



Northwest Power and Conservation Council

Meeting Notes
January 10-11, 2017
Portland, Oregon

January's Council meeting was short when a storm that dropped 12 inches of snow hit Portland on the first day of business. Some were lucky to get out of town before the ice and snow shut down freeways, disrupted air travel and closed businesses.

Before adjourning, the first day's meeting did produce news that NuScale Power submitted an application to build the nation's first small modular reactor. Also, a team of wind and solar developers told the Council why the time is ripe to bite into renewable power opportunities.

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

In This Issue

NuScale submits application to Nuclear Regulatory Commission	1
12-modular reactor moves forward for Carbon Free Power Project	
Renewable footprint grows in Northwest	2
<i>Panel on renewable development urges utilities to buy now</i>	
<i>Structural challenges remain – transmission remains key</i>	
Council Briefs	4
<i>Fish and Wildlife project cost savings earmarked</i>	
<i>Power Committee charts its next steps</i>	
<i>Welcome Council Member Tim Baker</i>	

The Agenda

NuScale submits application to Nuclear Regulatory Commission **12-modular reactor moves forward for Carbon Free Power Project**

NuScale Power chose an appearance before the Council to announce they had submitted a design certification application to the Nuclear Regulatory Commission for a proposed small modular reactor (SMR). Utah Associated Municipal Power Systems (UAMPS) will be the project lead, owner and licensee as part of their Carbon Free Power Project (CFPP). The preferred site location is on Department of Energy land at the Idaho National Laboratory in Idaho Falls.

A team effort from the start, NuScale collaborated with Oregon State University for development and testing, investing over \$500 million. Energy Northwest will round it out as consultant during development and first right operation and maintenance service provider.

With 12-small scale 50 MW power modules, Christopher Colbert, NuScale's chief strategy officer, said the plant would produce up to 600 MW of power. The current timeline calls for the plant to be operational by 2027.

The Council's Seventh Power Plan identifies small modular reactors as an emerging technology and an alternative to conventional nuclear power plants.



Renewable footprint grows in Northwest

The Northwest's renewable footprint has come a long way. Today wind, solar and geothermal projects total 8,000 MW in contrast to double digits in 1998. And, more than \$21 billion has been invested in regional renewable projects and manufacturing, with almost 12,000 jobs created according to Rachel Shimshak, Renewable Northwest's executive director.

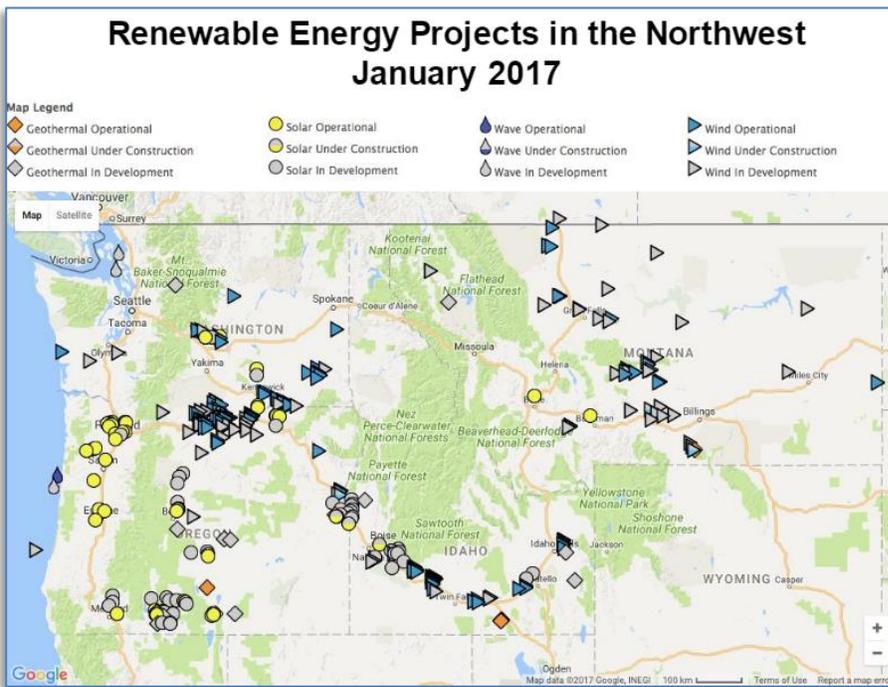
Panel on renewable development urges utilities to buy now

Shimshak urged utilities to seize the opportunities gifted by federal incentives, state mandates and lower prices. "The Production Tax Credit (PTC) is available now, so we're urging utilities to buy early," she told the Council. "It's a buyer's market with good deals to be had," she said.

Derek Reiber, Vestas Americas' sales director, said that Power Purchase Agreement (PPA) prices have dropped steeply to an average of \$20-25 dollars per MWh. The levelized cost of wind energy has dropped precipitously over the last eight years — more than 60 percent since 2009, as has the cost to integrate it, he said.

Vintage, 100-percent value turbines are available and will be through 2020, Johnny Casana, with EDP Renewables said. It's a bit of a clearance sale. The first utilities that get a request for proposals out to capture the full, production tax credit (PTC) market will get it, while those late to the game will miss out. "It's as cheap as it will be in our lifetimes," he said.

Solar also had a seat at the table. The industry is where wind was 8-10 years ago, stated Jeff Bissonnette, executive director of Oregon Solar Energy Industries Association.



While costs have been coming down and opportunities have increased, we still need incentives, he said.

The extension of the tax credit came as an unexpected breath of life for a lot of companies. However, the industry still has to plan for smaller or no incentives.

Structural challenges remain – transmission is key

Some challenges in the Northwest have to do with WECC being mostly a bilateral and fiscal market where transmission is concerned, Casana said. There isn't an opportunity to optimize dispatch across a wide footprint.

Michael Cressner, Orion Renewable Energy Group, briefed the Council on advantages that Montana wind could provide Northwest power customers. We peak at the same points as Puget and PGE's demand, he said. "Columbia River Gorge wind is a summer-peaking resource. Montana trends toward winter peaking. It presents a huge capacity value that Montana wind is unique in providing." Of course, transmission remains the key to development.

Council Member Bill Bradbury asked, what needs to be done to make sure that the transmission system is available for these renewable resources? Casana replied that one thing we don't do in the region is talk to each other. In WECC, there are 38 different Balancing Authorities that handle their own transmission, he said. In MISO, there are 15 states with one BA. "Here, when they want to share reserves and resources, they have to call a human," Casana said. "Other places have technology trading in real time. Let's upgrade the computer software, rather than relying on land lines."

Council Briefs

Welcome Council Member Tim Baker

Member Lorenzen welcomed new Council Member Tim Baker from Montana, remarking, “We haven’t reduced our number of lawyers on the Council.” Member Baker has served as an attorney for Montana Public Service Commission and Department of Environmental Quality. Most recently, he served four years as Governor Bullock’s natural resources advisor, dealing primarily with energy issues. He also served as the executive director of the Montana Wilderness Association and as communications development director for Montana Trout Unlimited. Member Baker replaces former Council Member Pat Smith.

Fish and Wildlife project cost savings earmarked

The Council’s Fish and Wildlife Committee’s busied itself divvying up \$600,000 in discovered cost savings. It allocated \$200,000 to hatcheries and screens infrastructure, and the Council gave the green light to earmark \$300,000 to study white sturgeon and possible projects on cold-water refugia and lamprey.

However, Bonneville Power told the committee that it shouldn’t count on those funds in the future, as the agency’s costs are being impacted by the Federal Columbia River Power System’s (FCRPS) National Environmental Policy Act (NEPA) BiOp requirements. BPA said that some of the savings would need to be directed to cover some of those NEPA costs.

Power Committee charts its next steps

The Power Committee is looking to expand energy efficiency in hard-to-reach areas, (such as among renters, low-income and rural customers), developing demand response, improving forecasting models, incorporating energy storage and electrifying transportation. The Power Division staff also is looking at load forecasts outside of the Northwest. “We need to look at the entire West Coast because it determines the market, overall prices and what happens in the Northwest,” stated Committee Chair and Council Member Tom Karier.