



New plan speeds wind integration work

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Faster schedules, more staff, more budget, higher hopes. That's the essence of the new [work plan for BPA's Wind Integration Team](#) released June 16, 2009, along with a [letter](#) from Brian Silverstein, senior vice president for Transmission Services.

"We've heard what our customers want, and we've responded," said BPA Wind Integration Team Manager Eric King. "We've moved up customers' highest-priority projects by a year." BPA customers generally supported a draft work plan at a May 29 public meeting, but they asked BPA to move faster.



The new schedule will require adding staff in order to do work simultaneously instead of in sequence, and it calls for increasing the agency's investment in wind integration techniques by about \$7 million a year in 2010 and 2011. "We had budgeted \$2 million a year in the revenue requirement for 2010-2011 rates," King said. "With the accelerated schedule, we may seek external funding for some projects."

The work plan focuses on how operators control the transmission grid minute-to-minute and day-to-day. "For the last decade, we've been adding wind generation projects into our transmission grid. Now, we're changing the way we operate our grid to better accommodate the resulting large amounts of wind power," King explained. "Together, these projects will begin to fundamentally change our grid operation into the faster, more flexible grid needed for wind, solar and wave power and for Smart Grid technologies."

In the next six months, BPA will:

- Install meteorological equipment on up to 16 BPA facilities from the Columbia River estuary to the Tri-Cities, Wash., to create BPA's own wind forecasting capability.
- Complete automation of new operating protocols that will assure reliable grid operation with limited hydro reserves assigned to wind power. This is a critical step in limiting wind integration charges to wind projects, pending availability of other forms of reserves.
- Begin scheduling power by the half-hour, not just on the hour. This is a fundamental change in transmission grid operation. BPA will begin with wind projects that are exceeding their hourly schedule. Over time, this approach could expand to include other variable power sources such as solar and wave energy and even conventional generation.

In 2010, the team will finish more projects:



- Dispatchers will have a full set of wind generation and forecast displays. BPA will staff a 24/7/365 “wind” desk in its dispatch center next to the existing hydro desk to better anticipate changes in wind generation and adjust power scheduling accordingly.
- BPA and 16 other Western utilities working together in a [Joint Initiative](#) will have a common methodology for determining when they can rely on reserves from a power plant in another utility’s area.
- Using that methodology, participating wind project owners will be able to self-supply some of their own reserves, rather than relying wholly on BPA hydropower for reserves when their output comes out over or under its schedules.

A project to seek additional reserves for BPA to purchase has been delayed because it is of lowest priority to customers.