Demand response demonstration project concludes with high success rate, national award

Richland, Wash. – Energy Northwest, its public utility partners, City of Richland, Cowlitz County Public Utility District, Pend Oreille County PUD together with the Bonneville Power Administration, successfully concluded an aggregated demand response demonstration project.

“The success of this pilot demonstrates the reliability and potential value of demand response to the region and our public power members,” said EN CEO Mark Reddemann. “This technology furthers our mission to provide regional ratepayers responsible energy solutions.”

Conceptually, demand response builds on the idea that while individual electrical loads are relatively small compared to the scale of a regional transmission grid, the coordinated decrease or increase of many loads at once may serve as a cost-effective alternative to building or purchasing the output of additional electric generating stations or transmission infrastructure, resulting in overall cost savings for Northwest ratepayers. During the trial project, participants successfully reduced energy usage in nearly 80 separate events.

For BPA, growing demands on the federal hydropower system, along with the increase of wind and other intermittent renewable generation in the region, has increased demand on BPA’s finite ability to provide balancing reserves to meet industry reliability standards.

“This was a groundbreaking project for demand response as a flexible, reliable resource that can support the federal power system,” said Mark Gendron, BPA’s senior vice president for Power Services. “Energy Northwest has been a tremendous partner and its infrastructure as a DR aggregator has proven out.”

This month, the Peak Load Management Alliance, a national community of experts and practitioners who advance demand response, recognized the demonstration project as one of the nation’s best demand response programs, initiatives and achievements from 2015.

BPA and EN placed a pilot-scale 18-megawatt demand response resource in service last February. Pend Oreille County PUD and its customer Ponderay Newsprint Company joined in April, bringing the resource to its fully-subscribed 35-megawatt capacity.

During each test event, BPA, using AutoGrid’s Demand Response Optimization and Management System platform, sent a signal to EN’s Demand Response Aggregated Control System, which forwarded the signal (more)
to participants, such as Cowlitz County PUD, which serves North Pacific Paper Corporation, a large pulp and paper manufacturing facility in Longview, Wash.

After receiving the signal, each participant reduced electric power usage. To be considered a successful event, the load change had to be completed within 10 minutes and sustained for a given period of time. EN’s aggregated control system collected detailed metering information from each asset and reported total capacity response, or electricity use reduction, to BPA. At the end of an event, DRACS sent a terminating signal for the asset to resume normal operations. DRACS is hosted within Pacific Northwest National Laboratory’s Electricity Infrastructure Operations Center, a U.S. Department of Energy-funded incubator facility built and operated for such roles.

Energy Northwest and its public utility partners continue to look for diverse electric loads from customers willing and able to reduce their electric demand on short notice. The participating public utilities that provide the customer loads for ongoing demand response resources are expected to include utility participants in Idaho, Oregon and Washington.

Energy Northwest and BPA will continue to evaluate the results from this project and, potentially, identify opportunities for further use of the pilot resources.

**About Energy Northwest**

*Energy Northwest develops, owns and operates a diverse mix of electricity generating resources, including hydro, solar and wind projects – and the Northwest’s only nuclear energy facility. These projects provide enough reliable, affordable and environmentally responsible energy to power more than a million homes each year, and that carbon-free electricity is provided at the cost of generation. As a Washington state, joint action agency, Energy Northwest comprises 27 public power member utilities from across the state serving more than 1.5 million ratepayers. The agency continually explores new generation projects to meet its members’ needs. [www.energy-northwest.com](http://www.energy-northwest.com)*

**About BPA**

*The Bonneville Power Administration, headquartered in Portland, Ore., is a nonprofit federal power marketer that sells wholesale electricity from 31 federal dams and one nuclear plant to 142 electric utilities, serving millions of consumers and businesses in Washington, Oregon, Idaho, western Montana and parts of California, Nevada, Utah and Wyoming. BPA delivers power via more than 15,000 circuit miles of lines and 261 substations to 475 transmission customers. In all, BPA markets about a third of the electricity consumed in the Northwest and operates three-quarters of the region’s high-voltage transmission grid. BPA also funds one of the largest fish and wildlife programs in the world, and, with its partners, pursues cost-effective energy savings and operational solutions that help maintain affordable, reliable and carbon-free electric power for the Northwest. [www.bpa.gov](http://www.bpa.gov)*

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