

PNW **CC** **REPORT** Council



Northwest Power and Conservation Council Meeting Notes – July 14 & 15, 2015 Spokane, Washington

The Seventh Northwest Power Plan is taking shape – Information is flying fast and furious as the Council staff runs its carefully crafted array of future scenarios through the Resource Portfolio Model (RPM) for the Seventh Plan. After a jam-packed agenda in Spokane, it became apparent that the Council needs more time to review the mountain of modeling results. More Power Committee webinars have been scheduled to keep Council members abreast of Seventh Plan developments.

In addition, representatives from Avista and Inland Power and Light Company threw a bit of cold water on the notion that demand response can serve as the low-cost savior for the region’s capacity constraints; instead favoring additional natural gas thermal generation solutions.

Next Council meeting: August 11 & 12 in Missoula, Montana.

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The Agenda

Demand response and conservation still least-cost for capacity needs

Council Staff members Tom Eckman, power division director, and Ben Kujala, system analysis manager, presented the results of six different scenarios and a handful of sensitivity studies. The results were summarized in terms of energy efficiency, renewable resources, thermal resources and carbon reduction.

Keep in mind that studies show that in the near term, capacity, not energy, is the region's primary need. Plus, since low load growth is forecasted, there is less need for thermal generation.

- **Demand response** – The modeling results continue to anoint demand response as the preferred resource to meet short-term peaking capacity requirements. According to the model, it is the lowest-cost option for maintaining capacity reserves, and it has a shorter lead-time and comes in more “modular” sizes than thermal generation.

Eckman said about 1,000 MW of demand response resources can be optioned before a combined-cycle turbine can be built by 2018. He noted, demand response programs do not have fuel price risk and does not produce energy in an energy-surplus market. Eckman explained that demand response is pursued when the model has exhausted purchases from outside the region.



However, when the rubber hits the road, there currently are no plans or mechanisms in place to achieve 700 MW of demand response called for in nearly every scenario. Council Member Jim Yost observed in the Power Committee meeting that the preference of demand response results are based on cost. “What we don’t look at is the utility that may need to balance variable resources,” he said.

Kujala agreed that demand response might not make sense for some individual utilities. “The best we can say is what is best for the system,” he said. “There are times where building a combined cycle plant makes sense, but demand response is still more competitive compared to building a peaker plant.”

- **Energy efficiency** – All least cost resource strategies rely heavily on conservation to meet both winter capacity and energy needs. In 90 percent of the futures evaluated, energy efficiency meets all load growth through 2030, and in 60 to 70 percent of the futures, it meets all load growth through 2035. Under all scenarios and sensitivity studies, the model counts on an average of between 1,300 and 1,430 MWa of conservation being developed by 2021.
- **Renewable resources** – Regardless of carbon risk, the model doesn’t show much change in the amount of renewable resources built, staff noted. The model only builds renewable generation to meet Renewable Portfolio Standard (RPS) requirements. In addition, commercially available renewable resources (solar photovoltaic and wind) provide limited/no winter peaking capacity, and hence are not good matches for meeting expected system need.
- **Thermal resources** – While there appears to be a need for thermal resources, there is low probability that it will happen in the near term. That’s because, as stated above, the modeling anticipates that energy efficiency and demand response can meet most of the region’s capacity needs.
- **Carbon reduction** – Least-cost resource strategies that meet proposed CO₂ emissions limits at the regional level have similar results to strategies without carbon limits. These strategies offset retiring coal plants with increased gas-fired generation, primarily from existing gas

resources and later with new combined cycle combustion turbines. Again, the carbon reduction scenarios do not significantly expand the use of renewable resources.

In addition, concerns over meeting draft EPA 111(d) requirements in the four-states will be met by planned plant closures and gas turbines running in place of existing coal plants.

Seventh Plan delivery date moved one month

The volume of information also prompted the Council to move out the birthing date of the Seventh Northwest Power Plan by a month in order to provide additional time for the review of the scenario analysis.

The new timeline calls for a release of the draft in October 2015, with public comment to take place between October 23 and December 18. After public review is gathered, the Council will take the holiday to review the input, with a final Plan adoption date of February 9, 2016.

Avista and Inland question demand response cost effectiveness

Jason Thackston, senior vice president of energy resources for Avista, and John Francisco, chief of energy resources for Inland Power and Light Company, briefed the Council on their service area's generation, conservation and carbon-reduction issues.



Thackston said that Avista's latest Integrated Resource Plan (IRP) shows a need for a natural gas peaker to respond to solar, wind and hydro variability; and that a combined cycle plant wouldn't be as responsive.

He said that in addition to Avista's generation needs, the company has a significant conservation component of 132 MWa in energy between 2016–2035, and 192 MW of capacity. He said Avista went through an analysis and found no evidences that demand response was competitive with natural gas generation in the preferred resource plan they developed. "There is no demand response in our 20-year plan," he said.

"As utilities, we feel the weight and pressure of the obligation to serve," Thackston said. "So we take things beyond the model, to think things through, talk with customers and evaluate whether demand response is realistic – and we haven't found that to be the case."

Council member Tom Karier said it would be very helpful if they could provide data about their demand response efforts. "You talked about demand response being expensive," he said. "We need case studies about knocking on doors and negotiated prices." Thackston replied that he would look at what they could make it available.

"When you get down to brass tacks and look at individual utilities' IRPs, you'll see us needing additional generation very soon."

– Jason Thackston, Avista

John Francisco said that Inland Power operates as a nonprofit looking out for its customers, 70 percent of whom are residential, spread out through eastern Washington and northern Idaho.

“Demand response is not readily available in the residential sector,” he said. “We have only one commercial meter that would fit the requirements of the program. I can aggregate a bunch of water heaters, but aggregating it over 13 counties at the drop of the hat isn’t cost effective.”

Thackston wondered if there is a disconnect between the Council’s regional plan and what individual utilities are facing.

“Take a look at the regional plan and take a look at the individual utilities,” he suggested. “When you get down to brass tacks and look at individual utilities’ IRPs, you’ll see us needing additional generation very soon.”

Francisco highlighted Inland’s progressive conservation track record, pushing it even in the face of falling and inconsistent loads. “Now we find that it’s impacting revenue,” he said.



Speaking about the rising cost pressures of aging infrastructure and an aging labor force, he raised the specter of financial hardship for Inland’s ratepayers if 111(d) regulations come to fruition, followed by the additional whammy of Washington State’s Initiative 732 carbon tax proposal. Francisco hoped that the Council could play a role in facilitating regional coordination.

“Currently, nothing outside of NEEA crosses state boundaries,” Francisco said. “Codes and standards don’t align. What I do in Washington and in Idaho is dramatically different. Implementing programs is far easier in Idaho than it is in Washington.”

Regional Technical Forum seeking new members and statisticians

Jennifer Anziano, manager of the Regional Technical Forum (RTF); and Charlie Grist, Council staff’s manager of conservation resources, briefed the Council on last year’s accomplishments and its progress in 2015.



The RTF’s core role is to develop reliable savings estimates to make sure that energy efficiency measures are in compliance with guidelines.

“Our guidelines determine how we measure savings,” Anziano said. “We have 111 measures in our library and only one is still outstanding. We’re really working toward consistency in reliable energy savings estimates.”

The RTF secured a five-year funding agreement for 2015–2019, which provides stability for long-term planning. This year, most of its budget is allocated with \$160,000 remaining for projects. It still has some funding for small rural utilities that identify specific measures they want to do.

The RTF is soliciting new blood as its members’ three-year terms are coming to an end. Staff will bring a potential members slate to the Council in October.

“One of the ‘asks’ to get in more statistical expertise to do more of this big data analysis,” Grist said. “Anyone who reviews these approaches in the regulatory arena needs to know that these savings estimates are reliable.”

Resource Adequacy Advisory Committee charter renewed

The Council approved the renewal of the Resource Adequacy Advisory Committee Charter for a period of two years. In 2005, the Council and the Bonneville Power Administration created the Resource Adequacy Forum to develop a standard for assessing the adequacy of the regional power supply and to evaluate the adequacy of the region’s power system on an annual basis.

UCUTs seek upfront funding for salmon reintroduction project proposal

Upper Columbia United Tribes (UCUT) Executive Director D.R. Michel expressed his frustrations to the Council over the tribe’s attempts to move forward in the reintroduction of salmon above the Chief Joseph and Grand Coulee dams.



Last January the UCUT spoke to the Council about wanting to begin the process. After meetings with Bonneville, Michel appeared before the Council seeking financial assistance (\$273,339 spread over 19 months) to build support and develop a project proposal. “We’re frustrated being seven months into a process and being stuck,” he said. “We need a commitment from this Council and BPA.”

Idaho Council member Bill Booth asked pointed questions about working with Corps of Engineers and U.S. Bureau of Reclamation, and whether UCUT had its proposal to them. Michel replied that they had not.

“I am sympathetic to Upper Columbia issues,” Booth said. “Much of the funding has been downstream. Bonneville is telling you that the concrete isn’t their typical obligation. That would be developed and designed by the Corps. Do you think the Corps would work with you to get the \$270,000 to get this started? If so, that would be a logical marriage because they’re the guys with the knowledge of the system.”

No action was taken by the Council.