Council Members adopted the Annual Report to Congress for Fiscal Year 2016 and re-elected Chair Henry Lorenzen and Vice-Chair Bill Booth to another term as unfinished January Council business kicked off the February meeting. A recap of the harsh winter weather, the power system and several briefings on some well-traveled ground rounded out the meeting.

The next Council meeting will be in Portland, Oregon on March 14-15, 2017.

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The Agenda

Power system does its job during cold snap
Energy and capacity meet demand with near record peak

Prolonged cold, snow and ice plagued the Northwest in December and January and through it all the power system did its job. We had enough energy to meet load requirements and enough capacity to meet peak, as the region came close to the 1996 record with a January 5th regional peak of 33,400 MW, reported Massoud Jourabchi, manager of economic analysis.

“Sometimes extreme weather and high demand can really show the sensitivities of the system,” senior economic analyst, Steve Simmons, told the Council. While market prices showed only a slight increase, it was nothing like 2014 when natural gas prices jumped to $25/MMBtu after sub-zero weather took natural gas production off-line, he said.

This year natural gas was available. And, spot prices at Sumas peaked in the $5.50/MMBtu range, while electricity prices at Mid-C peaked in the $50-$60 MWh range which, according to Simmons, isn’t out of the ordinary for market prices.

As data continues to come in, Jourabchi said Council staff will dig deeper into the role of weather on loads, and include school and business closures into their analysis.

Council examines wind performance during in December/January
Montana wind performs better than expected

The wind fleet was ready to operate when temperatures plummeted and snow hit the valley floor, yet geographical differences played a large role in the actual production of energy. Lack of sufficient wind in the Columbia Gorge during several days of cold weather produced very little energy where the majority of the Northwest wind fleet is located energy policy analyst, Mike Starrett said.
This was in sharp contrast to Eastern Montana where periods of strong, sustained winds resulted in higher than expected generation for several days.

Starrett said capacity factors differ. During the same timeframe in December, the BPA wind fleet had an average capacity factor of 25.9% while the Montana projects came in at 48.3% and 56.2%.

Council Chair Lorenzen said sometimes the argument is made that Montana wind could provide more reliability and smoothing. “But then what is the probability that the wind won’t blow in either place,” he asked.

The conversation continued with Member Karier asking how Montana wind aligns with regional loads. John Ollis, power system analyst, said regional wind shapes and differing capacity factors make it hard to do a straight apples-to-apples comparison.

The idea is that the diversity of wind in Montana allows you to do some things with hydro, Member Baker added.

Staff said that limited work on expanding transmission for Montana wind was done for the Seventh Plan to see how it might fit into hydro storage.

Questions from the Council continued with Member Booth asking staff to look at the specific data behind the five-day cold snap to see how the load was balanced, and what would happen if a resource was removed. How would that gap be filled to ensure adequacy? John Ollis, staff power system analyst, said “we probably weren’t even at the top of our resource stack during the most recent cold event. But as coal units retire, the region would have to rely on gas generation if coal plants were pulled out of the resource stack.”
What’s next for Federal appliance standards and codes
Current standards could boost region’s energy-savings efforts

Council members got a peek behind the curtain on the development and impact of Federal appliance standards and codes courtesy of their former power division director, Tom Eckman, now working as a consultant. He said, codes and standards provide a boost to the region’s energy-saving efforts in addition to utility programs, and they are more effective. For example:

- Standards produce savings at lower total cost because they avoid program administrative costs.
- Standards affect the entire market while programs affect only a portion of the market.
- Standards provide greater equity — the compliance cost of meeting a standard is borne by the consumers who benefit from the increased efficiency, instead of ratepayers.

Eckman said that the pace of DOE appliance standards updates is unprecedented with 46 standards affecting the energy efficiency of appliances, equipment and lighting being added or updated since 2008. And standards adopted between the Sixth and Seventh Power Plans are estimated to reduce regional load growth by approximately 1,400 aMW through 2030. There is some risk that not all of these standards will be implemented or implemented as scheduled, Eckman said – that will be determined once the Trump Administration looks at regulations.

Value of 15-year investments in fish remain top-of-mind
Council continues look at ISEMP, CHaMP and BPA’s Action Effectiveness Monitoring

The Council remains focused on getting answers as they discuss effectiveness of fish and wildlife programs and future policy decisions that drive financial investments, as staff presented a plan to work with stakeholders to review programs with the first meeting scheduled for later in the day.

“I think it is all about policy,” said Member Karier “I thought we asked for this information in December.” Member Norman added that with regionwide interest in habitat and improvements of species. It’s critical that we have an informed understanding of the monitoring projects, and a lot of data has to be collected to get scientific certainty. He agreed that the Council needed to understand if the investments were on the right track.

Chair Lorenzen asked staff to provide another update at the next Council meeting and at a minimum, a firm schedule on what should be done and when it will be accomplished.

Council Briefs

Election of Officers
The Council re-elected Chair Henry Lorenzen and Vice-Chair Bill Booth to another term.
Study of marginal carbon production underway
Member Karier reported that staff is calculating the marginal carbon emissions from the region’s power system. He said the study will include the amount of carbon emissions and the pattern of when it’s released, from the time of day or time of year.

New technologies reduce energy demand
Mark Rehley, from the Northwest Energy Efficiency Alliance, told Power Committee members that nearly half of the energy-efficiency potential identified in the Seventh Power Plan was from new energy-efficiency measures. These are technologies that didn’t even exist when the Sixth Plan was put together.

RTF Policy Advisory Committee charter renewed
The Council voted to renew the Regional Technical Forum Policy Advisory Committee charter for a period of two years. The RTF is an advisory committee to the Council that was formed out of a directive from Congress to develop and maintain a library of conservation measures with estimated energy savings, measure costs, and measure lifetime. It’s Policy Advisory Committee advises the Council on RTF policy and governance issues.

The Council also voted to re-elect Snohomish PUD’s Jim West to serve as co-chair of the committee, and elected Council Member Lorenzen to replace former Council Member Pat Smith as the other co-chair.

LEDs provide significant energy savings
One of the more interesting nuggets from the Power Committee came as Jennifer Light, Regional Technical Forum manager, provided the final details from the Sixth Plan’s conservation achievements. In a closer look at savings, “the big winner in the residential category was lighting due to the development of LEDs, which has grown from nonexistent to ubiquitous,” said Council Member and Power Committee Chair Tom Karier.

He said the region has seen a 37% reduction in residential lighting energy consumption between 2010 and 2015. In addition, Karier said there has been a 40% decrease in the number of light bulbs sold because they last longer.

As reported last year, the region acquired 1,700 MW in conservation savings, far surpassing the Council’s six-year target of 1,400 MW. The survey also showed which measures did not live up to forecasts, such as heat pump water heaters, certain HVAC measures and conservation voltage reduction.

“The big winner in the residential category was lighting due to the development of LEDs, which has grown from nonexistent to ubiquitous”.

Tom Karier
Council Member