



FOR IMMEDIATE RELEASE

## **3TIER Environmental Forecast Group Provides Wind Forecasting Expertise to the Bonneville Power Administration**

**With the Support of: Department of Energy & National Renewable Energy Laboratory**

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***The first wind/hydro optimization effort to reduce operating costs through improved forecasting accuracy***

**SEATTLE, Wash.—April 25, 2005**—3TIER Environmental Forecast Group, an independent large-scale renewable energy forecasting and assessment provider, and the Bonneville Power Administration (BPA), a Federal agency that markets wholesale electricity and transmission to the Pacific Northwest, recently announced the signing of a two-year contract for 3TIER Group to provide advanced wind energy forecasting services for BPA's growing facilitation role to support wind energy projects in the Pacific NW. This wind/hydro optimization project is the first of its kind in the United States and aims to increase the accuracy and quality of wind generation forecasts for BPA's hydro optimization effort, reducing operating impacts and consequent costs to support wind energy development.

"Wind is one of the lowest-cost energy resources capable of supporting the growing energy demand of the Pacific Northwest," said John Pease, BPA Wind Forecasting Network project manager. "This project will increase the accuracy of our wind forecasts and play a critical role in our understanding of the interactions between wind energy and the hydro system."

Building on a recently-completed operational research study with the University of Washington, the forecast system will integrate 3TIER Group's advanced wind energy forecasting capabilities with real-time wind data from the extensive BPA tall tower wind measurement network, which is operated and maintained by Oregon State University. BPA is expecting a considerable increase in the amount of wind energy in its control area over the next several years. The operational focus will be forecast time horizons ranging from intra-hour to 7 days in advance, with an emphasis on the within the hour and two to five-day forecasts needed for BPA hydro optimization efforts.

"Numerous wind integration studies have shown moderate grid cost impacts due to wind power variability. In every case, more accurate wind forecasting has been identified as perhaps the best way to reduce these impacts," says Brian Parsons, project manager at the National Renewable Energy Laboratory (NREL). "The U.S. Department of Energy and NREL Wind Research Program are pleased to provide technical assistance and financial support to BPA in this effort. As wind power grows to provide more of the national electricity supply, pioneering efforts such as this will lead the way toward a goal of intelligent, appropriate

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integration of clean, renewable wind power while maintaining the high reliability and low cost of our nation's vital electric infrastructure."

"Forecasting accuracy is an extremely important factor in renewable energy generation. It becomes even more critical in sustaining current energy levels and maintaining renewable energy revenue streams during periods such as this year's impending drought—when wind can supplement other renewables such as hydro—to provide essential energy generation," said Kenneth Westrick, founder and chief executive officer of 3TIER Group. "3TIER Group's extensive global experience in wind energy forecasting for large-scale projects will provide BPA with the information they need to successfully integrate wind energy into their control area. We applaud BPA's efforts in the field of hydro/wind integration, and we look forward to working with both the BPA and NREL on this project."

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**About 3TIER Environmental Forecast Group**

3TIER Environmental Forecast Group, Inc. provides large-scale, scientifically-based renewable energy forecasting and assessment services for wind, hydro and solar energy projects worldwide, and currently is the largest provider of these services in North America. Whether predicting the availability of renewable resources from one-hour to 30 years in advance, 3TIER Group provides the most reliable and accurate data available – for single or integrated resource projects – enabling companies to maximize operational efficiency and make effective and informed renewable energy decisions. Founded in 1999, Seattle-based 3TIER Group exclusively employs scientific and engineering experts who develop and manage sophisticated environmental prediction systems using advanced computing technologies and proprietary methodologies such as 3TIER Group's cutting-edge R<sup>3</sup>™ process. For more information, visit the 3TIER Group website at [www.3tiergroup.com](http://www.3tiergroup.com).

**About the Bonneville Power Administration**

The Bonneville Power Administration, headquartered in Portland, Oregon, is a Federal agency under the U.S. Department of Energy. BPA serves the Pacific Northwest through operating an extensive electricity transmission system and marketing wholesale electrical power at cost from Federal dams, one non-Federal nuclear plant and other non-Federal hydroelectric and wind energy generation facilities. BPA aims to be a national leader in providing high reliability, low rates consistent with sound business principles, responsible environmental stewardship and accountability to the region.

***For more information, press only:***

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