



B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

2010 BPA Rate Case Transmission & Ancillary Services “Alternative Wind Integration Rate Concept”

**The following document was received from
Iberdrola Renewables on October 24, 2008.**

Pre-decisional.
For Discussion Purposes Only.

Alternative Wind Integration Rate Concept

General Features:

- BPA provides a limited and fixed amount of reserves (e.g., associated with 30-minute persistence scheduling accuracy).
- Revenue neutral charge levied based on scheduling accuracy to provide incentive for accurate schedules.
- Any down-regulation required beyond what can be provided by BPA would be the responsibility of the wind generators/schedulers or other non-federal sources.

Overview of Wind Integration Rate Concept:

(Note: Rate Design is focused on ensuring BPA recovers its costs. This rate design proposal should not interfere with BPA's reliable and efficient management of the day-to-day operations of the system.)

- BPA establishes and holds the amount of within-hour reserves required for the expected MWs of installed capacity assuming a 30-min persistence schedule.
- A rate will be established based on the amount of within-hour reserves BPA needs to cover a 30-min scheduling error assumption.
- A monthly charge would be levied on schedules that are on average less accurate than a 30-min persistence schedule. Collections under the scheduling provision would be revenue neutral and credited back to non-offending wind generators.

Benefits to Proposal:

- Addresses the reliability concerns – wind is the “backstop” for BPA if reliability is at risk due to poor scheduling practices.
 - BPA retains the ability to limit wind generators to schedule in the event of a reliability issue, and following their dispatch standing order protocol.¹
 - To the extent the collective wind fleet is scheduling at a 30-min persistence level or better, wind limitations should be, on average, no more than two hours a month.
- Ensures power services fully recovers revenue requirement associated with within-hour reserves for wind.
- Risk that within-hour reserves needs exceed forecasted amounts is placed on wind generators who must hold to schedule, or procure/self-supply additional reserves if they are required.
- BPA can reduce the amount of within-hour reserves it is holding for wind integration by nearly 2/3rds.

¹ The dispatch protocol must be finalized before any rate design based on limits to schedule can be agreed to.

***DRAFT – Not reviewed or approved by or on behalf of any party
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- Wind generators have the opportunity and incentive to improve scheduling practices prior to the rate period, in exchange for a more reasonable overall wind integration rate.
 - Wind generators would be required to provide more accurate schedules and be subject to penalties for poor scheduling practices.
- BPA will be able to increase the amount of wind it can reliably integrate.
- BPA would have more time to work with the region on providing longer-term solutions for integrating larger amounts of winds (see examples below) without inhibiting regional wind development in the near term.
 - Increasing dynamic scheduling capability
 - ACE Diversity
 - Reserve sharing with adjoining control areas
 - Enabling third party supply of reserves.