

IBERDOLA RENEWABLES, INC. DRAFT FOR DISCUSSION

Wind Balancing Service Proposal

Draft for Discussion Purposes Only at the Generation Inputs Workshop on 8 March 2012

- Bonneville will continue to allocate cost-based Balancing Reserves (Regulation, Following & Generation Imbalance) sufficient to cover [99.5% - could be significantly less if BPA implements a variable cost component of reserves to complement the capacity based portion] of all anticipated wind variability over the rate period.
- Bonneville will recover the cost of providing this service through the Variable Energy Resource Balancing Service (VERBS) rate.
- On a [rate period/schedule by schedule] basis, for both INC and DEC service, generators will have the following options:
 - Elect to rely solely on the allocated capacity based VERBS to balance their station control error
 - Elect to purchase supplemental reserves from Bonneville to fully cover their station control error.
- If generators opt to rely only on the allocated capacity based VERBS to balance their station control error, the existing DSO 216 mechanism will be exercised when allocated reserves are exhausted (i.e. when allocated DEC reserves are exhausted, Bonneville will instruct wind generators to limit their generation and when allocated INC reserves are exhausted generation schedules will be curtailed). This activity will continue to be exercised through the existing iCRS infrastructure.
- If generators opt to purchase supplemental reserves, Bonneville will utilize all additional INC or DEC (all physically feasible resources available to them – federal resources or market purchases) up to the point where only its Contingency Reserve Obligation (CRO) remains when allocated VERBS reserves are exhausted. When all physically feasible INC or DEC reserves are exhausted, Bonneville can direct generators to reduce their generation or curtail the schedules of any generator (thermal, wind, solar, etc.) whose generation level is lower or higher than schedule to preserve reliability. If conducted in this way, VER tag curtailment frequency should be greatly reduced and all tag curtailments will be conducted for reliability reasons. As mentioned above, generators will be able to separately opt into the purchase of supplemental reserves for INC and DEC (i.e. some generators may choose to only purchase supplemental INC reserves and accept DSO 216 generation limitation orders on the DEC side).
 - All INC or DEC reserves provided by Bonneville in excess of the initial amount allocated under the VERBS (in excess of the [99.5%] coverage level) will be priced at a penalty rate (the “Reserve Penalty Rate”) to ensure Bonneville fully recovers its costs and to send appropriate price signals to incent good scheduling practices. The Reserve Penalty Rate

will be charged to generators through the existing Generation Imbalance settlement mechanism.

- The Reserve Penalty Rate will be the higher of market price at Mid-C or COB over a 48 hour period (the current 24 hour period and the next 24 hour period of the event requiring deployment of additional reserves). If new market mechanisms are implemented in the Northwest which enable BPA to access additional INC or DEC the Reserve Penalty Rate will be modified to reflect the market clearing price of the mechanism plus a 10% adder. This 10% adder is necessary to provide Bonneville with proper incentive to fully participate in the new market mechanism. If a full EIM market were to be implemented, Bonneville would no longer have an obligation to offer Schedule 9 service and each generator would obtain its full balancing requirement from the market. This would result in the elimination of the VERBS for the rate period following the full market implementation.
 - Structuring the penalty price in this manner will ensure that Bonneville can replace the generation deployed on behalf of VERs and restore any lost system flexibility resulting from unallocated reserve deployment.
- Bonneville's Persistent Deviation penalty is punitive, it incents improper scheduling behavior, and by Bonneville's own admission at a recent stakeholder meeting, is not satisfactorily addressing Bonneville's accumulated imbalance problem. Bonneville should eliminate its Persistent Deviation penalty. The Reserve Penalty Rate will help to ensure wind generators submit schedules representing the best possible forecast and Bonneville will collect sufficient revenue through the Reserve Penalty Rate to manage any remaining accumulated imbalance.