



### BPA Wind Integration Team Initiatives Update to WIT E-mail List April 2010

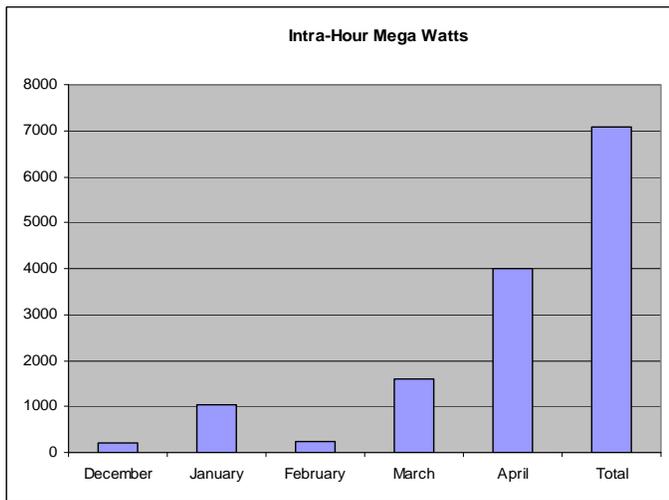
This is the monthly update on BPA’s Wind Integration Team initiatives for April 2010. If you have questions about any of these initiatives, contact Eric King, WIT project manager, at 503-230-5236.

**For discussion – firm contingent product code for wind?** BPA is circulating a discussion paper on the concept of requiring use of a Western Electricity Coordinating Council “firm contingent” energy product code for wind power located in BPA’s transmission balancing authority area rather than the current “firm” product code. This would respond to concerns raised by members of the Northwest Power Pool Operating Committee that the “firm” power e-Tag now used is not consistent with potential curtailment of wind power schedules under BPA’s operating protocol Dispatcher Standing Order 216. It would clarify the responsibility of the receiving balancing authority to deploy reserves when e-Tags are curtailed under a DSO 216 event. BPA is open to other solutions.

BPA has posted the discussion paper for comment through May 31, 2010, and will hold a public meeting to discuss this issue from 10 a.m. to noon, Friday, May 21, in the BPA Rates Hearing Room, 911 NE 11<sup>th</sup> Ave., Portland. Comments should be directed to [techforum@bpa.gov](mailto:techforum@bpa.gov). The discussion paper is posted on BPA’s external website at [www.transmission.bpa.gov/includes/get.cfm?ID=1758](http://www.transmission.bpa.gov/includes/get.cfm?ID=1758).

**Netting wind projects for DSO 216 on track:** BPA received three comments on a [draft business practice](#) that would allow owners of multiple wind projects in BPA’s balancing authority area to net their projects’ output for purposes of responding to DSO 216. The comments from Puget Sound Energy, Iberdrola Renewables and Tilghman Associates were all supportive with some suggestions. With minor modifications, the final business practice should be done in May, ready for netting for DSO 216 response to go live on June 1.

**Intra-hour scheduling use increasing:** April saw 49 uses of intra-hour scheduling on BPA’s



transmission grid totaling 4,004 megawatt half-hours. This is more than all previous uses of this service combined. Two contributing factors: April was windier than this past winter, and Portland General Electric has instituted a within-hour business practice. In at least one instance, use of a within-hour schedule allowed a wind project to eliminate for the second half of an hour a 50-megawatt gap between its generation schedule and actual generation that emerged early in the first half of that hour. Customer feedback suggests benefits of within-hour scheduling include minimizing forecast error and generation imbalance and reducing the incidence of DSO 216 events.

**Conditional firm transmission terms adjusted for DSO 216:** BPA continues to adjust its operations for wind integration. Most recently, BPA refined its business practice for [Conditional Firm](#)



[Transmission Service](#) to note that curtailments of wind generators as a result of DSO 216 do *not* count toward the number of hours in which a purchaser uses Conditional Firm Transmission.

**BPA responds to FERC’s wind power inquiry:** Along with many other parties across the nation, BPA provided [comments to the Federal Energy Regulatory Commission](#) on April 12 in response to FERC’s Notice of Inquiry on Integrating Variable Energy Resources. In its comments, BPA emphasizes that it supports reliable, cost-effective integration of variable resources and that its comments are intended to further FERC’s efforts to advance national clean-power goals. BPA based its comments on its experience in integrating close to 3,000 megawatts of wind energy in its transmission grid, most of which is exported to other utilities’ balancing authorities.

In its comments, BPA suggests that the single best way to reduce wind integration costs is to improve the accuracy of wind generation forecasting and scheduling. BPA strongly supports the cost allocation principle that aligns costs with benefits and says market structures also need to align costs and risks with benefits and provide transparency. BPA recommends that balancing authorities that host large amounts of exported wind power should be allowed to clearly define and enforce limits to their balancing reserve obligations and should not be considered the default supplier of balancing reserves for wind generators that export their output to serve loads elsewhere. BPA calls on FERC to *encourage but not mandate* regional efforts that can help reduce wind integration costs and operating impacts, including:

- Investments in improved wind forecasting and generation scheduling accuracy.
- Scheduling power by the half hour (intra-hour scheduling) as well as by the hour.
- Increased balancing authority coordination.

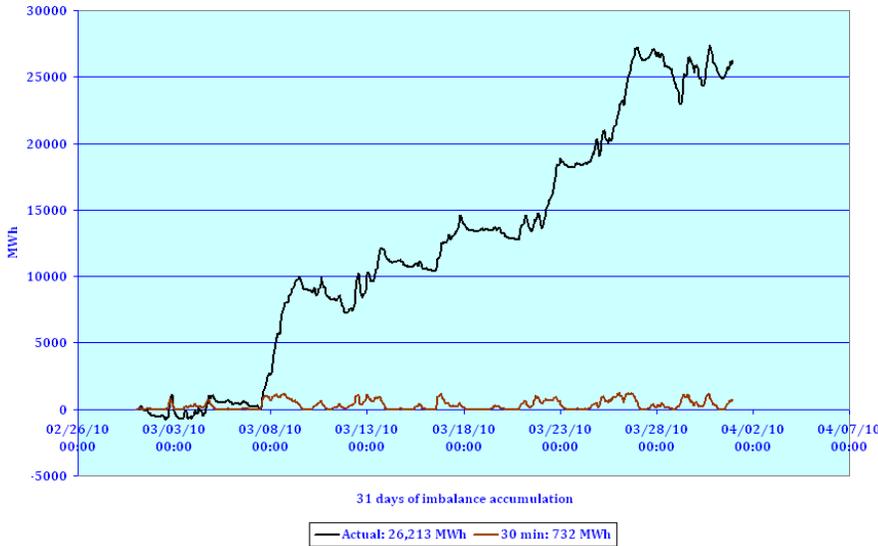
**May 12 and 27 rate case workshops will focus on wind:** BPA is conducting workshops on issues to be considered in developing power and transmission rates for fiscal years 2012-2013. Some of these workshops, including those currently scheduled for May 12 and 27, address rate-related aspects of wind power and generation inputs for imbalance reserves. The workshops will be held in the BPA Rates Hearing Room at 905 NE 11th Ave., Portland, Ore. They normally run from 9 a.m. to 5 p.m. To call in, dial 503-230-5566, wait for double beep, then enter 2010#. For information on this and other rate case workshops, go to: <http://www.bpa.gov/corporate/ratecase/2012/meetings.cfm>. Or, see the [BPA Calendar](#).

**Generation Imbalance practice out for refinement:** Transmission Services has posted Version 3 of [Generation Imbalance Services Business Practice](#) for comment through May 7, 2010. This business practice describes Generation Imbalance Service and the associated accounting. Generation Imbalance Service corrects for the difference between hourly energy scheduled by a generator and hourly energy delivered in that hour. Version 3, which is now out for comment, adds a set of general factors that BPA will consider when evaluating requests for a waiver of persistent deviation penalties. These penalties accrue when output from a wind generator remains more than 15 percent and 20 megawatts off its schedule in the same direction for four hours. Transmission Services will not provide exact metrics for each factor that would guarantee a waiver would be granted, as waivers are discretionary and all of the circumstances will be taken into consideration. Comments should be submitted to Transmission Services by e-mail to: [businesspractices@bpa.gov](mailto:businesspractices@bpa.gov)



**Generation imbalance recent experiences discussed:** On April 22, BPA met with transmission customers on a number of issues, including recent operating experiences and customer uses of generation imbalance reserves. Click here for the [presentation](#) on generation imbalance. BPA noted that, in recent months, discrepancies between wind power schedules and actual output have, in some

March 2010 accumulated imbalance from the BPA Wind Fleet



cases, led to significant accumulation of imbalance in one direction over time. This can put a long-term draw on BPA’s hydro system capability and energy supply. For example, in March, the wind fleet in BPA’s balancing authority drew about 26,000 more megawatt-hours of energy in incremental energy imbalance from BPA’s system than it oversupplied through decremental imbalance. This is shown in the black line on the graph at left. The red line shows

imbalance that could have accumulated if all wind power had been scheduled assuming wind for each next hour would track wind production of the preceding 30 minutes (30-minute persistence).

The generation imbalance charge in BPA’s current rate structure is based on the assumption that imbalance would reflect random and unbiased schedule errors and would not produce accumulated imbalance in one direction. BPA directed interested parties to ongoing [rate case workshops](#) for discussion of appropriate rate treatment for fiscal years 2012-2013.

**New fact sheet available:** A new edition of BPA’s [fact sheet](#) on its wind integration activities is available on the BPA wind power Web page, replacing the March 2009 edition, which was out of date.



# 2010-11 Wind Integration Roadmap and Timeline

