

MINUTES
ENERGY ENVIRONMENT AND TECHNOLOGY
INTERIM COMMITTEE
OCTOBER 18 AND 19, 2012
10:00 A.M.
HOUSE COMMITTEE ROOM EW42
STATE CAPITOL, BOISE, IDAHO

The meeting was called to order by Cochairman Representative George Eskridge at 10:00 a.m. Other members present included Cochairman Senator Curt McKenzie, Representative Maxine Bell, Representative Bert Stevenson, Representative Eric Anderson, Representative Jeff Thompson, Representative Wendy Jaquet, Senator Russ Fulcher, Senator Steve Bair, Senator John Tippets and Senator Elliot Werk. Senator Patti Anne Lodge, Senator Dan Schmidt, Representative Reed DeMordaunt and Ad Hoc member Senator Brian Cronin were excused.

Others present at the meeting were Diane Holt and John Chatburn, Office of Energy Resources; Russell Westerberg, Rocky Mountain Power; Jerry Deckard, Capitol West; Lloyd Knight and Amy Ferriter, Idaho Department of Agriculture; Ken Miller, Snake River Alliance; Bob Neilson, Idaho Strategic Energy Alliance; Kent Lauer, Idaho Farm Bureau; Rich Hahn, Idaho Power, Brenda Tominaga, Idaho Irrigation Pumpers Association; Alan Pack and Steve Wynn, State Tax Commission; Russ Hendricks, Idaho Farm Bureau; Neil Colwell, Avista; David Hawk, Energy Analysis and Answers; Rene LeBlanc, Idaho Association of Public Health District Directors; Barry Burnell and Curt Fransen, Idaho Department of Environmental Quality; Eric Wilson and Bob Brammer, Idaho Department of Lands; Migual Legarreta, Realtors; John Foster, Idaho Petroleum Council; Jane Wittmeyer, Wittmeyer and Associates, LLC.; Jesse Taylor, Westerberg and Associates; Claudia and David Cottle, Bear Lake Watch; Ray Houston, Legislative Services Office; Courtney Washburn, Idaho Conservation League; Dar Olberding, Ridgeline Energy; John Kotek, Gallatin Public Affairs; Bruce Krosch, Southwest District Health; Brent Olmstead, MP Idaho; and Will Hart, Idaho Consumer-Owned Utilities Association.

After opening remarks from the cochairmen, **Representative Anderson** introduced Lloyd Knight and Amy Ferriter from the Department of Agriculture as well as David and Claudia Cottle from Bear Lake to discuss invasive species issues in Idaho. **Ms. Ferriter, Department of Agriculture** explained that the Idaho Invasive Species Law of 2008 was passed in direct response to the discovery of quagga mussels in Lake Mead in 2007. This law and rules give the Department of Agriculture authority for inspection, decontamination and quarantine. In 2009 an Invasive Species Sticker that is a user fee program was put into effect.

Ms. Ferriter, went on to give a review of the program and their results from the 2012 season.

This Powerpoint is available at:

<http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Ms. Ferriter emphasized that quagga mussels have been found in all states except Oregon, Washington, Idaho, Wyoming and Montana. She noted that a lot has been learned since 2009. One lesson learned is that large moored boats that are stored out of state and come to Idaho for the summer are the most dangerous. The Department is the most interested in boats coming into the state, especially from Lake Mead and Lake Havasu. She said that the inspection program has shown that people are willing to travel long distances with their boats to recreate in Idaho.

Idaho has 15 inspection stations protecting our borders that operate seasonally. In addition to these stations, the Department of Transportation has 11 Ports of Entry (POEs) that also inspect commercially hauled watercraft year round. She noted that these POEs caught fouled boats when the Department of Agriculture stations were closed.

In 2012, there have been a total of 42,462 inspections statewide resulting in 57 mussel fouled boats. Thirty-seven of the fouled boats came from the Lower Colorado (29 were from Lake Mead, that is more than 50% of the total fouled boats). Of those 57 boats, 33 were destined for Washington, 13 were destined for Idaho, 4 for BC, Canada, 3 for Alberta, Canada, 2 for Oregon, 1 for Wyoming and 1 for Montana.

Senator McKenzie asked whether the increase in the number of intercepted boats was due to the fact that there were more inspections or because the Department is learning what to look for. **Ms. Ferriter** said that in 2011-2012 the same amount of boats were inspected and that the Department is getting better at understanding the pathways. She added that working with the Transportation Department has been helpful. She also said working with commercial haulers has been helpful because the overwhelming number of boats being intercepted are oversized loads that are permitted through the state. In these instances the Department of Transportation notifies the Department of Agriculture when they receive an application for a permit for an oversized load boat and that allows them to inspect the boats. In her opinion, they are getting better at understanding how these boats are coming to the northwest. **Senator Tippets** asked whether one infected boat entering Idaho water body could foul that water. **Ms. Ferriter** said yes and that is part of sense of urgency in inspecting. The Department would like to see decontamination take place on boats when they leave infested water. In response to another question from **Senator Tippets**, **Ms. Ferriter** explained that the inspection stations are open 7 a.m to 7 p.m, seven days a week. They usually open in February and one in Bruneau is closing this week. She noted that working with the POEs has been a huge benefit. When the

Department of Agriculture stations opened in February, they intercepted a fouled boat on I90 westbound within the first week of opening.

Senator Bair asked whether Idaho has reciprocal agreements with other states to help with cost of cleaning the fouled boats destined for those states. **Ms. Ferriter** said that Washington bears the burden of cleaning boats destined there but that is not true for other states.

Representative Stevenson asked whether other states have inspection programs. **Ms. Ferriter** stated that all western states are coming online with inspection programs. Wyoming focuses on in boat launch inspections. She said that Idaho is the only state that has mandatory inspections on highways.

Representative Stevenson asked whether there had been any contaminated boats found in the Bear Lake area. **Ms. Ferriter** said no, not at this time.

Senator McKenzie asked, since this is a problem that is affecting the western states and the most common source has been identified, has there been support from the federal government to help keep the infestation where it is. **Representative Anderson** said he had met with the congressional delegation about the issue. He explained since 2008 when there were one or two mussels in Lake Mead, today there are 1.5 trillion mussels in the Lake Mead area today. He said there is more to this than simply decontaminating the boats when they come out of the water, mussels will most likely also be in the water in the boat's bilge. In his opinion and the opinion of many other experts simply decontaminating the vessels coming out of the contaminated waters would solve most of the issues regarding prevention. He said it has been very difficult to get the National Park Service and the U.S. Fish and Wildlife Service to accept ownership of this problem. The affected waterways are administered by the National Park Service and the Fish and Wildlife Service disburses the money. **Representative Anderson** explained that Congressman Simpson was instrumental in allocating \$1 million that was marked up for decontamination coming from Lake Mead and Lake Havasu. This money was then unfortunately divided up to each of the 13 western states for allocation. He said that Idaho actually rejected those funds because they were so minimal to make a statement.

Senator McKenzie commented that perhaps this committee could recommend to congress that the National Park Service should take ownership of this issue in the form of a resolution. **He moved that the committee draft a resolution to Congress asking the National Park Service to devote the resources necessary to avoid expansion of these invasive species throughout the northwest by containing them at their current sources. Senator Tippetts seconded. The motion passed by voice vote. Representative Anderson was put in charge of this task.**

Representative Jaquet asked whether the Department of Transportation can decontaminate at POE sites. **Ms. Ferriter** said that Transportation can only look at commercially hauled vehicles.

She added that a boat travelling from Lake Mead to Lake Coeur d'Alene was inspected and detained by the Department of Transportation and decontaminated by the Department of Agriculture.

Senator Bair asked whether reimbursement from boat owners for the cost of decontamination was required. **Ms. Ferriter** said that they had recovered some costs from large boat owners that required extensive cleanup but most funds for this come from user fees paid by boat owners. In response to another question from **Representative Eskridge**, **Mr. Knight** said that they do have civil penalty authority but that is not used all the time. He admitted that this is not a perfect system and that there are a lot of ways to get around inspections. Most boats require only a quick wash at side of road and they just count that as part of the cost of the program.

Mr. Knight noted that Northern Idaho stations inspect for milfoil and as well as quagga mussels and are funded with money predominantly for milfoil. If they find either milfoil or mussels, they decontaminate the boats. **Representative Eskridge** asked about the risk of not catching everything. **Mr. Knight** said that was a possibility, but they are getting better at identifying pathways that allows them to limit the risk. It is good to make people aware of this issue. Many people are voluntarily asking for inspections in Idaho to make sure they do not decontaminate. He said they are trying to work with people at infested areas to help on their end.

Representative Eskridge asked what would happen if a body of water was to get contaminated. **Mr. Knight** said there is a contingency plan that was put in place by **Ms. Ferriter**, but depending on the water body infected, it could be grim. He said there are endangered species issues that arise. The plan did start to work with EPA to get approval to be able to use certain chemicals to go after an infestation. He said that everything is location dependent.

Representative Anderson commented on an informational brochure called "the Mussel Patrol Program" produced by the Department of Agriculture explaining the program and discussed a device that is available that will help identify a mussel infestation. The goal is to put these devices at every boat ramp in Idaho.

Representative Anderson noted that at Lake Mead there is a large billboard that says "do not litter" but only a very small sign that says "you must clean your boat when you leave." In his opinion, the problem is that it is their system that is contaminated but they are not notifying people that this will cause problems to their boats that are expensive to fix. **Representative Anderson** said that is talk of holding a summit of the entire west coast and specifically the northwest to find ways to maintain the fact that no mussels are in our water systems. Stopping any infestation will save millions of dollars by preventing the loss of fisheries and power

generation. He said that it is importation for utility companies, fisheries and others to get involved. Idaho is landmark state in what we are doing to prevent infestation.

David and Claudia Cottle, Executive Directors of the Bear Lake Watch continued the discussion and voiced their concern about an infestation in Bear Lake. **Mr. Cottle** commented that Bear Lake is a very unique place and that it is geographically similar to Lake Tahoe. It is on two faults so it tilts w the shallow end being in Idaho. In 1911 it was changed from a natural lake to a reservoir.

Mr. Cottle explained that Bear Lake Watch is citizen's group that works with the power company and irrigators on the amount of water in lake and they are concerned about growth. He said the area has had experience with invasive species. A plant called Phragmites or Common Reed chokes out all natural vegetation that most wildlife does not eat. It spreads very easily and if a piece breaks off, it will grow wherever it lands. These were transported from Utah and has taken over parts of Salt Lake and Utah Lake.

Ms. Cottle stated that any infestations of mussel would put many fish on endangered species list immediately. She noted that the area depends on the lake for its economy and mussels would ruin many parts of the lake. They are concerned because Utah inspections are based on self certification and most people enter the Idaho part of the lake before the Malad inspection site. She said that something could easily slip through. If mussels get in the Utah side, they will be in the Idaho side also. She emphasized the need to work with Utah collaboratively to develop a plan to protect the lake.

In response to a question from **Senator Tippets**, **Ms. Cottle** explained that in 2008 Utah had a campaign similar to Idaho's brochure. She added that they have not seen much else from Utah. The program has been turned over to state parks this year and they have less than \$7,000 dollars for Bear Lake. In her opinion, the self certification program is not very strict. **Mr. Knight** said that for two years the Department operated a station north shore unit but part way through the year they needed to get out of the agreement with parks so nothing was operating there at end of season. This is one of two areas in Idaho that have inspection at lake sites. He said they would like to put an inspection station on the highway but that will require more funding. He reiterated that they have not seen any fouled boats going into Bear Lake and that there are not a lot of suspect boats go into that lake. **Senator Tippets** asked about conversation between Utah and Idaho on this issue. **Mr. Knight** said they talk to Utah a lot. He added that Utah is aware of Idaho's program, but seems to want to keep doing it their way. He explained that the interaction is primarily between **Ms. Ferriter or himself** with counterparts in Utah. He said that all of the northwestern states are very aware of what is going on.

Representative Anderson noted that the Bear Lake Commission received \$50,000 in funding from the legislature and asked what that money was used for. **Senator Tippetts** said the Bear Lake Regional Commission historically receives \$50,000 from DEQ for water quality issues in Bear Lake. He said he did not know if there had ever been discussion of using some of those funds for mussels. He added that Utah matched that amount. **Senator Tippetts** said with the budget cuts in the last few years that money was cut. They were able to give that money back last session through the appropriation process. He agreed that it seems appropriate to involve the regional commission in working with Utah to work to keep quagga mussels out of the lake. In response to a question from **Senator Tippetts**, **Mr. Knight** said that he was not aware of any discussions with the Bear Lake Regional Commission regarding quagga mussel containment. **Mr. Cottle** agreed that this would be appropriate and said that Idaho should use every avenue available to have the same amount of protection in Utah as we have in Idaho.

Senator McKenzie made a motion that the interim committee ask the Speaker and Pro Tem to consider sending representatives into that area to work with cooperatively regarding aquatic invasive species with the state of Utah. In his opinion this needs to be raised to a legislative level. **Representative Anderson** seconded the motion. It was noted that California and Nevada work together legislatively regarding Lake Tahoe. **Senator Tippetts** supported the motion. He complimented the Department of Agriculture on this program but still feels like it is just a matter of time before mussels are in Idaho. He thinks we need to do more to prevent this from happening. **The motion carried on voice vote.**

Representative Eskridge recommended that **Representative Anderson** and **Representative Thompson** be part of that Idaho group and **Senator McKenzie** recommended **Senator Tippetts** and **Senator Bair**.

Representative Anderson stated that they could develop a summit to deal with source point decontamination working with PNWER and other states. In his opinion, we can win this battle.

John Chatburn, Director, Office of Energy Resources (OER) was the next speaker. His complete Powerpoint is available at:

<http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Mr. Chatburn explained that OER key responsibilities are to:

- Coordinate Energy Planning and Policy Development in Idaho
- Serve as Idaho's Clearinghouse for Energy Information
- Represent Idaho in Regional and National Energy Policy Forums and Processes
- Administer Financial and Technical Assistance Programs
- Coordinate the Idaho Strategic Energy Alliance

Mr. Chatburn highlighted that OER's budget for 2014 will be for 10 FTPs and approximately \$1.4 million in ongoing expenditures. This includes the elimination of 4.0 current FTPs and approximately \$1.2 million in ongoing expenditures. He said that this budget request includes spending authority for dedicated funding sources such as geothermal and petroleum price violation settlement dollars in anticipation of reduced grant opportunities.

OER's current major activities include:

- State/Provincial Steering committee for Regional Transmission Expansion Planning
- WGA Regional Transmission Line Siting Workgroup
- Idaho Power Integrated Resource Plan Advisory Committee
- Idaho Energy Code Collaborative
- PNWER/Idaho Council
- LINE Commission
- Coordinate Industrial Energy Efficiency Issues
- Cooperating Agency for Idaho
 - Gateway West Transmission Line Project
 - Hooper Springs Transmission Line Project
 - Boardman to Hemingway Transmission Line

In response to a question from **Representative Jaquet** regarding the loss of FTPs and whether that means that Idaho is not doing everything it could as a state to promote energy and energy jobs, **Mr. Chatburn** said that originally the office did a lot of project specific work and now they are more of a coordinating agency. He said that they try not to duplicate work done by other state agencies. They currently have \$1.137 in the dedicated fund. In response to another question from **Representative Jaquet**, **Mr. Chatburn** said that they work fully with Department of Commerce by getting the business development experts from that Department to work with companies that want to locate in Idaho.

Mr. Chatburn clarified that their 2014 budget reduces their FTPs from 14 to 10. This is due to the fact that they are not expecting to receive as many grants or other funding sources as in the past. He said they plan to wait to see if the need to fill the vacant space they currently have. **Representative Eskridge** asked whether the dedicated funds are enough to sustain them for another fiscal year. **Mr. Chatburn** said yes but they are looking for a permanent stable funding source to sustain OER. He said that they do have stable funding through the next year.

Representative Eskridge commented that OER has a lot of responsibilities and asked whether they can give due diligence to all of them with the staff they have. **Mr. Chatburn** said that when the Governor established OER, the American Recovery and Reinvestment Act (ARRA) funds fell right in the middle of it and most of that funding was for energy efficiency. He said that now

they are moving more into the planning and policy realm. He emphasized that this is a big transition but thinks they are successfully making the transition.

Mr. Chatburn noted that as of this morning a new Executive Order continuing OER for four more years had been issued.

Alan Pack, Tax Policy Specialist, State Tax Commission was introduced to discuss tax incentives and credits that are available to energy producers. His complete handout is available at: <http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Some examples of federal income tax incentives include:

Energy Credit (IRC section 48)

An investment credit for qualified solar, geothermal, combined heat and power system property, geothermal heat pump systems, micro-turbine property and qualified fuel cell property. The credit is 6.5% to 30% of the basis of each property placed in service during the year.

Qualifying Energy Project Credit (IRC section 48C)

An investment credit is allowed for investment in qualified advance energy manufacturing products. The credit is 30% of the qualified investment.

Electricity Produced from Certain Renewable Resources, etc. (IRC section 45)

A cents/kilowatt hour credit for electricity produced from qualified energy resources at a qualified facility. The credit is for 10 years beginning on the date the facility was originally placed in service.

Examples of Idaho tax incentives include:

Idaho Investment Tax Credit (Idaho Code section 63-3029B)

A credit of 3% of the qualified investment made during the taxable year.

Incentive Income Tax Investment Credit (Idaho Code section 63-3029J)

The credit is based upon the qualified investment made during the taxable year as a percentage of the unemployment or per capita income of the county where the property is located.

Property tax examples include:

Qualified Investment Exemption (Idaho Code section 63-3029B)

In lieu of the investment tax credit a taxpayer can elect a two year exemption from all taxes on personal property on the qualified investment.

Small Employer Growth Incentive Exemption (Idaho Code section 63-606A)

A county board of equalization can exempt all or a portion of the value of the property qualifying for the credits of Idaho Code section 63-4403 and 63-4404 from the property taxation. (Discretionary)

A complete list of tax credits and incentives that Mr. Pack discussed is available at:

<http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Representative Jaquet asked about the exemption allowed by Idaho Code section 63-602NN that allows a five year exemption from property taxation and what that would be used for. **Mr. Pack** said he had not heard of anyone using this. He noted that the qualified investment exemption had been used at least once. **Representative Bell** asked why more of these do not have sunsets and whether there is a way for the Tax Commission to track whether they have been used successfully without sunsets. **Mr. Pack** said he did not know if there had been any comprehensive review of these. He added that sunsets are left up to the legislature.

Director Curt Fransen, and Barry Burnell, Water Quality Division Administrator, Department of Environmental Quality (DEQ) were introduced to discuss subsurface sewage and septic systems. Their complete Powerpoint is available at:

<http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Mr. Brunell explained that Idaho's septic system program was established to protect public health, eliminate exposure to human borne pathogens and disease causing agents, protect groundwater and to protect surface water. He noted that 36% of the population rely on septic systems for sewage in Idaho. That is 1/3 of the public in Idaho and is primarily rural areas. This produces 53 million gallons of waste water per year.

A timeline for program delivery is as follows:

- US Public Health Service – 1950s
 - Manual of Septic Tank Practice
- IDH&W-DOE – 1960s
 - Manual of Practice #6
- Health Districting Act 1970

- Idaho Code §39-401

IDH&W Rules for Individual and Subsurface Sewage Disposal – IDAPA 58.01.03 adopted in 1972.

- IDH&W-DOE (IDEQ 2000)
 - Delegated Septic System Program Delivery to the Health Districts in 1972, 1987, 2000, 2007 via Memorandum of Understandings (MOUs)

2012 update underway

An overview of the MOU shows that DEQ would be in charge of rules, the technical guidance committee (TGC), the technical guidance manual (TGM), program coordination, staff training, engineering review and audits. The health districts would be in charge of application, site review, permitting, inspections, licensing installers, installer training and record retention.

Health district direct program implementation since 1972 includes seven health district headquarters located in Boise, Caldwell, Coeur d’Alene, Idaho Falls, Lewiston, Pocatello, and Twin Falls. All 44 counties are divided into these seven health districts.

The health districts have 42 FTEs that cover all 44 counties and funding is based on permit fees that are charged for permitting activity.

DEQ has six regional offices located in Boise, Coeur d’Alene, Idaho Falls, Lewiston, Pocatello and Twin Falls. **Mr. Brunell** stated that their geographic distribution is more centralized than the health districts. DEQ has two FTEs to support the Septic system program with funding from a 604b/205j grant from EPA (1.2 FTE) and state general funds (0.8 FTE).

Mr. Brunell gave the following outline of the 2010 action plan:

Action Plan Element	Completion Date
1a. Statewide Rule Implementation	✓ May 1, 2010
1b. Standard Operating Procedures	✓ October 1, 2010
1c. Peer Review	✓ October 1, 2010
1d. Standardized Forms	✓ May 1, 2010
1e. Technical Guidance Manual	✓ Ongoing – October 23, 2012
1f. Staff Training	✓ December 30, 2010
1g. Installer Training and Examinations	✓ Training Conducted Annually – Exams October 23, 2012

1h. Program Audits	Complete – December 30, 2012
2a. Policy Review	✓ May 1, 2010
2b. Fee Schedules	✓ September 1, 2010
3a. District Rule Review	✓ May 1, 2010
4a. District Appeal Rule Review	✓ May 1, 2010

Representative Anderson said it was helpful for him to see that the 2010 action plan is almost completed.

Representative Anderson commented that in his opinion, the move to have local control of septic and sewage systems actually centralized it again. In his area the health district was trying to go into the local sewer districts and municipalities to require additional layering of fees and inspections and other things local elected sewer board members had been able to determine in the past under DEQ. **Representative Anderson** went on to say that health districts and DEQ offices in each region are often in same city and the areas they cover look very much the same. His frustration is that the health districts are a governmental agency that is unique in the state of Idaho. If someone has a desire to redress an issue under a fee schedule or requirement, that person would normally have the opportunity to go to an elected official (county or city or legislator) for a hearing. He would like to see more county involvement in control of this program to give locals more of an opportunity to deal with problems in their own counties.

Director Fransen said there is a difference in how programs are delivered by health districts and by DEQ and that the health districts do offer assistance in each county. For DEQ to offer that same assistance, it would require they travel to other cities to investigate issues. DEQ does not have fee structure to support such programs or the FTEs. He went on to say that in developing the 2010 plan, it seems that some of the health districts drifted in different directions about how to run the program. A lot of that 2010 action plan was to make sure the program was delivered more consistently statewide. **Mr. Brunell** added that the seven health district members are appointed by county commissioners and that they set the fee structure. If there is a concern about the fee structure, the opportunity to address those would be when the local health boards are holding their budget hearings.

Representative Anderson said that in District 1 there was an issue of who would be doing what and he asked what other districts are doing. **Director Fransen** admitted that DEQ had some responsibility for what happened in District 1 and that they have resolved that and will implement the solution throughout the state. **Representative Anderson** said that he gets calls from constituents about duplicate fees being charged and because they cannot go to the county to get issue resolved. Many of these fees have not been refunded and **Representative**

Anderson thinks DEQ should go to the health districts and make sure they refund any fees that were not collected properly.

Representative Anderson thanked them for their presentation but said he is not sure this type of government is the right way to solve this issue. He would like to see a county level permitting process to more localize the issue.

Representative Eskridge asked for clarification and **Representative Anderson and Mr. Brunell** explained that solids/effluents are collected into septic tanks and each sewer district has connection fee. If districts have a community septic system and a traditional septic, they still have the same sewer connection fees. Health districts have a tank only permit fee that they were collecting in the panhandle area on top of the monthly sewer connection fee. **Mr. Brunell** said that even without the health district having a tank only permit fee, a property owner that was going to connect into a septic tank pumping system would still pay installation and access permit fees. **Representative Anderson** said what caused his concern was that there were two fees, one from the sewer district and one from the health district. In his opinion, the sewer districts which are 5 member boards, have installers that take classes from the state. Since these sewer boards have the authority to install under the guidelines of DEQ and the clean water act, why can't this be localized to the county level.

Representative Jaquet asked who takes priority when a county passes ordinance dealing with septic and DEQ has different guidelines. It was explained that generally state rules would preempt local rules. **Representative Jaquet** agreed with **Representative Anderson** that these should be handled on a county level and maybe this could be looked at in the future.

Don Reading, Economic Consultant for Ben Johnson and Associates, was introduced to discuss the price of natural gas. He stated that the conventional wisdom is that natural gas prices are low and are going to stay low. He noted that the ability to accurately forecast natural gas prices is very difficult.

His complete Powerpoint is available at:

<http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Mr. Reading explained that the price of natural gas is a function of supply and demand. Demand includes LNG exports, transportation (trucking), electric generation converting from coal to gas and other uses. Supply includes the supply price relationship, potential environmental constraints, pipeline capacity and water (fracking) including consumption and quality. He said an economist would work through each factor to try to determine what is going on in the market. He said that in looking at the history of natural gas pricing and looking at the forecast, it looks like things are going to be more volatile in the future than people are predicting.

Mr. Reading showed a map of LNG prices in the world and said that since prices are low in the United States and high elsewhere in the world, many ports in the U.S. are looking to become LNG exporters. So, depending on the success of this, that will make the U.S. a natural gas exporter and will increase the cost of our domestic supply.

Mr. Reading said that using natural gas vehicles will also affect the price of natural gas. He noted that T. Boone Pickens has made a commitment that he believes it is important for U.S. to become energy independent and one way to do this is to convert our major trucks to natural gas. Several companies such as Ryder System Inc., Dillon Transport, Inc. and AT&T are in the process of such a conversion. Using natural gas could cut fuel costs by more than \$20,000 for a truck traveling a typical long-haul distance of 100,000 miles a year, according to JMP Securities LLC's Shawn Severson. **Mr. Reading** added that these statements are only true if natural gas prices remain lower than petroleum prices.

In Idaho, **Mr. Reading** explained that Boise-based Allied Waste Services company has opened the first CNG fuel station with public access in the state. They will use this new station to fuel their growing fleet of CNG refuse trucks.

Another trend in electric generation is switching from coal to gas. Progress Energy Carolinas has two projects under way to replace the retiring coal-fueled generating capacity with plants fueled by natural gas. A new 920-MW natural gas-fueled combined-cycle facility is under construction at the H.F. Lee Plant site near Goldsboro. That project, including a gas pipeline extension, is expected to begin commercial operation in January 2013. Also, Colorado utilities are converting some plants from coal to natural gas.

Mr. Reading showed a chart of the supply price relationship from the Energy Information Agency. This shows that there is a real movement from vertical drilling to horizontal drilling or fracking. It also shows that as the price goes up, the number of drilling rigs goes up and vice versa.

He also showed an article from People magazine "Where the water catches fire." He used this to say that prices also depend on if society thinks something is dangerous. If this is the case, it will cause regulatory restrictions that will limit the amount of fracking or it will increase the cost for environmental safety. Another example of this is what happened with nuclear energy.

Mr. Reading commented that as natural gas production expands in new areas, additional natural gas processing and pipeline capacity may be needed. News reports indicate that a shortage of processing capacity in the northeast may be a bottleneck in the continuing development of the Marcellus shale. www.eia.gov

Two long-discussed projects – the MacKenzie Gas Project in Northern Canada and the Alaskan Natural Gas Pipeline appear to be on the back burner. Shell announced plans to sell its share of the MacKenzie project as well as others in the region. *Blog.enerdynamics.com*

Water consumption will also affect supply. According to the NewarkAdvocate.com, typically a fracking operation will draw about four million gallons of water during a one or two week period. Four million gallons equals 12 acre feet. Also a ScientificAmerican.com article noted that Pennsylvania suspended water use for fracking in some parts of the state due to the spring drought.

Water quality also affects supply. According to ScientificAmerican.com the nation's oil and gas wells produce at least [nine billion liters of contaminated water](#) or 7,300 acre feet per day, according to an Argonne National Laboratory report. And that is an underestimate of the amount of brine, fracking fluid and other contaminated [water](#) that flows back up a well along with the natural gas or oil, because it is based on incomplete data from state governments gathered in 2007.

Mr. Reading summarized that the factors of supply and demand and the interaction will potentially make the future price of natural gas volatile. **Mr. Reading** said that from an economist's point of view, the freer the market the more volatile prices are. He noted that this is very true with agricultural products as well as natural gas.

In response to a question from **Senator Werk** regarding natural gas storage being full, **Mr. Reading** agreed. He said it is definitely full but when price was up there was a lot more storage being created.

Senator Tippetts commented that today's price for natural gas was \$3.58 showing a significant increase in the last month. He asked what has caused this. **Mr. Reading** said that weather always plays a factor and when the price is low, demand goes up. In other words the amount of gas coming onto the market relative to the demand for it is lower.

Representative Eskridge understands natural gas price volatility but asked about long term prices. He asked whether the average price will increase. **Mr. Reading** said that all of the projections he has seen follow Idaho Power's prediction that prices will increase slightly per year.

Senator Werk said it was his assumption that that any utility would try to enter into some type of long-term contracts for natural gas and that they would want to establish these now and lock in a price while prices are low for as many years as possible. He would also assume that any type of long-term contract would tend to skew price for others. He asked if that was correct.

Mr. Reading said that no one can get long-term contracts or if one is established, escalators are

built into it. What most entities do is to get a shorter term contract and hedge the gas purchases. This involves very sophisticated investing strategies.

Senator Werk commented that he had a constituent that had worked in Wyoming and North Dakota who had asked about development in southwestern Idaho. **Senator Werk** said that it would seem that due to the low prices of natural gas, there will be substantial delay in development in this area. **Mr. Reading** said did not know enough about the Payette area resource specifically but if demand goes up, the price will go up and development will start moving.

Representative Eskridge commented that it seems that risk is shifting from utilities to the consumer who does not have the ability to hedge. **Mr. Reading** said that he is a member of Idaho Power's community advisory group and has worked with the PUC and the consensus is that large industrial clients are willing to hedge to get price certainty but consumers do not have that ability. He said that as a person, he would prefer that the electric utility have that insurance as long as it is not too expensive. He added that all investor-owned utilities in Idaho have production cost adjustments annually. This means that utilities show the PUC what it costs them to produce electricity and if those costs go up, that difference is passed on to consumers anyway. In response to a question from **Representative Eskridge**, **Mr. Reading** agreed that utilities are not as likely to diversify their portfolios because they pass costs on to consumers anyway. He added that there is value in having diversified source for various kinds of energy production but, to a large extent, utilities are immune from that due to the PCAs.

Representative Eskridge asked **David Hawk** to give an update of natural gas development in the Payette area. **Mr. Hawk** commented that they are finishing a seismic program in the New Plymouth area and are retesting wells and evaluation of pipeline routes and so on. He stated that nothing is on hold and leasing is ongoing and rentals are being paid. He said they are also beginning to evaluate opportunities in Malheur county.

Mr. Hawk said with regard to volatility, the opportunity to hedge is available for natural gas for a longer term than it is for electricity. He does not see volatility as quite the issue that **Mr. Reading** does but he did agree that with natural gas pricing there are a lot more variables than there are constants. Nonconventional gas is becoming more conventional. **Mr. Hawk** said that storage is not full as of yet. As of this morning there was 51 billion cubic feet (BCF) go into storage with a little over 3.75 trillion cubic feet (TCF) in storage and storage will be full at 4.4 TCFs. He pointed out that we have 1.5 TCFs of gas in storage that has never been used in the last five years. He added that we could live off of that storage for 9 months without using Gulf of Mexico gas. Another thing **Mr. Hawk** pointed out was that we can ramp up rather quickly. If the price of gas goes up to \$5 to \$6, drilling for dry gas will ramp up quickly and in a few short months production will increase.

Mr. Hawk commented that with regard to liquid natural gas and offshore shipments, only 1 BCF per day has been permitted by FERC to ship overseas and only one facility has been permitted to ship that in the Gulf of Mexico and nowhere else. It will take some time for others to get permits from FERC if they get them at all. Some new Canadian nonconventional gas will be shipped to China, Korea or Japan. The gas that will come from the MacKenzie Delta has never been counted into the U.S. supply. He said that if gas goes up to \$6.00 as a continuing price, a pipeline could be built to come to the U.S. In his opinion, BP and Exxon waited too long to build the pipeline and now gas is uneconomical. This was 4 billion cubic feet a day that could have flowed into the lower 48 states for many years.

Mr. Hawk went on to say that they are finding new ways to reuse water over and over for fracking and that they are able to use wells on the same line so there is not as much redrilling necessary.

Representative Jaquet asked whether leases were tiered based upon the activity. **Mr. Hawk** said that developers typically pay a bonus and lease rental for period of time to develop on land. When the wells produce, the owner of the land receives a royalty.

He stated that 90,000 mw of electricity can be converted for 12 billion feet of natural gas and 12 billion feet of natural gas can be produced quickly at \$5 to \$6 if that is truly going to be the market. He said there is plenty of supply available and volatility is an issue. **Mr. Hawk** stated that to produce this type of gas, the market has to go up to the \$5 to \$6 range to sustain it.

Representative Eskridge asked, since leases on federal land have decreased, whether that affects our countries ability to produce. **Mr. Hawk** explained that when an oil and gas company puts a geologic idea together and prepares to spend a lot of money on the refinement of that prospect with seismic drilling and the like, they want to rent as much of the prospect as possible. This is also because scientists are not exactly sure where the prospect is or how far it extends. Consequently companies try to lease as much of the ground around this prospect as possible. They petition the federal government to put up land available for lease and bid on that land. These leases on federal land require bonus and annual rental payments for ten years. Some also require higher royalty amounts. There are also stipulations on leases with regard to animals or ESA issues and studies and analysis must be done even before anyone is allowed to the lease land. Once those leases are made available, companies know that they are not going to drill on all of that land but they lease it all just in case. The federal government gets money on it. So when the federal government says companies are not drilling on all the lands they have leased anyway, the truth is that companies never planned to drill on all sites anyway because not all of the land is as good of prospect as other parts. **Mr. Hawk** said another issue is that lease terms run out and companies have to give them up so, in his opinion, the federal government needs to put up more lands for lease.

Eric Wilson, Mineral Program Manager, Idaho Department of Lands was introduced to give an update of oil and gas regulations. His complete Powerpoint is available at: <http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

His presentation covered permit fees, RBDMS (Oil and Gas Database), Seismic Permits and Coordination with the Tax Commission.

Mr. Wilson explained that in June of this permit fees were established as follows:

- **Application to Drill** \$2,000
- **Application to Deepen a Well** \$500
- **Application to Plug and Abandon** \$500
 - (if not completed within a year of Drill Permit issuance)
- **Well Treatment Application** \$1,100
 - (includes Hydraulic Fracturing)
 - (if separate from Drill Permit Application)
- **Pit Application** \$1,500
- **Directional Drilling Application** \$700
- **Multiple Zone Completion** \$700
- **Seismic**
 - Small (<12 miles 2D) \$800
 - Medium (<24 miles 2D or 72 miles² 3D) \$1,900
 - Large (>24 miles 2D or 72 miles² 3D) \$2,500

Mr. Wilson explained that the fees are temporary. They were approved by the legislature in 2012 with a sunset date of July 1, 2017 for permit fees over \$100 per Idaho Code section 47-320.

He went on to discuss the Risk Based Data Management System (RBDMS) they are working on. This was developed by the Ground Water Management Council and is nonproprietary software used by 22 regulatory agencies (mostly states). It is adaptable for all oil and gas regulations and is partially funded by the Department of Energy. **Mr. Wilson** said that scoping is underway to tailor this to the Idaho system and using the general fund appropriation they received last session, they will implement the database. There will also be a national meeting hosted by Idaho this November.

Mr. Wilson's presentation shows examples of both 3D and 2D seismic permits and what those consist of. They have issued one 3D seismic permit covering about 52 square miles in the Payette area and the 2D permit issued covers about 30 miles in Washington, Payette, Canyon and Gem counties. There is also a proposed extension into Malheur county in Oregon.

In designing the RBDMS software, the Department of Lands had to figure out what information they would be getting from the Tax Commission and vice versa. It was discovered that due to prohibitions in the tax code, the Department would not be getting any information from the Tax Commission. They will be getting monthly production reports from all of the wells in the state but they will not be collecting any pricing data with that information. The Tax Commission will be collecting a 2.5% severance tax, will be responsible for all audits, enforcement and after they collect the tax, the Tax Commission will pay the refund account with 60% of those proceeds going to the dedicated oil and gas fund that will fund the Oil and Gas Commission in the future. The Department of Lands as the arm of the Oil and Gas Commission will be producing quarterly reports by operator and by county on request by the Tax Commission.

Mr. Wilson said that the revised rules are in effect and no changes are being worked on this year. He noted that there is one proposed statutory change for 2013 involving Idaho Code sections 47-317, 319 and 321. This proposal would change the members of the Oil and Gas Conservation Commission from the Land Board to five different people. These five people would be appointed by the Governor with approval of the Senate for four year terms. The commission may hire their own staff or contract with the Department of Lands for their services and the Department of Lands director may act as commission secretary or they may appoint a replacement to act as secretary. There is some guidance as to who those commissioners would be, similar to how other states do it.

Senator Tippetts asked for a copy of the draft of that legislation. **Mr. Wilson** said he would get that for the committee.

Senator Bair asked about the rationale for moving from the Land Board to a commission. **Mr. Wilson** commented that Oil and Gas Conservation Commissions in other states are not made up the same as Idaho. Idaho is the only state that consists of land board members. Typically they want to have an independent commission that is able make difficult decisions. Also, since the land board is in charge of leasing, they thought it would be wise to move the conservation work over to a commission.

In response to a question from **Representative Jaquet**, it was stated that for the makeup of Idaho's commission, they were looking more for experts and local representation, not necessarily a political balance.

It was decided that the resolution on the motion relating to quagga mussels would be sent to members electronically so there would not be a need for another meeting after tomorrow.

The meeting recessed at 4:15 p.m.

Friday, October 19, 2012

The meeting was called to order at 8:00 a.m. by cochairman Senator McKenzie. Other members present included Cochairman Representative George Eskridge, Senator Patti Anne Lodge, Senator Russ Fulcher, Senator Steve Bair, Senator John Tippetts, Senator Elliot Werk, Representative Maxine Bell, Representative Bert Stevenson, Representative Eric Anderson and Representative Wendy Jaquet. Senator Dan Schmidt, Representative Jeff Thompson, Representative Reed DeMordaunt and Ad Hoc member Senator Brian Cronin were excused.

Others present were Doug Glaspey, U.S. Geothermal, Kerry Ellen Elliott, Idaho Association of Counties; Bob Neilson, Idaho Strategic Energy Alliance; Diane Holt, Office of Energy Resources; Ken Miller, Snake River Alliance; Brenda Tominaga, Idaho Irrigation Pumpers Association; Rich Hahn, Idaho Power; Neil Colwell, Avista Corp.; John Foster, Idaho Petroleum Council; Stan Boyd, Ridgeline Energy and Kent Lauer, Idaho Farm Bureau.

Doug Glaspey, U.S. Geothermal was the first speaker of the day. His complete Powerpoint is available at: <http://www.legislature.idaho.gov/sessioninfo/2012/interim/energy.htm>.

Mr. Glaspey explained that U.S. Geothermal Inc. is a Boise based, publicly trade geothermal company with two operating geothermal power plants; Raft River, Idaho and San Emidio, Nevada. They are also commissioning Neal Hot Springs in eastern Oregon.

They constructed and operate the first geothermal power plant in Idaho at Raft River. Commercial operations started in January, 2008 and it was a \$52 million project. It originally was a PURPA purchase power agreement. **Mr. Glaspey** noted that developer ownership of RECS was critical to the financing of this project. Idaho Power is the off-taker for the generated power. The project has a 13 megawatt net capacity and is currently operating at 10 megawatts. He emphasized that geothermal power is baseload power and Raft River is operating at 98% of its operational availability for 2012.

Neal Hot Springs is a 22 megawatt net plant at a cost of \$144 million for the total project. He added that they spent \$15 million before they knew whether they had a resource available to actually develop a geothermal power plant. **Mr. Glaspey** stated that a 1703 Department of Energy loan for \$97 million is a large part of the reason they are able to continue.

Mr. Glaspey went on to say that this project uses a supercritical power cycle and they expect a 10% to 15% increase in power productions. This project uses an R134 a motive fluid that is more environmentally friendly than a traditional hydrocarbon based system.

They expect this project to be online in late 2012.

Mr. Glaspey stated that the PPA is with Idaho Power and they have been very open to negotiating. The contract is for a 25 year term and the bundled price includes energy and the value of the green attributes. This plant will generate enough electricity to operate the plant plus 22 MW to be sent to Idaho Power.

Mr. Glaspey went on to discuss what will happen to geothermal energy in Idaho in the future. He stated that there is a full scale assault in independent power production for renewable energy in Idaho. He said that the Idaho PUC opened the door for wind in 2004 PURPA decision but that the differences in renewable energy sources were ignored. In his opinion, the current proposal for five year terms with one megawatt contracts guarantees that no projects will be built. He added that there is also no government support for renewable energy in Idaho. The Raft River project qualified for a \$1 million Idaho sales tax rebate for the \$52 million project and Neal Hot Springs qualified for a \$10 million Business Energy Tax Credit (BETC) in Oregon. He said as a small geothermal developer, tax credits do not really help that much. To take advantage of these, the developer must find someone that has a large tax appetite to partner with and they take advantage of the tax credit. He noted that the Idaho Sales Tax Credit has sunset.

Mr. Glaspey stated that Neal Hot Springs could have probably been built without any tax support because they were able to negotiate a very good PPA with Idaho Power at a levelized price of \$117 mwh over 25 years. This starts out at \$96 mwh which is the kind of price necessary to build geothermal. He said that avoided cost rate in Idaho for a 2013 start up operation is approximately \$68 mwh and that will not build a geothermal power plant in Idaho unless they are selling the power to another state.

He noted that the Geothermal Energy Association 2012 report lists 500 to 600 mw of geothermal resources available in Idaho that could be developed under the right economic circumstances. There are 11 projects listed with five prospects. There are also efforts going to near the Mountain Home Airforce Base.

Most utilities, even in California, do not need any more renewable resources until 2017 or later.

Mr. Glaspey commented that U.S. Geothermal's next project will probably be in Guatemala. The risk-reward is not worth it in the U.S. at this time.

Senator Fulcher asked what environment they need to be able to build projects. **Mr. Glaspey** said the right price is the key. Tax credits really do not help small businesses.

He said that the federal production tax credit (PTC) that has been in existence for quite some time is a ten year PTC that is currently about \$22 mwh of tax credit for power generated. He stated that this is what built the wind industry and has been extended to all renewable energy technologies. He went on to say that the economic crisis allowed the federal government to realize that no one was taking tax credits so they instituted an investment tax credit (ITC) cash grant in lieu of the PTC. This allows the Neal Hot Springs project to take a 30% cash grant back to the project within 60 days after it is built and is online instead of the PTC. That cash comes directly back to the project and typically pays down debt. At Neal Hot Springs they will receive about \$34 million in cash grant and ½ will be used to pay off the federal loan and ½ will be sent to the equity partner in Canada. This is a much better system for U.S. Geothermal.

Senator Fulcher asked how transmission fits into the equation. **Mr. Glaspey** explained that they usually have to provide their own transmission to get the power to the grid. He said that Neal Hot Springs had to build a lot of transmission but luckily Raft River had a large transmission line near the project so they only had to build a small amount of transmission to get to the line. He said this as typical all over the U.S. and developers have to include that cost in the project.

In response to a question from **Representative Jaquet** regarding the Oregon (BETC), **Mr. Glaspey** said they qualified under the older version that was higher. He said that in order to use that tax credit, they had to find a business that uses tax credit to partner with. That business usually pays the project something in return for tax credit. In the case of the Neal Hot Springs project, their partner got the \$10 million tax credit and paid U.S. Geothermal about \$6.7 million for that credit. He clarified that his company is strictly focused on utility scale power generation projects.

Representative Eskridge asked what their contract was with Idaho Power. **Mr. Glaspey** said that when they signed the PURPA contract for Raft River, the levelized price was \$62 mwh and they sold RECS to a Colorado utility under a ten year contract for an average of \$5.5 mwh and their tax partner gets \$22 mwh in tax credits. That adds up to over \$80 mwh in either direct payments or credits. Since they chose the nonlevelized price, they started out around \$53 mwh in the first year they sold energy. Currently that is up to about \$58 mwh and has a 2.3% escalator under the current contract.

The Neal Hot Springs was a negotiated price and contract that included all of the RECS and that is a levelized price of \$117 mwh. **Mr. Glaspey** said the first time they sell power this year will be at \$96 mwh. Idaho Power will own the RECS and can sell them to other power companies.

In response to a question from **Representative Stevenson**, **Mr. Glaspey** said that they need \$95 to \$100 mwh at a bare minimum to start a project from scratch. He noted that it is a struggle at the current prices to make Raft River produce cash flow.

Senator Bair asked whether geothermal energy project can ramp up and down. **Mr. Glaspey** said the best way to run a geothermal power plant is to run it full out all the time. It can be dispatched but that is not as efficient.

In response to another question from **Senator Bair** and whether contract lengths are tied to how long the resource lasts, **Mr. Glaspey** said that most of these resources will last 50 to 100 years. The 20 year contract length is tied to a reservoir report that is used to convince a bank that the resource will last that long.

Representative Eskridge asked for clarification regarding whether the RECS sold to Idaho Power were above the PURPA price. **Mr. Glaspey** said that was true at Raft River but Neal Hot Springs was not a PURPA contract so the RECS were included in the negotiated contract. He estimates that RECS to be worth between \$15 to \$20 mwh. Including RECS in the PURPA price makes projects too expensive and in his opinion, the PURPA price in Idaho does not place any value on RECS today. He thinks a utility should have to pay extra for the RECS or allow the developer to sell them elsewhere.

Senator McKenzie asked if the new PURPA contract proposal for five year contracts and five mw projects goes through, is there still a market for geothermal if the price goes up in future. **Mr. Glaspey** said that the PURPA rate is based on natural gas power plant prices so it is very low. He admitted that PURPA in Idaho has set a bar so at least a developer knows the starting point. He said there is really a need for long-term policy.

Senator McKenzie asked whether the market for these types of projects in the near future will be mainly overseas. **Mr. Glaspey** said yes, there is some market in southern California but they need to design the RFPs differently to get a better mix of energy. He said that the resource in Guatemala is very attractive and they will be replacing diesel electric power generation that is very expensive and very inefficient. The power price in Guatemala is about \$140 mwh to buy power off the grid. Their expectation is that they will be able to sell their power for \$120 mwh which is an amount that they cannot get in the U. S. today.

Representative Anderson commented that it seems to him that geothermal energy needs to go where there is a competitive market and in Idaho, they are competing with a very low-cost

hydro based system. While investors need to have diversified portfolios, utilities do not necessarily need to do this. If you have an overwhelming resource of low-cost hydro available, the customers will bear the burden if you go out to broaden the portfolio just to broaden it. He noted that Idaho is very unique in that we did the right thing by not requiring renewable portfolio standards. In his opinion, RECS are not the best option available.

Kerry Ellen Elliott, Idaho Association of Counties was introduced to discuss the gross earnings tax and how the counties feel about this since it went into effect. She said she surveyed the counties that have wind projects and those counties seem to be very satisfied. The legislation went into effect in 2007 and as far as the counties she surveyed are concerned it is working okay for now.

She distributed a handout showing the earnings for 2006, before the gross earnings tax took effect. At this time, there were only two wind projects in Idaho and they were centrally assessed meaning that was based on the value of the property. The rest of the handout shows projects that were put in place from 2007 through 2012 and the revenue generated using the gross earnings tax. She said that overall the total revenues went from \$260,000 in 2007 to \$2.8 million in 2012 and that this was mostly due to the growth in the number of projects.

For background information, **Ms. Elliott** explained that in 2007 this legislation was enacted that exempted wind projects from taxation and applied the 3% gross earnings tax to the projects as an alternative method of revenue generation. Up to that time, projects were assessed centrally by the state. The counties were stakeholders during the drafting of this legislation and supported the legislation. Although the revenues dropped from 2006, the counties believed that as projects were developed and energy sold, the gross earnings tax would prove to be a more stable and predictable revenue generating source. There were two advantages the counties saw in this. One was that property depreciation would no longer have a negative effect on revenues derived from this taxing source and the other was that the services the counties had to provide for this type of development were minimal.

Representative Eskridge said that even with the reduced revenue, she is saying that the counties are happy with it because it is more stable. **Ms. Elliott** said yes because at the time they felt it would be more stable than to have the tax based on the value of the property. It has only been in effect for 5 years but they would like to stay the course. It was understood that there would be revenue loss to some counties. The growth in revenue has been good but that is based on the number of projects that have been developed. If no more projects are developed, then revenues will go down. **Representative Jaquet** agreed that this is a better system.

Representative Jaquet commented on a tax incentive that allows county commissions to forego property taxes for 5 years to promote a project and asked if any counties have done this. **Ms.**

Elliott said she was not sure but does know that counties are aware of it. She said she would get that information for the committee.

In response to the need for this interim committee to continue its work, **Senator Werk** commented that in his opinion the discussion about geothermal energy and RECs was very relevant and thinks the committee could have large discussion just regarding RECs. He said he also feels the same about PURPA. There is also the issue of whether PUC authority is still proper. He said this is a complex environment that is always changing. Just the topics covered in these two day show the need for this committee to continue to explore all of these issues in more depth than the legislature could ever do. **Senator McKenzie** agreed.

The meeting was adjourned at 9:15 a.m.