ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY
January 29, 2015
10:17 a.m.

MEMBERS PRESENT

Representative Jim Colver, Co-Chair
Representative Liz Vazquez, Co-Chair
Representative Benjamin Nageak
Representative David Talerico
Representative Cathy Tilton
Representative Matt Claman
Representative Adam Wool

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION: FIRST INFRASTRUCTURE

- HEARD

PRESENTATION: RENEWABLE ENERGY ALASKA PROJECT

- HEARD

PRESENTATION: CHUGACH ELECTRIC ASSOCIATION INC.

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

STEVEN KLEIN, Managing Principal
First Infrastructure, LLC
Montclair, New Jersey
POSITION STATEMENT: Provided a PowerPoint presentation entitled, "Financing Energy in Alaska," and dated 1/29/15.

CHRIS ROSE, Executive Director
Renewable Energy Alaska Project (REAP)

Anchorage, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation entitled, "An Independent System Operator for the Railbelt."

BRADLEY EVANS, Chief Executive Officer
Chugach Electric Association Inc. (CEA)
Anchorage, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation entitled, "Status update on the Railbelt Unified System Operator (USO) Initiative."

BRIAN HICKEY, Executive Manager
Grid Development
Chugach Electric Association, Inc. (CEA)
Anchorage, Alaska
POSITION STATEMENT: Participated in the PowerPoint presentation by Chugach Electric Association.

DUFF MITCHELL, Executive Director
Alaska Independent Power Producers Association (AIPPA)
Juneau, Alaska
POSITION STATEMENT: Asked a question during the presentation by Chugach Electric Association.

ACTION NARRATIVE

10:17:34 AM

CO-CHAIR LIZ VAZQUEZ called the House Special Committee on Energy meeting to order at 10:17 a.m. Representatives Claman, Wool, Nageak, Talerico, Tilton, Colver, and Vazquez were present at the call to order.

PRESENTATION: FIRST INFRASTRUCTURE

10:18:50 AM

CO-CHAIR VAZQUEZ announced that the first order of business would be a PowerPoint presentation entitled, "Financing Energy in Alaska," dated 1/29/15, by Steven Klein, Managing Principal, First Infrastructure.

CO-CHAIR COLVER expressed his interest in hearing information that may lead to lowering energy costs.

10:20:02 AM

The committee took a brief at ease.

10:21:46 AM

STEVEN KLEIN, Managing Principal, First Infrastructure, LLC, informed the committee his company is an advising and consulting firm based in New Jersey. His presentation describes a concept that is applicable in Alaska, and which has proven to be feasible - it is a significant departure and innovative - but not unprecedented. Mr. Klein acknowledged that Alaska is facing severe fiscal challenges, however, this is the time to invest in Alaska's future economic well-being. In order to finance energy infrastructure, the prerequisites of comprehensive economic development are: the identification of comparative economic advantages; private capital for investment to leverage limited state dollars; infrastructure necessary to support development including roads, ports, power, energy transmission, energy distribution, energy production, and telecommunications. He stated that infrastructure development must be the priority as it is a driving force, and the lack thereof is the most significant hurdle that prevents or slows economic development.

10:25:08 AM

MR. KLEIN explained that infrastructure is most often a public sector undertaking; on the other hand, when public funds are scarce, private capital can be utilized. In this process - in which the state's role is critical - the prerequisites of private capital are: a stable, transparent political environment; minimal political interference in the investment process; and a public commitment. As background information, he noted that the energy fund marketplace is growing domestically and internationally; in fact, infrastructure and energy funds are a large and growing category of investment among institutional investors. However, to attract investment, the state must establish the proper framework and incentives. For example, a state-sponsored effort to attract investment could involve the Alaska Industrial Development & Export Authority (AIDEA), Department of Commerce, Community & Economic Development (DCCED), and he provided a conceptual outline. Mr. Klein disclosed that he is a paid consultant to AIDEA on a number of projects, but at this hearing he was not representing AIDEA, and his remarks are his own. Mr. Klein advised that AIDEA is the state's economic development arm and is equipped to provide the state's financial contribution by sponsoring financial feasibility, strategic planning, and start-up efforts that are needed. In addition, AIDEA's strong balance sheet can

support this effort. He noted that AIDEA is in a position to form a separate entity, and holds the statutory legal authority to form subsidiary corporations. Forming a separate entity is critical to provide transparency and status which would attract long-term private capital investment. For the funding structure, he proposed AIDEA dedicate funds in a subordinated investment in a fund of approved projects. The "subordinated layer" assumes incremental risk beyond that of private investors, and serves to induce private capital investments in Alaska. Mr. Klein briefly described a similar fund in Michigan that was formed from an initial subordinated investment contribution of $20 million from the state. Subsequently, the investment fund raised more than $40 million in private capital. In consideration of the projects needed in Alaska, he recommended that AIDEA dedicate $50 million contingent upon the successful raising of at least four times that amount in the private market.

10:32:25 AM

MR. KLEIN provided the following key principles of an infrastructure fund that would be acceptable to private investors:

- Must must be privately operated and governed.
- Must commit to achieve market returns for its investors.
- Representatives of the state or AIDEA would sit on the board of directors, but the majority of the directors and the investment committee must be from the private sector.
- Investment decisions must be made impartially on their merits, without political considerations in accordance with the dual objectives of achieving development needed for Alaska and producing market returns.
- The investment team must be professionals in the industry.
- Must be authorized to make both equity and subordinated debt investments in worthy projects.
- Fund term commensurate with the life of its investment.

MR. KLEIN said the aforementioned are the first steps to creating a fund to address the long-term capital needs for energy and infrastructure development; however, the fund would not solve the near-term fiscal situation. He concluded that the organization of the fund, raising money, and reviewing projects are estimated to take one year, but work can begin now to create a future for Alaska less dependent on the demand for fossil fuel and more on broadly-based economic development activity.

10:36:14 AM

The committee took an at ease from 10:36 a.m. to 10:41 a.m.

PRESENTATION: RENEWABLE ENERGY ALASKA PROJECT

10:42:07 AM

CO-CHAIR VAZQUEZ announced that the next order of business would be a presentation by Chris Rose, Executive Director, Renewable Energy Alaska Project.

10:41:45 AM

CHRIS ROSE, Executive Director, Renewable Energy Alaska Project (REAP), said his presentation would explain why an independent system operator (ISO) for the Railbelt is important to renewable energy in Alaska. He informed the committee that REAP is a coalition of over 80 organizations, including electric utilities, independent power producers (IPPs), businesses, and other non-governmental agencies, and has been the state's only organization focused on renewable energy and energy efficiency since 2004. To explain some of the benefits of renewable electricity, he recalled that in 2010, the legislature passed House Bill 306, which created a 50 percent renewable electricity goal. Also, renewable electricity is a hedge against rising fuel prices. For example, Anchorage has a lot of natural gas-fired generation; however, the gas [purchase] contracts do not extend beyond 2019. Regardless of the amount of fossil fuel available, there are uncertain prices in the future; therefore, companies around the world are hedging against rising prices by using renewable energy. Furthermore, the cost of renewable energy technology is now approaching parity with other sources of energy such as coal and natural gas. In fact, the cost of electricity generated by wind turbines has dropped from $0.90 per kilowatt hour (kWh) to $0.3 in parts of the Midwest. Iowa and South Dakota both produced more than 25 percent of their electricity from wind; Alaska produces less than 1 percent. Regarding the instantaneous penetration into a state's electrical grid, Colorado has had 60 percent electrical power on the grid at one time and Texas 39 percent. Denmark, Spain, and Portugal have demonstrated that it is possible to put a lot of wind energy on an electrical grid and not suffer unreliability. In the Lower 48, 60,000 megawatts (MW) of wind power have been added to a grid without additional commercial storage. This is possible because there is flexibility in the grid. He pointed

out that the costs of integrating wind are about $0.005 per kWh in the Lower 48. Grid system flexibility is the result of a large balancing area in which to utilize different sources of power. Utilities often adjust for the unpredictability of electrical demand thus the variability of wind - and the variability in demand - cancel each other out within a balancing area. However, in the Railbelt, the transmission system is small and "islanded." Furthermore, the system is constrained and is not one balancing area, but four. There are six utilities operating an average annual load of 600 MW - which would equal one small power plant in the Lower 48 - with four balancing areas and seven owners, thus integrating wind is more difficult.

10:46:46 AM

MR. ROSE, in response to Co-Chair Vazquez, explained that a balancing area is an area within which a utility that is balancing the supply and demand of electricity, as well as load and supply. A bigger balancing area has more sources of generation and a variety of demands, or loads. In a small village it is harder to balance wind generation without storage; Kodiak has a population of 8,000 - a small balancing area - but they have 9 MW of wind on the grid and battery storage. Slide 5, entitled "Alaska's Energy Infrastructure" illustrated the grid between Homer and Fairbanks; there is a bottleneck on the Kenai Peninsula which limits the amount of power to Anchorage at 75 MW, and another at Willow which limits the amount of power at 80 MW. Barriers to renewables in the Railbelt are not driven by technology, but by policy, operations, and contracts; in fact, there are already dispatchable potential renewable resources in the Railbelt such as hydroelectric (hydro), geothermal, and wind, which is the resource waiting to get into the grid right now.

10:49:25 AM

CO-CHAIR COLVER surmised the concept of an ISO is to drop the barriers that exist due to trade and business considerations, but the cost of maintaining transmission is a cost to each utility's consumers. A regional system would increase the economy of scale by using one utility for financing, operating, and maintenance, which is a more efficient use of the sources of power.

MR. ROSE agreed that efficiency is a big factor; however, his presentation addresses transmission and not unifying the generation of power.

CO-CHAIR COLVER observed that constraints cost consumers.

MR. ROSE opined the utilities work very well together operationally, although there is not one entity running the entire grid. An ISO is also known as a unified system operator (USO). The Alaska Energy Authority (AEA), Department of Commerce, Community & Economic Development (DCCED), spent $1 million on a study that supported a regional resource plan, regional generation planning, and regional transmission planning for the Railbelt, and he stated his organization's support for regional transmission planning that separates transmission from generation. Other issues in the Railbelt that are related to renewables are as follows:

- In the Lower 48, there are demand response resources that utilities can pay to shut off power and balance the load for renewables.
- Ramp rates are too low to allow the Bradley Lake Hydroelectric Project (Bradley Lake) to be used as a battery to store wind energy.
- Take or pay fuel contracts for natural gas contracts direct that utilities pay for natural gas even when it is displaced by wind or other renewables.
- Ad hoc roles of engagement for IPPs mean there are no market rules for IPPs.
- No mandate for integrated resource planning.
- No Federal Energy Regulatory Commission (FERC) jurisdiction.

MR. ROSE described the wind system on Fire Island that has 11 turbines. Chugach Electric Association, Inc. (CEA) bought the power from Fire Island Wind at the flat rate of 9.7 cents per kWh for 25 years. Cook Inlet Region Inc. (CIRI) owns Fire Island Wind and has room for 54 turbines, but could not sell that much power after negotiating with multiple entities. The Regulatory Commission of Alaska (RCA) approved the power purchase agreement; however, although CIRI used federal tax credits to build Phase 1 turbines, it has given up trying to expand to Phase 2, resulting in a potential loss of $100 million of local economic activity. Golden Valley Electric Association (GVEA) was going to pay 6.3 cents per kWh, but after transmission by three utilities, the cost to consumers would

have been over 20 cents per kWh. He said this is a great example of the need for an ISO and a universal transmission tariff.

10:56:09 AM

CO-CHAIR VAZQUEZ asked for the boundaries of the Railbelt utilities.

MR. ROSE answered that Homer Electric Association (HEA) is in the south and serves the Kenai Peninsula; CEA serves parts of the Kenai Peninsula; Anchorage Municipal Light & Power (ML&P) is midtown and downtown Anchorage; Matanuska Electric Association (MEA) starts at Eagle River and goes north past Wasilla; GVEA is at the very end; and then service by the municipal utility of the City of Seward. Currently, there are opportunities for the Railbelt: the utilities have spent over $1 billion on new natural gas generation which provides flexibility to do more; it is possible to do some transmission system upgrades and to create an ISO. Therefore, REAP has reviewed this situation extensively and supports the following seven ISO principles:

- A non-profit, non-asset-owning entity governed by an impartial, diverse, and independent group of stakeholders not dominated by utility companies.
- Mandatory participation of all six utilities.
- Operational authority over the transmission system - but not the generation system - and regional planning.
- Operational authority over reliability rules for the entire grid.
- Create a universal transmission tariff that would be transparent and that would not multiply or "pancake" one rate on top of the other.
- Provide economic dispatch for efficiency.
- Regulated by RCA.

MR. ROSE said an important part of a system is a transmission company (TRANSCO), which is an entity that would own, operate, maintain, and upgrade transmission lines within the constraints of the ISO. A TRANSCO must be under the direction of an ISO and would be a for-profit entity that would gain a regulated rate of return on its investment in building transmission. He recommended that the legislature agree to a set of ISO principles and send a clear signal to RCA that its intent is for RCA to establish an ISO. Mr. Rose concluded that having more renewables in the electrical grid makes sense; for example,

Norway is a gas producer, but has 98 percent renewable electricity on its grid; Alaska can too, and thereby decrease its use of fossil fuel imports, stabilize energy prices, diversify the economy, and create jobs.

11:02:27 AM

REPRESENTATIVE WOOL surmised in order to introduce more renewables the transmission grid must be more unified. He questioned whether a more robust and accessible grid would alleviate the problem of the unreliability of wind generation in Fairbanks.

MR. ROSE responded that increasing the capacity of the grid and one dispatcher make the balancing area bigger, and areas with high penetration have many wind farms from which to draw power. In addition, meteorologists can now predict wind events.

REPRESENTATIVE WOOL asked whether individual utilities, or others, are currently responsible for infrastructure to correct bottlenecks on the grid.

MR. ROSE said that is a good question. The state has built a lot of transmission and some is owned by utilities. There has been a failed attempt to build a bigger power line on the Kenai Peninsula, and he is aware of a proposed alternative route for a high voltage direct current (DC) cable from Nikiski to Beluga.

CO-CHAIR VAZQUEZ asked for Alaska's hydro potential, compared with other states.

MR. ROSE answered that Alaska has the most untapped potential for hydro; however, there is a limit to what is realistic because of its lack of proximity to transmission, with the exception of Southeast. Hydro is a long-term investment that requires certainty and predictability. In further response to Co-Chair Vazquez, he said geothermal is a great resource if available because it is base load, dispatchable, and is lower maintenance than coal, nuclear, or natural gas plants. Mt. Spurr is a good prospect for geothermal.

11:07:15 AM

The committee took an at ease from 11:07 a.m. to 11:10 a.m.

PRESENTATION: CHUGACH ELECTRIC ASSOCIATION INC.

11:10:50 AM

CO-CHAIR VAZQUEZ announced that the final order of business would be a presentation by Bradley Evans and Brian Hickey of Chugach Electric Association.

11:10:55 AM

BRADLEY EVANS, Chief Executive Officer, Chugach Electric Association Inc. (CEA), said he would provide a PowerPoint presentation entitled, "Status update on the Railbelt Unified System Operator (USO) Initiative," which is a very significant industry initiative under consideration in the Railbelt. If realized, the initiative would result in substantial savings to consumers and would provide an opportunity for private financing for infrastructure development and uniform open access, thereby eliminating individual tariffs. Independent systems have built up over the years in the Railbelt, but the system has grown to the point where it needs to evolve. The CEA initiative calls for a regulatory compact through RCA leading to the development of a universal tariff. He recalled that the initiative has been presented to legislators, the Regulatory Commission of Alaska (RCA), utility boards, Renewable Energy Alaska Project (REAP), state administrators, the Municipality of Anchorage, Commonwealth North, and the public. The legislature also funded an ongoing investigation on this matter by RCA. He directed attention to slide 2, entitled, "Railbelt Transmission," and noted other entities that receive transmission benefits are Doyon Utilities, the University of Alaska Fairbanks power plant, the military, and independent power producers (IPPs); however, the aforementioned are not "the utilities that would lead the effort to do this."

11:15:54 AM

REPRESENTATIVE WOOL confirmed that Valdez and Glennallen are off the Railbelt system.

MR. EVANS said correct. In further response to Representative Wool, he said there is a capacity-sharing agreement on investments made by the northern utilities to the system that establishes permanent capacity rights to move energy across the Homer system. Mr. Evans returned to the presentation, stating that the Railbelt is changing from its historical environment of stability. In the early '80s, the state invested $89 million in the Alaska Intertie which connected two major generating utilities in Southcentral with Fairbanks. Now there are five

major generation and transmission utilities, the operations of which would be enhanced by a single organization that is technically experienced and stakeholder driven. Furthermore, with a single uniform transmission rate, there could be a business structure that supports private investment in transmission infrastructure. He characterized one difficulty is paying for the connection between territories; a utility's business model does not support financing that type of transmission by rate recovery. In addition, CEA believes consistent and non-discriminatory open access transmission rules are needed along with a regional approach to reliability. Slide 4, entitled "Railbelt 1985-2013" illustrated the load-balancing areas of the three utilities. During this time period the utilities voluntarily adopted reliability, operating, and planning standards as part of the Alaska Intertie Agreement, using a model from the Lower 48. Other actions were: Bradley Lake Agreements with transmission access; the Northern Intertie; the Anchorage Loop. Throughout this time period the region was stable, without a lot of development, and CEA economically dispatched most of the Railbelt system. Historically, a lot of economical dispatch was occurring, until now. Slide 5, entitled, "Current Railbelt structure" illustrated the more fractured areas of responsibility and economic dispatch zones; although some economic transfers help utilities, the system is not unified and thus the transfers are not as effective as possible. One requirement of a unified system operator (USO) is the achievement of economic dispatch across the system to ensure substantial cost savings to balance the cost of new investment. Adding to the examples of barriers on the present system that were mentioned by the previous speaker, he said in addition to the added costs of "pancaking," it is difficult to negotiate contracts with multiple utilities "today in this fractured system."

11:23:25 AM

MR. EVANS directed attention to slide 6 entitled, "Inefficiencies of current structure," and pointed out there is no business case for the regional expansion of transmission, which has meant there is underinvestment in regional infrastructure. There is a loss of regional economic opportunities; for example, energy from the Alaska Intertie was necessary for the development of the Fort Knox Gold Mine, which is estimated to have a $3 billion economic impact to Fairbanks. He expressed CEA's concern about the economy, jobs, and further enterprises which may be lost due to a lack of power. Another problem as a result of the fracturing of electric utilities, is

that a lot of generation has been built - which was not done on a regional basis - and that has created transmission congestion. For example, the transmission congestion at Bradley Lake Hydro limits the access of the northern utilities to the state's biggest renewable resource. He said, "But there's no business model, and no way for me to make the investment to unconstrain it - it doesn't exist - it, it's a dogfight down at the [Regulatory Commission of Alaska]...." Mr. Evans acknowledged that RCA's workload is increased because of the inefficiency of the current structure. He returned to CEA's proposal of a USO and said it was "pretty well synchronized" with that of REAP, although from a different perspective. Attributes of a USO include:

- stakeholder governance
- ensures system-wide economic dispatch
- the engine of a system-wide transmission rate
- eliminates congestion which limits the use of resources
- enables a greater investment in transmission through a universal tariff if the cost is borne by all who receive benefits from economic development

11:29:29 AM

BRIAN HICKEY, Executive Manager, Grid Development, Chugach Electric Association, Inc. (CEA), informed the committee he would provide an update on four topics, including the current status of the initiative. Mr. Hickey stressed that the intertie benefits are regional and thus do not accrue to only one of the six vertically-integrated utilities; sharing of regional costs creates the uncertainty that prevents the development of interregional projects. He advised that his presentation includes numbers that are "directionally correct, they're based on a very complex production cost and model where we evaluate all of the variables, fuel cost, generation availability, transmission constraints, outages - scheduled and forced - and we evaluate all of those against a series of sensitivities." Sensitivities could include the loss of a large commercial user or the loss of a large generator. After being run through a model, the numbers presented were for a single test year, considering that the assets would have a 40-50 year life. A study by the Alaska Energy Authority (AEA), Department of Commerce, Community & Economic Development, indicated benefits in a range from $75 million to $210 million; however, the CEA study indicated benefits from $75 million to $140 million in annual fuel savings based on an economic dispatch scenario.

Without any improvements to the system, CEA believes there is approximately $50 million in benefits and approximately $50 million annually in Railbelt transmission costs. He cautioned that one problem with the economic model is that the benefit is a savings in fuel, but projects cannot be financed by savings. The universal tariff and rate structure are needed so that utilities can collect money to pay for the investments that save money. He stressed that the projected savings are using the current Railbelt system, but dispatched by a USO. The system proposed by AEA - which included a second line between Anchorage and the Kenai Peninsula, and a second line to Fairbanks - is estimated to cost $880 million.

11:34:48 AM

MR. HICKEY continued to explain that an $880 million investment over 40 years equals out to a cost of $80-$90 million per year over a building period of 10-15 years; compared to an economic benefit between $75-$140 million per year, the decision to build is questionable. However, there are the additional benefits of economic development associated with lower cost power, such as construction jobs and construction, and the increased resilience of the grid. He then described the current limitations to the grid. In order to accomplish its proposal, CEA looked to independent system operators (ISOs) and regional transmission organizations (RTOs) in the Lower 48. These systems are a product of the Federal Energy Regulatory Commission (FERC) and operate over a region with a universal tariff. Texas is a good model for Alaska because it is a non-FERC regulated ISO. He explained CEA prefers a USO system over an ISO system because ISOs and RTOs in the Lower 48 have a competitive commodities market function, and Alaska does not have competitive markets. Furthermore, the Texas model is mandated by the state public utilities commission (PUC). He advised that the key to the financial side of the initiative is the regulatory contract, which is the assignment of authority to the USO by RCA to administer the universal tariff. Also, the USO is required to ensure economic dispatch, which means using the next most efficient megawatt generated every minute of the day in the entire region. The regulatory compact would also require non-discriminatory open access, a common set of reliability standards, long-term planning in interconnection protocols, reliability compliance, plan projects, and condition projects. On the other hand, RCA must recognize and incorporate the standards and protocols developed by the USO. In addition, RCA would have to ensure timely cost recovery which requires the recovery of debt before the completion of a project, or what is

known as a forward-looking rate structure. Finally, RCA must ensure a fair distribution of knowledgeable stakeholders on the USO board of directors. A general USO organization chart indicated the USO between RCA and various entities (slide 16).

11:41:40 AM

MR. HICKEY turned to the current status of the initiative and informed the committee the Alaska Railbelt Cooperative Transmission Electrical & Electric Company, Inc. (ARCTEC) is comprised of four utilities that have organized to address regional issues. The group is planning to reach non-utility stakeholders such as REAP, industrials, and community economic development groups in order to develop the scope on the facets of the USO to present to RCA. Other awaited items are the RCA report and upcoming directions from RCA requesting statutory changes to regulations. Mr. Hickey concluded that numerous resolutions in support of the concept of a USO have been passed, and this is the time to coalesce ideas into a single vision, although AEA's ability to transfer state assets into the USO would have to be addressed.

11:44:05 AM

UNIDENTIFIED SPEAKER (Indisc.)

MR. HICKEY said it is a fact that vertically-integrated utilities have their own service territory and are mandated to serve their consumers under a fiduciary obligation; each utility looks at its own business model. The issue is that there is no business model for looking at regional generation.

UNIDENTIFIED SPEAKER (Indisc.)

MR. HICKEY said CEA has a 30 percent non-spinning reserve requirement and a 100 percent of the largest single contingency spinning reserve requirement in the Railbelt.

11:45:58 AM

REPRESENTATIVE WOOL assumed that most of the utilities are in favor of a USO.

MR. HICKEY acknowledged that the utilities may not have a common vision, but there is movement in that direction.

REPRESENTATIVE WOOL observed some utilities would benefit more than others. He asked whether a centrally-located power generator that has capacity is not in need of the grid as much as others.

MR. HICKEY said correct. Some utilities have not paid for transmission and some would have more benefit than others; this has been at the root of stalemates on other occasions. In further response to Representative Wool, he cautioned that a number of generators are old and inefficient, thus there is not an oversupply - but a moderate amount - of modern and efficient generation.

REPRESENTATIVE WOOL surmised using the most efficient generation all of the time would relieve the use of less efficient systems. For example, Aurora Energy's coal power plant in Fairbanks may not be needed.

MR. HICKEY agreed, noting that there would need to be a second power line north to do so. The benefit comes from being able to use the most efficient generator wherever it may be.

REPRESENTATIVE WOOL noted that the savings would come from efficient generation and the costs from increased infrastructure.

MR. HICKEY said maintenance on existing Railbelt facilities is about $48 million per year.

11:50:51 AM

REPRESENTATIVE TALERICO expressed his understanding that if there is a single payer rate, IPPs have the opportunity to feed power into the system; however, his biggest concern is not efficiency but cost because his constituents are struggling. Some older facilities operate more cheaply than newer facilities, and he questioned whether the USO would have the "ability to make those decisions, as well."

MR. EVANS stated there is another factor to economic dispatch; efficiencies matter, but so does the cost of fuel. A less efficient engine may run on cheaper fuel and the USO would make the most economic decision.

REPRESENTATIVE WOOL asked whether an IPP could easily introduce power into a system, pay a tariff, and sell its product.

MR. EVANS said yes. An IPP using the "highway" system would know what the access points are - and the cost - without negotiating with five different entities. It is possible to establish an RTO that is not mandated to do economic dispatch, but this task has been added to the initiative "because that's where the savings are."

11:54:12 AM

DUFF MITCHELL, Executive Director, Alaska Independent Power Producers Association (AIPPA), addressed the "highway analogy" of open access and non-discrimination access. He pointed out that Bradley Lake hydro is currently supplying power to Golden Valley Electric Association (GVEA) at less than the $0.13-$0.15 per kWh "pancake" rate that GVEA charged to Fire Island Wind. Mr. Mitchell asked whether there would be a postage stamp rate under the initiative. He said, "It's one thing to have open access, it's another thing to go down the highway, and everybody pays the same toll." Mr. Mitchell questioned whether the sameness standard would be provided to all participants regardless of their stature in the initial organization of the USO.

MR. HICKEY assured the committee the universal tariff is a common rate paid by everyone. He said he was not involved in the aforementioned negotiations; however, the Bradley Lake hydro transfer rate contract was signed in 1987. He remarked:

> However, in this uniform system, system operator world, those contracts would have to go away and every megawatt that moved would, every end-use customer that used a megawatt would pay a fixed rate for that megawatt. So anyone that put their power on the grid, there would be no, there is no wheeling rate to the generators in this world. What there is is a charge to every customer in the Railbelt that is equal to the power they use - the cost of the transmission system, divided by the amount of power they use. And so it takes the transmission system off of that table and out of that negotiation, and that's why I believe the independent system operators, the regional transmission organizations in the Lower 48 have been so successful in facilitating economic dispatch.

REPRESENTATIVE WOOL asked for an explanation of a ramp rate.

MR. HICKEY answered that the ramp rate is a physical feature of a particular generator: how fast it can go from no load to full load. A mismatch between generation and load can cause outages.

CO-CHAIR VAZQUEZ said the desire of the committee is to present information to the community and stakeholders in order to "solve some of the issues we've been dealing with for decades."

11:58:54 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 11:58 a.m.