



MINUTES

Monday, July 28, 2014

1:30 p.m. – 3:00 p.m.

**Idaho National Laboratory Energy Innovation Laboratory
Idaho National Laboratory Energy Innovation Laboratory
775 University Boulevard, Idaho Falls**

Commission Members in Attendance

Chairman Jeff Sayer, Dept. of Commerce

Dr. Steve Aumeier, Center for Advanced Energy Studies (CAES)

Dr. Harold Blackman, Boise State University (proxy for Dr. Mark Rudin)

Dr. Rebecca Casper, City of Idaho Falls

Senator Larry Craig

Senator Bart Davis, Idaho State Senate

Dr. Howard Grimes, Idaho State University

John Grossenbacher, Idaho National Laboratory

Steve Laflin, International Isotopes

Jeff Thompson, Idaho House of Representatives

Ad Hoc Members

Brad Little, Lt. Governor

John Revier, Office of Congressman Mike Simpson

Brian Whitlock, Idaho National Laboratory

Welcome & Introductions

Chairman Sayer asked visitors to sign in and thanked members of the public for attending the meeting. He also thanked Admiral Grossenbacher for allowing the Commission to use the facilities at the new INL Energy Innovation Laboratory.

Idaho National Laboratory Update

John Grossenbacher indicated that the lab operates very much like a business through customers who conduct research at the lab's facilities. The high business volume in today's dollars is about \$1.3B. As a result of the recession, you look very hard at the cost of doing business. The lab is a highly integrated set of facilities and it is difficult to shut one facility down without effecting them all. It appears that things have stabilized and are improving. Much of that can be attributed to Secretary Moniz and also to Congressman Simpson's new

chairmanship. It means that people pay attention and he has brought a number of high profile visitors to INL. Employment followed the funding lines with significant workforce restructuring, and they are now hiring again. Grossenbacher highlighted a number of INL accomplishments in the area of R&D including the Advanced Electrolyte Model. He also provided an overall update of the industry and characterized the outlook for the nuclear industry as "gloomy." While there are a couple of new builds, there are also several market driven shutdowns in several regulated markets. In merchant markets where nuclear has to compete with other forms of power, there is no value to baseload power, the zero carbon emissions, diversity of fuel supply or the relative price stability.

There are still two SMRs on track to move forward, including NuScale who has expressed interest in working with Idaho. The challenge is finding customers who are willing to invest in this scalable model. A new type of reactor that can overcome economies of scale is a high risk venture, and INL is doing what it can to help on the technical level. There is no private sector pull in the nuclear industry right now in the U.S. - there is no private sector R&D investment in nuclear.

U.S. interest in nuclear is increasing somewhat due to concerns about climate change and grid stabilization. Internationally, there is concern about safety and non-proliferation -- how much of influence with the U.S. have if it doesn't have a robust nuclear enterprise?

In terms of political developments, just last week Congressman Joe Barton (R-Texas) offered an amendment on the House Energy & Water Appropriations bill to authorize a pilot program for an interim nuclear waste storage facility, which may foreshadow potential interest in moving things forward on the federal level.

Grossenbacher provided an update on the impact of state approval to allow research quantities of commercial used nuclear fuel to be brought to INL. This authority over a couple of years allowed the INL to look for these important research opportunities that have been escalated due to the delay in getting a permanent repository online. There is also the possibility of bringing in 25 "high burnup" used commercial fuel rods into the state. The ability to bring in research quantities of fuels has created new research opportunities -- expect \$10M/year of research over many years.

Future opportunities include dry storage demonstration, transshipment and pilot interim storage. All involve tons of heavy metal which would exceed quantities allowed by the 1995 Settlement Agreement. Other opportunities include working with TerraPower (Bill Gates's company) which is exploring a traveling wave reactor. Today, TerraPower is the largest investor in private nuclear R&D in the country and this is a very important partnership. In addition, INL is excited about opportunities associated with MOOSE, high performance computing, Transient Reactor Testing (TREAT), advancing post-irradiation examination (PIE) and playing a regional role and greater Navy role. Why does the lab care about a regional role? We are here to serve the U.S. and can actually find solutions to problems that are affecting people in the region? It is a path to relevance for the INL. The other reason is to help address grade scale issues - such as the grid. These kind of problems will only be addressed if we break them down into bite sized chunks that at least a region can agree on a vision for the future.

National Developments and Status of Federal Appropriations Legislation

Senator Craig gave credit to the work of Congressman Simpson and his new chairmanship in having an impact on the budget. What is going on now in Washington is not an unusual budget game being played to try to gain mutual benefit in conference committee. We likely won't see anything happen until after the election. Having said that, Congressman Simpson has put this laboratory in a very good position compared to other budgets and where it would have been in his absence. This allows us to be consistent in the work we are doing in both research and cleanup.

As it relates to the future of the nuclear industry, dynamics can change dramatically in a short amount of time. In August 1990, Senator Craig spoke with the Idaho Falls Chamber and expressed concern that the future of the lab would be changing at the end of the Cold War. It is reasonable to say that Idaho Falls never felt the bump due to creative management and budgeting. Based on the political changes moving forward, this could change the future of Yucca Mountain and other dynamics concerning nuclear. We have a congressional delegation that recognizes the value of this facility to the state and nation. This is all very positive and we are looking at a budget that changes the curve and that is significantly important for this lab.

Chairman's Two-Year Vision Update on LINE 2.0 Subcommittees

As part of his report, Chairman Sayer believes there is a convergence moving forward and he has felt a sense of urgency from the day we began. This is an industry that moves in terms of decades, but we don't have that much time. Other states are working with DOE and paying close attention to this issue. When we started the LINE Commission, we prepared a report for the Governor and in that report we promised to shepherd a conversation around the state to discuss nuclear energy. How do we need to manage this conversation around the state so that if and when we are at a decision point, our elected officials have a safe place to make important decisions as a result of careful, balanced discussion? We need to help people understand how important this is despite the delicate nature of the topic.

We are going to elevate the role of the subcommittees and in September we will resurrect the subcommittees. We have brought on additional staff support the subcommittees – Hank Ebert – and we will get those kicked off.

The two seeds Chairman Sayer wants to plant are:

- 1) Establish a 12 to 24 month agenda to look at this broader conversation that we've promised to have that walks us through the conversation that is authentic and fair and balanced. We need to set up a framework and come up with a plan for how we roll it out.
- 2) This is one of the most complex industries that we have in the world that we have to simplify. If we are going to be successful, we need to handle it in a way that people can relate to - we need to humanize it. We need to talk in terms that everyday citizens care about in a way that it resonates with people on the street. There is some forethought we need to put into this. We have the expertise to handle the high-level issues, but we have to start thinking creatively on how we roll out this conversation in a way that can be respected and engender trust. We are going to do more research and analysis and come back to the Commission with suggestions. Sayer believes there is a way to create a safety zone where people support the INL.

Announcements

Rebecca Casper -- encouraged all members to attend the Intermountain Energy Summit on August 19-20; in addition, to Secretary Moniz, there will be another of other high-level federal officials. The idea is to show the world that Idaho is part of the solution. Megan Ronk to send out another reminder.

It was suggested that we need to add a link to the LINE Commission website from the Idaho Department of Commerce website.

Meeting adjourned at 2:45 PM.