MINUTES
JOINT MEETING

HOUSE ENVIRONMENT, ENERGY & TECHNOLOGY COMMITTEE
SENATE STATE AFFAIRS COMMITTEE

DATE: Monday, January 16, 2017

TIME: 1:30 P.M.

PLACE: Lincoln Auditorium

MEMBERS: Chairman Raybould, Vice Chairman Thompson, Representatives Hartgen, Vander Woude, Anderson, Anderst, Mendive (Mendive), Trujillo, Chaney, Nate, Cheatham, Horman, Malek, Moon, Smith (Lacey), Jordan, Rubel

Chairman Siddoway, Vice Chairman Hagedorn, Senators Davis, Hill, Winder, Lodge, Lakey, Stennett, Buckner-Webb

ABSENT/ EXCUSED: Rep. Vander Woude; Sen. Hill; Sen. Lodge; Sen. Lakey; Sen. Stennet; Sen. Buckner-Webb

GUESTS: John Chatburn, OEMR; Will Hart, ICUA; Miguel Legarreta, AIC; Shannon Graham, OEMR

Chairman Raybould called the meeting to order at 1:32 p.m.

Dr. Mark Peters, Director, Idaho National Laboratory (INL) presented an overview of INL and a lab plan. Dr. Peters provided information on INL's infrastructure, including its Research and Education Campus in Idaho Falls, employment statistics, an economic summary, funding sources and financial projections, its Advance Test Reactor and its Materials and Fuels Complex. He stated that INL is a Research, Development, Demonstration and Deployment (RDD&ID) National Laboratory with a mission of discovering, demonstrating and securing innovative nuclear energy solutions, other clean energy options, and critical infrastructure. A lot of energy is regional, so INL will address energy challenges associated with development, delivery and use of energy resources in North America via partnership and collaboration with a couple of partner labs and universities in Idaho by enabling advanced nuclear energy systems, licensing and constructing a first-of-its-kind small modular reactor, constructing a new Collaborative Computing Center, collaborating on energy research via the Center for Advanced Energy Studies (CAES), and the Cybercore Integration Center. INL is focusing on four areas: nuclear competitiveness and leadership; integrated nuclear fuel cycle solutions; regional clean energy systems; and cyber and physical security organized around the Cybercore Integration Center. High performance computer and modeling situations are important to their work, and INL hopes for support from the State Board of Education on collaboration with the universities. INL plans two facility modifications, including the Cybercore Integration Center and a Collaborative Computing Center.

Committee members asked questions about INL employee salaries, radioactive material testing, and partnerships with higher learning institutions, including whether new buildings proposed would support them. **Dr. Peters** stated that salaries for scientists and engineers rose to be competitive but were offset by the sale of one building, which also will offset proposed new building proposals. He noted that INL brings in small quantities of radioactive material to test because it is controversial, but the small quantity impedes their ability to do new research over the long term. INL is interested in working with any higher learning institutions and already have straight-up internships. The buildings proposed would provide a tremendous collaboration of space, be bonded by the state and leased back by INL.

Mike McGough, Chief Commercial Officer, NuScale Power, stated NuScale was the first company to develop a small modular nuclear reactor (SMR) by beginning with a small nuclear grant awarded jointly with INL. They have been testing on a 1/3 scale reactor design for thirteen years. NuScale currently employees approximately 400 people and have invested about $500 million dollars in the project. They were awarded a US Department of Energy SMR award in 2013 of $217 million. The Design Certification Application was completed and submitted to the Nuclear Regulatory Commission (NRC) December 2016. Mr. McGough described how the NuScale SMR was designed and worked, as well as the amount of electricity produced by each module in the reactor. The NuScale SMR's output is 1/20th of a big 1,000 megawatt plant. The SMR's operation is driven by physics, and convection, conduction and gravity replace the electrical running requirements of a big power plant. SMRs are designed to be built in the factory and shipped to where they are to be installed. NuScale knows the SMR works because they built and tested all components individually and together. Mr. McGough outlined the enhanced safety features of their SMR. The SMR can vary its output to need. In giving details about NuScale's planned market study for the SMR, he stated it is expected the market size to call for 28 to 38 SMRs to be produced a year by 2030.

Ted Rampton, General Manager, Utah Associated Municipal Power Systems (UAMPS), described UAMPS as an energy service created by the Utah legislature in 1980 that allows cities to work together to reduce carbon footprint energy resources. Right now, UAMPS is conducting 17 projects. The Carbon Free Power Project uses NuScale modular reactors which promise to be a cost competitive resource with a reduced environmental footprint .UAMPS entered into a site-use agreement with INL, conducted studies of four sites located within INL for the project, and after examining transmissions systems, will coordinate with PacifiCorp and Idaho Power on transmission planning for the area. The Shoshone/Bannock Tribes' concerns are a big issue, and UAMPS is working with them. The project can provide Idaho with initial peak construction jobs of 1,000 workers for about 3 years, 360 jobs with salaries of $85,000/yr when a plant is operational, and other economic benefits from related industries. UAMPS will be looking at concluding the NRC application process in 2022, with site mobilization and set up in 2020/2026.

In response to committee questions, **Mr. Rampton** stated that the new plant would use a dry driven technique that uses large electrical driven fans instead of water for cooling, and UAMPS is conducting a cooling study looking at total dry cooling and wet cooling. Regarding questions about the kind of technology building being put into their startup plans, Mr. Rampton replied that in their application, they have added 10 years per variable to the licensing scope experience but it is not on their planning horizon.

ADJOURN: There being no further business to come before the committee, the meeting adjourned at 2:55 p.m.

Representative Raybould
Chair

Lorrie Byerly
Secretary