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Pacific Northwest smart grid demo moves forward with testing new technology *NETL authorizes full \$89 million in funding to Battelle for project*

RICHLAND, Washington – Battelle and the Department of Energy's National Energy Technology Laboratory have finalized a cooperative agreement that will authorize the release of all \$89 million in Recovery Act funding obligated to the Pacific Northwest Smart Grid Demonstration Project. The funds will be added to another \$89 million contributed by the Bonneville Power Administration, 11 utilities and five technology companies that make up the demonstration project team.

Sen. Maria Cantwell (D-WA) announced the release of \$47 million in partial project funding in August which allowed project participants to move out and test new smart grid technology, and maintain project momentum. With the full funding now authorized, the team will be able to solidify contracts and equipment purchases for the entirety of the five-year project. At its peak, the project could create about 1,500 jobs in manufacturing, installation and operation of smart grid equipment, telecommunications networks, software and controls.

"We are eager to help the nation create a more efficient and reliable electricity infrastructure, sharing knowledge and learning along the way," said Mike Kluse, a senior vice president at Battelle in Richland, Wash.

Smart grid technology is designed to improve the power grid's reliability and performance by optimizing the push and pull from supply and demand. Electricity generators, suppliers and consumers are all part of the equation and need to understand the value they receive from these investments. A smart grid enhances power delivery and use through intelligent, two-way communication between suppliers and consumers. Interactive

appliances in homes, improved substation automation and sensors on transmission lines monitor activities in real time, exchange information about supply and demand and adjust power use based on instantaneous data.

The project will expand existing electric infrastructure and test new combinations of devices, software and analytical tools in homes and on the grid in 12 Pacific Northwest communities. Information from consumers involved in the study will flow back to the Electricity Infrastructure Operations Center located at Battelle's Richland campus, for analysis. There researchers will quantify the costs and benefits of smart grid technology at both the local and regional level. The data generated from the demonstration project is expected to enable a level of grid performance and transparency to real-time grid status not currently attainable. Public and private sectors will then be able to use this information to reduce the operating costs for utilities, which are usually passed on to consumers.

The \$178 million Pacific Northwest demonstration project is one of [16 regional smart grid demonstration awards](#) announced by DOE last fall. DOE set aside a total of \$620 million of American Recovery and Reinvestment Act money for the regional smart grid demonstration projects.

The Pacific Northwest Smart Grid Demonstration Project team is lead by Battelle and includes the Bonneville Power Administration and 11 utilities, listed below, including investor-owned and municipal utilities, rural electric cooperatives and public utility districts. Several technology companies and vendors also are working with Battelle to implement the project including 3TIER Inc., Alstom Grid (formerly AREVA T&D), IBM, Netezza Corp., and a team of QualityLogic, Inc. and the Drummond Group, Inc.

The project team will install equipment and technology now through mid-2012. Then, for about the next two years, project leaders will gather data on smart grid performance from 13 test sites that represent the region's diverse terrain, weather and demographics. The test sites stretch from Fox Island in Washington state's Puget Sound, to the Teton Mountains in western Wyoming, and include the main campuses of the University of Washington and Washington State University. The project will interact with more than 112 megawatts of electrical resource -- load and generation -- which is equivalent to the electricity needed to serve 86,000 households.

Each team member will take part in projects tailored to its customers so that the overall demonstration will meet a variety of needs in the five-state region. For more information visit the project's website at

www.pnwsmartgrid.org.

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Pacific Northwest Smart Grid Demonstration Project Test Site Locations and Corresponding Utilities

Idaho

Idaho Falls ([Idaho Falls Power](#))

Montana

Northwest Montana ([Flathead Electric Cooperative, Inc.](#))

Southwest Montana ([NorthWestern Energy](#))

Oregon

Milton-Freewater ([City of Milton-Freewater](#))

Portland ([Bonneville Power Administration](#))

Salem ([Portland General Electric](#))

Washington

Ellensburg ([City of Ellensburg](#))

Fox Island ([Peninsula Light Co.](#))

Kennewick ([Benton PUD](#))

Pullman ([Avista Utilities](#))

Richland ([Battelle, Electricity Infrastructure Operations Center](#))

University of Washington ([Seattle City Light](#))

Wyoming

Western Wyoming ([Lower Valley Energy](#))

Technology and Vendor Team Members

[3TIER, Inc.](#)

[Alstom Grid \(formerly AREVA T&D\)](#)

[IBM](#)

[Netezza Corp.](#)

[QualityLogic, Inc.](#) and [Drummond Group, Inc.](#)

Additionally, there are several companies that will be collaborating with one or more of the project's utilities.

About the Pacific Northwest Smart Grid Demonstration Project

The Pacific Northwest Smart Grid Demonstration Project (PNW-SGDP) is a collaborative, five-year test of new technologies and capabilities that will make our regional power grid smarter. Unique in size and scope, the PNW-SGDP involves the Bonneville Power Administration, five technology partners, 11 utilities across five

states, Washington, Oregon, Idaho, Montana and Wyoming, and the University of Washington. The PNW-SGDP will demonstrate the potential for a safe, scalable and interoperable smart grid for regulated and non-regulated utility environments. The project is managed by Battelle's Pacific Northwest Division located in Richland, Washington. Battelle is a \$5.6 billion non-for-profit organization that benefits mankind by helping solve some of the world's toughest science- and technology based challenges. For more information visit the project's website at www.pnwsmartgrid.org.

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