Idaho Falls Power

A Division of the City of Idaho Falls

"A community with its own kind of energy"

Reliable Public Power Provider

Northwest Power and Conservation Council Meeting
Boise, Idaho

November 5, 2013

Chairman Yost, Committee Members & Staff

Good morning my name is Bear Prairie; I am the Assistant General Manager at Idaho Falls Power. We are a municipal power system that was created in 1900. We are the oldest and largest public power entity in Idaho serving 26,500 customers. We have a peak load of around 155 mw's in the winter and around 120 mw's in the summer. Our load demographics are roughly 50% residential customers, 38% commercial & 12% industrial.

Idaho Falls owns and operates four hydroelectric dams on the upper Snake River with a total generating capacity of 50 Mw's, along with 3 Mw's of wind capacity and a few solar arrays. A tracking solar array was purchased through our participation in the Pacific Northwest Smart Grid Demonstration Project. Our participation in this project includes testing the integration of a tracking solar array into a 10 kw grid battery bank coupled with the charging needs of four Chevrolet Volt electric vehicles. The Volts are also being field tested for battery temperature performance by working with the Idaho National Labs' newly completed battery laboratory in Idaho Falls.

We are also testing demand side management tools with water heater load control devices, thermostat controls and in home displays. This is all coupled with system voltage optimization controls and city wide deployment of advanced metering. We are excited to be involved in this collaborative project that brings together cutting edge technology companies, National Energy Laboratories' and numerous utilities from around the region.

I would like to focus the bulk of my time with the Council on two main items of concern to Idaho Falls Power. The first being transmission followed by integration of future generation resources including renewables.

Transmission

Challenges to building infrastructure are an industry problem that touches utilities of all sizes throughout the region.

- **Local Challenges** – IFP is attempting to construct needed backbone infrastructure to connect two of its main substations. We started the public process over five years ago on route analysis, working with the community to determine the lowest impact feasible route. This process was met with open arms and has enjoyed good public engagement. Our community supports and understands the project; even those that are directly affected

PO Box 50220
140 S Capital
Idaho Falls ID 83405

Phone: 208-612-8430
Fax: 208-612-8435
www.ifpower.org

by the chosen route acknowledge the benefits and need. A group of landowners on the western alignment formed an organization and pursued a legal challenge to stop the project. They even support the need for the project but adamantly oppose the construction on or near their land. This is a growing problem both locally and nationally that costs both time and money.

- **Regional Challenges** – Gateway West – IFP along with the other BPA customers located throughout Southern Idaho, Western Wyoming and Montana are not directly interconnected to BPA's transmission system. Energy has been delivered through various transmission agreements with Idaho Power and PacifiCorp. The PacifiCorp agreement is terminating in a little over two years and the capacity to move energy from the federal hydro system to our loads is becoming more constrained in certain times of the year. Gateway West is the low cost / high reliability solution to maintaining energy deliveries to not only BPA's customers but also adding the needed backbone for Idaho Power and PacifiCorp.

  This is a collaborative project now between Idaho Power, PacifiCorp and BPA. It continues though to run into local, county, state and even federal obstacles. The need for industry collaboration is becoming increasing vital in order to maintain a reliable, low cost electric grid. Productive collaboration is happening between utilities and will need to continue throughout planning groups such as NWPCC and hopefully spread to all stakeholders. Threats of litigation and the NIMBY mentality will not harbor the type of environment where we will be able to maintain our historically low cost energy rates that drive our local economies in the northwest.

Resource Acquisition

- **IFP's History** – Conservation has played a growing part the past ten years in Idaho Falls. 2012 we saw 10 million Kwh's of savings = about 1.3% of our total load. This was the culmination of a large multi-year project of which this type of "low hanging fruit" will not be the norm, both from the cost per kwh of savings or size. Conservation is a component of our resource strategy not a single solution.

  We recently purchased a portion of a wind farm east of town. Our motivations were fuel diversity, add some additional renewables, and we were able to pick the size of our participation to fit our utility. Horse Butte Wind total project is 56 mw's with 3 mw's going to Idaho Falls. Integrating more variable resources like wind becomes costly due to being a capacity constrained system with sharp load peaks.

- **IFP's Future Portfolio** – Diversity is the key to the stability of any energy mix. Diversity in fuel type, dispatchability, size and even location. Wind is currently not slated to be a growing part of our future resource acquisitions, too much variability. We are fortunate to be small enough that 1-2% load growth can be supplied with relatively

small generation projects like waste heat, geothermal, or partial ownership in base load. One possible base load that is driving a lot of interest in Eastern Idaho is NuScale's proposal to develop their modular nuclear reactor on the INL site located west of town.

We have enjoyed a large hydro base that has been the cornerstone of our utility bringing with it a predictable rate structure that is not only low cost but also carbon free. I can see a future where the utility though is providing a different service to customers then it has in the past. We are starting to see more interest in our net metering program with the dropping costs of solar. This presents a challenge to our utility and the industry in that we might not be driving the resource decisions, but rather providing balancing services to a growing number of customers. This is of great concern when utility investments have such a long lead time to develop and pay for through Kwh sales. The need for rapidly dispatchable resources and a flexible transmission system will become a growing need in the region.

Closing Thoughts

The rate of change that our industry has seen over the past 15 years has been drastic and this curve of change will continue to accelerate. Industry, government, the general public and planning organizations need to work together to plan and continue to develop the grid of the decades to come. What works well for one utility or customer mix often times does not fit other utilities. Collaboration is the only way our industry can wrap our collective arms around these changes and challenges that will hopefully result in our ability to maintain our regions energy advantages that we have enjoyed the past 50+ years. Access to low cost reliable power is something we cannot overlook in its importance to maintaining a vibrant economy for our next generation.

Bear Prairie
Assistant General Manager

PO Box 50220
140 S Capital
Idaho Falls ID 83405

Phone: 208-612-8430
Fax: 208-612-8435
www.ifpower.org