

**ALASKA STATE LEGISLATURE  
HOUSE SPECIAL COMMITTEE ON ENERGY**

February 23, 2012  
3:13 p.m.

**MEMBERS PRESENT**

Representative Neal Foster, Co-Chair  
Representative Lance Pruitt, Co-Chair  
Representative Bob Lynn  
Representative Dan Saddler  
Representative Pete Petersen

**MEMBERS ABSENT**

Representative Kurt Olson  
Representative Chris Tuck

**OTHER LEGISLATORS PRESENT**

Representative Cathy Munoz

**COMMITTEE CALENDAR**

PRESENTATION: SOUTHEAST ALASKA INTEGRATED RESOURCE PLAN -  
PUBLIC TESTIMONY

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

JEREMY MAXAND, Mayor  
City and Borough of Wrangell; Member  
Board of Directors  
Southeast Alaska Power Agency (SEAPA)  
Wrangell, Alaska

**POSITION STATEMENT:** Speaking on behalf of the SEAPA board of directors, provided comments on the draft Southeast Integrated Resource Plan.

LARRY EDWARDS, Alaska Forest Campaigner  
Greenpeace  
Sitka, Alaska

**POSITION STATEMENT:** Disagreed with the findings of the draft Southeast Integrated Resource Plan, and answered questions.

MICHAEL SATRE, Executive Director  
Council of Alaska Producers (CAP)  
Juneau, Alaska

**POSITION STATEMENT:** Provided comments on the draft Southeast Integrated Resource Plan.

BILL CORBUS  
Juneau, Alaska

**POSITION STATEMENT:** Speaking as a member of the Southeast Integrated Resource Plan advisory working group, provided comments on the draft Southeast Integrated Resource Plan.

JODI MITCHELL, Chief Executive Officer and General Manager  
Inside Passage Electric Cooperative (IPEC)  
Auke Bay, Alaska

**POSITION STATEMENT:** Provided comments on the draft Southeast Integrated Resource Plan.

PETER NAOROZ, President and General Manager  
Kootznoowoo Incorporated ("Kootznoowoo")  
Juneau, Alaska

**POSITION STATEMENT:** Provided written and oral comments in opposition to the draft Southeast Integrated Resource Plan.

HAROLD FRANK  
Juneau, Alaska

**POSITION STATEMENT:** Provided comments in opposition to the draft Southeast Integrated Resource Plan.

DUFF MITCHELL, Business Manager  
Juneau Hydropower Inc. ("JHI")  
Juneau, Alaska

**POSITION STATEMENT:** Provided comments in opposition to the draft Southeast Integrated Resource Plan.

TREVOR SANDE, Representative  
Tongass Forest Enterprises;  
President  
R&M Engineering-Ketchikan, Inc.;  
Owner  
Marble Construction  
Ketchikan, Alaska

**POSITION STATEMENT:** Speaking as a person involved in broad aspects of industry, shared his perspective of the draft Southeast Integrated Resource Plan.

JOE SEBASTIAN, Commercial Fisherman  
Kupreanof, Alaska

**POSITION STATEMENT:** Speaking on his own behalf, provided comments in opposition to the draft Southeast Integrated Resource Plan.

DAVID BEEBE, Commercial Fisherman  
Petersburg, Alaska

**POSITION STATEMENT:** Speaking on his own behalf, provided comments in opposition to the draft Southeast Integrated Resource Plan.

PAUL SOUTHLAND, Executive Director  
Alaska-Canada Energy Coalition;  
Interim General Manager  
Thomas Bay Power Authority  
Wrangell, Alaska

**POSITION STATEMENT:** Speaking on behalf of the Alaska-Canada Energy Coalition, provided comments in opposition to the draft Southeast Integrated Resource Plan.

STAN SELMER, Mayor  
Municipality of Skagway  
Skagway, Alaska

**POSITION STATEMENT:** Speaking in his capacity as mayor, described the detrimental effect of the draft Southeast Integrated Resource Plan on Skagway.

MAVIS IRENE HENRICKSEN  
Skagway, Alaska

**POSITION STATEMENT:** Spoke in favor of the intertie.

HERFORD BURFORD  
Juneau, Alaska

**POSITION STATEMENT:** Provided comments on the draft Southeast Integrated Resource Plan.

#### **ACTION NARRATIVE**

[3:13:59 PM](#)

**CO-CHAIR LANCE PRUITT** called the House Special Committee on Energy meeting to order at 3:13 p.m. Representatives Pruitt,

Foster, Saddler, and Lynn were present at the call to order. Representative Petersen arrived as the meeting was in progress. Representative Olson was excused. Representative Munoz was also present.

**PRESENTATION: Southeast Alaska Integrated Resource Plan -  
Public Testimony**

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CO-CHAIR PRUITT announced that the only order of business would be further discussion and public testimony on the draft Southeast Integrated Resource Plan (SEIRP).

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JEREMY MAXAND, Mayor, City and Borough of Wrangell; Member of the Board of Directors, Southeast Alaska Power Agency (SEAPA), said SEAPA was formerly known as the Four Dam Pool and now is a joint agency providing power to Wrangell, Petersburg, and Ketchikan. The Southeast Alaska Power Agency operates the Swan Lake and Tyee Lake hydroelectric (hydro) projects, in addition to over 170 miles of transmission lines. Mr. Maxand was speaking on behalf of the SEAPA board of directors and advised that SEAPA is reviewing the draft SEIRP and will provide written comments to the Alaska Energy Authority (AEA). The SEAPA board recognized that the plan is a high level directional document that does not provide specific solutions, and that further detailed analyses are needed to identify solutions. Mr. Maxand stated SEAPA qualitatively agrees with some of the results and observations identified by the draft SEIRP, such as the shortage of hydro storage capacity in the SEAPA region. However, SEAPA is seeking to increase storage capacity and pursue other energy resources while planning for economic growth. He said SEAPA also agrees that the recent increase in the cost of heating oil has caused significant conversions from oil space heating to electric space heating. The plan recommends that demand-side management (DSM), energy efficiency, and biomass conversion programs are to be developed and coordinated with the region's utilities; however, SEAPA cautioned that the public is not fully aware that a problem exists, thus the state must take a leadership role to ensure success, because local communities and utilities do not have the resources to implement this program. He said that SEAPA also agrees that DSM and energy efficiency are the cheapest and fastest ways to gain net power while conserving hydro, and bringing new hydro into the power system. Finally, Mr. Maxand said SEAPA expects AEA and its contractor to

explain the findings of the draft SEIRP and involve the public in the solutions.

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LARRY EDWARDS, Alaska Forest Campaigner, Greenpeace, said he was a long-time Sitka resident speaking for Greenpeace. Mr. Edwards stated the draft SEIRP proposes converting 80 percent of the region's space heating to biomass within 10 years at a cost of \$500 million. He advised that the plan dismissed heat pumps and other technologies based on misinformation. For example, the information on air source heat pumps was outdated and untrue. The plan also ignored the long-time use of air source, geothermal, or seawater source heat pumps in Southeast in a school, homes, the Sitka Ranger District, U.S. Forest Service office, the Juneau airport, and at the National Oceanic and Atmospheric Administration (NOAA) lab. Another error is the plan's claim that six and one-half cents per kilowatt hour is the break-even point in energy costs between heat pumps and wood pellet stoves, if wood pellets are at two hundred fifty dollars per ton. Mr. Edwards said Black & Veatch recently acknowledged the break-even point is really nineteen and one-half cents per kilowatt hour. In addition, at current prices, pellet stoves do not break even with heat pumps until the cost of power reaches twenty-nine cents per kilowatt hour, less than the current price of hydro, which is between nine and twelve cents per kilowatt hour. He concluded that pellet stoves will be more costly than heat pumps for the foreseeable future. The plan, and previous AEA testimony that wood pellet heat is much cheaper than oil heat, failed to disclose that heat pumps are cheaper to run in hydro communities. Mr. Edwards referred to his previous written testimony submitted to the committee on 2/9/12, which calculates the significance of these errors. He further concluded that the draft SEIRP errors are fatal, and a revised draft must be released so the public can comment on a complete and fair draft. Finally, he advised that hydro communities can be converted from electric resistance and fuel oil heating to heat pumps, instead of to biomass, under a 10-year program. In Sitka, converting homes from electricity to heat pumps would result in a net reduction of the city's power consumption. Recent technology demonstrated in Scandinavia makes efficient seawater heat pumps economic even in residential areas.

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CO-CHAIR PRUITT pointed out that the draft SEIRP warns converting home heating to use electricity or heat pumps creates

such a drain on hydro-generated electricity that communities may have to burn more diesel oil.

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MR. EDWARDS answered residents are converting to electric resistance heat, not electrically driven heat pumps, which are three times more efficient than resistance heat. In Sitka, the savings would be 16,000 megawatt hours per year. Mr. Edwards, in further response to Co-Chair Pruitt, noted the draft SEIRP includes incentives to encourage conversions, such as capital costs paid by the state. If the same amount of money was spent to convert homes to heat pumps residents would "be a lot farther ahead in the long run." He cautioned that biomass costs will fluctuate with supply and demand as in the past; however, heat pumps will provide lower and stable costs.

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MICHAEL SATRE, Executive Director, Council of Alaska Producers (CAP), stated the Council of Alaska Producers is a nonprofit trade association representing producing, large, metal mines and developmental projects in the state. Three CAP members operate and explore in Southeast Alaska, and have an interest in the energy development plans for the region: Coeur Alaska Kensington Gold Mine, Hecla Mining Company Greens Creek Mine, and Heatherdale Resources Ltd., the developer of the Niblack project. Mr. Satre said mining and milling are energy intensive processes and in remote locations power is typically produced by diesel generators. The Kensington gold mine and the Niblack project generate their own power, but in 2006, through a public private partnership, Greens Creek mine was connected via intertie to the grid serviced by Alaska Electric Light and Power (AEL&P) in Juneau. Greens Creek is an interruptible customer; nevertheless, the economic benefit of the hydro it receives extends the life of the mine. Furthermore, a large industrial customer connected to the grid resulted in lower increases to the rates charged to Juneau customers. He opined the draft SEIRP does not address the existing or future large electrical loads that mining may bring. The plan also does not recognize that since Greens Creek was connected to the grid, its demand has exceeded the capacity of AEL&P to provide electricity on a regular basis, or that the potential from Kensington may accelerate the development of generation and transmission projects. The council does agree that mining development is speculative to some degree, but mining development has the potential to benefit the entire region. Mr. Satre acknowledged

that the plan analyzes the challenges to the development of renewable energy resources in the region, and highlights the shortage of storage capacity, but in the short-term ignores the potential for mining on both side of the border. His organization requests that the committee and the legislature direct AEA to appropriately account for mining and large industrial users in short- and long-term recommendations.

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CO-CHAIR PRUITT asked whether the focus of SEIRP is on residential, and does not look at industrial development and its potential.

MR. SATRE said yes, there is a huge focus on residential issues due to the space heating conversions. He explained that CAP wants the plan to look at mining or another large industrial user as an anchor tenant. Once established, the large industrial user can extend infrastructure throughout the region, and leverage its demand to lessen the cost of power in small villages. The industrial user could be mining, timber, or seafood processing.

CO-CHAIR PRUITT agreed.

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BILL CORBUS stated he is a former manager of Alaska Electric Light and Power (AEL&P), and a former commissioner of revenue. Mr. Corbus said his experience allows him to understand the electrical situation and the interests of the state. He also served on the SEIRP advisory working group. Mr. Corbus expressed his support of the draft plan; the state has limited long-term financial resources and the draft SEIRP is in the best long-term interest of Southeast's electrical users, and the state's financial resources devoted to electrical matters. He opined the plan recommended four important directions: eliminate the concept of an electrical interconnection throughout Southeast Alaska; address the problem of converting homes and businesses to electric heat; adhere to market analysis that indicates the Alaska/British Columbia (AK/BC) transmission link should be placed on "hold" and reexamined later; and do not make specific provisions for providing electricity to the proposed mines. Mr. Corbus returned to the subject of the Southeast intertie and pointed out that the cost of providing an intertie system is \$1 billion in 2011 dollars: The state simply cannot afford that. The analysis of the intertie looked

at the project from two economic perspectives, and he expressed satisfaction with the elimination of the intertie concept. Turning to the matter of electric heat, he said that because of the home heating conversions to electricity, Juneau will soon run out of electricity even with the recent completion of the Lake Dorothy hydro plant. Building new hydro projects would be expensive and would cause rates to increase significantly, thus the demand-side proposal and the state program to encourage residents' conversion to pellet heating technology is a good answer to the challenge. Furthermore, at the time SEIRP is updated, the AK/BC Intertie should be reconsidered if market conditions have changed. Finally, when considering mining loads, Mr. Corbus said it takes a long time to develop a mine - the Kensington mine took 20 years - and a mine may not operate over the long term. It is only appropriate to "help ... out" a mine after it is running, and if it pays its way without subsidized energy.

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REPRESENTATIVE MUNOZ asked Mr. Corbus to comment on the feasibility of a Lake Dorothy electrical tie-in to Kensington mine, and whether that would enable the Lake Dorothy project to expand to Phase 2.

MR. CORBUS pointed out he is not the current manager at AEL&P, but that he is aware there have been "discussions." Several transitions in the Kensington Mine management have made discussions difficult. He observed that there are two small hydro projects located near the Kensington mine that could be developed, and if so, they would reduce the amount of fuel consumption by the mine and avoid the cost of extending the transmission lines. He said, "That might be the least expensive way to go rather than building Phase 2 of Lake Dorothy and a transmission intertie."

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REPRESENTATIVE MUNOZ asked at what point Phase 2 of Lake Dorothy becomes feasible, and whether that is determined by a growth in population to a certain level, or if a large industrial customer such as Greens Creek mine would justify the second phase.

MR. CORBUS explained that the need for expansion at Lake Dorothy is very difficult to predict and he hoped it is "a long, long, ways out the road," because building Phase 1 was an arduous process. He urged for other nearby hydro projects to be

explored first, and cautioned that building at Lake Dorothy will increase rates to all customers.

CO-CHAIR PRUITT asked what role industry played in developing SEIRP.

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MR. CORBUS expressed his belief that there was not a member of the mining industry in the advisory working group, however, members of the mining industry attended many of the meetings and made comments during the process.

CO-CHAIR PRUITT surmised the advisory working group focused on residential needs, and did not look at the impact of existing or future industry, or of an anchor tenant.

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MR. CORBUS stated that the thrust was to look out for the interests of existing customers; it would be considered speculative to take into consideration that "a mine may be built so many years down the road." The plan will be updated in five years, and it may be known then whether there will be a mine on Prince of Wales Island.

REPRESENTATIVE MUNOZ asked whether the Kensington load was considered in the plan.

MR. CORBUS indicated yes.

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REPRESENTATIVE PETERSEN asked whether deliberations included the consideration of a public private partnership with gold mines in order to provide power that would be available to all users. In response to Mr. Corbus, Representative Petersen clarified that he was asking about deliberations during the SEIRP process about whether a gold mine operation could contribute to the building of transmission lines and reduce the overall price of a project.

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MR. CORBUS said he did not recall that specific subject. He noted that the partnership between AEL&P and Greens Creek mine "took care of itself ... without the help of the Alaska Energy Authority." He opined the Kensington mine has that same

opportunity with several potential projects, one is with AEL&P, and one is with an independent power producer.

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JODI MITCHELL, Chief Executive Officer and General Manager, Inside Passage Electric Cooperative (IPEC), stated IPEC is a small, member-owned utility serving 1,300 customers in Angoon, Hoonah, Kake, Klukwan, and the Chilkat Valley. She said from a rural perspective, the draft SEIRP provides a plan and a map for the future. Her organization developed an energy plan in 2009, "to wean ourselves off of diesel." At this time, IPEC's rates are in the sixty-four cents per kilowatt hour range for residential customers. She recalled rates of about twenty-eight cents per kilowatt hour in 1993, but oil is now over \$4 per gallon in villages and rates have climbed. Residents in the villages are having a hard time paying for electricity and heating costs, and many are heating with wood. Ms. Mitchell said the power cost equalization (PCE) program helps the 30 percent of IPEC's customers who are eligible, but many businesses are failing. Customers who are heating with electricity have hurt IPEC's plans for the future because there is no excess power available from the Swan-Tyee Intertie for Kake even though the intertie was completed only one year ago. The proposed Ketchikan-Metlakatla Intertie may provide power through the SEAPA network, however, another project may take 10-15 years before coming online. Ms. Mitchell agreed with the draft SEIRP regarding the problem caused by using electricity for heat, and she also believed that interties are not economic due to rising construction costs that are beyond the reach of small communities.

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MS. MITCHELL continued to say there are three committed projects recommended by the draft SEIRP that will benefit IPEC ratepayers: the Gartina Falls project in Hoonah, although that project will only displace 35-40 percent of the diesel-generated power; the Kake-Petersburg Intertie; and the Thayer Lake Hydropower Development by Kootznoowoo Incorporated. In addition, there is the proposed Walker Lake hydro project to benefit the upper Chilkat Valley. She concluded that the plan provides an opportunity for the region to work toward solutions that will decrease energy costs for the "have-nots in Southeast," so IPEC communities may also benefit from grant-funded renewable energy infrastructure.

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MS. MITCHELL, in response to Co-Chair Foster, said the residential rate is 64 cents before PCE.

CO-CHAIR PRUITT asked why Kootznoowoo Incorporated has not spent its Phase 4 renewable energy grant.

MS. MITCHELL deferred to Mr. Naoroz.

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PETER NAOROZ, President and General Manager, Kootznoowoo Incorporated ("Kootznoowoo"), stated that Kootznoowoo is the Alaska Native Claims Settlement Act (ANCSA) corporation for Angoon. As part of its land settlement, Kootznoowoo holds "hydro rights" within Admiralty Island National Monument, and applied for Thayer Lake Hydropower Development (TLHD) grant money in that capacity. Kootznoowoo has 1,100 shareholders - most living in Southeast - and most of its assets are in Southeast as well, including mining interests on southern Prince of Wales Island. Commercial Kootznoowoo ratepayers pay sixty-seven cents per kilowatt hour, and the corporation is in the process of developing its lands, thus its deep interest in energy matters. Mr. Naoroz advised that the draft SEIRP does not address how the private sector works in Southeast, or how Kootznoowoo can work with the state to contribute to the energy solution for the region. In response to Co-Chair Pruitt's earlier question, he said Kootznoowoo is thankful that TLHD is a committed project within the plan, based on the advisory working group's recommendation. However, working with AEA has been difficult regarding the grant agreement, in that the Round 4 grant monies were based on a matching grant from the U.S. Department of Energy (DOE). After arranging to combine the two grants, Kootznoowoo has come to satisfactory terms with AEA, and will be moving forward to a signed agreement shortly. He confirmed Kootznoowoo's commitment to the project is "the top priority for the corporation." Returning attention to the draft SEIRP, he said the plan is a radical departure from the energy planning of the collective leadership's vision of Southeast Alaska for 30 years; in fact, the plan raises more questions than answers, and comes to premature conclusions that are not supported by facts.

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MR. NAOROZ agreed that the intertie system is expensive, but the draft SEIRP did not look at ways to lower the cost, such as the fact that corridors allowing for utility lines through the Tongass National Forest have been approved for many years, albeit not implemented. Also, Kootznoowoo has repeatedly offered to AEA proposals for the intertie estimated to save \$100 million. However, as the draft SEIRP is "the best plan we have," Mr. Naoroz opined the plan should be sent back to AEA for further analyses of costs. He also questioned the future electrical load estimated by the draft SEIRP, and pointed out that sawmills and mines need to be built within five years, and that the electrical load of existing mines - like Greens Creek and Kensington - should be considered in the same way as Angoon, along with its future airport, ferry terminal, and residential development. He concluded that electrical lines, loads, and generation capabilities are undersized by the draft SEIRP, and that its analysis assumes the state pays for all of the generation and transmission lines, even though the private sector and tribal monies would help build the transmission lines.

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MR. NAOROZ called attention to a summary submitted with his written comments entitled, "Spread Sheet confirming amount available by subregion for Biomass, DSM/EE and Diesel upgrades SE IRP," dated 2/12/12. The document indicated that the draft SEIRP recommends spending \$222 million over three years on biomass, energy efficiency, DSM, and diesel plants. He said this is not good planning, but that the state should identify the roles of the state, the federal government, private entities, and the people. Kootznoowoo has developed a plan, based on former Governor Murkowski's Administrative Order No. 230 (AO 230), effective 10/19/06, which said state agencies need to work together on the completion of the interties and power projects. The administrative order was supported by a resolution of the City of Angoon. Mr. Naoroz concluded that the region should have an integrated resource plan that fairly evaluates loads and potential loads, including those of mining, timber, and cruise ship plug-ins.

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REPRESENTATIVE PETERSEN asked about the potential for tidal energy in Angoon.

MR. NAOROZ said Angoon has the best resource for tidal energy in the state. Unfortunately, because Canada offers incentives to companies to explore tidal resources, this industry holds little interest in Alaska. A change in policy is needed toward the open access that would be provided by the proposed AK/BC Intertie.

REPRESENTATIVE PETERSEN urged keeping watch on developing technologies.

MR. NAOROZ agreed.

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HAROLD FRANK stated he was a recent graduate from university with a degree in renewable energy after writing his thesis on tidal energy. He said he has had a 20-year career in Southeast Alaska, working in federal and private sector positions in land management and environmental planning. Mr. Frank was originally from Angoon and considers it his home, recalling that sometimes the diesel generators were turned off to save money. He recently completed a master's program at Central Washington University with an emphasis on methods that Angoon could use to provide affordable and renewable energy. He said the SEIRP process mirrors the federal process which encourages utilities to promote energy efficiencies around existing infrastructure, and not changes in consumer behavior. As early as 1992, Congress relied on energy providers to find ways to improve energy efficiency without increasing capacity, and this pattern is reflected in the draft SEIRP. After a review of the draft, he was concerned that the document lacks inclusiveness, and that affected consumers do not have a voice. Suggestions from small municipalities, tribes, small business, mining, and tourism were excluded. He was also concerned that the energy path in the plan - using energy efficiency and biofuels - is not supported by consumer behavior in Juneau, Sitka, and Ketchikan. His third concern was the use of DSM to create a policy to last for 50 years; this action hints at protectionism and monopolistic control of the evolving economic opportunity of energy production in Southeast Alaska. A more traditional model is one of supply and demand; in fact, a healthy economy embraces competition between suppliers. History proves the paradox that an increased supply of energy increases consumption. Although the 1992 federal process encouraged DSM, it also provided a way to increase the supply of energy. Mr. Frank concluded that this can be done in Southeast by identifying new energy sources such as the proposed dams, and a north to south intertie, neither of

which was meaningfully analyzed in the draft SEIRP. The availability of affordable energy for all in Southeast will reveal the full value of private and state landholdings and interests. He expressed his hope that Angoon will not have to continue to shut off its power at night. Lastly, Mr. Frank observed during his studies that one of the roles of government is to incentivize utilities by tax opportunities like those that have encouraged the construction of wind farms in Washington State.

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DUFF MITCHELL, Business Manager, Juneau Hydropower Inc. ("JHI"), said JHI is a privately owned and privately financed hydropower development company that is developing the Sweetheart Lake hydroelectric project. This project is a 30 megawatt (MW) capacity lake-tap system that will generate 136,000 MW hours annually for the City and Borough of Juneau during an average rainfall year. His company is in the process of licensing and permitting, and could be generating electricity by 2015-2016. Mr. Mitchell provided a short history of the project, saying the site has been identified as a federal site since 1915, and in 1929 was given a federal power site classification, meaning the federal land was withdrawn for the primary use of developing hydropower. In 1958, plans were developed for the site but the project was not built due to the lack of a market for the resource. Mr. Mitchell said, "... the market timing to build it is now." His company believes in enhancing the full spectrum of environment including aquatics, esthetics, wildlife, and recreation. Referring to "solutions," he advised that hydropower is the cleanest proven method of electrical generation, and Southeast is well-suited to hydropower; as a matter of fact, the draft SEIRP includes a list of well-defined and identified private and public hydropower storage projects that would utilize lake-tap hydropower technology developed primarily in Southeast, yet the plan fails to prioritize any of the projects on the economics of the delivered cost to citizens. Because of this, it is not possible to rank projects on their intended cost of energy. Hydropower interties have proven to be reliable for 100 years, but are discounted as a preferred alternative in the plan. Specific to Juneau, the conversion of home heating from oil to electricity was not quantified even though Juneau represents one-half of the Southeast energy market. Because of insufficient hydropower storage, this increase caused interruptible customers to be cut off, reducing income to Juneau's economy, and increasing energy costs, which hurt local employers and industry. He acknowledged that

hydropower storage is also affected by rainfall. Mr. Mitchell advised the plan failed to do the following: include the kilowatt hour sales data from any community for 2011 or 2010; recognize or incorporate Sitka or Juneau's climate action plans that call for electrification of mines and cruise ships, and the use of ground source heat pumps such as those at the Juneau International Airport, Dimond Park Aquatic Center, and AEL&P's corporate building, and bonded for installation at Auke Bay School.

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MR. MITCHELL continued, saying the draft SEIRP also failed to consider: local policies or community energy and action plans; industrial development loads, which negatively impacted its analysis and the economic development of the region; hydropower and interties as a resource development industry, which is supported by Senator Murkowski. He characterized the draft SEIRP as an insular plan that did not consider the demands from energy-consumptive industry such as the Kensington mine and the positive effect it could have on economy of scale. Moving to non-Juneau market specific comments, he said the draft SEIRP project financing did not include private financing or models where private industry can help serve the state's needs, yet the state energy policy promotes private enterprise and encourages private development. Mr. Mitchell also questioned the draft SEIRP's assumption that oil prices will decline, which is not supported by the Department of Revenue. Also, the draft SEIRP does not address barriers to entry - either by federal or state governments - or open access transmission tariff (OATT) reform, which would enable smaller businesses access to existing infrastructure. Mr. Mitchell turned attention to the SEIRP advisory working group, pointing out that members did not include resource development industries or independent power producers, and ignored the price volatility of pellets when compared to other sources of energy. He concluded that hydropower is the safe hedge against all other fuel volatilities. Mr. Mitchell quoted from AEA as follows:

The granularity of the analysis underlying this IRP and the quality and inclusiveness of all available information on potential projects as discussed elsewhere, is not sufficient to identify the optimal combination of specific resources that should be developed.

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MR. MITCHELL surmised this disclaimer raised the question: What did the state spend \$1 million on? He closed, saying the draft SEIRP is skewed with predisposed and designed outcomes and incorrect key data - intentionally or unintentionally - and the legislature should send the document back to AEA, form a balanced working group, and have an independent contractor follow through with a final plan that is "energy source agnostic."

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TREVOR SANDE, representative, Tongass Forest Enterprises; president, R&M Engineering-Ketchikan, Inc.; owner, Marble Construction, informed the committee that Tongass Forest Enterprises is Southeast Alaska's first pellet manufacturing mill, R&M engineering is a small engineering company with about 20 employees, and Marble Construction is a small construction company in Ketchikan. Mr. Sande told the committee biomass became his passion in 2006, when he designed and constructed the wood chip-fired central heat plant heating the swimming pool, middle school, elementary school, and the elementary school's gym, in Craig. The new plant reduced the cost of fuel from about \$250,000 per year to \$30,000 per year. This was the first project of its kind in Alaska, followed by Tok School. Mr. Sande pointed out the draft SEIRP does not address wood chips specifically, only wood pellets, but he opined wood chips are less expensive and a very good heat source for central plant or larger installations. Marble Construction converted the Coffman Cove School from diesel heat to a chunk wood-fired system - a GARN boiler in a box - that is very efficient and fairly inexpensive to operate. He opined biomass will come in many forms, depending on the region and the unique needs of villages. Because of his belief in the growth in this industry, Mr. Sande constructed a pellet mill in Ketchikan that began producing pellets two weeks ago, and has contracts to deliver pellets for \$305 [per ton]. He stated that wood will be a stable source, due to the massive volumes of biomass available in Ketchikan without cutting timber. As the industry grows, the price of biomass and pellets will to go down and stabilize at around \$250 per ton, which is a "nice profitable sales price for pellets." From his engineering business experience, he agreed with the draft SEIRP that interties are too expensive to build, and biomass makes sense for all of Southeast, especially for residents other than those on the Juneau, Sitka, and Ketchikan grids. He also agreed that residents will continue to convert

from oil to electricity, resulting in an increase in the cost of electricity.

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REPRESENTATIVE LYNN asked if the pellets could be made from any type of wood.

MR. SANDE said the spruce, hemlock, and cedar that he has tested have passed premium grade. Indications are pellets can be made from any species, and there is sufficient waste wood from mills in Southeast right now. In further response to Representative Lynn, he said Tok School District is harvesting and grinding trees from its forest, some of which have been killed by spruce bark beetle.

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JOE SEBASTIAN said he was a commercial fisherman representing himself. Mr. Sebastian cautioned a massive conversion to pellet heat may become a "gold rush" to capture government subsidies, rather than finding a modern, far-sighted solution to energy costs in the future. He explained he has lived off the grid for over 30 years with alternative energy sources such as generators, propane, battery power, inverters, and solar panels, and these alternative solutions are not addressed by the draft SEIRP. In addition, he recalled that a house in Angoon was recently reconditioned by the Southeast Alaska Conservation Council with solar panels, an inverter and batteries, and insulation, and energy costs were lowered dramatically, but this project is not mentioned in the plan or in previous testimony. Mr. Sebastian stated that his personal experience is that it will be difficult for a local pellet industry to compete on a wide scale with large companies that have access to wood, a rail system, and a shipping port. The conversion recommendation by the draft SEIRP is flawed, "bonanza-type" thinking, unless, for example, Sealaska Corporation used its wood supply to mill pellets instead of exporting rounds overseas; however, without heavy government subsidies, a major pellet producing industry in Southeast Alaska would collapse. Mr. Sebastian also warned against attempts to turn the Tongass National Forest old growth into a pellet farm. Because other options are available, he said more work needs to be done on the draft SEIRP.

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DAVID BEEBE stated he was a commercial fisherman representing himself. Mr. Beebe said he has followed energy issues in Southeast for many years, and his interest as a commercial fisherman is in the fact that the effects of climate change and ocean acidification will affect his livelihood as well as the economy of the region and the state. He warned that leading scientists attest that the risks of climate change are irreversible and catastrophic, and that Alaska is among the first to be affected by problems brought on by manmade carbon emissions. Climate change is everyone's problem, but Southeast Alaska has solutions to help by the use of its renewable energy resources - which have no carbon emissions - such as tidal, wind, geothermal, and wave energy. Mr. Beebe expected SEIRP to provide energy solutions for the next 50 years that would stem the climate crisis; however, Black & Veatch, the U.S. Forest Service, and the U.S. Coast Guard claim biomass energy is carbon-neutral, but scientific research has proven otherwise. He explained that the rainforest in Southeast stores some of the highest volumes of carbon per acre of all North America forests. A conversion to biomass will accelerate climate change; in fact, management activities necessary to effect a region-wide conversion to biomass heating will have negative consequences. The conversion recommendation by the draft SEIRP is a missed opportunity for Southeast to instead export storable, carbon-free sources of energy such as hydrogen production. Mr. Beebe does not support opening the region to private development, nor the draft SEIRP's foregone conclusion of a region-wide conversion to biomass space heating. Furthermore, this conversion to biomass will rely on federal subsidies, and does not pass the "sustainability test."

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PAUL SOUTHLAND, executive director, Alaska-Canada Energy Coalition; Interim General Manager, Thomas Bay Power Authority, said he is a former mayor and city council member of Wrangell, and was speaking on behalf of the Alaska-Canada Energy Coalition ("ACEcoalition"), which is a group of businesses, individuals, tribal entities, and communities in Alaska and Canada. Wrangell and British Columbia have had a trade relationship for centuries, and the ACEcoalition was formed to promote a connection to the North America grid for the purpose of building a "backbone" with which to develop the renewable energy resources of Southeast. Mr. Southland represented the ACEcoalition as a member of the SEIRP advisory working group and found the draft SEIRP gravely flawed. He relayed a simplified version of the plan, saying the process was driven by AEA and a

select few in a top down approach to planning. The early focus on biomass, even before contract work had begun, indicated bias. He said many communities face an energy crisis, yet assumptions by the draft SEIRP only look at the home heating component. Although consumers have chosen electricity over oil heat, the draft SEIRP recommends changing consumer behavior with DSM and biomass, instead of following marketing forces and market principles. Furthermore, the draft SEIRP repeatedly states that oil prices will return to a lower or more normal level, and he said this is "ludicrous." As a matter of fact, Black & Veatch has published on the Internet for other clients that oil prices will increase. Mr. Southland advised that the November presentation to the advisory working group on the Southeast intertie concept was poor and ill prepared, and "heavily weighted towards submarine cables spanning north to south throughout the region." Subsequently, another meeting of a select few of the utility members of the working group was held in Seattle, and "transmission, connections, and large hydropower storage projects were dropped from the discussion." Mr. Southland praised the economics of existing interties and questioned the sources of the estimates reflected in the draft SEIRP on proposed projects, and the logic of its conclusions. He said that the proposed AK/BC Intertie is arguably within 10 percent of being cost effective, even with flawed assumptions and screening for import or export. On a personal note, he observed that the residents of Angoon are facing a dire energy crisis and have been working within the rules to acquire and develop hydropower projects, yet have been thwarted at every turn by "real power" and discrimination. Mr. Southland urged that the draft SEIRP "must be fixed."

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STAN SELMER, Mayor, Municipality of Skagway, opined Skagway has already been harmed by the draft SEIRP because its application for renewable energy funding of the 25 megawatt West Creek Hydro project, the primary purpose of which is to offset diesel generation by cruise ships that dock in Skagway from May to September. The secondary purpose of the project is to provide power to the local grid during periods of shortfall, and to the Yukon grid in winter. The funding for this project - in the amount of \$238,000 for feasibility and conceptual design - was denied on the basis of a flawed document "that was not even in the hands of the working group yet." Mr. Selmer said the draft SEIRP was used to deny the funding because its reference load forecast did not include cruise ship loads. Furthermore, the least cost course of action in Upper Lynn Canal reference cases

did not include adding hydro capacity until 2050. After the municipality prepared to file an appeal, AEA withdrew its findings that were based on the draft document; however, even though the appeal was successful, other projects have already received awards, and now there is no funding for Skagway's hydro project.

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MAVIS IRENE HENRICKSEN said she worked hard in support of the intertie, and will send her written testimony to the committee.

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HERFORD BURFORD said he is a life-long Juneau resident and University of Alaska graduate. He relayed a personal story and that this is the time of water, and Southeast should utilize the water it has. He opined the plan does not pay enough attention to getting access from the government. The facts show that British Columbia is interested in the intertie, as are the First Nations, and BC Hydro and Power Authority is now building a major dam. Mr. Burford said biomass might work, but Southeast Alaska is basically still owned by the federal government. He encouraged the committee not to walk away from the plan, but to ask the right questions because the "thrust of it is a little bit suspect."

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#### **ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 5:09 p.m.