

Northwest Power and Conservation Council

Meeting Notes

August 15 and 16, 2017

Portland, Oregon

August’s Council Meeting was more of an informational forum than one hammering out a series of action items. Bonneville laid out its plans to reduce research and monitoring expenditures in its Fish and Wildlife program. Experts shared some of the preventative measures and investments being made in the region to restore power after a disaster.

NW Natural shared its efforts to reduce emissions and educated Council members on the concept of renewable natural gas. And former Washington WUTC Chair Phil Jones provided an overview of utility and regulatory trends. All Council Members were in attendance.

The next Council meeting will be in Spokane, Washington, on September 12 – 13, 2017.

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BPA needs to recommendation to reduce funding

Two Fish and Wildlife program research and monitoring programs that have long-nettled some Council members will receive significant budget cuts, announced Bryan Mercier, Bonneville’s Fish and Wildlife Program Executive Manager. The Integrated Status and Effectiveness Monitoring Program (ISEMP) and the Columbia Habitat Monitoring Program (CHaMP) will be slashed by 50 percent in fiscal years 2018 and 2019.

Mercier said Bonneville is under budget constraints and is facing significant uncertainties with ongoing litigation over spill, the Columbia River System Operations Environmental Impact Statement, the Columbia Basin Fish Accords, and the dynamic power market. “The decision is more based on the performance and utility of the projects than it is the cost drivers,” Mercier said. “However, it’s indicative of the approach we will be taking to ensure that expenditures are performing closer to our goals and objectives.”

At prior Council meetings, Council Member Tom Karier floated the idea of defunding three monitoring projects entirely since project managers couldn’t provide results to evaluate the effectiveness of current habitat investments. To date, nearly \$60–\$70 million has been spent on the three habitat monitoring projects.

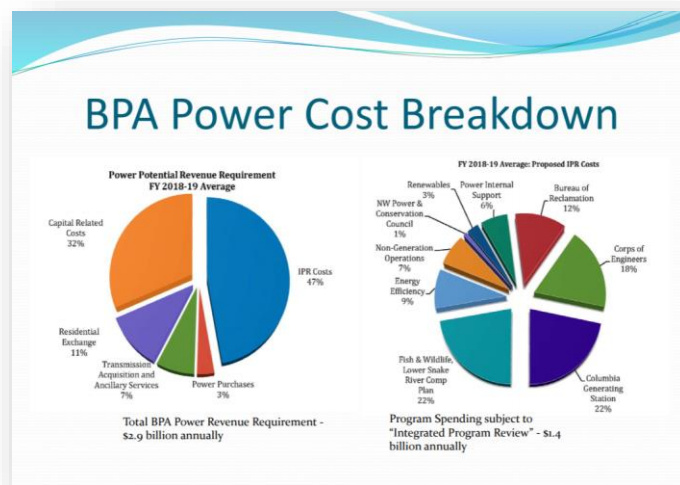
Public Power Council hits on consumers’ perspective

Expressing concern about BPA’s rate trajectory, Public Power Council (PPC) staff, Bo Downen, Scott Corwin and Michael Deen, highlighted the implications of rising costs to utility customers.

“BPA just concluded its BP-18 rate case, which is a 5.4 percent increase to Tier 1 power rates,” said Michael Deen, PPC’s Senior Policy Analyst. “That may not seem like much over two years, but we’ve had a 34 percent increase in less than 10 years, in the same timeframe inflation has been 14 percent. That’s an unsettling trend for customers.”

In particular, the effects of higher rates are felt by low-income and large industrial customers, he added. Preference customers are under contracts through 2028.

When the contracts are up and they all come off, is BPA going to be the best choice as a power supplier? That’s the question being contemplated as utilities look into the future for their power resources.



Council Chair Henry Lorenzen observed that there are a lot of factors at play. Not only is there the financial viability if people do abandon BPA, the dams and generating resources are still there and won’t go away. It will be an uncertain future, he said and Deen agreed. If a huge load left BPA, or even just 500 MW left, it would be a huge amount to spread over other ratepayers, Deen said. But

it's not just a doomsday scenario that would be problematic; it's these intermediate impacts that also could be burdensome to customers.

Deen said they recognize that BPA has made a lot of deep cuts to its internal costs and there may not be a lot left to trim, so the PPC will continue looking to ensure that the agency's fish and wildlife, and energy-efficiency dollars are being spent wisely. Member Lorenzen said he hoped that individual utilities would realize the long-term, regional benefits of energy efficiency to assure a least-cost system.

PPC's Executive Director Scott Corwin said he appreciates the importance of a long-term view, but in short term, you need to survive. "We have some utilities who have done energy efficiency since it was invented. We have other utilities in smaller, constrained service territories without load growth. With a 5-9 percent rate increase, that's not a winning business proposition."

The PPC's mission is to preserve the benefits of FCRPS for consumer-owned utilities. It is regionally focused to ensure benefits accrue locally, rather than sell off transmission for federal budget purposes, which was recently proposed in the President's budget. Other areas commanding PPC attention include the Columbia River Treaty renegotiation and ongoing litigation over environmental policies.

Utility experts look at system resiliency

A panel of energy experts briefed Council members on Northwest utility plans for response to a major system outage due to cyberattacks, major earthquake or other calamity in the region. A resilient power system relies on multiple mitigation efforts:

1. Resilience-based design in new structures;
2. Seismic retrofits on existing structures; and
3. Integrated resiliency plans that bring together transportation, communication, water delivery, electric utilities and community services.

Adam Schultz, Oregon Department of Energy Senior Policy Analyst, discussed current utility resiliency efforts, and the Plans developed following legislative action to deal with energy assurance and electric resiliency. With nearly 100 percent of liquid fuels imported into Oregon via barge or pipeline, he said plans are in place to prioritize fuel deliveries for critical public services. And an electric transmission failure from an event like a Cascadia earthquake could result in major disruptions that could take upwards of two months to restore –longer for the state's most remote areas.

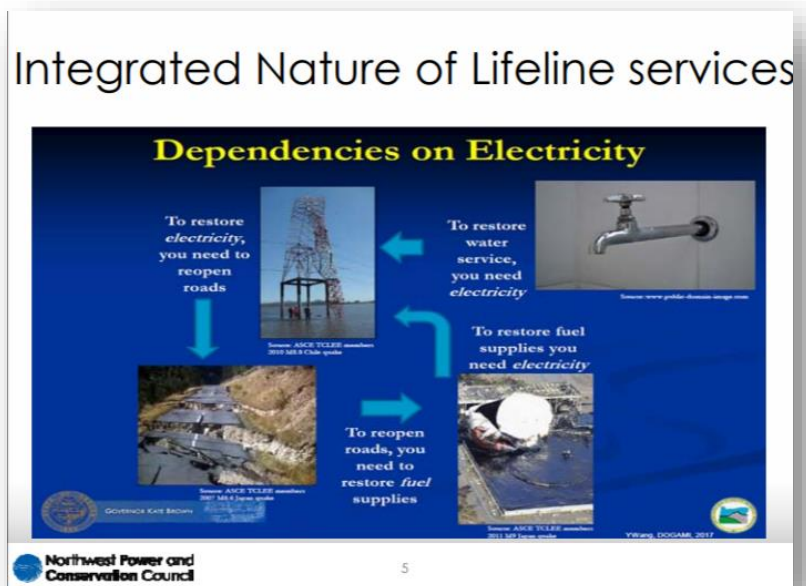
In Oregon, Schultz said the Oregon Public Utility Commission is the lead agency for coordinating electricity resiliency, and the Plan includes an option to curtail electric demand in response to a major event if necessary.

Will Price, Eugene Water & Electric Board Energy Management Engineer, discussed his utility's backup systems such as micro-grid and solar-plus battery activities which have been designed to support their resiliency plan in the event of a major earthquake. Price noted that the area is dependent upon a single water source, the McKenzie River and the challenges that presents. He also shared the challenges of reducing and restoring load in a major event.

Portland General Electric has taken steps to strengthen the resiliency of its system, Analyst Chris Dieterle said. The utility has completed construction of its readiness center in Clackamas, along with upgrades of service centers and hydro facilities. In addition, PGE has completed training for disaster preparedness.

"It's more than investing in resilient infrastructure," said Bonneville's Stephan Capps, "you need a resilient, trained workforce as well. You need processes to prioritize the risks, and have training exercises to test processes."

BPA uses an incident command system and has made significant resiliency investments in hydro facilities and transmission operations.



Capps said in the context of a disaster or incident, Bonneville's Department of Energy mission is to deliver power to load within 12 hours. That doesn't always mean that the lights come on in 12 hours, he said, because distribution companies still have to get the power to the customers.

An added nugget was a poignant reminder of what Japan has learned about resiliency since the earthquake and tsunami they suffered six years ago. Dan Bihn, an independent engineer, described the failed infrastructure from this disaster, recognizing how an event of this nature could play out in the Northwest, what Japan is doing now to achieve system resiliency and power independence, and what the Northwest should be doing to prepare.

NW Natural outlines carbon-reduction opportunities

Bill Edmonds, NW Natural’s Director of Environmental Management and Sustainability, said there’s a narrative out there suggesting we should address climate strategy with the “electric two-step,” which is to electrify everything and clean up the grid. But NW Natural wants to drive home the importance of natural gas as a resource for meeting peak load, he said, and the role it plays in reducing greenhouse gas emissions.

As a natural gas distribution and storage company, serving over 725,000 utility customers in Oregon and Washington, NW Natural has recently begun efforts to develop lower carbon pathways using existing natural gas infrastructure.

A LOW CARBON FUTURE

- We believe there is a climate imperative.
- We believe NW Natural and natural gas have an important role to play in a smart and affordable Northwest climate strategy.
- We believe greater emission reductions are possible through voluntary, collective action and constructive policy engagement.

NWN OBJECTIVES		
1	2	3
Long-term goal of deep decarbonization that leaves no one behind.	Near-term actions take advantage of the natural gas infrastructure already in place.	Lead the way on natural gas innovations - and share broadly for larger impact.

NW Natural analysis, not for investment purposes. 2

Edmonds said NW Natural set a 30% carbon savings goal by 2035, based on a 2015 baseline. Adding, their opportunities lie in reducing the impact of its product, promoting energy efficiency among its customers, and converting fleet vehicles to natural gas.

Edmonds explained that the natural gas industry can deliver a product with less carbon intensity by looking upstream to reduce methane emissions.

In Portland, NW Natural entered into a partnership with the City of Portland to inject renewable natural gas (RNG) from the Columbia Boulevard Wastewater Treatment Plant into the company’s distribution system.

In addition, NW Natural will build and maintain an RNG transportation fueling station at the site for medium and heavy-duty trucks. Will it be a boutique measure or enough to have an impact? Edmonds said in Oregon, the transportation opportunity is the largest piece of the climate pie. And there is the potential for 15-17 billion cubic feet, which is 25 percent of the company’s current sales throughput. “By our calculations, it’s enough to matter,” he said. Currently, Oregon is the sixth worst state for diesel emissions, he said.

Former WUTC commissioner looks at utility and regulatory trends

Phil Jones, former Washington Utility and Transportation Commission Chair and National Association of Regulatory Utility Commissioners President, joined the Council to share his thoughts on the changing energy markets in the Northwest and West Coast. Jones covered a lot of familiar ground including the impact of flat loads/no growth, renewable portfolio standards, energy-efficiency mandates, and potential customer defections from the grid.

He did get into some intriguing territory discussing the growing political involvement in commission processes. He said, state commissions are supposed to be independent, but governors and legislators are increasingly stepping into the detailed processes of commissions.

One example he cited is the concept of what is “used and useful” for electric consumers. Having been modified over the years, specifically in Washington and Oregon, commissions have issued policy statements to waive the used and useful test. Washington also modified used and useful on electric vehicle infrastructure investments. Capital investments should provide tangible benefits to ratepayers, Jones said, but because of state mandates, things can change.

Council Briefs

Irrigation technologies

The Power Committee heard a presentation from Fred Ziari, of IRZ Consulting, on advancements in irrigation technologies as they relate to water and energy efficiency. He said the region has made incredible progress on improving water and energy across the four states. The presentation looked at some of the newer technologies, such as variable rate irrigation where every nozzle can be controlled separately. Drones and high-tech communications are also being used, and there is greater potential for energy efficiency. Member Karier added there also could be a potential for load balancing, demand response and integrated pump storage operations.

Distribution efficiency savings

Efforts are underway to develop a program to assess and capture distribution efficiency savings – where a power line experiences a wide variation in voltage from the substation to the feeders. Council staff estimates 200 aMW in savings, but only 7 aMW has been saved in the last five years. This requires sophisticated programming and engineering and Council staff is working with Bonneville and utilities to figure out the shortfall.

The value of conservation

The Power Committee discussed the disconnect between council’s analysis of conservation’s significant value to the region, and trying to convert that value to individual utilities. The next step is to work on a white paper to provide a systematic look at the issue.