

Wind Power on BPA System Sets New Record

Local News

Posted by: David Haviland

Posted on : March 26, 2012 at 5:50 am

Portland, OR - Wind turbines in the Bonneville Power Administration's transmission grid generated over 4,000 megawatts for the first time on Sunday, March 11, producing nearly twice as much energy as that generated by coal, gas and nuclear plants connected to BPA's system at that time.

Wind generation on BPA's system surpassed the 4,000 megawatt milestone at 3:22 p.m., reaching a new all-time peak of 4,039 megawatts about an hour and a half later. BPA expects to have 5,000 megawatts of this clean, emission-free, renewable resource connected to its system by 2013, several years ahead of earlier estimates.

The growth of wind power on BPA's grid continues to exceed expectations by adding almost 1,000 megawatts in just the last 12 months. That's more than almost any state in the country added last year. Because BPA owns and operates three-quarters of the Northwest's high voltage transmission, the agency continues to play a vital role in the extraordinary development of this renewable resource.

We continue to collaborate with wind developers and others to interconnect and integrate wind. This represents BPA's commitment to reliably and cost-effectively connect and balance a variable energy resource - one of the great engineering challenges of the 21st century. - Brian Silverstein, senior vice president for BPA Transmission Services

These efforts include expanding and reinforcing the agency's transmission system to support wind integration. Here are some examples: BPA recently completed a 79 mile long 500-kilovolt power line and is constructing another high voltage line. When the second is complete BPA will be able to offer approximately 3,000 megawatts of firm transmission service to wind facilities that have requested it. Like a freeway interchange BPA recently put into service another large substation to enable wind to get to the power grid. The Central Ferry Substation, located in Garfield County in southeast Washington, feeds energy from Puget Sound Energy's new Lower Snake River Wind Project into BPA's massive transmission system. The Snake River project is now providing 343 megawatts of clean, renewable power. BPA has developed a state of the art wind speed and wind generation forecasting system that forecasts up to three days in advance as opposed to the previous system that provided information only one hour ahead. BPA continues to expand a pilot program that allows customers to adjust schedules every 30 minutes. Traditionally, utilities schedule electricity generation on an hourly basis. But wind generation changes much more rapidly. This enables utilities and wind plant operators to save money by finding places to sell energy when they are producing more than they schedule. It also provides them the opportunity to find other resources to replace the energy if they are producing less than they have scheduled. "Renewables such as wind are an important part of America's energy independence and an important part of the Northwest's energy future," said Silverstein. "We are proud of this accomplishment."

These investments have provided thousands of jobs in the region, many in rural communities that have suffered during this recession.