

**ENERGY, ENVIRONMENT AND TECHNOLOGY
INTERIM COMMITTEE
SEPTEMBER 27-29, 2010
CENTER FOR ADVANCED ENERGY STUDIES
995 UNIVERSITY DRIVE
IDAHO FALLS, IDAHO
MINUTES**

Monday September 27

The meeting was called to order at 2:15 p.m. by Cochairman Representative Eskridge. Other members present were Cochairman Senator McKenzie, Senator Brackett, Senator Werk, Senator Kelly, Representative Bell, Representative Stephenson, Representative Elaine Smith and Representative Jaquet. The Legislative Services Office staff member present was Mike Nugent.

Other persons present for all or a portion of the meeting included Jim Dalton, Nyle Fullmer, and Glen Pond, Rocky Mountain Power; Lynn Tominaga, Idaho Irrigation Pumpers; Brad Bugger, U.S. Department of Energy; Beatrice Brailsford, Snake River Alliance; Courtney Washburn and Ben Otto, Idaho Conservation League; Russell Westerberg, Rocky Mountain Power; Rich Rayhill and Steve Voorhees, Ridgeline Energy; Gene Fadness, Idaho Public Utilities Commission; Neil Colwell, Avista Corporation; Brian Whitlock, Department of Energy; Dr. Dave Hill, Idaho National Laboratory and Dr. Harold Blackman, Center for Advanced Energy Studies.

The first presentation was by **Dr. Dave Hill** and was entitled “INL the First Five Years.” His complete presentation is available at the Legislative Services Office. **Dr. Hill** said in 2004, Battelle, operating through its wholly-owned limited liability company Battelle Energy Alliance proposed to create and lead the Idaho National Laboratory and transform it into the preeminent nuclear energy and multi-program national laboratory contemplated by the U.S. Department of Energy. The Battelle Energy Alliance team proposed to first transition and consolidate the Idaho National Engineering and Environmental Laboratory (INEEL) and Argonne National Laboratory—West (ANL-W) into the INL and then transform INL into the world-class laboratory that DOE desired. The start of the contract commenced on February 2, 2005.

Dr. Hill said the recent resurgence of nuclear energy has led the need for a national laboratory dedicated to nuclear energy based on anticipated new builds and growing research needs. He said the Department of Energy selected Idaho for this new lab based on the concentration of capabilities and expertise at the former Argonne West and INEEL sites. He said DOE established separate contracts for the lab and legacy cleanup awarding the lab contract to the Battelle Energy Alliance Team.

Dr. Hill said the Department of Energy’s vision for the Idaho National Laboratory is a preeminent nuclear energy research-development-demonstration and deployment laboratory within a decade; a major center for national security technology research-development-

demonstration and deployment; a multi-program lab with world-class capabilities and academic, international, government and industry collaborations to produce the best results for the nation.

Dr. Hill said a three pronged strategy underpins the vision. The first prong is mission accomplishment which includes building a portfolio of relevant, impactful nuclear science and technology programs while complementing this portfolio with synergistic national homeland security, energy and environmental programs and establishing a robust science base that provides the foundation of mission-enabling discoveries. The second prong is establishing partnerships of strategic importance. This includes extensive collaborations with the world's premier academic, government and industrial nuclear organizations and having a central role in revitalizing nuclear and engineering education and academic research in the United States. The third prong is providing research capabilities. This includes acquiring forefront facilities, support infrastructure and management systems essential for world-class research and providing core capabilities as user facilities.

Dr. Hill detailed the nuclear energy and multi-program mission accomplishment. He said substantial impactful nuclear energy research development and deployment with more than \$250 million in nuclear energy research development and deployment which is substantially above targets has occurred. He said that the national and homeland security portion has expended \$200 million, the energy and environment portion has expended \$50 million. They have achieved results in nuclear energy research development and deployment through INL leadership, and are leading the integration of federally sponsored nuclear energy research. He noted that they have had success in attracting the best and brightest to Idaho.

Dr. Hill said INL is responsible for a total of 24,000 jobs both directly and indirectly in Idaho. He said the total economic impact on the state of Idaho of \$3.5 billion and is responsible for increasing personal income in Idaho by \$2 billion. He said the INL is an economic stabilizer and major contributor to civic and charitable causes as they directly and indirectly paid more than \$135 million in taxes, they have purchased more than \$296 million in goods and services from Idaho companies and employees have donated more than 240,000 hours of their time to community groups and associations.

Dr. Hill next discussed the Center for Advanced Energy Studies which includes engineering students at the University of Idaho, Idaho State University and Boise State University and establishing world leading research capabilities for all three campuses in the Idaho Falls area. **Dr. Hill** said they are reinvigorating federal support for nuclear science and engineering education through ATR National Scientific User Facility, Nuclear Energy University Program, Institute for Nuclear Energy, Science and Technology and the Center for Advanced Energy Studies. He said some relevant industry and research partnerships the INL has entered into include the Electric Power Research Institute, the LWRS at \$25 million per year, the next generation nuclear plants and lab-to-lab agreements with Japan.

Senator Kelly asked who is bonding the new buildings that are going to be built. **Dr. Hill** said they will not be federal buildings and the private developer will be building the buildings and is obtaining financing. He said there are some electrical and sewage capability issues that need to be resolved before construction is complete.

Dr. Hill discussed how the INL is establishing world-leading research capabilities. They are consolidated around three main campuses: the materials and fuels complex, the advanced test reactor complex and the research and education campus which is where the Center for Advanced Energy Studies is housed. He said they are trying to become the national scientific user facility or the model for how to promote the best research in the best place and make the underlying investments that support that model. They are also investing in advanced instruments and tools that support a science based approach to research and development. **Dr. Hill** said they are building on existing capabilities with new facilities and infrastructure and they have sustained strong safety and environmental performance. **Dr. Hill** said in addition to the federal investment, the Battelle Energy Alliance has invested over \$100 million through efficiency gains and \$20 million through fee reinvestment.

Dr. Hill said that INL chairs the Idaho Strategic Energy Alliance and provides technical support to several task forces of the alliance. He said the INL has provided the Idaho Legislature with an annual report on state energy strategy and hosted a workshop on industrial energy efficiency. He added that the INL is working on geothermal energy research projects at Malta with U.S. Geothermal and at the Mountain Home Air Force Base. **Dr. Hill** said the INL has introduced waste-grease biodiesel technology in a start-up plant located in American Falls, which gets its feedstock from a waste water treatment plant and the INL will participate with Idaho Falls Power in assessing performance and role of utility-scale batteries as part of an IFP smart grid grant from the Department of Energy.

Dr. Hill went on to discuss INL's role in the region. He said they are unlocking vast energy resources within the western energy corridor that will require integration and optimization of the diverse sets of resources and delivery infrastructure. Here the INL is working with energy projects in Alberta, Saskatchewan, Wyoming and Utah. He said the INL is developing a report for regional governors and premiers on the western energy corridor with a summit expected in January 2011. **Dr. Hill** said the INL with its regional partners are creating a regional hybrid energy systems testing program with the first partnership formed with Utah.

Dr. Hill concluded by saying the foundation for the INL as the National Nuclear Lab is in place. The INL has an enduring mission and vision that does not hinge on specific programs or projects. He said the laboratory must be flexible as U.S. energy and national security policies evolve. He said that the challenge for the next five years will be execution.

Representative Eskridge whether they were working with the Naval Base at Bayview. **Dr. Hill** replied that they were not but they do some work with naval nuclear reactors.

Senator McKenzie asked about the goal of nuclear energy in this country. **Dr. Hill** said the question with some reactors that are being operated is how long should they be operated and what to do with the waste from them. **Dr. Hill** said the next generation of reactors will be high temperature gas reactors that can do chemical processes. He said they do work on reactors when there is a governmental interest.

Representative Eskridge asked about the work the INL is doing with the provinces of Alberta and Saskatchewan. **Dr. Hill** said both provinces are sitting on huge deposits of hydrocarbons. They are exploring whether nuclear energy, rather than hydrocarbons, can be used to harvest the hydrocarbons for both cost-effectiveness and cutting down on greenhouse gases.

Dr. Harold Blackman was the next presenter. **Dr. Blackman** is the Director of the Center for Advanced Energy Studies (CAES) which is a public/private partnership of Boise State University, Idaho State University, the University of Idaho and the INL for energy research, education and policy studies. **Dr. Blackman** said one of the missions of CAES is to expand researcher-to-researcher collaborations, improve access to research facilities and equipment and enhance student education opportunities. Another mission is to foster technology-based economic development by facilitating government, university and industry collaboration.

Dr. Blackman said that one of the strategies for the promotion of energy-focused research at the Center is to form multi-institutional research teams that compete for government and private industry research dollars. They are also directing nine laboratory directed research and development projects funded at three million dollars over three years including 40 researchers and 20 students allying with Idaho centers and institutions. Another mission of the Center is to enhance educational programs by expanding faculty pools through joint appointment and affiliate faculty programs, enrich curriculum with shared courses, infrastructure and hands-on research and engage students in the INL internship program and research assistantships. They are also promising professional/educational exchanges by promoting researcher-to-researcher collaborations and hosting visiting scientists, staff, faculty and students. Finally, the Center is fostering industrial partnerships/consortia by linking researchers, companies and capital and building a “critical mass.”

Dr. Blackman said the CAES in FY09 had the following research initiatives: nuclear science and engineering, carbon management, bio-energy, the Energy Policy Institute, advanced materials and modeling and simulation. **Dr. Blackman** said CAES stimulates economic development through research and education by making investments in cutting-edge research and development and investing in unique equipment such as spark plasma sintering system, atom probe, high temperature furnaces and glove boxes for nuclear fuel cycle research and advanced material processing and the computer automated virtual environment (CAVE). He said the results of this is building university research programs that fuel the state economy, increasing the number of engineers, scientists and technicians and creating intellectual property to stimulate new economic development.

Dr. Blackman discussed the CAES imaging suite and the equipment contained in it as follows:

- The focused ion beam focuses beam of ions, sections, pieces of material at micrometer and nanometer scale.
- The Nano indenter atomic force microscope measures mechanical properties on very small scale samples.

- The transition electron microscope is a 300KV electron beam that images at the micrometer and nanometer scales.
- The automated hardness tester measures and evaluates the micro-hardness of materials.
- The scan electron microscope images materials with a high-energy beam of electrons and the local electrode atom probe creates atom-by-atom maps and images 3D construction of up to hundreds of millions of atoms.

Dr. Blackman said the suite of imaging tools allows a better understanding of how materials function and why they fail with regard to atomic structures.

Dr. Blackman next discussed the Center For Advanced Modeling And Simulation Program and said it requires coordinated initiatives in developing and supporting interdisciplinary research, enabling computation and data analysis expertise and underlying cyberinfrastructure. **Dr. Blackman** said cyberinfrastructure refers to the computer, storage, network and visualization resources (both local and national) to which researchers have access; to the technical and professional support for these services and to the connection of these services to desktop machines or experimental instruments in an end-to-end manner. **Dr. Blackman** said computation and data analysis expertise refers to the expertise of the scientific and engineering staff across the INL site who develop or use computation and data analysis as part of their research and the provision of training that will educate the INL scientific and engineering staff to work on research projects that involve computation and data analysis sciences. **Dr. Blackman** explained that interdisciplinary research refers to the INL's policies on joint appointment between units and associated promotion, policies and practices. He said that support for this interdisciplinary research could foster software or data development in a manner similar to publications and citations and thus properly appreciate and incentivize computation and data analysis science.

Dr. Blackman went on to discuss how universities can gain access to the HPC Enclave Network. There is a firewall up but they have constructed a solution that allows Idaho universities use of this resource for various computations and calculations.

Dr. Blackman also discussed the Flex CAVE with 3D projection on three walls and floor, ultrasonic head/wand tracking, multiple computer sources and integration with human factors systems and the Mini-CAVE with large screen 3D TV, optical head/wand tracking and advanced computer graphic hardware.

Dr. Blackman said CAES continues to develop meaningful research and development and educational collaboration among the state universities, the INL and private industry. He said CAES conducts research that makes a difference in energy, creates the workforce for the future and leads to technology-based economic development. He said CAES affiliates have won almost \$15 million in FY09 and \$8.2 million in FY10 in research development grants and contracts. He said there are over 400 nuclear engineering, science and materials students participating and the industry partnership include Premier, Blackhawk, Shell and AREVA.

In response to a question from **Representative Jaquet**, **Dr. Blackman** said that Blackhawk manufactured wind turbines. **Representative Jaquet** asked what they were doing with Shell. **Dr. Blackman** said Shell was working on methods of carbon sequestration.

Senator Brackett asked about glove box nuclear technologies. **Dr. Blackman** said hospitals work with these all the time and the materials are also primarily used as fuel sources in reactors. He said it was amazing to see how the material works and breaks down. **Dr. Blackman** said the glove boxes keep toxic nuclear material away from workers.

Senator Werk asked about the sustainability of funding from the State. **Dr. Blackman** said that CAES has received \$1.6 million over three years that supports faculty and students. He said they need to double the amount of faculty and that would be about \$3 million per year. **Dr. Blackman** said the Lab leases 70% of the CAES building and that CAES is highly subsidized by the INL. **Dr. Blackman** said they are hiring individuals jointly with the three state universities.

Senator Werk asked how the building was performing energy wise. **Dr. Blackman** said the design provided openness and light which is good. A couple of drawbacks are noise and there can be changes in temperature of 5 to 6 degrees relative quickly. He said the building's energy usage is as low as was projected.

Representative Eskridge asked about the firewall and how universities access the computer. **Dr. Blackman** said they are not connected to the network but to copies of software that are outside the network that can perform the same basic functions the computer can.

Representative Eskridge asked about Shell's interest in carbon sequestration. **Dr. Blackman** said their interest was whether it will work, what happens to the ground when it is injected and what reactions will occur, both positive and negative. **Dr. Blackman** said that the research for Shell has just begun.

Representative Jaquet asked if there were any legislative actions CAES needed other than appropriation. **Dr. Blackman** said the appropriation was their biggest need.

Representative Jaquet asked about the geothermal research. **Dr. Blackman** said the direction they are heading is in "hidden geothermal." They have a good understanding of where the resource is but they are working on production technologies that will be more cost-effective than is currently the case.

Senator Werk asked whether technology transfer could be moved to the private sector to develop jobs. **Dr. Blackman** said they might be looking at multiple centers like this that are different. He said getting industry involved will help them create research and development that industry wants.

Representative Eskridge asked about the center's involvement in woody biomass. **Dr. Blackman** said the University of Idaho is way ahead of anything that CAES has done in that area.

In response to another question from **Representative Eskridge** regarding meeting the nation's energy needs over time, **Dr. Blackman** said, in his opinion unless we as a nation start to construct base load power plants, we will be short of electric energy. **Dr. Blackman** said right now the easy answer is gas fired turbines and that every technology has its issues. **Representative Eskridge** asked about coal and whether it was totally out of the picture. **Dr. Blackman** said they are working on a new initiative to see if carbon can be an asset when it is bonded with hydrogen. That could make coal power plants viable again.

The Committee toured the CAVES center and received a demonstration of the technology. One practical application would be a 3D application that would project what a power line would look like on a virtual map if the power line is sited in an area. This would be helpful to both utilities, planning and zoning commissions and the public. The committee recessed at 4:55 p.m.

Tuesday September 29

The meeting was called to order at 9:15 p.m. by Cochairman Senator McKenzie. Other members present were Cochairman Representative Eskridge, Senator Brackett, Senator Werk, Senator Kelly, Representative Bell, Representative Stephenson, Representative Elaine Smith and Representative Jaquet. Mike Nugent was the Legislative Services Office staff member present.

Other persons present were Dan John and Greg Cade, State Tax Commission; Neil Colwell Avista Corp; Stan Boyd, Dar Olberding and Rich Rayhill, Ridgeline Energy; Trent Clark and Mike Veile Monsanto Corp; Gene Fadness Public Utilities Commission; Liz Woodruff, Snake River Alliance, Russ Westerberg and Rich Walje, Rocky Mountain Power; Jim Dalton and Brian Whitlock, INL; Lynn Tominaga, Idaho Irrigation Pumpers; Courtney Washburn and Ben Otto, Idaho Conservation League; Ron Williams, Williams Bradbury PC; John J. Williams, Bonneville Power Administration; Peter Richardson, Exergy; Bob Brammer and Eric Wilson, Department of Lands; Rich Hahn and Mark Stokes, Idaho Power; Peter Brockett, Idahoans for Responsible Wind Energy; former state Senator Stan Hawkins and John Watts, Shell Wind and Veritas Advisors.

Dan John of the State Tax Commission was the first presenter and discussed Section 63-3622QQ, Idaho Code, which provides for a sales tax rebate for equipment used in the alternative generation of electricity. This statute has a July 1, 2011, sunset date.

Mr. John stated that, to date, \$4.11 million dollars have been claimed over eleven projects and that the rebate is easy for the Tax Commission to administer.

- In 2006, two rebates were paid for a biomass project and a wind project.
- In 2007, one rebate was paid for wind.
- In 2008, one rebate was paid for a low head hydro project.
- In 2009, three rebates were paid for geothermal, hydro and a solar project.
- In 2010, there have been four requests with two biomass, one hydro and one wind project.

Senator Werk asked for further explanation as to how a project would qualify. **Mr. John** said that to qualify, a project would have to meet the statutory definition, would have to be built and producing energy and the developer would need a certification from either a utility or the Public Utilities Commission that it was operational.

Representative Jaquet said she was told by the developer of the wind project at Bliss that the current process was cumbersome. **Mr. John** said he was not familiar with the circumstances of that project. He said that this is simpler than a sales tax exemption because it does not put the retailer in the decision-making process of who is eligible and who is not eligible for the exemption, the State Tax Commission makes the call.

Representative Jaquet questioned the 25 KW minimum to qualify and said, in her opinion, homeowners ought to be able to qualify. **Senator Kelly** asked whether it would be hard to implement the rebate if the name plate rating was lower than 25 KW. **Mr. John** responded that if a large number of applications for the rebate showed up, it might be an issue.

Representative Eskridge said the purpose of the rebate was to incentivize renewable and asked whether it was still necessary.

Peter Richardson of Exergy said the administration of the rebate has been efficient and his company is happy with that. He said it has contributed to his company building renewable energy projects that might not have occurred if the rebate were not there.

Mr. Ron Williams of Williams Bradbury PC, commented that his clients would like the opportunity to present empirical evidence about how the rebate was working and its impacts. He said the entire renewable energy community would like to gather the empirical data.

John Watts representing Shell Wind and Veritas Advisors said his company finds the rebate necessary.

Rich Rayhill of Ridgeline Energy said his company has several wind projects and that Idaho is at a disadvantage compared to some other states because of the quality of wind here and the fact that the state charges a sales tax. Montana and Oregon do not have a sales tax and the rebate puts Idaho on a more level playing field with them when it comes to siting wind projects.

In response to a question from **Senator Werk** regarding how the utilities liked the rebate, **Rich Hahn** of Idaho Power said it seems to work. He said the 25 KW threshold was probably put in the law to have net metering projects not qualify for the benefit. He said 25 KW and over would generally preclude the “hobby generator” from qualifying for the rebate.

Representative Jaquet asked whether Avista had a net metering limit of 100 KW and under. **Gene Fadness** of the Public Utilities Commission said the commission did issue an order for Avista to allow net metering up to the higher amount.

Senator Kelly said she was concerned about the 25 KW threshold and said that homeowners ought to be able to take advantage of the tax incentive if they install the necessary equipment.

Representative Stevenson commented that at the time of passage of this statute, the legislature was trying to encourage PURPA type projects and not “hobby” generators.

Senator McKenzie asked whether there were any projects in the pipeline. Mr. John said the Tax Commission has no way of knowing for sure but that there are rumors of bigger projects.

Senator McKenzie said he likes the idea in the current statute of not having the retailer make the tax exempt/non tax exempt call.

John Watts commented that, in his opinion, the industry needed to meet with the committee again so that necessary data can be compiled. **Representative Eskridge** agreed and said the Committee needed that information before deciding whether or not to support the extension.

Stan Boyd of Ridgeline Energy said his company has installed \$74 million of machinery in the last six years.

Representative Bell said that committee should make a decision now regarding the sunset. **Representative Eskridge** said he did not feel comfortable one way or the other without the background data. **Representative Jaquet** said she would like to see the additional data and that maybe the committee could endorse the concept of extending the sunset contingent on the data showing the need.

Senator McKenzie said, as a member of the Senate and Local Government and Taxation Committee, that there will be plethora of ideas competing for funding and that absent compelling data, the sunset of the rebate will probably not be extended.

Senator Kelly said the statute is consistent with the State Energy Plan. She suggested a motion extending the sunset contingent on the information provided by the industry and economic reality.

Representative Eskridge said he does not want to ruin the efficacy of sunset clauses and stated that the committee needs to have information to show the entire Legislature why the rebate is needed.

Representative Jaquet said the margins on these projects are not great. In her opinion, since Montana and Oregon do not have a sales tax, this rebate is necessary so that Idaho can grow green energy jobs.

Former Senator Stan Hawkins said he is concerned about what has taken place with wind development particularly in Bonneville County. He said homeowners get nothing from the taxation on wind projects and big corporations like BP and Shell now own wind projects and get

a rebate. He said that there will be 400 wind turbines in Bonneville County and asked whether Idaho is getting the benefit or California?

He said Rocky Mountain Power has a rate increase before the Public Utilities Commission and houses located near wind projects are seeing their market value drop. **Mr. Hawkins** said because of the tax incentives there is a land rush for wind projects.

Representative Eskridge asked whether sales to California are part of Idaho rates. **Neil Colwell** said if energy is sold to an out of state entity, the utility will have to show that as revenue and it should show up as a rate reduction to the utility's customers. He said if the energy is produced by non-regulated merchant plants, there should be no effect on rates of public utilities.

Representative Jaquet asked if Mr. Hawkins was talking about a siting bill. **Mr. Hawkins** said it seems like local governments find themselves on the short end of the stick in both the tax impacts of the legislature's policy of encouraging renewable and from a land use perspective of perhaps not having the qualified professionals to determine a site's impact.

Representative Stevenson said the statute for a sales tax rebate covers energy producers other than wind such as biomass, low head hydro, solar and geothermal.

Senator Werk said it would be interesting to see who has gotten the rebate. **Mr. John** said the Tax Commission would have a problem with confidentiality but they could talk about it in general terms.

Ron Williams said because of the competitive nature of renewable energy in Idaho, out-of-state producers are faring better with Idaho utilities. To get an idea what is coming on-line, power purchases agreements are available from the PUC or from utilities.

Senator McKenzie said the fundamental issue before the committee is the sunset clause and agreed that more information might be necessary before deciding to extend the rebate. He suggested the committee could reflect that the rebate was considered. He noted that encouragement of alternative forms of energy development is in the State Energy Plan. He stated that economic development in Idaho versus the region would be an economic benefit. He cautioned that there is the issue as to where it sits versus other revenue issues.

Representative Bell made the following unanimous consent request: The extension of the sunset date for the sales tax rebate for equipment used in the alternative generation of electricity (I.C. 63-3622QQ) is consistent with the energy policy of this state, as expressed by the 2007 energy plan. It is also the request of the Committee that the members of the renewable energy development community present evidence to the 2011 Legislature regarding the effect of the section 63-3622QQ, Idaho Code, rebate as an incentive for economic development stimulus for local communities in Idaho, and for the development of alternative energy in Idaho as opposed to surrounding states, none of which levy a sales tax on renewable energy generating equipment.

There was no objection to the unanimous consent request.

The next presenter was **Bob Brammer** from the Department of Lands who presented draft legislation that would amend the Geothermal Resources Act in Chapter 16, Title 47, Idaho Code. **Mr. Brammer** said the purpose of the legislation would be to remove obstacles for leasing state lands for geothermal resource development and make Idaho more competitive with other western states in this arena.

Mr. Brammer said the proposed legislation would authorize the State Board of Land Commissioners to enter into a lease up to 49 years and would provide for a research and analysis phase of 36 months and would allow a construction time of 36 months. He said this will allow the developer to determine the viability of the project. **Representative Stevenson** asked whether the Department contemplated allowing extensions to some of the time periods. **Mr. Brammer** said the Department was not hard and fast on that and the purpose of the legislation is to incentivize development.

Senator McKenzie asked if the new lease form is available. **Mr. Brammer** said it is currently undergoing legal review.

Representative Jaquet asked whether lease holders needed to comply with local, state and federal law. **Mr. Brammer** said that was the case. **Representative Jaquet** asked whether there would be mandatory public hearings on an application. **Mr. Brammer** said for a long term lease, there would be a public hearing and geothermal leases fit that criteria.

Senator Kelly asked whether there would be rules as well, particularly in the phase-in portion of the legislation. **Mr. Brammer** said the Department's rules on the subject would need to be updated if the proposed statute passes.

Senator Brackett said the ability to treat applicants differently could be problematic and asked what if only one person or entity is interested. **Mr. Brammer** said if that occurred and they met the criteria, the Land Board could grant the lease.

Senator Kelly said whether the proposed language regarding market value would be the market value at year 1 or year 49. **Mr. Brammer** said they want to maintain flexibility as markets change.

Senator Werk asked why the language regarding "maximizing public benefits" was deleted. **Mr. Brammer** said the state constitutional mandate would apply to these lands and the maximizing public benefits language would probably be trumped by the Constitution. **Senator Werk** said it seems like the legislation is really providing broad discretion to the State Land Board over these geothermal lands. **Mr. Brammer** said it would be consistent with how other state agencies manage their lands.

Representative Jaquet asked how the public would be protected if one of these projects did not pan out. **Mr. Brammer** said there are current bonding provisions that would be unaffected.

Senator Kelly asked the status of this legislation. **Mr. Brammer** said it had been submitted to the Governor's Office for possible inclusion in his legislative package.

Senator McKenzie asked whether the geothermal industry was supportive or in opposition to this proposal. **Mr. Brammer** said generally they were supportive but that there was an individual that had voiced concerns about the language. In a response to another question from **Senator McKenzie**, **Mr. Brammer** said the Raft River was the only geothermal energy site in production.

Representative Stevenson commented that the State needs to be consistent with Bureau of Land Management policies in order to encourage the industry.

Senator Werk commented that since this draft was being considered by the Governor's Office, it might be premature for this Committee to endorse it. He said it might look quite a bit different when it comes before the Legislature. He said the broad discretion given the Land Board bothered him.

Representative Eskridge said there is currently a problem developing geothermal resources on state land and it is a plank in the State Energy Plan.

Representative Eskridge asked for unanimous consent that the Committee support the concept of this legislation and that the Committee encourage the Department to pursue the concept.

Representative Jaquet said a lot of work has gone into the draft legislation and urged approval of the request. **There was no objection to the unanimous consent request.**

The Committee recessed for lunch at 11:55 a.m. and resumed at 1:15 p.m.

After lunch **Mark Stokes** from Idaho Power presented their integrated resource plan and as a part of that discussed energy efficiency programs, demand-side management programs, renewal resources and integration, project updates, transmission updates and ability of the company to absorb large new customers.

Mr. Stokes said Idaho power is a summer peaking utility. He explained that the integrated resource plan is updated every two years and the plan balances cost, risk and environmental concerns. **Mr. Stokes** said the 2009 integrated resource plan was completed in December 2009, and was filed and accepted by the Idaho Public Utilities Commission on August 3, 2010, and was acknowledged by the Oregon PUC on September 7, 2010. **Mr. Stokes** said the 2011 integrated resource plan has started.

Representative Jaquet asked about the difference between Oregon and Idaho. **Mr. Stokes** explained Oregon has integrated resource plan guidelines that are heavy on process. **Representative Jaquet** asked whether there were one or two documents. **Mr. Stokes** said there is one report with the additional guidelines in Oregon rolled into one document.

Mr. Stokes went on to say that the cost of photovoltaic cells has come down dramatically in the past year and discussed some legislation at the federal level that does not appear to be passing this year but could evolve into a piece of legislation after the recess or in the next year.

Mr. Stokes, regarding the forecasted system load for the Idaho Power systems, said that they are forecasting sustained growth and that the summer peak load is growing as well.

Mr. Stokes stated that some issues facing the utility in the future include:

- Whether plug in hybrid electric vehicles catch on and what that could do to their load.
- The price of natural gas which is used in gas power peakers.
- Snow pack is another variable is the snow pack and how much hydro electric generation will be available to fulfill demand.
- The amount of power they can rely on from coal generation at Valmy, Bridger and Boardman given federal clean air standards.

Mr. Stokes also discussed how much energy could be saved with energy efficiency programs and demand response programs and the Langley Gulch 300 MW plant.

Mr. Stokes said that some new renewable resources that are in the Idaho Power portfolio include geothermal, wind, hydro and solar.

Senator Werk asked whether the Neal Hot Springs in Oregon geothermal is base load. **Mr. Stokes** said it was.

Mr. Stokes next gave an overview of the federal Public Utilities Regulatory Act of 1978 which is a law passed by the United States Congress as part of the National Energy Act. It is meant to promote greater use of renewable energy. PURPA created a market for non-utility electric power producers by requiring electric utilities to buy power from these producers at the “avoided cost” rate which is the cost the utility would incur were it to generate power from another source. This is generally considered to be the fuel costs incurred in the operation of a traditional power plant. **Mr. Stokes** said Idaho Power has entered into 101 PURPA contracts with a name plate capacity of 682 MW. Of that, there are 62 hydro projects for 141 MW, 5 combined heat and power plants for 37 MW, 11 biomass projects at 37 MW, 22 wind projects for 497 MW and one solar project for 20 MW.

Mr. Stokes next discussed wind integration into the system. He said of the 497 MW of wind on the system, they compute that to be 209 MW of firm power due to the fact that the wind does not blow all the time. As a result of this, they need to have other sources of power to cover their needs. Mr. Stokes estimated that 548 MW of wind will be on-line by 2012. Mr. Stokes said the initial wind integration study was completed in 2007. He said they will update the study for the 2011 integrated resource plan.

Mr. Stokes commented that the Langley Gulch combined cycle power plant that is powered by natural gas will have a 300 MW nameplate in summer and 330 MW nameplate in winter. The project is expected to be completed in 2012.

Mr. Stokes also discussed the Boardman to Hemmingway transmission project that is scheduled to begin construction in 2013 and the Gateway West project where Idaho Power and Rocky Mountain Power are partnering.

Senator Brackett asked when the draft Environmental Impact Statement on the Boardman to Hemmingway project is due out. **Mr. Stokes** said he was not exactly sure but thinks the record of decision is due out by June, 2011.

Senator Werk asked if regionalization of wind resources was possible given transmission constraints. In his opinion this would provide a more firm wind profile as there could always be wind blowing somewhere in the region. **Mr. Stokes** said getting transmission space is a hurdle to that. He also said the Idaho wind is not the best quality of wind in the west. He said the Columbia Gorge and Wyoming probably have a higher quality of wind as it blows more continually and the velocity is higher. **Mr. Stokes** said BPA has 3,000 MW of wind on-line and if Idaho Power is going to further purchase PURPA energy, more transmission is needed.

Senator Kelly asked how they quantify the firm component of wind. **Mr. Stokes** explained that a 100 MW nameplate will be multiplied by 30% because that is the estimated amount of time the wind will blow constantly. A problem for Idaho Power is that during peak hours in the summer they may only get 5% of the capacity because the wind does not generally blow then.

Mr. Stokes next discussed the "Smart Grid." He said Idaho Power received \$47 million in federal stimulus money to move smart grid technologies forward. He said the anticipated outcomes will be improved reliability, advanced metering and increased customer satisfaction. He said the advanced meters can be read from afar. A meter reader will not have to driving around to read the meter which means fewer cars on the road and less pollution. These meters are also believed to be more accurate. Additionally, customers will be able to log in and see what their consumption is for the day, week or month. **Mr. Stokes** said, as a part of the advanced infrastructure, it will help the company with loads, will eventually allow time-of-day pricing and will yield approximately \$7.4 million annually in cost-savings. It will help with demand side management programs and will be a big tool in helping integrate renewable resources onto the grid seamlessly.

Mr. Stokes said one issue he has not touched on is when a big new customer arrives in the service area and wants to be hooked up for power. One of the issues in new loads is mitigating rates for existing customers as the newer power tends to be more expensive than the older hydro or thermal power. They have tried to use blended rates to mitigate rate hikes on existing customers. He said certain new types of loads are better than others for customers. The rule of thumb is the more jobs per megawatt, the better.

Representative Stevenson asked whether the irrigation peaks loads rewards program will continue. **Mr. Stokes** said they do anticipate that it will continue.

Mr. Peter Brockett of the Idahoans for Responsible Wind Energy was the next speaker. Mr. Brockett said his organization was formed as a result of commercial development of wind power in the Bonneville County area and that it was a grass roots organization. His organization is for responsible siting wind development and that wind development needs to be consistent with local land uses.

Mr. Brockett discussed wind energy's economic viability compared to natural gas, coal, hydro and nuclear with a subsidy support per KWhr and the total system levelized cost per KWhr. He said that even though wind's subsidies are 93 times those of natural gas, 53 times those of coal, 35 times those for hydro and 14 times those of nuclear, wind still costs more to produce.

Mr. Brockett next discussed wind energy's contribution to Idaho. He said that developers are exempt from state sales taxes and most property taxes. He said Ridgeline Energy claims they will pay \$1 million in production tax for the 83 turbines in Goshen II and they will pay \$1 million in production tax for the 75 turbines proposed for Meadow Creek but, in reality, Ridgeline will pay, at most, 40% of that.

Mr. Brockett said there thirty-four 1.5 megawatt wind turbines in Bonneville County's Wolverine Creek Project. Prior to the tax exemptions passed by the Legislature in 2006 the taxes were \$603,490, and, in 2007, the taxes were \$147,074, in 2009 \$182, 286 and in 2010 \$166,166. He said he doubts Ridgeline's claim that the 75 wind turbines in the Meadow Creek Project will generate \$1 million.

Mr. Brockett said wind developers claim they provide many local jobs. He said most Ridgeline contractors are not from the local area and not even from Idaho. He said the local unions are upset as the contractors are not using local labor. **Mr. Brockett** said almost ninety cents of every dollar Ridgeline spends goes to businesses outside Idaho. He said of the ten contractors used, only H&H Utility was from Idaho. The others were from Minnesota, Washington, Colorado, Georgia, and Missouri.

Mr. Brockett said the wind developments are having an impact on local electricity rates as Rocky Mountain Power is seeking a 14 percent rate increase in part to pay for wind energy infrastructure and the power is going to California. not Idaho.

Mr. Brockett commented that public notice requirements from Idaho's Local Planning Act are inadequate. He said that ordinances only require notification by mail to residents within 300 feet of a proposed project and most nearby residents become aware that industrial wind projects are proposed only after construction begins. **Mr. Brockett** said it is claimed that turbines have no adverse effects on neighboring residential properties or their value. He said independent studies show declines of up to 40% for homes near industrial wind complexes and that some homes cannot be sold at any price.

Mr. Brockett said scientists see risks to people who live and work within six miles of industrial wind complexes and that noise, vibration, sleep disturbance headaches, anxiety, depression and high blood pressure have been reported. He said children and animals are the most vulnerable.

Mr. Brockett next discussed impact on public land access and wildlife. He said recreational use of public and private lands is in jeopardy. He said a National Rifle Association article says wind turbines negatively impact wildlife and access to public lands. Also wind turbines are the second greatest threat to sage grouse on the public lands.

Mr. Brockett asked if wind turbines are agricultural? He said wind energy proponents call them “wind farms”. In his opinion agricultural structures and crops are not like turbines. He said wind turbines are industrial complexes but that turbines do “sprout” everywhere like weeds.

Mr. Brockett said 125 turbines can be seen from the Idaho Falls skyline with 258 more having been approved. There are applications for 75 more that will bring the total to 458 or the equivalent of a large conventional power plant.

Mr. Brockett made four recommendations to the Committee.

- Repeal the state sales tax and property tax exemptions wind energy currently receives.
- Work in partnership with local communities to establish more responsible wind energy siting guidelines for electric generating projects exceeding 25 MW.
- Protect Idaho residents from bearing the cost of electrical infrastructure needed only by those outside of Idaho.
- Enact legislation requiring public notice by mail to those within several miles of proposed projects instead of just notifying those within several hundred feet.

Senator Werk asked about Rocky Mountain Power’s proposed 14% rate increase. **Mr. Fadness** said there are Wyoming wind projects that are at issue in this case. He said the Commission will not approve projects that do not benefit Idaho customers and the PUC will take action on Rocky Mountain Power’s request at a later date.

Representative Jaquet asked whether Mr. Brockett’s group had approached the Idaho Association of Counties about having legislation drafted to give counties more help in siting issues such as this. **Representative Jaquet** said the local planning and zoning commission could request the developer to pay for an impartial third party that could provide help to local P&Z. **Mr. Brockett** said they have had some experience with this and that developers tend to approach experts that are favorable to their cause. **Representative Jaquet** said the planning and zoning commission could select the expert.

Mr. Greg Cade, State Tax Commission was the next presenter. He discussed the production tax in lieu of the property tax for renewable energy producers of electricity. He said it was enacted in 2007 and instead of having the property centrally assessed that was replaced by a gross receipts tax. He said the language was quite similar to the gross receipts tax on electric cooperatives. He said the current tax is an efficient form of taxation and it is relatively easy for

the Tax Commission to administer. **Mr. Cade** gave a summary of taxes collected after the 2007 enactment compared to what had been previously centrally assessed. **Mr. Cade** said a new issue has crept up in that some transmission projects for BPA are being financed by private entities and technically these entities might be subject to some property or production tax given the technical nature of their ownership. He said there is litigation ongoing and the Tax Commission will wait for the litigation to be settled as to whether these funding mechanisms are private or public.

Representative Stevenson asked how value was computed under centrally assessed property. Mr. Cade said the value was computed the same way as like property.

Representative Jaquet said the alternative production tax appears to be uniform and easy to administer and appears to be a relative constant source of revenue to the local units of government.

Mr. Trent Clark, Monsanto Corporation introduced **Mike Veile** to discuss the utilization of interruptible power. **Mr. Veile** is the manufacturing lead for Monsanto's phosphorus manufacturing operations in Soda Springs. He said he would discuss how reducing the demand for electricity can compliment wind energy if the State of Idaho is ever called upon to develop standards for renewable energy.

Mr. Veile said Monsanto mines phosphate ore and processes that ore into elemental phosphorus for Roundup brand herbicides and other uses. He said Monsanto's phosphorus operations directly employ around 770 persons and those jobs translate into another 2,200 indirect jobs in southeast Idaho making Monsanto responsible for nearly 3,000 jobs in the region.

Mr. Veile said demand in the marketplace can change and when it does it can be a powerful mover of entire marketplaces. He said it is unwise to underestimate the American citizen's ability to innovate when needed to produce more when required, or to conserve when getting "more" is not an option.

Mr. Veile said it will be a challenge to meet future energy needs by constructing new generation in a cost-effective manner. He said building new high-cost generation cannot be our only answer, we must also take advantage of our ability to innovate and engineer solutions that use energy more efficiently.

Mr. Veile said Monsanto favors responsible development of wind, geothermal, clean-coal, biofuel, nuclear and hydro-power resources provided they demonstrate cost-effectiveness. He said new energy sources should be developed in a competitive market where the least-cost resources available are utilized. **Mr. Veile** showed the Committee an article from the September 28, 2009, edition of the Wall Street Journal entitled "China: Let Market Set Price for Green Energy." He said recently that Mr. Zhange Guobao, Minister of China's National Energy Administration commented that "Renewable energy prices, and in particular wind-power prices should be set through a competitive market." **Mr. Veile** said in its rush to develop new "low-cost" generation, China is building approximately two new power plants every week and the

bulk of these are coal fired. He said, faced with China's approach, can we afford to surrender yet another competitive advantage to this economic adversary?

Mr. Veile said there are few approaches to closing the energy gap more "Idahoan" than good old-fashioned tightening of the belt. He said other names for this are engineered efficiency, conservation, peak load reduction or demand side response. He said it is the same thing: learning to do the work that has to be done using less of a scarce resource.

Mr. Veile said among the successful programs of demand response in Idaho are time-of-day residential metering, irrigation load control, Monsanto furnace load and Monsanto curtailment. Regarding time-of-day residential metering, **Mr. Veile** said in eastern Idaho many customers take advantage of a program that requires a special meter. The meter keeps track of when power is used and charges a different rate during peak usage hours and a lower rate during off-peak hours. He said the different rates are significant from 11.35 cents/KWhr for on-peak but only 3.87 cents for off-peak.

Mr. Veile said this program has proven to be a successful way for individuals to control their own power bills, often creating efficiencies that reduce overall power demands. **Mr. Veile** said the program at present is currently limited to residences and that including demand response in any Idaho renewable definition might lead us to look at this approach in other situations. **Mr. Veile** said a local manufacturer in southeast Idaho recently has been required to have layoffs. The primary manufacturing process of the manufacturer requires a fair amount of electricity usage. **Mr. Veile** said, in this economic slump, had time-of-day metering been available it is possible this business might have been able to keep its night-time shift operating.

Mr. Veile said that another striking example of the effectiveness of demand response is the recent history with irrigation load control. In eastern Idaho an irrigation load control credit rider (IPUC Schedules 72 and 72A) has had a tremendous effect in lowering energy demands of irrigators. He said, according to the 2009 analysis of the program, 938 irrigators (a larger number than expected) participated in the program reducing demand for generated power by 285.2 megawatts.

Mr. Veile said the advantage of this load control accrues not only to the individual irrigator who cuts his power bill, but to all customers. He said according to the 2009 report on the irrigation load control program, the reduced need to construct high-cost new generation benefitted the entire power grid and the system ratepayers as well. **Mr. Veile** presented a table that showed it cost the utility \$3.4 million to deliver energy gap reduction benefits worth \$20 million. He said when you add back the foregone revenue from power not sold, the cost/benefit ratio is nearly two to one.

Mr. Veile explained that the Monsanto furnace load is a way the company strives for improved electrical efficiency in its furnace process. **Mr. Veile** said six engineers in Soda Springs work day-in, day-out finding ways to reduce or re-use energy. He said Monsanto's furnaces use a significant amount of electricity, one-third of which melts the constituents in the furnace and two-thirds drive the reaction to strip off oxygen from the fluorapatite molecules naturally occurring in the phosphate ore.

Mr. Veile said Monsanto has three furnaces that operate independently. Each furnace experiences its own process fluctuations that cause variations in power used in that furnace. He said all three furnaces, operating simultaneously, averaging about 162MW can experience peak loads of above 180MW. He said increasing average power for increased production will also cause the company's peak to increase. **Mr. Veile** said Monsanto has peak demand charges assessed to them on a monthly basis. He said energy supply must be base loaded to supply peak power not "average" power. He said it is the company's best interest to reduce its peaks while maintaining or even increasing its average power. **Mr. Veile** said Monsanto developed a control system to do this, one control simply clips off Monsanto if it exceeds a peak set point value. He said this method lowers average power demand and by using it, the company can avoid peak demand above its set point.

Mr. Veile said another technology that Monsanto has developed looks at the power usage and the voltage and amperage set point of each furnace. He said a computer program anticipates approaching the peak and adjusts voltage and amperage set points on each furnace to lower an impending spike on one furnace while potentially increasing power to another furnace. Additionally, if a furnace is losing power due to process conditions, set points are adjusted to increase power to the other furnaces. **Mr. Veile** said this has the effect of clipping the peak loads to the furnaces while also clipping the tails on the low loads. It smoothes out the variation and maintains average power while avoiding peaks. **Mr. Veile** showed a graph of actual power usage on Monsanto furnaces showing greater variation prior to the load control program and then a reduced variation while using the load control program and then a reduced variation while using the load control program and maintaining average power.

Mr. Veile went on to discuss curtailment by Monsanto. He said this is a similar but much larger scale demand response. He said during times of high systemwide electricity use, the power company can employ a similar "peak reducing" mechanism by simply shutting down power to Monsanto. He said there are three types of curtailment: economic, system emergency and contingency.

In economic curtailment load is reduced when the utility and other Idaho rate payers may benefit significantly from selling or at least not buying power at very high market prices. **Mr. Veile** said during certain period of the year, usually driven by air-conditioning in the southwest, rates can rocket to six times of normal. He said the profit generated from taking advantage of economic curtailment then reduces rates for all customers.

Mr. Veile said that system emergency curtailing occurs when all three furnaces are taken off line due to some physical crisis such as disrupted transmission or lost generation within the system that requires an immediate of power to support system integrity. **Mr. Veile** said this is the curtailment that keeps hospitals performing x-rays, prevents schools from operating in the dark and allows EMTs to plug in their life saving equipment. He said that it can also prevent the system disruptions that would put frozen food manufacturers, micro-chip makers and radiological technicians out of business.

Mr. Veile explained that with contingency curtailing the load is reduced to help the utility lessen the consequences and prepare for and hopefully avoid system emergencies. He said without curtailment, this would require “spinning reserve” power generated in small amounts solely to keep operations working smoothly.

Mr. Veile said all three forms of curtailment effectively clip off system-wide peaks while maintain an equivalent system-wide average power use. This has the direct benefit eliminating the need for new high-cost generation assets installed to meet peak demands. He said it is therefore the greenest of energy options as there is no better energy generator that beats it in sustainability, efficiency or impact on the environment than the one you didn’t need to build.

Mr. Veile said he is not suggesting Idaho needs a renewable portfolio standard. He said Monsanto prefers to have market forces operated to assure continued technological progress on renewables and efficiency in the overall power generation portfolio. He said as with many of the challenges Idaho faces, the federal government may not always do things the way we do in Idaho.

Mr. Veile said in this session of the United States Congress there have been fifteen pieces of legislation introduced that mandate renewable portfolio requirements on the states. He said because many states have already developed such portfolios, several of these federal legislative proposals simply establish a default federal standard but allow states that have their own standards to use their own definitions. He said California considers hydropower a renewable while Oregon does not and some states include nuclear while others do not. He discussed S. 3813 “the Renewable Electricity Promotion Act which would impose on all states that do not have their own twenty percent or greater renewable energy requirement a new federally mandated fifteen percent requirement. He said in the definitions of this new standard, demand response is allowed only in the form of more efficient equipment and then only up to four percent. He said that definition would be overly restrictive for Idaho and is not in the state’s best interest.

Mr. Veile said that is why the Legislature should care. He said judging whether a new imposed federal standard will work for Idaho will be an issue on the legislature’s plate. He said it is helpful to know what mix of energy tools is healthy and useful to Idaho citizens.

Mr. Veile concluded by saying that should that time come, Idaho will advocate strongly for allowing demand response to play its appropriate role in the marketplace providing businesses and consumers lost costs solutions for closing the gap between energy supply and demand in the future.

Senator Werk asked whether Monsanto’s curtailments were part of their power contract with Rocky Mountain Power. **Mr. Veile** said yes.

Representative Jaquet asked if other states include demand response in renewable portfolio standards. **Trent Clark** said it varies from state to state.

Mr. Russell Westerberg of Rocky Mountain Power introduced **Rich Walje**, President of Rocky Mountain Power. **Mr. Walje** discussed what he thought of potential federal energy legislation passing. **Mr. Walje** said Rocky Mountain Power does have a couple of effective demand response programs in Idaho. He also discussed managing variability in the system. He said the western electric grid and transmission lines are not in place entirely for load growth but are used to reduce the variability between utilities and throughout the grid.

Mr. Walje commented that 35% of Rocky Mountain Power's proposed price increase which is before the Public Utilities Commission is for wind projects which have been brought on-line since the last rate case, about 35% of the requested increase is for environmental investment and remediation and 12% is for new electricity and the rest is for profit. He said the Public Utilities Commission will determine if their rate request is proper.

Mr. Walje said Rocky Mountain Power does not build new electric plants to harm their existing customers. He said they have a legal obligation to meet their current and projected load. He said that no state is an island and all states are interconnected through the grid and it is a cost effective way for utilities to not to have to own all generation assets but can facilitate trading of power when necessary.

Mr. Walje said Rocky Mountain Power and its parent Mid America Electric Company is the second largest owner operator of wind turbines in the United States. He said they were interested in exploring building a nuclear plant in Payette County Idaho but backed away from that when they could not get firm price commitments from contractors who would be building the plant.

Mr. Walje stated that had the Kerry-Lieberman bill passed Congress, it probably would have increased Rocky Mountain Power's costs by 16%. He said while nothing has passed to date, it is probably naïve to think nothing will pass in the next year or two impacting the electric power industry. One effect of looking into the future is that Rocky Mountain Power has scaled back on building new coal plants. Part of this is federal EPA regulations that impact coal plants and part is the fear that there will be a huge carbon tax passed by Congress.

Mr. Walje concluded by saying that Rocky Mountain Power has an obligation to serve the people of the state of Idaho in an efficient cost-effective way and they are trying to do that.

Representative Eskridge said he is concerned that utilities are turning away from reliable base load generation and maybe putting their eggs too much in the renewable's basket. **Mr. Walje** said that some of the states they serve have renewable portfolio standards and they have to obey the law in those states. He said there is the issue of a renewable not being fully or partially there when the power is needed and that can be ameliorated somewhat by gas peaking plants or purchases from other utilities if they have power available. He said that conservation and demand side management are two programs Rocky Mountain Power takes very seriously. **Mr. Walje** said that nuclear battery technology may be a big help to firm up renewable energy along with some of the newer more cost-effective solar voltaic technologies that are coming along.

Representative Stevenson asked further into Rocky Mountain Power's investigation of nuclear power. **Mr. Walje** said they were very serious about the Payette County site but the vagaries of what it would ultimately cost to build were too much. **Mr. Walje** said the capital costs of a natural gas generating plant are more cost-effective today. He said both Rocky Mountain Power and its parent company are looking at the possibility of acquiring a nuclear plant from a utility that is operating if the price is right. He also said that the smaller modular nuclear technologies might come to fruition, be cost-effective and be environmentally sensitive.

On a motion from **Representative Stevenson and a second from Senator Werk**, the minutes of the October 20-21, 2009, meeting were approved unanimously.

Wednesday September 29, 2010

The Committee met at the Center for Advanced Energy Studies at 9:00 a.m. and was given a tour of Ridgeline Energy's wind turbines that are operating and under construction near the City of Idaho Falls. Members going on this tour were Senator McKenzie, Representative Eskridge, Senator Brackett, Senator Kelly, Senator Werk, Representative Stevenson, Representative Jaquet and Representative Elaine Smith and Legislative Services Office staff member Mike Nugent. The Committee adjourned at noon.