

## Northwest Power and Conservation Council

Meeting Notes  
July 10 and 11, 2018  
Missoula, Montana

The Missoula Council meeting didn't generate a torrent of breaking news, but the gathering did give Members a chance to learn more about the effort to get Montana renewables to market, the lasting impact of the region's energy efficiency efforts and one co-op's successful dive into demand response. The Members also passed the Council's budget for Fiscal Years 2019 and 2020.

All Members were in attendance. The next Council meeting will be August 14 and 15 in Portland, Oregon.

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### The Agenda

#### **Bringing Montana renewables to market: Complicated, but do-able**

Montana's wind resources are reputed to be some of the best in the world and with 700 MW of installed wind, the state has potential to develop much more according to Brian DeKiep, NWPPC Montana staff. The key is to get it to where it's needed — specifically the West Coast as DeKiep pointed to the findings in the "Montana Renewables Development Action Plan" released in June.

The Plan culminated an effort by BPA Administrator Elliot Mainzer and Montana Governor Steve Bullock to bring stakeholders together to address renewable energy development in Montana. He said the extensive participation of stakeholders brought the parties together and improved the regional understanding of the opportunities and barriers. Ultimately this discussion informed a set of actions captured in the Plan to supplement the 2007 Wind Integration Action Plan and create a long term, sustainable strategy to support the development of renewable resources in Montana.

A significant conclusion is that the delivered cost of Montana renewables appears to be competitive with other renewable energy in the Northwest and there is unused transmission capacity that could reach the Mid-Columbia region.

What hasn't been seen though, is a pull from Washington and Oregon to get at these resources, said Bill Pascoe, of Pascoe Energy Consulting. While the renewables are cost-competitive, uncertainties about transmission and integration services are impediments. For example, Montana can't shape the wind for Washington because it violates their renewable portfolio standards for "pure renewable energy," he said. The Washington legislation would have to be changed.

BPA should consider requests for providing products and services for integrating resources located outside the BPA balancing authority. We think it's a way for BPA to develop additional revenues, Pascoe said.

Looking forward, the rights-holders of Montana to Northwest transmission, currently used to deliver energy from Colstrip 1 & 2, have flexibility after retirement of their coal generation in 2022. And with relatively minor investments (compared to new line builds), the existing transfer capability

of the Colstrip Transmission System can support a one-for-one replacement of Colstrip generation with new sources, including renewables.

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Tim Baker,  
Council Member  
Montana

One of the group's findings is that many of the transmission and integration challenges for Montana developers could be mitigated by formation of a Pacific Northwest Regional Transmission Organization. However, formation of an RTO is a complex endeavor with potentially significant cost and governance issues.

Council Member Tim Baker from Montana said that there's always been a perception that Montana's wind renewables are hard to get to market.

"What we found in this process is that it's complicated, but it's doable," Baker said. "It's the power of having all those stakeholders in the room coming to that understanding, including potential buyers, that's the most significant accomplishment."

## **Kootenai Electric Co-op's voltage reduction initiative pays off** **Demand side management paradigm shift**

Kootenai Electric Cooperative, headquartered in Hayden, Idaho, has saved \$400,000 a year after implementing demand response using voltage control in 2016. According to Shawn Dolan, vice president of engineering and technical services for Kootenai Electric Cooperative, prior to Bonneville implementing their tiered rate methodology, utility wholesale demand charges in the

Pacific Northwest were too low to justify a demand-side management system. That isn't the case anymore as BPA above-contract high water mark (CHWM) demand charges are between \$6.96 and \$11.64 per kW each month (PF-18 Rates).

After forecasting that it would pay for itself within two years, Kootenai adopted a voltage control scheme that is hooked into every line voltage regulator and load tap changer on their system. The system monitors system load, aggregates it and if they get within 5 percent of the system peak for that month, adjusts the voltage down as low as they can without violating standards. It also monitors temperature, demand shape and recaptures lost energy sales.

#### The Demand Side Management Paradigm Shift

Prior to 2011 BPA Demand Charges were below \$3.00 per kW

Now BPA above contract high water mark (CHWM) Demand Charges are between \$6.96 and \$11.64 per kW each month. (PF-18 Rates)

This form of demand response has been used for years in the Midwest and East Coast. Under current rates, the program can save utility a significant amount of money. The benefits of voltage control demand response at Kootenai allowed them to shave peak demand from 1.5% to 5% with little impact to customers.

Dolan said that out of 27,000 accounts, only three noticed the co-op was doing something. One was a navy base on Lake Pend Oreille and another was a radio talk show host.

## Economic and energy-efficiency trends draft white paper released

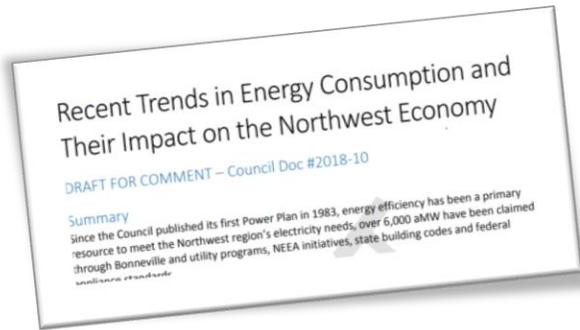
### Comments due August 24, 2018

The Council voted to release its draft white paper, "Recent Trends in Energy Consumption and Their Impact on the Northwest Economy," for public comment.

Council staff examined recent economic trends to determine if the impacts of energy efficiency are evident and sustainable over a long period of time. Looking at the region between 1990 and 2015, the result of utility and BPA programs, energy codes and efficiency standards have reduced load by about 5,800 aMW. A look at energy consumption per capita shows a 25 percent decrease in energy consumption over the same period of time. As well as a 53 percent reduction in the total energy consumption by dollar of gross state product.

In the residential sector, the increase in use of natural gas for space and water heating has contributed significantly to the drop in per capita consumption. On the flip side, larger homes and increased penetration of central air conditioning have added electricity use. Yet, more energy efficient homes – with increasingly efficient appliances and technologies – have played a large role in the overall decrease of a person's energy use.

In the commercial sector, staff estimates that electricity use has declined 38 percent from what it would have been if electricity use per unit of economic output stayed at the 1990 rate. While in the industrial sector, there was a 57 percent drop in energy demand. And energy efficiency does not fully account for the significant drop in industrial load since 2000, due to the declines in the regional aluminum industry. Yet, staff estimates that electricity demand could have been as much as 7,700 aMW higher by 2015 without energy efficiency programs.



In sum, changes in the region's economy and efficiency improvements total over 12,000 aMW difference in what demand for electricity could have been.

While lauding the report, Council Members had questions about the impact of specific industries in the region. They requested staff to look more closely at a few specific industries, such as data centers, to see how that information could further complete the industrial sector picture.

## Council votes to adopt FY 2019 and FY 2020 Budgets

The Council voted 7–1 to approve its Fiscal Year 2019 Revised Budget and Fiscal Year 2020 Budget.

Following the release of the draft budgets in May, the Council received comments from the Northwest Requirements Utilities and Public Power Council. Both asked if the Council was responsive enough to BPA's financial situation. In response, Sharon Ossmann, Administrative Division director, said staff reviewed the budget levels taking Bonneville's situation into consideration. Fiscal Year 2019 was reduced by \$206,000 and an additional \$1.1 million in cost-cutting measures were identified in Fiscal Year 2020 through Fiscal Year 2023.

In voting against the Budget, Member Tom Karier said he believes that greater scrutiny should be given to the Council's Fish and Wildlife expenditures.

## Council Briefs

### Mid-Term Assessment coming together for October release

The Power Committee reviewed two draft sections of the Power Plan's Mid-Term Assessment. The Demand Response section measures key progress for regional implementation of demand response since the release of the Seventh Power Plan. The Generation Resources section provided updated costs for generation technologies, resource acquisitions and retirements, compliance with renewable portfolio standards, carbon emissions and energy production. In October, all the sections will be presented to the Council, according to Ben Kujula.