarized that at this point the AEA board, although it may serve a greater purpose in the future, does not have much interaction and oversight in the direction of AEA's operations - the direction comes from governor.

MS. FISHER-GOAD acknowledged that AEA has more of a direct relationship through capital budget items, legislative funding, and the governor's budget, than through direction from the board, in contrast with AIDEA.

9:08:14 AM

REPRESENTATIVE HUGHES recalled last year AEA projected a certain amount for the Susitna-Watana Hydro project, but that amount is not in the governor's budget. She asked for an update on the negotiations with the landowners on property issues, when the property issues are expected to be resolved, the amount of funding requested, and the level of the board's involvement.

MS. FISHER-GOAD explained the entire AEA budget is subject to the Executive Budget Act. The governor's message is that additional progress must be made on the permits from the village corporations that are needed to complete studies on the Susitna-Watana Hydro project; negotiations with the village corporations should result in land-access approval in February, 2014. Following that, the budget issue would then be revisited. Furthermore, AEA has requested an extension from the Federal Energy Regulatory Commission (FERC) for the initial study report, although the draft initial study report has been filed. Ms. Fisher-Goad assured the committee the project had a very successful field season, as land access was limited to only three of the ten focus areas.

9:13:00 AM

CO-CHAIR ISAACSON, in response to Representative Josephson, advised that updates on Railbelt Transmission, the Susitna-Watana Hydro project, and the Interior Energy Project will be provided by AEA and AIDEA on 2/12/14.

REPRESENTATIVE JOSEPHSON asked the presenter whether all six village corporations were going to issue permits and land access approval this month.

MS. FISHER-GOAD stated the Cook Inlet region village corporations have formed a working group on this matter; she said, "I think the intention is that, that everybody would, would be essentially agreeing to the same ... permit structure ... so, that's our understanding ...."

CO-CHAIR ISAACSON directed the presenter to divert to an update on the Susitna-Watana Hydro project.

CO-CHAIR MILLETT observed that the committee needs to have updates on all of the projects AEA is managing. She expressed her interest in the progress of AEA's projects rather than the functionality of the agency. Her constituents are especially interested in the Susitna-Watana Hydro project.

9:17:10 AM

MS. FISHER-GOAD offered to also provide information on the significant progress that is being made on rural energy projects. She reviewed a history of the search for a large hydroelectric project that led to the determination that Susitna-Watana was the preferred project. Legislative funding through the FERC licensing process has been received, and a project manager was hired two years ago. Susitna-Watana Hydro is a long-term diversification project to provide a clean, reliable energy source, and promote integration of variable power sources, including wind projects and other hydroelectric. This project also diversifies resources and maximizes fossil fuel resources for heat [slide 22]. The project is located on River Mile 184 of the Susitna River - 87 river miles from Talkeetna and 22 miles upstream from Devils Canyon - and would provide about 50 percent of the Railbelt's energy demand [slide 23]. A Department of Transportation and Public Facilities study is being used to determine which one of three access and transmission routes will be recommended to FERC [slide 24].

REPRESENTATIVE JOSEPHSON pointed out because of trespass issues, field crews looked at 2,000 acres out of 160,000 acres of land affected by the project, and questioned why this was regarded as a successful field season.

9:21:56 AM

WAYNE DYOK, Project Manager, Susitna-Watana Hydro, AEA, DCCED, answered that a successful field season is based on what was accomplished. There were 58 studies involved, but not all required field effort. In May, 2013, when approval from the village corporations and Cook Inlet Region, Inc. (CIRI) was not forthcoming, the field studies were conducted on other lands or by alternative means. For example, the radio telemetry studies were done using helicopters instead of fixed towers. He acknowledged that access would have been preferred, but each study was successful. There was also a very good safety record this season. The draft report filed with FERC reveals "an incredible amount of information" from water quality, ice, and fisheries studies. Two field study seasons are required and the first season accomplished its goals in getting the information required to assess impacts.

MS. FISHER-GOAD corrected Representative Josephson and said AEA did not have access to approximately 2,000 acres, but did have access to most of the area.

MR. DYOK, in further response to Representative Josephson, said on May 10, 2013, there was a death of a subcontractor who deviated from the mapped route. The subcontractor was not part of the field program; however, additional safety procedures were implemented even for consultants, prime contractors, and subcontractors.

9:26:38 AM

REPRESENTATIVE HUGHES inquired as to why the project is not described as a renewable source of energy towards Alaska's goal of renewable energy.

MS. FISHER-GOAD assured the committee AEA considers the Susitna-Watana Hydro project a renewable source and important to Alaska's goal; in fact, Alaska has 20-22 percent renewable now, most of which is hydro. This project will play a significant role in achieving the goal of 50 percent renewable by 2025.

MR. DYOK highlighted winter and summer season studies of ice, moose, caribou, and fish. Extensive fish studies included looking at their life-stages, habits, and conditions, and sampling from the river [slides 27 and 28]. There have been many inquiries as to whether adult salmon travel upstream of the Watana dam site. In addition to studies of life stages and habitat, radio telemetry studies were conducted in 2012 and 2013 of salmon that were tagged 20 miles upstream of the confluence

of the Talkeetna, Susitna, and Chulitna Rivers. Fish at the Yentna River were also tagged. As an aside, he noted that the Alaska Department of Fish & Game (ADF&G) is using the aforementioned data in its management plans.

9:31:20 AM

REPRESENTATIVE NAGEAK asked if the 2012 and 2013 studies collected one year of information.

MR. DYOK explained AEA radio-tagged 603 fish at Curry, and 18 were tracked into Devils Canyon, 3 were tracked upstream of Devils Canyon, and one was tracked upstream of the project site. The 603 fish represent approximately 6 percent of the total number of fish that traveled upstream.

REPRESENTATIVE NAGEAK restated his question.

MR. DYOK said the study was done in 2012 and 2013, and one more year is planned [slide 29]. Moose and caribou were also radio-collared, and evaluations were done on Dall sheep, raptors, brown bats, and wood frogs [slide 30]. Slide 31 was a map that "shows you the complexity of the work that we are doing." Water is being collected at 10 focus areas between the upstream and downstream boundary, and within each focus area is recorded the flow of water, water quality, fish presence, and the riparian habitat. The information collected will be used to model the effects that the project will have on each of the focus areas. He estimated that the cost to model each focus area is $2 million.

9:34:11 AM

REPRESENTATIVE NAGEAK recalled there have been problems with the flow of water and erosion, and asked whether erosion and the flow of water over the past several years - along the route of the dam - have been studied.

MR. DYOK said AEA will undertake a major study to look at the dromorphic aspects of the river; the study will model from the dam downstream into the lower river for an undetermined distance. At this time, it is anticipated geomorphic studies will go down to the confluence of the Yentna River, from river mile (RM) 26 to RM 184, and will be used to understand and model how much erosion will take place in 50 years. He returned to the presentation, saying the project is in the preapplication phase, after AEA applied to FERC for a 120-day extension;

however, the initial study report is complete except for information related to the timing of the studies and modifications thereof. The goal over the next 120 days is to discuss appropriate modifications with stakeholders. As access and budget issues are concluded, AEA will have complete information at the filing on June 3, 2014. After filing, there is a comment period for participants of 120 days, and FERC will issue its decision in January of 2015; thus the second field season is planned for 2015, and the license application will be filed towards the end of 2016. It is expected that the construction phase would begin in 2018 and the operational phase would begin in 2024 [slide 32].

9:37:40 AM

REPRESENTATIVE JOSEPHSON stated that according to the presentation, AS 44.99.115 (4)(B) directs AEA to avoid duplication; furthermore, one of AEA's tasks is to do project analysis and vetting. He asked,

> Is there a point at which AEA, based on its mission statement or based on the necessity to avoid duplication, which is in statute, would say "This is duplicative ... and it's ten years out, just as the large diameter LNG pipeline would be, it's duplicative of that, its redundant of that, there's a lack of resources." Are those kinds of analyses made as well? ... Is this comparable to the Knik Arm Bridge ...?

9:38:58 AM

MS. FISHER-GOAD responded that AEA has been funded to pursue the hydro project and the natural gas pipeline project has been funded because they are viewed as complementary, and not in competition with each other. The hydro project is to meet the renewable energy goal for electricity, and instate use of natural gas is most effective as a source of heat. She restated that AEA received its direction from a variety of ways - including from the legislature - to look at large hydro and complete an analysis on which project made sense; in fact, data from financing consultants has consistently supported the assumptions made about the project - that it can achieve its expected cost of power over 50 years. She concluded that the overall costs of the project and the amount of energy produced are remaining consistent.

REPRESENTATIVE JOSEPHSON referred to the bullet point on slide 9 entitled, "Energy Planning and Policy," that read:

> Locally driven and community-vetted blueprint for sustainability

REPRESENTATIVE JOSEPHSON then asked whether AEA has the support of residents of the Susitna River basin, and if the project is locally driven.

MS. FISHER-GOAD reminded the committee that Susitna-Watana Hydro would serve residents from the Fairbanks area to the Homer area and 80 percent of the state's population. The project has been specifically driven by the passage of Senate Bill 42 [in the 27th Alaska State Legislature] and AEA's task to complete analysis on hydro projects in the Railbelt. She stressed that AEA has a certain flexibility and the power to pursue projects that are directed by the legislature and the governor's office.

9:44:21 AM

REPRESENTATIVE JOSEPHSON recalled a statement that other states have removed hydroelectric projects from their renewable energy portfolios. He asked whether that was true and for the reasoning.

MR. DYOK explained that in states that are predominately hydro, such as Washington, hydro projects are removed for baseline calculations, not because they are not considered renewable, but so as to not distort statistics on renewable resources. He said he was unaware of any plans to remove large hydro projects.

CO-CHAIR MILLETT expressed her preference to complete the project update rather than debate support for the project. At this time, the committee is hearing about AEA's status and progress on the project. She suggested hearing public testimony at a later time so that constituents could speak about the social aspects of the dam. In response to Representative Josephson, she agreed that other topics could be addressed at a later committee meeting.

REPRESENTATIVE HUGHES inquired as to what the 50-year average electrical rate will be if there is a gas pipeline, but the dam is not completed.

MS. FISHER-GOAD compared the project to the Bradley Lake Hydroelectric Project, which at the time it was built produced

at approximately 4.5 cents per kilowatt hour (kWh) - a little higher than the cost of natural gas at that time - and continues at that rate. If Susitna-Watana is not built, the greater amount of natural gas used would be subject to inflationary costs. The agency expects the project to produce power at an average of about 18 cents per kWh for 50 years, thus the breakeven point with natural gas should occur earlier than 12 years [slide 34]. She stressed the cost of natural gas is projected to increase.

9:49:31 AM

REPRESENTATIVE HIGGINS pointed out the fluctuations of the hydrocarbon supply and market as compared to that of the flat cost of hydro.

CO-CHAIR ISAACSON agreed that a commodity is unpredictable.

9:50:44 AM

MS. FISHER-GOAD continued to the next steps of the Susitna-Watana Hydro project. The project team will use the additional extension time to consult with AEA and ensure that discussions are held with stakeholders and governmental resource agencies. Other tasks include: the feasibility report to accompany the license application; the financing plan and economics; utility coordination; stakeholder engagement.

MR. DYOK added that his team is looking forward to completing the final initial study report and getting continuing responses from agencies, stakeholders, and NGOs.

CO-CHAIR ISAACSON referred to the season of field studies and asked how much traditional and local knowledge has been incorporated in the site surveys and modeling.

MR. DYOK confirmed that AEA relied on local knowledge from a cultural resources perspective. Interviews were conducted and staff worked closely with Ahtna, Incorporated, and biologists contacted elders; this information was coupled with site investigation efforts and modeling. He acknowledged the importance of understanding the history of the resource that Alaska Native and local communities can provide, and to research social sciences and subsistence practices.

REPRESENTATIVE JOSEPHSON, in order to clarify the scope of the committee's questions, acknowledged that there are authorizing

statutes, but pointed out that the legislature routinely reassesses projects such as the Knik Arm Bridge and Toll Authority (KABATA) and the Alaska Gasline Development Corporation (AGDC). He asked whether any U.S. dam of comparable size has been built in the past 40 years, and if not, why.

9:55:11 AM

MR. DYOK answered that significant dams have been built, but FERC has not licensed a large project. Generally, most of the good sites in the Lower 48 have been selected. Internationally, many projects are underway and the International Hydropower Association has a process to determine all of the impacts; in fact, the process for this project aligns with what is done on an international scale.

REPRESENTATIVE JOSEPHSON obtained information on the Nisqually River that [indicated] some fish species are doing well, but not the original species that inhabited the river. He then asked for examples where the original anadromous species is doing as well, after the construction of a dam, as before. He expressed his concern for "downriver."

MR. DYOK agreed that the downriver area is also his main area of concern, and offered to provide the requested information.

9:57:49 AM

REPRESENTATIVE NAGEAK informed the committee that in Barrow and on the North Slope pink salmon and other species are taking over the native fish such as whitefish, cisco, and burbot. These fish are being displaced by salmon, even in areas where there are no projects nearby. He urged the committee to look at other causes for this problem, such as [climate] warming.

CO-CHAIR MILLETT related her research last year revealed that dams are being removed in the Lower 48 - not because of fish - but because of poor construction. Those decisions are based on the structural design of a dam, and she opined that is not the type of dam construction that will be used on Susitna-Watana Hydro.

MR. DYOK acknowledged that a number of dams have been removed for structural reasons and a few others because they prevented fish from access upstream. However, hydro development at existing dams is experiencing a Renaissance; in fact, Congress has passed legislation to facilitate adding run-of-the-river

hydro to existing projects. He projected a growth in hydro projects over the next 20 years.

CO-CHAIR ISAACSON encouraged members to research sourcing construction materials in Alaska.

10:01:04 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 10:01 a.m.