

# **BP-14 Generation Inputs Workshop**

**September 27, 2012**



## Agenda

- Introduction 3
- VERBS Rate Credit for Limit Reserve Orders 4
- VERBS Service Options 5
- VERBS Customer Election Options Survey Results 6
- Cost Allocation of Balancing Reserve (*inc*) Acquisitions 17
- BPA Staff Proposal for VERBS 18
- Response to Customer Request for DERBS Information 23
- Customer/Stakeholder Discussion on Generation Inputs Issues 24



## Introduction

- This is the ninth generation inputs workshop of the BP-14 Rate Case.
- Workshops will be posted on the BPA agency calendar. Tech Forum notices will inform you of the dates and provide the link to workshop materials.



## VERBS Rate Credit for Limit Reserve Orders

BPA will propose a VERBS rate credit in the Initial Proposal

The rate credit will be calculated monthly and is equal to the average percentage of hourly available *Inc* and *Dec* balancing capacity to planned hourly capacity. For example, if the monthly planned average *Inc* and *Dec* reserves are reduced by 25% from planned levels for each hour of the month, the credit for the month would be 25% of the VERBS charge.

The credit is for hydro-system related reductions in available capacity.

The credit applies to VERBS Customers taking all three components of VERBS from BPA, so CSGI Participants and VERBS Solar would not see a credit. Those Customers do not see a real reduction in the Regulation and Following that BPA provides when overall reserves are reduced.

Power Customers will see a reduction in VERBS revenues from the rate credit.



## VERBS Service Options

BPA will propose several service options for VERBS.

We currently have a 30/30 committed intra-hour (CIH) scheduling rate discount and we propose to continue that option. Customers who schedule 30/30 will be exempt from Persistent Deviation (PD) Penalties. The reserve requirement for 30/30 CIH is 28% relative to 30/60 scheduling.

We are also proposing to offer a 30/60 committed scheduling rate. Customers who schedule 30/60 will be exempt from PD Penalties.

We are still considering whether to offer a 30/15 committed scheduling option in the initial proposal or to leave the issue open in testimony. If offered, the reduction in reserves relative to 30/60 is 38%.

We are also proposing to offer a much higher level of service (equivalent to 99.96%) for a product that we believe will meet the requirements of the FERC VER final rule. The proposed rate for pricing of this product is the rate for Base service (99.5%) plus a formula rate for the costs of reserves acquired to provide the higher level of service.



# VERBS Customer Election Options Survey Results



## VERBS Customer Election Options Survey Results

- 14 Responses to Survey
  - 5 Marketers/Independent Power Producers
  - 4 Investor-Owned Utilities
  - 5 Publics/Public Utility Districts

	No	Yes	Depends
Should BPA Make <i>Dec</i> acquisitions in BP-14 Rate period?	5	2	1
Does your level of service vary with season?	5	6	



## VERBS Customer Election Options Survey Results Highest Interest

	Highest Interest				
	Scheduling				
Master List	Uncommitted	30/60	30/30	30/15	60/60
FCRPS Capability Only (Lowest Level BPA will Offer)	1			2	1
FCRPS Capability + Acquisitions to attempt to maintain 99.5% level of service	4	1	1		
FCRPS Capability + Acquisitions to attempt to provide "firm" service	N/A	2			
Reduced List					
Base Service: FCRPS Capability + Acquisitions to attempt to maintain 99.5% level of service	4	1	1		
Full Service: FCRPS Capability + Acquisitions to attempt to provide "firm" service	N/A	2			





## VERBS Customer Election Options Survey Results Second Highest Interest

	Second Highest Interest				
	Scheduling				
Master List	Uncommitted	30/60	30/30	30/15	75/60
FCRPS Capability Only (Lowest Level BPA will Offer)		1	3		1
FCRPS Capability + Acquisitions to attempt to maintain 99.5% level of service		1	1		3
FCRPS Capability + Acquisitions to attempt to provide "firm" service	N/A	2			
Reduced List					
Base Service: FCRPS Capability + Acquisitions to attempt to maintain 99.5% level of service		6	3		
Full Service: FCRPS Capability + Acquisitions to attempt to provide "firm" service	N/A	1			



## VERBS Customer Election Options Survey Results Comments

### ■ Dec Acquisitions

- BPA should look at a significant reduction in its dec reserve levels. There is a relatively small amount of wind generation lost due to DSO-216 curtailments, the value of which is far less than the cost BPA ascribes to providing that service. It is likely beneficial to wind schedulers if BPA were to target a level of dec reserves that is 50% or even less of the 99.5% level.
- Regarding the acquisition of DEC resources, we are interested in learning more about the tradeoffs acquiring these resources (and not acquiring them).
- Interested in further information on pricing before indicating a preference.



## VERBS Customer Election Options Survey Results Comments

- Seasonality and Level of Service
  - Could be interested in a lower level of service in spring, if there was a sufficient economic incentive.
  - We place higher value on VERBS service during Q2 and Q3 months. We don't value VERBS and would potentially be comfortable with a lower level of service/lower level of cost during Q1 and Q4 months.
  - We would like to explore a lower level of service in spring with an economic incentive.



## VERBS Customer Election Options Survey Results Comments

- Level of Service
  - The 30/60 Committed Scheduling seems to be the most feasible option for the FY2014-15 rate period.
  - We would like to commit to 30/60, 30/30 or 30/15, but we cannot achieve this accuracy given market illiquidity for these scheduling intervals.
  - BPA should provide the costs of reserves and levels of service so that customers can make an informed decision with respect to the various options presented in the survey.
  - Interested in continued participation in the Committed Intra-Hour pilot (30/30).
  - We may be able to achieve 60/60 and, hence, may be willing to commit to this provided that (i) we get PDP exemption and (ii) failure to achieve 60/60 is not overly punitive (e.g., may be reasonable if failure to achieve 60/60 downgrades us to "Uncommitted - FCRPS Capability Only").



## VERBS Customer Election Options Survey Results Comments

- Level of Service continued
  - Slice customers will be adversely impacted if BPA elects to provide or plan to provide balancing reserves and/or supplemental service products from or via the FCRPS to entities at a sub-hourly level. Similar impacts could occur if the customer making the election for a particular level of service fails to meet the forecasting accuracy metric and subsequently defaults to a different service level.
  - We prefer a low-cost base level of service option which supports a move to more efficient scheduling practices. We have been supportive of any increased level of service being offered as a supplemental product. We are interested in better understanding rate credit options associated with commitments to schedule to BPA's forecast.



## VERBS Customer Election Options Survey Results Comments

- Level of Service continued
  - We don't see 99.5% as something that **MUST** be maintained if their federal system can't support it. It was arbitrary in the first place and BPA should not feel obligated to make 3rd party purchases to maintain it. Rather, if the federal system can only provide 99.3% (for example), the base service should drop to that level and individuals can obtain Supplemental Service if they want a better result.



# VERBS Customer Election Options Survey Results Comments

- Firm Service
  - Wind schedules must be able to be scheduled as "firm."
  - Bonneville must find a way to eliminate DSO 216 on the INC side and ensure wind scheduled from its BA can receive comparable service to that of all other generation.
  - BPA should provide in advance the portion of the schedule that is firm and not subject to DSO 216.
  - The sink BA needs clear identification of the level of reserves for the scheduled energy. Ex: Firm, Wind Somewhat Less Than Firm, Non-Firm, etc.
  - We can't comment on "Firm" until we know the cost. If it came at no or a small cost, we would want everything Firm, but we don't expect that to be the case. Rather, BPA should first define what it will take to be fully "Firm," and what it would cost for BPA to do it, before we can make a rational economic decision. BPA should also allow individuals to use short term Supplemental and VERBS to obtain fully "Firm" at their discretion. In sum, BPA should define what it take to be fully "Firm", offer to provide the service to those willing to pay for it, and let others use short term Supplemental Service plus VERBS to obtain fully "Firm" based on their assessment of short-term economics.



## VERBS Customer Election Options Survey Results Comments

- Other
  - Request Bonneville create a "with CSGI" and "without CSGI" VERBS rate in its Initial Proposal.
  - Concerned about the cost of capacity resources used to supply balancing reserves. Any additional costs incurred by BPA to increase reserve availability should be allocated in accordance with cost causation principles.
  - BPA needs to support the cost causation principle in developing these products (cost creators pay the cost). This will assure that proper price signals are created, which, in turn will create the most overall cost effective product and product level.
  - Regarding the Reduced List: We are concerned where this list came from and that it excludes our selections above.





## **Cost Allocation of Balancing Reserve Acquisitions**

**see “BPA Staff Proposal on Cost Allocation of  
Balancing Capacity Acquisitions” Document**



# BPA Staff Proposal



## BPA Staff Proposal

- **Installed Wind Forecast**
- Annual average over the BP-14 rate period is 4871 MW based on June 2012 forecast. The forecast for the beginning of the rate period (October 2013) is 4620 MW and the end of the rate period (September 2015) is 5200 MW.



## BPA Staff Proposal

- **Balancing Reserve Capacity Quantity Forecast Assumptions**
- Base level of service is 99.5%.
- 30/60 scheduling (30-minute persistence accuracy in a 60-minute scheduling period) for the wind fleet.
- Annual average of 1505 MW over the BP-14 rate period of wind facilities elect to self-supply the generation imbalance balancing reserves.
- Incremental standard deviation method is used to allocate balancing reserve requirement at base level of service to wind, solar, non-Federal thermal and load. Load includes balancing reserves requirement for Columbia Generation Station and non-AGC controlled hydro which is 33 *inc* and 42 *dec*.



## BPA Staff Proposal

- **Balancing Reserve Capacity Quantity Forecast Assumptions**
- Wind facilities committing to 30/30 scheduling at the base level of service for the rate period receive about a 28% reduction in balancing reserve allocation using the Initial Proposal balancing reserve capacity quantity forecast. BPA estimates 571 MW of wind will participate.
- Total balancing reserve capacity quantity for BP-14 rate period is an average annual 923 MW *inc* and 1099 MW *dec* (886 MW *inc* and 1055 MW *dec* at the beginning of the rate period and 975 MW *inc* and 1165 MW *dec* at the end of the rate period) at the 99.5% base level of service with self supply.



## BPA Staff Proposal

- **Balancing Reserve Cost Allocation**
- Balancing reserves are allocated embedded and variable costs.
- Federal Columbia River Power System is assumed to provide up to 900 MW *inc* and 1100 MW *dec*. Embedded and variable costs are limited to 900 *incs* and 1100 *decs* from the FCRPS.
- Embedded cost calculation based on 120-hour capacity and average water of the Big 10 hydro projects.
- Variable costs include stand-ready and deployment costs.
- Direct assignment of Wind Integration Team costs is included in VERBS rate at \$3.75 million per year.



## **Response to Customer Request for DERBS Information**



## **Customer Feedback or Discussion on Generation Inputs Issues**

