



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

CORPORATE STRATEGY

May 12, 2009

In reply refer to: S-7

Dear BPA Customers and Interested Parties:

Wind power is undergoing unprecedented growth in the Northwest, much of it in the heart of Bonneville Power Administration's transmission grid. We now have more than 2,000 megawatts of wind power connected to our system, including six wind farms that were added in just the last five months. By 2013, BPA could have as much as 6,000 megawatts of wind power connected to its system.

BPA has been facilitating this rapid growth of wind energy in three ways:

1. **Expanding use of existing transmission:** Our Network Open Season process last year allowed us to provide 1,780 megawatts of new transmission service without major construction by letting projects that are ready to use transmission make a financial commitment for service. This March, we began offering Conditional Firm transmission service to another 1,200 megawatts of new service requests. This provides transmission with the potential for a small amount of interruption if transmission becomes congested.
2. **Adding new transmission:** This summer, BPA will break ground on the major John Day-McNary 500-kilovolt transmission line in eastern Oregon and Washington. The line will deliver more than 700 megawatts of additional wind energy across BPA's grid.
3. **Creating new operational tools:** A 2007 study led by BPA and the Northwest Power and Conservation Council found that it is technically feasible to have 6,000 megawatts of wind power in the Northwest by 2020. The study identified 16 technical issues for the region to resolve to realize this potential. The unexpected speed of wind power development has put a priority on resolving these issues quickly. BPA has created a ***Wind Integration Team or WIT*** to focus the agency's efforts in this area.

The WIT works collaboratively with utilities and wind project owners. We invite you to follow and participate in this timely and important work. Here are the immediate involvement opportunities:

- **Attend the next Wind Integration Team public meeting** on May 29 from 9:00 a.m. to noon in the BPA Rates Hearing Room, 911 N.E. 11th Ave., Portland, OR. We will discuss and review a proposed two-year work plan with priorities for developing the most promising operational tools for efficient and cost-effective large-scale wind integration.

(You also can participate by phone by dialing 503-230-5566. Enter the code 8277# when prompted. Callers can mute or un-mute their lines by pressing*6.)

- **Send an e-mail to BPAAwindintegration@bpa.gov** to receive e-mail updates on WIT activities and notice of WIT public meetings.
- **See our new wind power Web pages at www.bpa.gov/go/wind.** These pages will allow you to follow wind power's growth on BPA's grid and the progress of our Wind Integration Team projects.

The Wind Integration Team is focused on seven critical areas. At the May 29 meeting, we will look at the proposed work plan for each of these areas and consider their relative priorities and interdependencies.

- 1) **New operating protocols:** New protocols go into effect this October to assure grid reliability while the wind fleet in BPA's area continues its fast growth. We are installing necessary operating and control equipment for these procedures.
- 2) **Improving regional wind forecasting capability:** BPA is installing a number of new meteorological monitoring devices and is sponsoring research to improve short-term forecasting of extreme wind fluctuations in the Northwest. BPA is also participating in the Northwest Wind Integration Forum to develop a more accurate day-ahead, hour-ahead and near real-time wind energy forecasting system.
- 3) **Creating better state awareness tools for dispatchers:** BPA is developing better tools to give transmission and power dispatchers greater understanding and awareness of wind generation patterns and operational risks, and to obtain access to state-of-the-art wind forecasting capability.
- 4) **Increasing dynamic transfer capability:** This would allow wind farms physically located on BPA's transmission system to be balanced by other utilities using electronic telemetry. A prerequisite is to evaluate the impacts on the available transfer capacity (ATC) of transmission paths, which includes consideration of voltage stability and remedial action schemes. The WIT is working with other utilities to develop a methodology to manage these impacts.
- 5) **Purchasing third-party supply of capacity reserves:** Last year, BPA issued a Request for Information about third-party supplies of services to support wind power. The results were encouraging, and we expect to launch a pilot project in October 2009. Dynamic transfers would be necessary to use some third-party supply sources.

- 6) **Developing self-supply of capacity reserves:** Some wind developers have expressed an interest in self-supplying capacity reserves to reduce their exposure to BPA's wind integration rate.
- 7) **Developing sub-hourly scheduling protocols:** New scheduling protocols would allow generation schedule changes within a given hour to better match within-hour variations in wind power. BPA is considering the development of within-hour scheduling capabilities and is participating in the Joint Initiative with ColumbiaGrid, WestConnect and the Northern Tier Transmission Group to develop protocols.

In the last decade, wind power has grown from commercial infancy to a significant Northwest energy source. By working with BPA's Wind Integration Team, you can help realize the full potential of this renewable energy source.

If you have any questions, please contact Eric King at (503) 230-5236. I look forward to your participation.

Sincerely,

/s/ Elliot Mainzer, 5-12-2009

Elliot Mainzer
Executive Vice President, Corporate Strategy

cc:

S. Wright – A-7	B. Silverstein – T-DITT2
A. Burns – D-7	S. Simons – TO-DITT2
C. Brannon – DK-7	B. McManus – TOT-DITT2
A. Decker – K-7	H. Juj – TP-DITT2
S. Oliver – PG-5	S. Enyeart – TPC-TPP-4
K. Connelly – PGS-5	C. Ehli – TS-DITT2
S. Barton – PGSD-5	E. Elizeh – TS-DITT2
K. Beale – PGST-5	R. King – TSP-TPP-2
S. Berwager – SR-7	M. Manary – TSR-DITT-1
Eric King – SR-7	S. Holden-Baker – TSS-DITT-1