



PUDs plugging into **COLUMBIA GORGE WINDS**

By Dave Andrew

The Columbia River Gorge has been described as a “symphony of water and rock” slicing its way through the Cascade Mountains. But in addition to its spectacular scenery, the gorge is also known for its almost constant winds, as evidenced each summer when the river becomes crowded with weekend windsurfers and sail boarders.

As the Northwest looks for new, renewable sources of energy, what meteorologists call the Columbia Gorge gap flow is also attracting the attention of pioneers in the development of utility-scale wind power.

The Big Horn and Klondike wind farms now ride the winds that funnel down the river gorge, with other wind projects on the way. That list includes the 205-megawatt White Creek Wind Project in Klickitat County, which is expected to go online by January 2008, generating enough renewable energy to power 38,000 homes. The first of 89 Siemens

wind turbines (each 2.3 megawatts) will be shipped to the Port of Longview in May and trucked to the project site in June.

The White Creek Wind Project, on 9,500 acres of windswept ranchland east of Goldendale, Wash., was initiated by four public power utilities, including the Cowlitz County Public Utility District and the Klickitat County Public Utility District.

The other two consumer-owned utilities involved in the \$360 million project are Lakeview Light & Power in Pierce County and the Tanner Electric Cooperative in eastern King County. All four utilities are members of the Last Mile Electric Cooperative, a group of public power utilities, government entities,

and other organizations that came together in 2001 to promote renewable energy.

In an innovative financial agreement, the White Creek Wind Project was sold in

December to an investment group that includes affiliates of the Prudential Capital Group, Lehman Brothers and Summit Power, in part so investors can utilize federal production tax credits that are available for renewable energy projects.

“As we embarked on White Creek, it was very clear that we could not rely on Renewable Energy Production Incentives

(another federal program) because historically REPI has been significantly under-funded,” explained Cowlitz PUD General Manager

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“A project the size of White Creek would have only exacerbated the REPI shortfall,” Skeahan said. “Production tax credits make it far more cost effective for a private investor to own and operate a wind project than for a public utility to do so. Our challenge was to create an arrangement that meets federal and state law, creates a good return for the investors and benefits our electric customers.”

(Created in 1995, REPI provides a 1.5-cent per kilowatt-hour incentive for public power utilities to build renewable generation using solar, wind, geothermal, tidal power or biomass resources. Utilities receive payment only after a project is completed.

(Public power utilities annually apply for far more than is available through the program. The Washington Public Utility Districts Association is asking Congress to fully fund the program, or at a minimum, provide \$25 million a year for development of renewable energy resources.)

The four utilities involved in the White Creek project have signed 20-year agreements to purchase power from the investment group, known as White Creek Wind I LLC, and have an option to repurchase the project after 10 years.

Cowlitz PUD’s interest in the White Creek project is due, in part, to Initiative 937.

Approved by the voters in November, I-937 requires electric utilities with more than 25,000 customers to provide at least 3 percent of their power from non-hydroelectric renewable energy sources by 2012. That increases to 9 percent in 2016 and 15 percent by 2020.

Cowlitz PUD, which provides power to 47,000 customers, now buys about 91 percent of its electricity from the Bonneville Power Administration, which markets power produced predominately by the federal Columbia River basin hydroelectric system.

The PUD also owns the 70-megawatt Swift No. 2 hydroelectric facility on the north fork of the Lewis River, and buys some additional hydroelectric power from the Grant County PUD and wind power from Energy Northwest’s Nine Canyon Wind Project near Kennewick.

Cowlitz PUD’s share of the wind power from the White Creek project – as much as 63 percent, although allotments are not yet final – will put it in position to meet the

I-937 requirements by 2012, and most of the initiative’s requirement for 2016.

“We are pleased to be at the forefront, addressing the future renewable portfolio standards required by I-937,” Skeahan said.



Cowlitz PUD is the only utility involved with the White Creek project currently affected by I-937.

On the other hand, Klickitat PUD’s interest in the project is due primarily to the utility’s anticipated growth and the fact that virtually all of BPA’s future power will be allocated in a manner that requires utilities to be responsible for their own load growth.

“We recognized early that BPA’s power allocation in 2011 would not meet our load growth or that of the region,” said Klickitat PUD General Manager Tom Svendsen. “This project puts us ahead of the curve in addressing these shortfalls.”

Klickitat PUD, with about 11,250 customers, also operates the McNary Fishway Hydroelectric Project, a small hydro facility that sits alongside the fish ladders at the federal McNary Dam near Umatilla, Ore., and a 10-megawatt landfill-gas generating facility at the Roosevelt Regional Landfill.

The PUD is in the process of installing two generators to gain an additional 10 megawatts at the huge regional landfill – the fourth largest permitted landfill in the United States. The additional generation is expected to be online in 2008.

Construction crews put in about 20 miles of roads last fall to provide access to the White Creek turbine sites, along with other improvements, and work on the turbine foundations

started this spring. Each of the 89 foundations will require up to 350 cubic yards of concrete.

BPA and the Klickitat PUD are also building new substations to serve the project. The BPA substation, known as Rock Creek, will also serve Windy Point and Windtricity, two more wind projects now under development, as well as any expansion to the nearby Big Horn project, a 200-megawatt wind farm already in operation that is owned by Portland-based PPM Energy, a subsidiary of ScottishPower.

In addition, BPA will provide the White Creek project with 100 megawatts of “wind storage” and “shaping” services.

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amount of hydro power in reserve. The four White Creek power purchasers will then be able to draw upon the more predictable hydroelectric power from BPA during off-peak periods, up to a week later.

Even though 205 megawatts of generating capacity is being installed at White Creek, because the wind isn’t always at full force, planners are anticipating that White Creek will produce about 58 average megawatts.

The White Creek project is within an energy overlay zone covering about two-thirds of Klickitat County that the county created in 2005 to encourage the development of wind projects. There are at least six other major wind projects in the same area in various stages of development.

Columbia Gorge Community College, across the river in The Dalles, Ore., is also introducing a Renewable Energy Technology program this fall with an emphasis on wind systems. ☐

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