MINUTES

HOUSE ENVIRONMENT, ENERGY & TECHNOLOGY COMMITTEE

DATE: Wednesday, March 06, 2019

TIME: 1:30 P.M.

PLACE: Room EW41

MEMBERS: Chairman Vander Woude, Vice Chairman Amador, Representatives Anderson, Anderst, Horman, Moon, Scott, Ehardt, Armstrong, Furniss, Hartgen, Lickley, Raybould, Young, Smith, Chew, Ellis, Mason

ABSENT/ EXCUSED: None.

GUESTS: "The sign-in sheet will be retained in the committee secretary's office until the end of session. Following the end of session, the sign-in sheet will be filed with the minutes in the Legislative Library."

Chairman Vander Woude called the meeting to order at 1:35 p.m.

Dr. Jennifer Pierce, Associate Professor, Boise State University, Department of Geo-sciences presented: The Effect of Idaho's Changing Climate on Wildfires, Water, and Snow Pack: Challenges and Opportunities. Dr. Pierce outlined the severity of climate change, weather having short term effects and climate having long term effects. Dr. Pierce shared the illustration of a 100 year period of climate change. Climate change in Idaho referencing wildfires as a challenge, the fire size and frequency will increase under a warmer and dryer climate. Federal agencies spend $2-3 billion annually fighting fires which equates to over 50% of the USGF budget. The cost to society is estimated to be $ 60 to $ 90 billion dollars annually. Dr. Pierce stated the Pioneer fire in Idaho burned approximately 190,000 acres and cost more than $100 million dollars. The wildfires compromise Idaho's forest and rangeland resources, and effect Idahoan's pocketbooks. Idaho has a smoke from the wildfires season from July through October. Dr. Pierce shared that human-caused fires accounted for 84% of all wildfires in the U.S. The damage from wildfires to the Table Rock area in Idaho threatened a number of homes and landscape.

Dr. Pierce explained there is tremendous opportunity to reduce the number of human caused wildfires by passing legislation that would limit the use of fireworks, tracer bullets, exploding targets, and vehicles driving on dry grass and prepare our communities for the threat from wildfires.

Dr. Pierce shared information about the Effect of Idaho's Changing Climate on Water and Snow Pack. The snow pack is going to shrink primarily due to changes in water being delivered in the form of rain, this will have a profound impact on the snow pack. The snow pack is Idaho's largest reservoir for water in agriculture. Summer water flows and annual variability in precipitation will increase, and this will create a challenge for farmers in Idaho. Idaho has an abundance of renewable energy options and there are many opportunities for the next generations to tap into the renewable energy in Idaho.

In response to committee questions about the human causes of wildfires, and reduced timber harvest, **Dr. Pierce** encouraged Idaho to examine land use, the issue is complicated due to low elevation and high elevation of forest types. Idaho does plow along the I-84 corridor to reduce wildfire risk and create a buffer.

Dr. Jaap Vos, Program Head of Bioregional Planning and Community Design, University of Idaho presented: The Economic Impacts of Climate Change in Idaho. Shared his interest in communities and opportunities with regard to the economic impact of climate change. Idaho's climate depends on its natural resources. From small farms to diverse agri-businesses, high tech to hydro-power, forests and forest products, recreation and tourism, the changing climate poses risks and opportunities for Idaho businesses and communities. Dr. Vos said there is not a lot of specific information related to the economic impact of climate change in Idaho. The Pacific Northwest is a good example of how similar climate impacts may be felt differently from one region to another.

Agriculture in the Western US is a multi-billion dollar industry, providing roughly one million jobs across all agricultural sectors and exporting agricultural products around the country and the world. Climate change is anticipated to have both positive and negative consequences for agricultural production, with impacts and adaptive strategies varying by the crop and geographic location. In general terms, wildfire season is about 30-60 days longer but highly dependent on location. In general, the wildfire season is about 30 -60 days longer and dependent on the location.

Dr. Vos explained there is a lot of general research about the impact of climate change but there needs to be more Idaho specific research to understand the opportunities and threats to Idaho's residents, communities and economy. Not preparing will create challenges for Idaho. An impact assessment would be most helpful to determine local impact on Idaho communities and the sharing of information is essential among the communities.

In response to committee questions about economic impacts of climate change in Idaho, investment priorities and benefit of policies. **Dr. Vos** shared Idaho needs more investment in research related to the economic impact of climate change in Idaho and at the local level. More information specific to how climate change is economically impacting Idaho would be beneficial.

Dr. Mark Peters, Director, Idaho National Laboratory presented: Idaho's Energy Future. The nations strategy depends on economics, market structure and energy options that are reliable, affordable, resilient and clean energy in going forward. Science and innovation is a major component of the opportunity for Idaho's energy future and to be a leader in this industry. There are a lot of systems analysis going on between the national level of communication, policy analysts, universities, laboratories, and the private sector to look a the opportunities for clean energy development. The various renewable electricity energy mix supply in Idaho comes from hydropower, wind power, and growing solar power. The future of energy will involve multiple energy sources. Renewable energy presents a tremendous opportunity for Idaho along with the energy work force. The future energy systems will be a collaborative effort with universities, laboratories, and active research.

The energy mix in Idaho broadly includes powering transportation and the industrial sector. Integration of renewable energy resources will be important. The transportation sector is evolving and will move forward to offer more options for electrified vehicles, it will be important to think about where that clean renewable energy source will come from. Use of fuel cells is an important option to consider. Markets are being created and the policy space is opening up. The energy water food nexus will be important for Idaho it is a complex system and presents a great opportunity for the institutions in Idaho.

Dr. Peters shared that partnerships are key, working with the private sector, universities, technology programs, community colleges, utilities, municipals and creating the energy work force and all are important. Idaho has the opportunity to drive innovation and lead in developing clean energy systems.

In response to committee questions regarding, lower cost nuclear options, regulations, change of the nuclear plant design in the future, **Dr. Peters** shared the licensing process takes a long time to get a permit and the costs are high. The projects are large scale civil construction projects, modularity and smaller plants will help reduce the cost.

David Eichberg, Hewlett Packard (HP), Global Lead for Climate Strategy: Shared an overview of HP's approach to climate action and HP's perspective on addressing the shared active challenge to HP's collective prosperity and well – being. As a business, HP values, supports and seeks out communities that foster thriving, competitive, and sustainable economies in which to operate, to find and draw talent and to call Idaho home, in which HP has done for over 45 years. HP's collective community and business recognition, readiness, and response to the impacts of a changing climate are part of this picture. Mr. Eichberg encouraged the exploration of policy solutions that mitigate climate change and help transition to a low carbon economy guided by the best available science. HP supports market based approaches that promote innovative technologies to lower carbon impacts and encourage renewable energy resources. Mr. Eichberg shared HP must be proactive in understanding and addressing the challenges ahead with regard to climate action. HP recognizes that climate change is one of the most significant and urgent issues facing business and society today, the science is clear.

HP has operations in over 60 countries around the world. **Mr. Eichberg** stated HP must prepare for the risks both real and potential to build a resilient business. Opportunities exist for HP in addressing changes with resource efficiency, greater resilience, new products and services for cost savings and competitive advantages. HP realizes, with over $5 billion dollars in revenue annually, from the sale of products with label certification such as Energy Star. The transformation of the manufacturing sector at HP will have a significant role in the contribution to the future of manufacturing.

Mr. Eichberg shared that 3 % of the HP tier one customers have made the commitment on their own to source 100% renewable energy for their operations. HP recognizes and responds to climate risks and opportunities. Climate action is an expression of HP corporate values, and vision, its respect for science and the power of technology. Citizenship has been one of the company's corporate objectives since 1957.

HP recently joined with Idaho Business for Education on a state wide assessment of education and the teaching and learning methods that support student success, human capitol, and economic development. Idaho must address the issue of climate change, be proactive and continue to engage together for Idaho's future.

In response to committee questions, **Mr. Eichberg** shared HP looks at the issue of climate change as primarily from a sustainability or citizenship perspective and being able to look more deeply in the context of the business and the supply chain which happens over time. It is incumbant for HP to look at how renewable energy is sourced.

Alan L. Prouty, Vice President, Environmental Regulatory Affairs, JR Simplot Company; Presented: Potential Implications for Ag and Food Processing. Mr. Prouty shared with the committee his involvement with Food Northwest Processors as Chairman, he has been involved with legislative work in Oregon and Washington, on green house gases and climate change. Mr. Prouty focused on looking at environmental situations that industries are facing with compliance obligations to figure out a practical path in moving forward and how to deal with the issue of climate change. It is problematic that there is not a lot of specific information related to Idaho's climate change. In looking at this issue a lot of this is about predictions and computer models. Computer models for climate change can be useful to try and predict what is going to happen in the future based on data collected today and from the past. Mr. Prouty discussed some of the implications for agriculture and food processing in relation to the regulatory changes. Terms such as market place carbon, and carbon-free which do have real implications for food processing in Idaho. In regards to water, in parts of Idaho there may be an increase in precipitation, most likely rain and late season snow. Temperature changes for growing a variety of crops in Idaho is a challenge. Potatoes are a big part of what Simplot handles. Different varieties of potatoes handle temperatures and growing condition very differently, for example, the Idaho Russet Burbank potato does well in Eastern Idaho due to the short growing season, lower temperatures, and soil composition. In Eastern Washington the Ranger variety is better suited for that climate, season and soil. There are many different factors that play into the growing and processing of crops.

As a farmer or food processor it will be important to recognize and a need to move toward a clean renewable energy infrastructure to consider nuclear, wind, and solar. In relationship to carbon, California has a cap and trade program, theoretically, over time the number of allowances an operation can emit decreases, essentially they would need to purchase allowances to emit, economically the supply decreases and the price goes up. The challenge of regulatory systems in the carbon market place with certain types of manufacturing operations and food processing, there are limits to what technology can do. The price of acquiring those allowances puts operations at risk financially due to limitations.

In agriculture there are several promising things going on in Idaho. Soil probes, precision agriculture, instrumentation to manage the use of water and micro-nutrients and potato variety development. For policy makers in Idaho, it will be important to consider our reservoir systems, agriculture research and crop variety developments.

In response to committee questions, in terms of relying on computer models, **Mr. Prouty** shared the computer models are only as good as the information that is put into them, and the assumptions for the basis of the model. The information, in general, put into the computer models comes from all around the globe. From the business perspective, it will be important to look ahead and clearly see the changes that can be made to address the issue of climate change and the renewable energy opportunities in Idaho.

ADJOURN: There being no further business to come before the committee, the meeting was adjourned at 3:42 p.m.

Representative Vander Woude
Chair

Kristen Weitz
Secretary