Meeting Notes from ACS-Rates Settlement Forum Workshop

December 5, 2013

"Framework" Subgroup briefing:

RNP provided preliminary briefing stating that subgroup had had a successful interim meeting with good discussions on product ideas; reviewing comparable balancing issues – operational; cost allocation; and, rate design. The Group is asking for additional information on 3rd party market supplying reserves to BPA/customers.

BPA on "Purchases of Balancing Reserve Capacity by Bonneville When No Deficiency Exists":

Bonneville explained that it is not consistent with sound business principles to purchase third-party reserves to displace the FCRPS. BPA Staff also pointed out that customers can use self-supply to purchase non-Federal reserves. Further, BPA does not have the statutory authority to purchase additional balancing reserve capacity when BPA has determined it has sufficient balancing reserve capacity on a forecasted basis to meet forecasted need.

Customers appeared to agree with the first two points made by BPA but asked clarification questions about BPA's ability to displace the FCRPS. Customer questions focused on BPA determination of "sufficient." Rate Case decisions led to determination of making 900 (INC)/1100 (DEC) available for balancing. BPA noted that these values can be reexamined, perhaps outside the Rate Case.

Customers requested additional information in order to better understand the differences seen in values established on the Planning Basis versus what might be seen in "real-time". Perhaps, also examine comparison to actual shape of loads in multiple time frames. BPA Staff pointed out that when shopping for "real-time" balancing the FCRPS is already set up so we'd be considering non-FCRPS resources.

A customer sought clarification on the cap on the amount of self-supply. BPA Staff pointed out that the cap was a condition of the settlement (for additional information see Rate Period Terms in the Settlement Record of Decision, document number BP-14-A-01, No. 6).

BPA on DSO 216 performance observations:

BPA presented data on DSO 216 curtailments, particularly in comparison to all curtailments. Most meeting participant customer segments acknowledged that DSO 216 makes up an extremely small percentage of all curtailments. It was observed that the largest contributors to curtailments were due to derating and other transmission problems. It was also observed that a proportionally large number of the cuts originated in the CAISO. It was noted that in the data shown on the distribution of DSO 216 across an hour that none occur in the 10 minutes prior to the hour due to the problems that would be caused with AGC during ramping. BPA does not curtail in the 10 minutes prior to the hour. It was also noted that there have been fewer curtailments in 2013 than 2012 and none since September 2103. BPA Staff has not yet analyzed the reason for this change but agreed to look into it and report back. Additionally, BPA Staff commented that it did not appear that any single wind project stood out as a major contributor to DSO 216 events. Some wind customers made the observation that while DSO 216 curtailments comprised a small fraction of the total curtailments,

the threat of curtailment created uncertainty in the market (in California) and devalued wind products from the BPA Balancing Authority Area. Some customers placed emphasis on moving away from status quo and toward curtailments across all schedules with an exploration of the possibilities associated with strategic reserve procurement and initiatives that support better scheduling habits.

Customers noted that the data on MWh DSO 216 monthly curtailments (Slide 10) did not show limit to schedule events which may help explain the different levels.

RNP asked BPA whether there was time prior to April 2014 to test a "real time" approach. Customers (RNP) asked for high-level draft of scoping such a consideration real time pilot. There was broader general customer support for BPA to understand more about when need for balancing occurs, how much and the potential supply available to match needs. BPA responded that a business case should be presented prior to work plan. BPA staff acknowledged the gap between customers that support focusing on preschedule solutions and customers that want to see further progress or commitments to move towards real-time tools and solutions. BPA will have to think on how to address this gap, no commitments were made.

Balancing Reserve and its Components

BPA Staff presented data on the components of balancing reserves. The discussion looked closely at the reserve deployment relationships between the contributions of wind and load (load includes non-AGC hydro and Federal thermal). Customers were generally silent about any conclusions that they may have reached based on the information presented.

Balancing Reserve Capacity – Acquisition and Scheduling

BPA Staff reviewed implications of participating in day-ahead markets to acquire third-party balancing reserve capacity. A healthy discussion took place which addressed BPA's FCRPS operational objectives and also included a more in-depth look at the role of analysis in preparing the Trading Floor for conducting its daily activities. The sales and purchases that result from this marketing strategy currently take place within the preschedule period. While BPA Staff emphasized that it was receptive to exploring options regarding shorter-term purchases, staffing is currently not in place to support such an activity. BPA Staff also led a discussion on the WECC preschedule environment concerns that impact BPA's ability to acquire capacity on a day-ahead or shorter time frame including staffing logistics and the necessary market qualities (such as available capacity).

BPA Staff shared that it is currently developing processes in preparation for acquiring third-party balancing reserve capacity in the preschedule period. An outline of this process was described. BPA Customers acknowledged and appreciated this effort.

Customers raised the question of whether benefits might be gained by purchasing decremental balancing reserves.

Iberdrola (IBR) presented a brief overview of its experience in the Customer-Supplied Generation Imbalance (CSGI) pilot; relating that IBR has overcome many operational challenges of a new process becoming competent at short-term purchases (self-supply) over a 6-month period; and, encourages BPA to consider moving this direction as a long-term strategy. Although, it was

acknowledged that, in contrast to IBR, BPA does not use load reduction as a balancing strategy (outside of reliability).

Some participants asked IBR whether they might consider providing a session on how they conduct real-time purchases of balancing reserves.

BPA Staff encouraged Customers to respond, where appropriate, to high-speed cutout with Operating Reserve requests. High-speed cutouts are qualifying events under Operating Reserves. Some Customers have missed occasions for deploying Operating Reserves.

Intra-hour Transmission Product Subgroup:

Presented by Henry Tilghmann of Tilghmann Associates, one of the points made was that a 15-minute Transmission product would help "kick start" the 15-minute energy market. Furthermore, he stated that there is a need for the 15-minute product because the lack of it is preventing wind operators from moving to committed scheduling and preventing incremental deals from taking place within the hour.

In contrast, concerns were raised among the participants in regard to the value of pursuing this topic owing to the lack of evidence that there is a demonstrated need for such a product. There was interest by a number of parties to learn more about existing strategies which may help to solve the problem, such as NF redirects within the hour. BPA staff agreed to arrange a discussion on the topic of existing strategies with one of its subject matter experts and interested parties.

Procurement Discussion – RNP

Renewable Northwest Project Staff led a discussion on new scenarios for purchasing portions of reserves across the long-term, mid-term and short-term time frames. While support for the concept was mixed there was good discussion participation by representatives of the various customer groups. The discussion ranged from locating potential cost savings in a given purchase time frame (long-term to short-term) to the call for considering goals with respect to gains in reliability versus cost. It was also noted that on and off peak purchases ought to be considered part of the mix.

One of the notable assumptions in Procurement Strategy discussion was that the approach assumes a single quality of service.

The discussion included multiple customer viewpoints regarding the timing of reaching reserve adequacy. While in the short-term, the option of a mixed approach might better satisfy divergent interests. It was noted that each customer probably has a different risk threshold for obtaining the reserves needed, and thus a different long-term and short-term acquisition strategy. The differences between load and wind were noted. BPA staff encouraged customers to think about their risk tolerance and bring it back for discussion in the next workshop.

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Next Steps:

January 16, 2014 – ACS/Gen Inputs Workshop at BPA Rates Hearing Room

Customer consensus- that BPA presentations fulfilled settlement commitments to share information related to -DSO 216 curtailments as well as the use of reserves.

Homework:

- Customers - Assuming a "divided" approach, customers were encouraged to assess their risk threshold for obtaining reserves and to bring back to group for further discussion. Basically, how do they want BPA to manage the reserve need between long-term, mid-term, and short-term?
- Subgroup - Examine improved scheduling parameters and other tools for managing tail events at the generator or through scheduling (demand side) instead of through buying more reserves (supply side).
- Acquisition experience review
- Prepare embedded cost scenarios
- There was a request for "landscape" refresher on where BPA anticipates Wind Development to be headed
- Renewable Northwest Project will attempt to provide a proposal for the $2M Capital Acquisition Budget that has broad customer support.
- How will Framework Subgroup address risk tolerance going forward?
- Sub-preschedule idea – More understanding needed on the presently available options that appear to address the issue and the perceived size of the benefit for the proposing party.

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