

BPA Wind Initiative Update

Customer Forum 33

October 13, 2011



Topics

- Intra-Hour Scheduling Pilots – Troy Simpson
- Dispatcher Standing Order 216 Phase III – Kevin Johnson
- Customer Supplied Generation Imbalance Pilot Phase II – Scott Simons
- Dynamic Transfer Capability – Peggy Olds
- Business Practice Updates – Preston Michie, Mark Jackson
- Wind Forecasting – Scott Winner

Intra-Hour Scheduling Update



Intra-Hour Scheduling Phasing Review

| | Phase I December 1, 2009 | Phase II June 28, 2011 | Phase III September 27, 2011 |
|---|-------------------------------------|------------------------------------|--|
| Transmission Products Available In-Hour | 1-NS Secondary 1-NS Non-Firm IH | 1-NS Secondary 1-NS Non-Firm IH | 1-NS Secondary 2-NH Non-Firm 6-NN Non-Firm |
| E-Tag Service Type | 1-NS | 1-NS | All |
| Request Type | New | New | New/Adjusted |
| Generation Resource | BPA Wind | Any | Any |
| Flow Type | Export | Any | Any |
| E-Tag Start Time | :30 | :30 | :30 |
| Ramp Duration | 10 Min. | 10 Min. | 10 Min./Blank |

CAISO Intra-Hour Scheduling

October 17, 2011

- This project will use dynamic e-Tagging and dynamic communication to facilitate intra-hour schedule changes
- Participants will submit hourly dynamic e-Tags when power from their wind projects is being exported to California
- BPA will use the dynamic e-Tag to create a schedule with the CAISO
- During the operating hour, participants will update the second half hour of the e-Tag to reflect an intra-hour schedule change.
- BPA will use the updated dynamic e-Tag to change the schedule with the CAISO

Committed Intra-Hour Scheduling

October 1, 2011

- BPA reduces wind integration rate in exchange for mandatory intra-hour schedule changes that equal or exceed 30 minute persistence with 30 minute scheduling interval
- Participant must sign up and prequalify
- Limited to 1,200 MW

Dispatcher Standing Order 216 (DSO216) Modifications



DSO216 Modifications

- BPA will assess reserves levels during the ramp and allow for triggering and implementing during the last half of the hourly ramp
- If reserves recover by the end of the Dispatcher review period, cancel the internal alarm
 - No Limits or Curtailments are initiated
- Reset the Warning state back to Normal if reserves recover during the hour
- Changes scheduled to go into place around November 30, 2011

Customer Supplied Generation Imbalance (CSGI) Pilot Update



CSGI Status Update

- Working with Participant to integrate additional balancing resources
 - Dynamic Transfers
 - Capacity type resources similar to On Demand

- Modifying performance expectations

CSGI Status Update (continued)

- Enhancing processes and procedures:
 - Defining processes, roles, responsibilities, and expectations for adding or modifying balancing resources
 - Developed standard work breakdown structures for technical work associated with resource integration

Dynamic Transfer Capability (DTC) Pilot Phase II Update



Dynamic Transfer Capability (DTC) Pilot Phase II Update

- DTC Pilot Phase II started start October 1 -- as planned.
- All DTC requestors received DTC awards in the Pilot Phase II.
- BPA continues to finalize Dynamic Transfer Operating Agreements (DTOAs) or Dynamic Transfer Agreements (DTAs) with awardees ready to move forward to implement new DTC awards.
- One DTC awardee (Iberdrola Renewables) will continue under both the DTC Pilot and the CSGI Pilot.

Columbia Grid/NTTG DTC Task Force Status Update

- Work with Columbia Grid/ NTTG DTC Task Force has been continuing.
- Two reports have been completed to date and are posted on the Columbia Grid website.
- The Task Force is currently performing the studies necessary for the 3rd report. For this report, the methodologies described previously are assessed by applying them to specific paths. The goal is to demonstrate a methodology that Transmission Operators can use to develop variability limits for their individual systems.

Business Practice Updates



Business Practices – Status Update

BPA has posted the final business practice and provided response to customer comments on the following business practices:

- Intra-Hour Scheduling Pilot Phase 3 V.4
- Requesting Transmission Service V.8
- Supplemental Service

BPA is preparing the final version and response to customer comments on the following business practices:

- Generation Imbalance V.6
- Energy Imbalance V. 7.
- Scheduling Transmission Service V.7.
- Committed Intra-Hour Scheduling
- CAISO Intra-Hour Scheduling (Pilot delay start to mid-October)

Business Practices – Status Update (continued)

- **Energy/Generation Imbalance Business Practices**
 - Add details on intra-hour schedules for imbalance settlements, per the 2012 rate case
 - Update Persistent Deviation to be consistent with the 2012 rate case

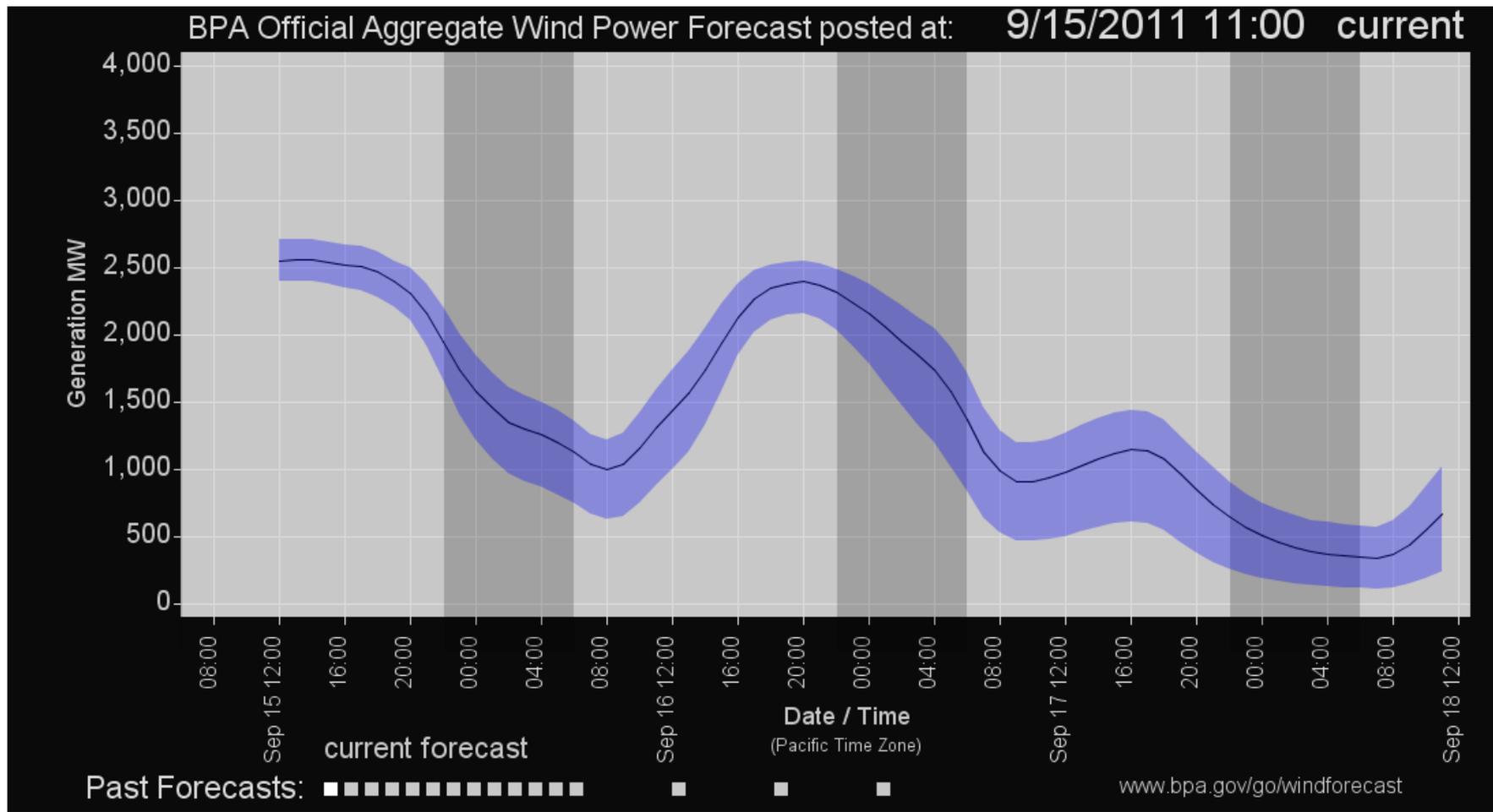
- **Scheduling Transmission Service Business Practice**
 - Requires Network Customers to utilize 7-FN NERC priority code when tagging firm network schedules. Previously just requested.

Future Business Practice Activities

BPA will post revisions to its On Demand Rights business practice for customer comment shortly. We will propose:

- Changing the name of the business practice to “On Demand Resource Scheduling” to more accurately reflect its content
- Allowing resources with BPA’s Balancing Authority to qualify as an On Demand Resource, a practice not currently allowed
- Allowing Demand Response resources to qualify as an On Demand resource
- Precluding “capacity” tags and “firm contingent” tags on the DC Tie to avoid reliability problems
- Other revisions to bring the business practice up to date

Wind Power Forecasting Update



Wind Power Forecasting Update

- Moving towards blended forecast from its internal and external forecasts
 - Similar to European forecasting efforts

- Release a new RFO for vendor forecasting subscription services
 - Early in 2012