

**Minutes
Legislative Council
Energy, Environment and Technology Interim Committee
Room 117, Capitol Annex
Old Ada County Courthouse
514 W. Jefferson
Boise, Idaho
August 21, 2007
9:00 a.m.**

The meeting was called to order at 9:05 a.m. by Cochairman Representative George Eskridge. Other committee members present were Cochairman Senator Curt McKenzie, Senator Tom Gannon, Senator Kate Kelly, Senator Elliot Werk, Senator Russ Fulcher, Senator Mike Jorgenson, Representative Eric Anderson, Representative Elaine Smith and Representative Maxine Bell. Senator Patti Anne Lodge, Representative Bert Stevenson, Representative Ken Andrus, as well as ad hoc members, Representative Wendy Jaquet and Representative Mark Snodgrass were absent and excused. Staff members present were Mike Nugent and Toni Hobbs.

Others present included Woody Richards and Don Gillespie, Alternate Energy Holdings; Skip Smyser, Connolly and Smyser; Ken Miller, Snake River Alliance; Cheryl Hanson, Idaho State University; Ken Eklund and Sue Seifert, Idaho Energy Division; Russ Hendricks, Farm Bureau; Tony Zornik; John Weber; Russell Westerberg, Rocky Mountain Power; Brian Dickens, Office of Science and Technology; Cheryl O'Brien, Brian Whitlock, Marilyn Whitney and Ralph Bennett, Idaho National Laboratory; Wendel Bingham, Meridian School District; Jane Wittmeyer, Intermountain Forest Association; Lane Allgood, Partnership for Science and Technology; Dar Olberding, Ridgeline Energy; Ron Williams, Idaho Consumer Owned Utilities and Tesoro Refining; Brenda Tominaga, Idaho Irrigation Pumpers; Rich Hahn, Idaho Power; Greg Holtz, Idaho Energy Complex; Beth Markley; Pat Barkley, Idaho Council on Industry and the Environment; Roy Eiguren; Neil Colwell, Avista Corp; Shirley Lindstrom and Michael Schilmoeller, Northwest Power and Conservation Council; Jonna Moore; and Charles Johnson, Canyon County citizen.

After opening remarks from **Cochairman Representative Eskridge**, **Senator Kate Kelly** spoke to the committee regarding revised "High Performance Public Buildings" legislation. She distributed copies of the new draft and a fact sheet explaining what the legislation does. **Senator Kelly** explained that this new version of the legislation deals with construction and design of state buildings. She said it is forward thinking and does not apply to buildings currently in the design review phase.

Senator Kelly stated that the previous legislation required that future state buildings would be constructed to a LEED standard. The LEED standard is more of a comprehensive sustainability and energy efficiency standard that is used throughout the country. This standard is somewhat problematic to Idaho. She noted that over one-half of the states have adopted the standards for state buildings and many other local governments have also done this including the Nampa City Council.

Senator Kelly said that adopting more energy efficient standards is something that public agencies are doing throughout the nation. One of the most obvious reasons for this is cost-savings that will be realized due to the increase in energy costs. She said that the cost of constructing buildings to these standards is actually a small percentage of the total cost for the building's operation throughout its life. This shows a very direct payback period due to the fact that most public entities tend to own the buildings they construct. States are also doing this from a leadership standpoint to show that energy efficiency and conservation are a good thing and to encourage others to do so.

Senator Kelly explained that the new legislation simply states that any state buildings in Idaho would be built to a standard that is 30% more energy efficient than what the current energy code requires. She noted that there is an "off-ramp" that says that if the Permanent Building Fund Advisory Council decides that the standard is not practical in certain situations, the standard will not apply. She said the requirement specifically targets state buildings and would apply to state agencies, boards, divisions and higher education. It does not apply to school districts or local governments.

Senator Kelly noted that this legislation is consistent with the Idaho Energy Plan which recommends that the state demonstrate leadership by promoting energy efficiency, energy-efficient products, use of renewable energy and foster emerging technologies by increasing energy efficiency in all facets of state government. It also recommends that the state educate government agencies, the private sector and the public about the benefits and means to implement energy efficiency.

Senator Gannon asked, on average, how much this will add to the up-front cost of buildings. **Senator Kelly** said it would be between zero to twenty percent depending on how the goal is to be met. She said the energy division ran numbers for projected construction and determined a cost-savings of almost \$1 million in energy costs if buildings are built to this 30% standard.

Senator McKenzie commented that the legislation says a building would be certified to the 30% standard and mentions full commissioning. He asked who would do the certification. **Senator Kelly** stated that today a lot of designs strive to meet some sort of energy standard so engineers and architects are becoming more familiar with what is required. She noted that commissioning is done by a separate third party that watches the design and/or construction phase to make sure the standard that is being sought is actually going to be met. She added that the bill encourages commissioning, but does not require it.

Senator McKenzie asked for more clarification of certification and commissioning. **Mr. Ken Baker, Association of Idaho Cities** explained that full building commissioning would not be mandatory due to the fact that it is not always cost-effective to do so. He said that full building commissioning can add one to three percent to the cost of a building but that can also be paid back within the first year. The state currently has commissioning that is considered for buildings over 5,000 square feet.

Senator Kelly went on to state that the legislation includes a reporting requirement for those operating these buildings to see how this is working and to see if it is worthwhile in the long run.

Senator Werk asked what happened to the previous legislation when it failed. **Representative Eskridge** explained that the problem was that it cited an LEED standard that goes beyond energy efficiency at the end user. The concern was that LEED would have other effects because it included requirements as to how the timber used is harvested and so on. **Representative Smith** commented that the current bill corrects these problems as stated on the fact sheet.

Representative Anderson agreed with both **Representative Smith and Representative Eskridge** and noted that the LEED standard includes a requirement that building materials had to have a certain stamp of approval as to how they were harvested.

Representative Anderson asked what standards the new legislation will require to be met.

Senator Kelly said it requires that when a building is designed and used, it must meet a level of 30% less energy use than what is required by the current energy code. There is no requirement as to how this is achieved and it leaves it up to the project and type and size of building as to how this goal is achieved. In response to a question from **Representative Anderson** regarding adoption of a baseline, **Senator Kelly** said the intent is that 30% would be the baseline. She added that section could be reworded if necessary.

Representative Eskridge clarified that there is an energy efficiency standard in the state energy code that has to be met and this gives the basis for a target to beat that by 30%. **Senator Kelly** said that was correct.

Senator Kelly observed the difference between LEED and a baseline. She noted that LEED deals with a lot of issues besides just energy and energy efficiency. In her opinion constructing to LEED standards does not necessarily focus on energy efficiency. She emphasized that this legislation focuses specifically on energy efficiency.

In response to a question from **Representative Eskridge**, **Senator Kelly** noted that stronger cost- efficiency language could be added to the legislation. **Representative Eskridge** said in his opinion that would be appropriate because one point of the bill should be to show long-term cost-effectiveness.

Representative Eskridge questioned whether financing through the Idaho State Building Authority could actually mandate or require an entity other than a state agency to adhere to these

standards. **Senator Kelly** said this standard also applies to projects financed by general funds. **Representative Eskridge** said he did not want the legislation to mandate a nonstate entity into compliance. **Mike Nugent, Legislative Services Office** stated that the State Building Authority has the authority to finance community colleges. He said there have been attempts to allow the Authority to fund public schools but that has never passed. **Senator Kelly** added that specific language was included that specifically exempts public schools and local governments from these standards.

Cheryl O'Brien, Idaho National Laboratory (INL) spoke to the committee on this legislation from the viewpoint of the Department of Energy (DOE). She manages INL's federal energy programs and said her experience in energy efficiency and conservation is more from a national perspective with DOE programs and tools. She said she managed INL's federal energy programs.

Ms. O'Brien said that from previous comments, she was getting the sense that there was a lot of confusion regarding a building meeting the 30% efficiency standard and commissioning. **Ms. O'Brien** stated that these are different activities. She explained that commissioning is done by an actual third party. She went on to say that there is a host of training available at the national level on how to go through the commissioning process step by step. She explained that toward the end of construction, commissioning would involve the third party looking at and testing heating and air conditioning units to see if they actually gain that energy savings or to see if they are meeting the performance standards.

Ms. O'Brien said that, in her opinion, the intent of this bill is to use what is current energy code which gives minimum requirements for energy performance for a certain size and type of building, and beat that by 30%. She said there are ways to figure, through modeling, whether or not a building will be able to meet 30% greater efficiency. She noted that measuring this 30% efficiency is an ongoing issue on the national level. Another way and perhaps the best way to measure this is through metering. Energy Star requires metering for one year after a structure is built to see if it is meeting the standards that were decided upon when the building was built.

Ken Eklund, Manager of Efficiency Programs of the Idaho Energy Division, was the next speaker. He stated that the Energy Division is in support of this legislation because 30% is very achievable and will easily achieve 62% energy savings. He said the Banner Bank building achieved 50% savings and was done with no additional building cost. Calculations have estimated construction savings of \$860,000 for public works projects. This is due to the fact that energy savings accumulate as buildings are built. He noted that the bill as written solves many of the issues from the past legislation.

Cheryl Hanson, Campus Architect, Idaho State University, gave an update on the Center for Advanced Energy Studies that is a new building being built at the Idaho Falls campus. This building is 50% above the current energy code. She explained that this building is a collaboration between the state of Idaho, three Idaho research institutions and a national university consortium, the Battelle Energy Alliance and INL. The mission of the building is to

become a world class advanced energy organization with emphasis on nuclear energy and to be recognized for contributions to advance energy education.

Ms. Hanson said the decision was made to emphasize this by designing and constructing a high performance sustainable green building using the LEED standard as a benchmark. The building will be occupied in August 2008 and will house 150 faculty researchers, 50 graduate students and 25 undergraduates. It is a \$15 million project and is 55,000 square feet with 50% labs and 50% offices. Seventy-five percent of the spaces have daylight and 90% have views.

Ms. Hanson said the LEED standard addresses other green building concerns besides energy. One example is that the siting of the building was considered in order to use more energy efficient means of transportation, pedestrian passageway linkage, shared parking, reduced paving, storm water control, water efficiency and so on. They are also buying 30% of their power from green sources.

Ms. Hanson said the major benefit is indoor air quality, efficient heating and cooling, lighting controls and so on. She said that everything is monitored and controlled. She went on to say that for this project, projected operating costs will be reduced by \$67,000 per year; this is 62% less for electricity and gas than for a conventional building of this type. This number was reached through modeling. She noted that actual building costs for this building are similar to a regular building of this type.

Ms. Hanson said the bottom line is that ISU supports the Idaho High Performance Buildings legislation.

In response to a question from **Senator Gannon** regarding use of power from green sources, it was explained that Idaho Falls Power is a BPA customer and customers can voluntarily subscribe to pay a higher rate so BPA can purchase power from green sources. **Ms. Hanson** stated that in this case they consider hydro to be green power.

Senator McKenzie asked whether the design phase went through a commissioning process. He also asked how they will verify that the projected savings actually occur. **Ms. Hanson** said they have a commissioning agent and a team hired that includes people who are LEED certified. To follow up, all energy uses will be monitored and the commissioning process will go forward as building progresses and operation begins.

Senator Werk said he would like a more detailed rundown of the commissioning process.

Mr. Ken Baker explained that commissioning is a total third party process. He said there is an architectural team and engineers that put the building together including lighting, mechanical systems and such. A commissioning agent ensures throughout the design process that all systems work together when the building is finished. Once the building is complete, that agent goes through and tests those systems to make sure they work appropriately. In response to another question from **Senator Werk**, **Mr. Baker** explained that this oversight should eliminate issues

such as one office being really hot and the next being really cold. He added that it can be determined up front what level of detail is covered.

Mr. Baker said that commissioning is separate from documenting the savings. He said there are different ways to go about documenting the savings and it will be an education process. **Mr. Baker** noted that the legislation requires annual reports and said this will require processes being developed to show that savings are being met. The legislation does not include details but those can be worked out with agencies.

Representative Eskridge asked what happens if the third party commissioning agent finds that the building does not meet the requirements intended. **Mr. Baker** said that does happen in many of these buildings but most still perform better than the baseline. In these cases, it is a learning process to see why they did not perform as hoped. He noted that there is a handbook available for achieving energy efficiency. **Representative Eskridge** clarified that even if a building does not perform to the highest expectations, it would still be at a high enough level to justify the extra cost to build. **Mr. Baker** said that was correct.

In response to a question from **Representative Anderson**, **Mr. Baker** said, in his opinion, there does not need to be additional cost involved in meeting this 30% standard. ISU's building has a letter stating 62% savings came at no extra cost to build.

Representative Anderson agreed that the cost could be the same to build, but that 30% efficiency could be satisfied simply by changing lighting. In his opinion, the 30% could be higher. **Representative Eskridge** clarified that 30% is not difficult to achieve and that is why it was used for the legislation. **Senator Kelly** agreed and said it could go higher but the purpose behind the bill is to show leadership and help educate others that such energy savings can be achieved.

Mr. James McGuire, Associate Vice President of Campus Planning and Facilities at Boise State University (BSU) spoke to the committee of his experiences in higher education with respect to energy efficiency and green buildings. He commented that when he arrived at BSU about one year ago, they were at the end of a performance contract for improving energy efficiency on the campus as a whole. He saw that this performance contract was a broad overview of all campus buildings and identified a significant number of areas where energy efficiency could be improved. This contracting method was put in place by the legislature several years ago. The result was projected savings of a minimum of 20% in overall energy use. This is a very significant savings.

Mr. McGuire commented that BSU is currently designing buildings with a stated goal to have a minimum of 30% better energy efficiency than is required by the state energy code. He noted that the design consultants have indicated that this 30% can be met with no increase in budgets. **Senator Werk** asked how the energy savings on the campus will be measured. **Mr. McGuire** stated that they measure how the campus responds as a whole. He said as part of the performance

contract, meters will be installed on all buildings. This is also partly to see if existing buildings are using more energy than originally intended.

Representative Eskridge asked that committee members review this new legislation and come back to the next meeting ready for discussion of whether to recommend it to the legislature for next session. **Senator Kelly** said she would welcome suggestions for language changes and that she would bring a revised draft to the next meeting. **Representative Eskridge** suggested that any revisions be distributed before the next meeting so action could be taken.

Mr. Woody Richards representing Alternate Energy Holdings introduced **Mr. Don Gillespie**, to make a brief presentation relating to the company's plans to build a nuclear power plant near Bruneau, Idaho. This plant will not only generate nuclear power, but, in a joint venture with other Idaho businesses, will also produce methane and ethanol products. **Mr. Richards** explained that **Mr. Gillespie** is President, CEO and Chairman of Alternate Energy Holdings. He has over forty years of experience in all facets of the commercial nuclear industry with more than half of that time as an executive.

Mr. Gillespie explained that he retired about five years ago and it did not suit him. He decided he wanted to do something to help the energy situation in the United States. He got the idea to start this company and went to a conference held for nuclear energy CEOs. He asked these CEOs when any new plants were going to be built. The answer was that no one wanted to be first. **Mr. Gillespie** made the decision at that time that his company would be first. The company went public last fall to raise money.

Mr. Gillespie stated that he actually raised \$800 million to buy an operating plant but no one would sell so he decided he would have to build a green field from scratch. He was contacted by a group of farmers to look at building a power plant in Idaho.

Mr. Gillespie's complete PowerPoint presentation titled Energy Shortfalls and Solutions is available at the Legislative Services Office. He reviewed the current challenges as follows:

- National energy shortfall
 - Dependence on foreign sources
 - Region/Idaho-net importer of power
 - Power needs predicted to increase exponentially for U.S. to stay competitive in global market

Mr. Gillespie noted that the U.S. is importing a lot of energy. He noted that California is the largest importer of power in megawatts, but Idaho is the largest in percentage of power imported. The idea of building a plant in Idaho will help the state become more of an exporter of power.

He said that power predictions say it will take about 100 power plants the size of what he is proposing over the next 30 years just to meet demand.

He went on to say that the Intergovernmental Panel on Climate Change in 2007 has reported that

:

- Global warming threatens planet's future
- Reduced snowfalls impacting hydropower
- Report recommends renewable energy and nuclear power

Idaho's power specifics include:

- Idaho's current energy sources
 - Fossil fuels, Hydro, Nuclear
 - Over 80% (\$3 billion) of power imported
- EPA regulation of greenhouse gases
 - Clean Air Act
 - April 2, 2007 US Supreme Court ruling Commonwealth of Massachusetts v. EPA
 - Governor Otter issued Executive Order to coordinate statewide greenhouse gas emissions reduction effort

2007 Idaho Energy Plan

"Idaho's reliance on coal-fired power leaves the state vulnerable to the economic effects of federal regulation of carbon dioxide and mercury emissions. In addition, much of the hydroelectric capacity...is now or will soon be undergoing federal re-licensing...Idaho's energy demand growth will inevitably result in upward pressure on energy rates."

The plan supports diversifying the state's energy production and reducing reliance on imported power. **Mr. Gillespie** said this is what his company is also supporting.

He went on to state that they are proposing a commercial nuclear power plant because it is the largest, most reliable, clean base power source available. It is natural, emits no greenhouse gases and produces power independent of weather and bird migratory patterns. He noted that the spent fuel is stored safely onsite in concrete and steel containers and emits no measurable radiation above background at the plant's property line.

The following organizations have voiced support for nuclear power:

- Pew Center on Global Climate change
- Environmental Defense
- Patrick Moore, founder of Green Peace
- UN Report on Climate Change
- Dow Chemical wants to partner
- Wall Street Journal poll - 86% (not scientific) in support
- 60 minutes - "Viva Les Nukes" positive report on France
- 2008 leading presidential candidates
- Majority of U.S. House and Senate

Mr. Gillespie explained that commercial nuclear power today is a growing international power

source. One hundred four U.S. nuclear units supply 20% of the nation's electricity. Nuclear provides over 1/3 of Europe's power. Thirty new nuclear plants are under construction in twelve countries and over 100 more are planned.

He added that nuclear energy is also inexpensive power production. Nuclear: 1.7 cents per kilowatt hour (kWh), coal: 2.2 cents/kWh, gas: 7.5 cents/kWh and oil: 8.1 cents/kWh.

Mr. Gillespie stated that post 9/11 a report by the FBI indicated that commercial U.S. nuclear plants were more secure than any other facilities, including military bases.

He went on to say that the average nuclear plant produces power over 90% of the time - compared to 73% for steam turbine coal, 29% for hydro, 17% for wind and 19% for solar. Western commercial nuclear units have gone 50 years without negative health impacts on workers or the public.

Mr. Gillespie emphasized that nuclear "waste" is reusable energy. Only 1% of spent fuel has a half-life that could threaten the environment. Reprocessing spent fuel eliminates all production of high level waste (transuranics). Reprocessing is currently successful in Canada, France, the United Kingdom, Russia and Japan. The U.S. federal government is now seeking sites to construct reprocessing plants including Idaho.

Mr. Gillespie went on to explain the Idaho Energy Complex (IEC) that is proposed for Idaho as follows:

- 1600 Megawatt nuclear reactor
 - Replace all higher cost fossil power
 - Back-up renewables like wind power
 - Hybrid cooling system...less water used
 - 4000 acre designated site with seismic stability near CJ Strike Reservoir
- Biofuels generation
 - Excess heat from nuclear unit used to produce low-cost ethanol and methane
 - Market for local crops and ag waste
 - Cooperative agreement with dairymen
- Economic Benefits
 - ~ 500 full-time positions created
 - ~ \$30 million state/local taxes
 - ~ \$50 million in carbon credits
 - ~ \$ 750 million in state GDP
 - Provides funds for police, fire and school
 - Provides low-cost power for farmers, residents and attracts/keeps businesses
 - Area property values appreciate
 - Local business benefits
 - Idaho to become power exporter to western states

Mr. Gillespie noted that the IEC also brings many educational opportunities. He said they have made an arrangement with ISU through INL's program that will prepare and train people to work in these facilities.

The timeline and costs for the IEC are as follows:

- 2007, 3rd Qtr: Begin CUP & COLA
- 2008, 4th Qtr: Submit COLA
- 2011, 4th Qtr: Begin Construction
- 2015, 2nd Qtr: Construction Complete
- 2015, 3rd Qtr: Pre-Operational Tests
- 2015, 4th Qtr: Plant Operational

- \$80 million - COL (NRC approval)
- \$1.8 billion – Reactor, turbines, etc.
- \$1.9 billion – Construction total
- \$50 million – Pre-operational testing
- \$100 million – Staffing, training, developing operational/administrative directives

Mr. Gillespie stated that neither he nor any of his board of directors earn a salary. People are paid through stock to minimize cash flow out.

Senator Gannon asked where the process for a bridge across the Snake River stands. **Mr. Gillespie** said they have put that on hold for now.

Senator Fulcher asked whether there is any work going on in conjunction with INL in terms of technology or the approach. **Mr. Gillespie** said they have exchanged correspondence and he has tried to set up some appointments.

Senator McKenzie asked about the adequacy of the transmission facilities for a plant this size. He asked about projections for tying into the grid and whether existing transmission facilities are adequate to get this power to the end customer. **Mr. Gillespie** said transmission is an Achilles heel to these plants because they require a large generator. He noted that the plant is located fairly close to a tie-in point but that IEC might have to invest some money in transmission before they become operational.

Senator Jorgenson asked what the reaction has been from local power companies. **Mr. Gillespie** said they have been receptive but they have not had any formal discussions. **Senator Jorgenson** asked whether they have had any discussions with other utilities expressing interest. **Mr. Gillespie** said he has been approached by several large utilities in other states and one offered to buy 50% of the power. He said that the plan is to offer it to Idaho first.

Senator Werk asked about water use and thermal load. **Mr. Gillespie** said that the 4,000 acres is currently used to grow hay and that uses about 60 million gallons of water. This site has old

established water rights. The plan is to pump water up to the plant for use. After it is used for power, it will be reused to water crops and so on. **Senator Werk** asked whether the 1.7 cent per kilowatt hour price included decommissioning. **Mr. Gillespie** said yes.

In response to another question from **Senator Werk** regarding the plant as a green solution and uranium mining, **Mr. Gillespie** commented that uranium mining has been going on for 50 years or more. He said the plant is very safe. He reiterated that 95% to 99% of the energy is left in rods after the first year and reprocessing eliminates a lot of the dangerous waste. At this time, the U.S. does not reprocess due to fear of terrorists.

Senator Werk asked about the siting process with county commissioners. **Mr. Gillespie** said they did not think it was a good idea for the county to approve the site on the basis of current application and decided to use the federal process paralleled with the local process. He said all of the studies required for compliance to the local process are done.

Senator Jorgenson asked whether the site location was predicated to the specific farm. **Mr. Gillespie** said yes, the farm is 4,000 acres and is surrounded by BLM land making it an ideal site in terms of security. **Senator Jorgenson** asked whether they have already acquired that property. **Mr. Gillespie** said there is an agreement with the owner who is going to partner with them and that once the plant is approved, the land will be acquired.

Representative Bell asked whether the water rights that exist with the 4,000 acres are adequate to meet the needs of the plant. **Mr. Gillespie** said the water rights are for 60 million gallons per day and are surface water rights. He said the design for this plant will allow it to change the amount of water it uses from almost nothing to several million gallons a day. That will allow flexibility.

Senator Kelly asked what regulatory process is being used to get approval and whether there is state level involvement. **Mr. Gillespie** said there is state level involvement for water rights. The federal process used is the Combined Operating and Construction License (COL) and he said this is quite an elaborate process and is very thorough. Most states rely on this process instead of duplicating it. **Senator Kelly** asked what is looked at in the approval process and whether the Idaho PUC is involved at all. **Mr. Gillespie** said the process looks at transmission, buffers and security, egress and ingress, roads, bridges and air travel. They drill into the ground to make sure there are no faults, look for ground around the river that is not stable (geologists), environmental data is collected for one year, as well as design approval.

Representative Eskridge asked whether the federal process could preempt the state process. In other words could the federal government approve siting if a county does not. **Mr. Gillespie** said that has never happened in the past. He said that once counties have committed to the federal process, those counties are usually going to approve the project.

Senator Gannon asked regarding a town hall meeting that was held in Rimrock, what the sense

of community reaction to this was. **Mr. Gillespie** said the county people were very supportive. He said there were a few from outside the area that attended the meeting to be disruptive. He noted that there was also a lot of support at two other meetings that have been held. **Senator Gannon** commented that the locals tried to make those being disruptive settle down because they wanted to hear what Mr. Gillespie had to say. **Senator Gannon** commented on a morning radio program on KBOI after a meeting with the Governor's office and said he was amazed at the positive reaction from callers in support of nuclear power in the area. **Mr. Gillespie** said that of the many radio shows he has done, there has only been one questioner not in support.

Representative Eskridge clarified that this will be a merchant plant with power available to anyone in any state and asked if California's plan would accept nuclear energy as a power source. **Mr. Gillespie** said that California has said they will not build any new nuclear plants until the waste issue is resolved but they could import nuclear power into their grid.

Senator Jorgenson said he would like to hear from utilities about their feelings on this plant. That will be scheduled at a later meeting.

Mr. Ralph Bennett, INL was introduced to speak to **Mr. Gillespie's** presentation. He stated that there are several firsts involved with this project.

1. The idea of not using once thru cooling for the plant.
He said this is good for Idaho because of limited water resources. They have also been looking at dry cooling.

2. Coupling of ethanol and methane production.
The next generation nuclear plants have looked at coupling of chemical production and nuclear and there has been a considerable line of inquiry about hazards brought to the plant in terms of interrupting power production.

3. Not being sited at a location that is barge accessible.
There is a lot of concern about the ability to transport a reactor from water across the land to the site.

He noted that the federal government is not funding studies for generation 3 plants. Funding will be borne by projects that undertake it and this could cause delays.

Senator Fulcher asked about the difference in technological processes of uranium for power production and for weapons production. **Mr. Bennett** said the only difference is the amount of repeated stages of uranium gas through the process. They use the same technology, it is just a matter of degree. **Senator Fulcher** asked whether power generation requires more or less processing. **Mr. Bennett** said power generation is much less.

Senator Kelly asked about the types of waste that would be generated from this facility and the

options for disposal. **Mr. Bennett** said it would be typical of any large power reactor plants in the U.S. The spent fuel waste is planned for on-site storage and would be part of the long-term solution that is decided upon for the U.S. **Mr. Gillespie** explained that there will be about 150 spent fuel rods. Every six years these are removed and put in a spent fuel pool. Once that is full the rods are put in a reprocessing plant if that is allowed. Currently the rods are put in dry cast storage. In response to another question from **Senator Kelly**, **Mr. Gillespie** said the plant is required to have the fuel pool. He said that plan is to reintroduce reprocessing and eliminate the need for dry casting. **Senator Kelly** asked about other low-level waste generated. **Mr. Gillespie** said that type of waste typically goes to Hanford in the West. He noted that this is the same place medical waste goes and that there is actually more medical waste produced than low-level nuclear waste. He said the U.S. has designated certain sites for low-level nuclear waste.

Mr. Michael Schilmoeller, Northwest Power and Conservation Council was introduced to give an update on energy happenings in the region. His complete PowerPoint presentation is available at the Legislative Services Office. It covers background and an overview of the council's development of their fifth power plan.

Mr. Schilmoeller went on to discuss factors that are influencing utilities view of the future. These factors include:

- World economic growth
- Decline in the value of the dollar
- Weak energy supply response
- 2005 hurricane damage
- Middle East conflict
- Climate change issues

His presentation includes charts showing increases in the prices for natural gas, crude oil and wind as compared to what was estimated at the end of 2004.

Factors at play in these cost increases include the weakening dollar, increased commodity and energy costs, demand for wind power, natural gas costs, climate change concerns, state renewable portfolio standards, federal tax benefits (PTC & accelerated depreciation).

Mr. Schilmoeller said one element of the fifth plan was to evaluate how much wind could be integrated into the system and it calls for 6,000 MW of name plate wind capacity. He said that there is no fundamental technical barrier to integrating 6,000 MW of wind power. Future wind plants will be equipped with output control capability. He noted that it can be fairly expensive; \$1.90 to \$120/MWh for 20% wind penetration. Control area cooperation and improved markets will lower costs and increase availability of integration services. **Mr. Schilmoeller** said that existing transmission can service near-term wind development but the new firm/non-firm transmission service and selective reinforcements will be needed for 6,000 MW. He stated that wind capacity value is probably lower than the NWRA forum provisional 15%.

In response to a question from **Senator Gannon** regarding the integration of 6,000 MW of wind into the system and transmission capacity, **Mr. Schilmoeller** said that there is currently 3,000 MW of space left on the grid and that there are constraints that need to be addressed in the transmission system regardless of whether it is wind or some other source of power.

Representative Eskridge asked what the 15% capacity value means. **Mr. Schilmoeller** said that means that 15% of the 6,000 MW is what can be relied on. He noted that some studies think that 15% is high. **Senator Gannon** asked whether 6,000 MW is nameplate. **Mr. Schilmoeller** said yes.

Mr. Schilmoeller went on to discuss coal. He explained that supercritical steam-electric technology is entering market more rapidly than expected and that gasification combined-cycle technology lags supercritical steam but it is advancing.

According to **Mr. Schilmoeller**, supercritical steam is advancing because it provides a lower cost of power, especially at high elevations and it is further along in the commercialization process. He said the technology is more like a conventional power plant as opposed to chemical plant technology. This technology is a much easier transition for utilities to make.

Gasification does allow for slightly greater efficiency, greater fuel flexibility and superior emission control. These plants also allow for the coproduction of synthetic fuels, commercial CO₂ separation technology and increasing the supply of petroleum coke.

In response to a question from **Senator Gannon**, **Mr. Schilmoeller** explained that supercritical steam is basically very high pressure steam. **Senator Gannon** clarified that would be similar to what the navy has been doing for many years by heating steam at 1,200 psi or higher. **Mr. Schilmoeller** said he believed that was correct.

Mr. Schilmoeller stated that more states' utilities are expressing an interest in nuclear power including Idaho. In planning for the region, he said the NWPCC is definitely interested in nuclear. He noted that the TVA has just recently approved completion of a nuclear unit and the NRC has received thirty notices of intent from companies thinking about starting an application process for nuclear power plants.

He said that if this is seen in the northwest, it would be after some of the spent fuel disposal issues have been addressed and it would probably be by one of the new evolutionary modular designs that are being developed. These are nuclear units that can basically be loaded on a pallet and installed in a power plant, avoiding the problems of constructing from parts at the site. This helps with quality control. These plants also have passive safety systems.

Mr. Schilmoeller noted the following legislation initiatives that are taking place in other states.

- Washington:
- Governor's executive order and task force

- 1990 CO₂ levels: by 2020; 75% by 2035; 50% by 2050
- 20% reduction in imported fuel cost by 2020
- HB1303 Transportation focus on reducing GHG
 - Revamps, studies, funds, and targets bio-fuels and other alternative fuels, and electrification of transportation
 - Requires public utilities to meet targets
- SB6001 Electricity focus on reducing GHG
 - Precludes utilities from taking an equity position in or 5+ year contracts for new base-load generation that emits more than 1100 lbs CO₂ per MWh
- Oregon:
 - SB 838 Renewable Portfolio Standard
 - Qualifying energy sources must meet percentages of utilities' energy requirements: 5% by 2011, 15% by 2015, 20% by 2020, 25% by 2025
 - Allows for energy efficiency measures above the 3% public purpose charge and extends the charge to 2025
 - Includes resources acquired back to 1995, recognizes renewable trading credits ("green tags")
- HB 3543 Global warming
 - Creates Oregon Global Warming Commission and Climate Change Research Institute
- SB 375 Increases appliance efficiency standards
 - HB 2211 & HB 2212 Increases business and residential tax credits for renewables
- Montana:
 - HB 25 Industry restructuring
 - Returns Northwestern Energy to vertically integrated utility
 - Removes prohibitions against owning generation for inclusion in rate base
 - Allows Northwest to file for approval with PSC in advance of construction
- HB 681 Extending RPS to competitive suppliers
 - Requires those competitive suppliers serving small customers (less than 5,000 kW) to acquire renewable resources under the renewable portfolio standards passed by the 2005 legislature

Mr. Schilmoeller touched on the following IRP conclusions.

- Utility plans for wind, renewables, and energy efficiency are catching up with the 5th Power Plan
- Reliance on coal additions has diminished significantly since last year's summary
- Because IRPs do not specify whether a utility's gas-fired generation additions are from

- newly built or existing units, it is unclear whether the regional situation has changed
- Several of the larger utilities are adding generation to meet a shortfall created by contracts expiring in the 2010-2012 time frame. This capacity may merely be changing ownership, from a regional perspective

Senator Gannon asked whether conservation is going to help ensure that the region does not reach the high level of energy need that is expected due to growth. **Mr. Schilmoeller** said yes and that it includes improvements in building codes so new construction is more efficient.

Representative Eskridge asked for more information on the Resource Adequacy Assessment which states that 4,046 is the resource load balance by 2012. **Mr. Schilmoeller** explained that according to this assessment the balance would be in surplus by that much in the year 2012. He noted that this evaluated energy generation at maximum availability meaning they assumed everything would be running at full capacity regardless of the cost.

Representative Eskridge asked why is there such an emphasis on wind power if it only has a 15% load factor. **Mr. Schilmoeller** said because it is clean and relatively inexpensive.

Representative Eskridge asked how it is figured that wind is cheaper. **Mr. Schilmoeller** said the cost takes into account carbon taxes for coal and risk. Investing in conservation is less risky.

Representative Anderson asked how utility members purchasing contracts impact anyone else; in other words, if a contract is made with coal for a certain price and someone builds a wind plant, how does that affect the price of coal. **Mr. Schilmoeller** said it would have an adverse effect if the price of energy goes down. **Representative Eskridge** clarified that if a utility has a contract with a coal producer, no matter what energy prices do, the contract price must be paid.

Representative Anderson said he has heard that the NWPC is worried that the region is going to overbuild and have too much capacity. With the contracts that exist, he does not see how this could happen. **Mr. Schilmoeller** said it may not happen with contracting alone, but if new generation puts more energy into the market, prices will go down. **Representative Anderson** noted that he is not seeing any decline in growth or demand currently, and sees that transmission would be the only issue in getting rid of any excess power.

Representative Eskridge voiced concern with the IRPs and asked whether utilities are relying on the same power sources to meet those IRPs. He asked how to make sure available power is not being double counted. **Mr. Schilmoeller** explained that utilities do not actually make decisions until the power is actually needed. He said they give themselves a lead time of about three years to find that power source but there is no way to actually tell until those decisions are made.

Mr. Roy Eiguren spoke in response to the question of whether the federal government can preempt local authority in the siting of energy plants. He said that the federal government has always deferred to state governments in water law issues so he concluded that states do have

ultimate authority. **Mr. Eiguren** said he would assume this to be the same for the Nuclear Regulatory Commission but it has never been adjudicated. **Representative Eskridge** asked if a plant were to purchase water rights, would that open the door to federal preemption of local authority. **Mr. Eiguren** said that the Atomic Energy Act has preempted state and local authority in siting of these facilities in all areas except water rights. **Senator Kelly** said with regard to air quality or clean water permits, the state should still be able to make sure certain requirements are met.

Mr. John Williams, Bonneville Power Administration (BPA) and **Mr. Paul Kjellander**, Idaho Public Utilities Commission were introduced to discuss the BPA Residential Exchange Program.

Mr. John Williams, Bonneville Power Association (BPA) gave the committee an update of a decision in the Ninth Circuit Court that eliminated residential exchange program credits to investor owned utilities.

He explained that in the late 1970s there was evidence the federal power base could not serve all loads to the Northwest. BPA provided power to the investor owned utilities at that time. This resulted in the 1980 Power Act. In that act there was a provision called the Residential Exchange Program where BPA was to utilize its ratemaking to provide benefits to investor owned utilities, residential and small farm load customers.

In doing this, BPA would look at its out of system costs and look at the Investor Owned Utilities out of system costs and the difference would be a monetary benefit passed on to residential and small farm customers. This program has been in effect since that time and there is a methodology for delivering those benefits to customers.

Mr. Williams said that in late 1997-98, BPA decided to implement a subscription process that would deliver benefits particularly in the Residential Exchange Program to investor owned utilities. In order to do this, BPA needed to come up with a different mechanism of delivery of those benefits. Unfortunately, due to the energy crisis, Public Power noticed a huge rate increase in their system and not such a huge rate increase in the investor owned utilities rates. As a result of that, public power filed a lawsuit saying that the BPA erred in providing these benefits to the investor owned utilities in 2002-03. BPA tried to reach a settlement to rescind that lawsuit that was unsuccessful.

On May 3, 2007 a court ruling from the Ninth Circuit ruled that BPA went over its statutory authority. Even though BPA feels that ruling is in error, they have suspended residential exchange payments to the investor owned utilities that average about \$28 million per month. BPA is trying to get all the public power customers, investor owned utilities and others together to figure out a way to proceed with a legal, feasible, residential exchange benefit program that will meet all needs.

Mr. Kjellander said this is very bad news for irrigators. He added that the timing of the court's

decision in May is unfortunate because farmers have already set budgets and planted crops. He stated that Public Power realizes that the ability to get the court decision overturned is next to nothing since it was made with a unanimous decision. In his opinion a settlement is probably the best way to get benefits flowing. Discussions with some public power groups have been reasonable but others have not. **Mr. Kjellander** does not think benefits will ever get back to what customers have seen at the current amount of \$330 million annually. In his opinion, \$225 million with some kind of escalator would be good.

He said there is a chance that a settlement could be forthcoming within the next few weeks. Many people believe that if a settlement is forthcoming, there needs to be some ratification from Congress, and **Mr. Kjellander** agrees with that. Ratification will eliminate the possibility of another lawsuit that could create similar problems.

Mr. Kjellander said that BPA has the ultimate authority. He said any settlement reached could be run through an average system cost formula by BPA to justify it as could today's benefit. BPA is not willing to do that with the current benefit and, according to **Mr. Kjellander**, there is no pressure congressionally or from the Department of Energy to change that.

Mr. Kjellander reiterated that there is a chance of a settlement within the next four weeks. He noted that it will not be unanimous and will require additional congressional support to get it ratified. He said that if there is a settlement that comes forward that does not address the dealer accounts or the allocation issues, it could be expected that the Idaho Commission would join with the Oregon Commission in arguing that it is not settled. Without the allocation issue being resolved, there is still the possibility that no benefits would flow back into Idaho's investor owned utility customers. He noted that 9 of 10 customers in Idaho are served by investor owned utilities.

Representative Anderson commented that he wished there was a better public power representation in attendance. He explained that public power members make treasury payments. He stated that he does not agree with all of **Mr. Kjellander's** analysis of the situation. **Mr. Kjellander** said, in his opinion, there is a way to get benefits reinstated without disenfranchising public power. One argument, according to **Mr. Kjellander**, that has been overlooked is the fact that it is everyone in the Columbia River Basin that has sacrificed in order for BPA to be able to provide power to anyone. Putting that into context, he said those benefits need to be more evenly distributed regardless of whether they are equivalent to the benefits being received today. The current discussion is for a very insignificant benefit to be flowing back and does not take into account what will be seen going forward. In terms of who pays for what, there could be a point of debate with no solution. **Mr. Kjellander** said there needs to be agreement that a broad-based distribution of benefits will put this to rest and establish a new benchmark starting point going forward so there is not talk of opening up the federal act and destroying certain parts of it. He agreed that BPA provides benefits to the region even if there is no benefit coming back to the investor owned utilities. He clarified that BPA was set up to provide power for Idaho and the rural power groups.

Representative Eskridge commented that the regional power act addressed all of these issues and developed a methodology for the private utilities to share some of the benefits. He said the current issue is how that exchange provision was funded. This was funded through the mechanism of the direct service industry (DSI) having the obligation to pay the exchange benefits. He said unfortunately the DSIs are no longer a player in the region so the funding mechanism has been lost and public power groups are now being asked to provide the funding. He said it is understandable why the publics went to court and why the court's opinion came down in their favor. The issue is what is best for the region, public power, investor owned and for BPA to stay in existence. **Representative Anderson** said it is important that public power has a voice in this. He said when the DSIs had a settlement, they sold their power and closed their doors and made more money. He said there is not one public in Idaho that has not signed a letter of intent for settlement. **Mr. Kjellander** noted that the publics in Idaho have not been a problem and have been very cooperative. Most discussions are working toward reaching a settlement.

The next presentation was from **Mr. Pete O'Neil** from the Treasure Valley Air Quality Commission. His complete PowerPoint presentation is available at the Legislative Services Office.

Mr. O'Neil explained that on March 29, 2005, Governor Dirk Kempthorne signed the Regional Air Quality Council Act that established the Treasure Valley Air Quality Council. He gave the following background information about the council.

- **Mission:** "Protect, preserve, and where necessary, improve the quality of the air in the Treasure Valley while accommodating private, public, and commercial interests."
 - **Responsibility:** Develop and implement a Treasure Valley Air Quality Plan. Development phase completed February 2007 when Plan was presented to lawmakers.
 - **14-member Council:** Met regularly in open session from January 2006 until the completion of the Plan.
 - **Citizen's Committee:** Met regularly last summer to review recommendations.
- The council is made up of Ada and Canyon County commissioners, local mayors, environmental interests, manufacturing interests, commercial interests, agricultural interests, food processing and two at-large members.

Mr. O'Neil explained that the bad air quality in the Treasure Valley is caused by geography and weather and by people and emissions. In the winter calm winds and the inversion result in poor air quality. The sun provides less warmth to the earth and the warmer air aloft acts like a lid and holds the cold air near the ground. Pollution from wood fires and cars is trapped by the inversion. He noted that mountains can increase the intensity of an inversion.

Mr. O'Neil's presentation includes graphs showing various sources of Nitrogen Oxide and Volatile Organic Compounds (VOC). Fifty percent of the Nitrogen Oxide comes from vehicle emissions.

He also explained that there has been a significant reduction in the fine particulate matter (PM2.5) standard that could affect the Treasure Valley. This has been lowered from 65 micrograms per cubic meter to 35. He said the valley probably has a year or two grace period before we will run into that standard. **Mr. O'Neil** added that the non-attainment values standard for the Treasure Valley ozone could also be lowered. The current standard is 85 and our average for the last three years has been 77. EPA is recommending lowering the standard to either measure it differently or to drop it to 75 or 70. It is thought that 75 will be the number chosen. Any of those options will present an ozone problem for the Treasure Valley. **Mr. O'Neil** said these measurements are being reduced due to the fact that it is a health issue, not to punish the area.

Since we cannot do much about our geography or weather, so, according to **Mr. O'Neil**, we need to focus on the emissions including mobile sources (autos and trucks), commercial and industrial activities, area type sources such as construction, agriculture, and fuel vapors as well as personal/home activities: wood burning, lawn mowing, and other small engine use.

From a health standpoint there are respiratory related issues and there is a lot of data that shows why EPA adopted these standards in the Clean Air Act.

Mr. O'Neil explained the following consequences for not meeting these air quality standards from an economic standpoint. He said these consequences would be a function of approaching or reaching non-attainment status. The consequences include:

- Economic
 - Additional legal requirements for state and local agencies as well as businesses
 - New and additional business permitting limits.
 - Additional costly planning and analysis
 - Mandated employer restrictions and requirements
- Damage to crops, trees, and other vegetation
 - Reduced crop yields, even potatoes

Recommendations for improving air quality by the Council include:

- Air Quality Awareness - Good Citizenship
- Air Quality Awareness - Employer Partnerships
- Establish Vehicle Emissions Testing in Ada and Canyon Counties

Mr. O'Neil explained that this program would utilize best new technology and would include:

- No testing for 4-year-old or newer cars
- Bi-annual on-board diagnostic (OBD) device testing on cars (96 model year to 5-year-old cars)
- Remote sensing technology for gross polluters
- Tailpipe testing phased out
- Cost estimated at under \$10 per licensed vehicle as part of registration fee
- Create structure to administer the program

Mr. O’Neil noted that another recommendation was to establish a legislative task force to assist the council with the analysis and development of the legislation and ordinances necessary to establish the vehicle emissions program. Instead of a task force, this has been assigned to this Energy, Environment and Technology Interim Committee.

Another recommendation is to require stage one vapor recovery at gas stations. **Mr. O’Neil** said this is the single largest uncontrolled source of VOCs in the Treasure Valley and is the most cost-effective recommendation made by the Council.

Other recommendations include working with local governments to ensure air quality ordinances are up-to-date and consistent, developing a clearinghouse for effective and uniform information exchange, and enforcing the open burning ordinances in your city/county.

The council also recommends looking at land use and transportation by leveraging with other programs. These programs include Blueprint for Good Growth, Communities In Motion, Clean Cities Coalition and by supporting alternative means of local funding for regional transportation.

Conversely, he said transportation plans must be consistent with the plans and decisions being made at the local level. Developments consistent with transportation plans could then maximize the benefit from publicly funded improvements to the transportation system.

According to **Mr. O’Neil**, to help further this effort, local comprehensive plans would need to be updated to reflect regional transportation goals. Consistent planning and land development ordinances are then needed as implementation tools.

Mr. O’Neil’s presentation included a graph that projected an increase in vehicle miles driven from 11 million today to 22 million in the year 2030. He explained that the trend has been since there are more people and more cars, more miles will be driven. He said the recommendation of COMPASS who did the project known as “Community Choices” would drop that amount by 10%. In today’s standards of pollutants, **Mr. O’Neil** explained that the 10% reduction would equal 2 million vehicle trips per day and would reduce the pollutants put in the air by 40 tons or 14,000 tons per year. Using a \$10,000 per ton investment amount, that would equal a \$140 million investment to get that kind of reduction. He commented that to effectively implement a regional growth strategy such as the “Community Choices” scenario of *Communities in Motion*, local land-use plans and decisions need to be consistent.

Mr. O’Neil closed by saying the Treasure Valley does have the ingredients for an air quality problem and already has an air quality challenge. The Treasure Valley air quality issue is an air shed issue, not a political subdivision issue. It does not stop at county or city boundaries. It is complex and there is no magic recipe that will fix it. He said it will take a combination of solutions to improve it. In the view of the council, the population and its behavior is far and away the biggest driver of our air quality issues with vehicle miles driven being the single largest common denominator. He said everyone is part of the problem and the council is proposing we

all become part of the solution. He added that there is nothing out there in our air quality issues that cannot be improved upon substantially but we need to make it happen.

In response to a question from **Senator Fulcher** regarding the projected increase in vehicle miles driven, **Mr. O'Neil** said this was just multiplying people by miles. **Mr. Herr** from the Air Quality Board said this was a trend and will not necessarily become reality. **Mr. O'Neil** added that if more gridlock develops the situation could also be worse.

Senator Gannon commented that Minnesota mandated an E-10 standard that they claim cleaned up the Minneapolis - St Paul air quality issue. He asked whether the study looked at E10. **Mr. O'Neil** said they did look at E85 and biodiesel but decided there are other groups looking in that direction. The Council does think there are things that should be done in these areas.

Senator Kelly observed that in working in DEQ and living in Boise, significant growth has brought many benefits but air quality impacts are not a good benefit and agreed they have severe consequences in economic terms as well as with health issues. She encouraged the committee's support of the council.

Mr. Charles Johnson, a Canyon County resident spoke to the committee in opposition to **Mr. O'Neil's** presentation and against DEQ's latest air quality control plans for the Treasure Valley.

Mr. Johnson advocates the elimination of the control measure I/M from the State of Idaho. He stated that this would stop the five year harassment of Canyon County and save the citizens of Ada County both time and \$4 million for vehicle testing that has not been needed for years.

Mr. Johnson gave some background information on carbon monoxide (CO) and vehicle emission controls in Ada County that were set by DEQ beginning in 1984 and the fact that DEQ has been trying to require emission testing in Canyon County for five years. According to **Mr. Johnson**, DEQ has admitted that controls for CO have not been needed since 1988.

Mr. Johnson went on to state that the Treasure Valley Air Quality Council was created to force I/M on Canyon County. He said this council was created as an extension of DEQ and that the members were taught DEQ's version of Valley Air Quality with obvious results.

Copies of **Mr. Johnson's** statements and other handouts in support of his arguments are available in the Legislative Services Office.

It was announced that the next meeting of this committee will be held on October 25, 2007 during the Association of Idaho Cities conference at the Double Tree Inn Riverside, Boise. The meeting was adjourned at 4:05 p.m.