Conceptual Frame Work of an Enhanced BPA BA (EBBA)

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DRAFT

The purpose of this document is to set a starting spot for both internal and external discussion on what services BPA would provide from the BPA BA in FY17 and beyond. This summary of the Enhanced BPA BA (EBBA) is intended to focus our discussions on priorities and allow us to manage the workload and set project teams and plans. It should also help us identify feasibility of ideas as well as help calibrate expectations.

Themes for Discussion - Starting Spot for elements of EBBA
Make significant progress in increasing the ability of market participants to make shorter-term purchases of balancing capacity (weekly, daily, eventually hourly) to meet the balancing needs of their Variable Energy Resources.

Determination of Base Level of Service (BPA's BR requirement):

A. Determine the BRs needed based on the Wind Fleet:
   - *Installed Wind Capacity* – BPA will continue to forecast for upcoming rate periods.

B. Define the amount of reserves the FCRPS can supply:
   - *FCRPS limits* – FCRPS inventory, BPA risk tolerance, and Reliability.
   - *Sources of Variability* – Load, Thermal, other.

C. Base Level of Service may exceed the BRs the FCRPS can supply:
   - *Customer desire* – Function of Customer desire for BPA to acquire incs and or decs above FCRPS limits for the pooled BPA service.
   - *Incs and Decs* – The level of service for Incs compared to Decs may be different

D. Wind Sinking in the BPA BA: - looking at issues associated with this.

BPA will attempt to acquire reserves to make up any shortfall between the FCRPS's ability to supply reserves and the Base Level of Service:

- *Purchases up to Base level* - Any gaps between the Base Level of Service and the FCRPS limits (taking into account BR contributions from self-supply and other programs) will be filled by BPA through acquisitions.
- *Seasonal or Quarterly shaped* – The amount of Reserves acquired from non-federal resourced may reflect the season ability of the FCRPS to supply.

Self Supply:

- *Self Supply of VERBS/DERBS* – Need to maintain some form of self supply of capacity for generation and load.
- *Business Practices* – Further define BPs related to self supply.

Enhanced Supplemental Service:

A. Allow Customers that desire a higher level of service to acquire Balancing Reserves through a Supplemental Service:
   - *Supplemental Balancing Reserves* – Purchased from non-federal resources.
     i. Explore additional short term sales of balancing reserves from Federal resources.
   - *Purchase time frame* – Modify BPA's Supplemental Service policies to be more flexible and less costly, e.g. – Allow purchase of Supplemental Reserves on a much shorter time frame (day ahead?).

DSO 216

- Maintain and enhance DSO 216 to protect reliability.

Scheduling:

- *Tagging* – Tagged as agreed to by seller and buyer in accordance with each BA's rules.

Intra-Hour Scheduling:

A. BPA will encourage increased participation in BPA's committed Intra-Hour program:
   - *CIH* – Substantial fraction of the wind fleet scheduled on Committed Intra-Hour Schedules.
   - *CAISO intra-hour scheduling* – BPA will encourage California BAs (and other NW BAs that do not currently do so) to accept half-hour schedules.

Dynamic Scheduling:

- *Dynamic Scheduling* – Facilitate ability to schedule and dispatch dynamic resources in-hour.
- *DSS* – Implement and Standardize DSS.

DTC:

- *DTC* – Consider DTC growth options to accommodate increased flexibility for customers to supply BRs.
- *DTC Policies* – Modify BPA's DTC policies to facilitate increased movement of regional balancing resources within-hour and to provide greater certainty to customers.

Wind Forecast:

- *Centralized Forecast* – BPA will continue development of Centralized Forecast for operational purposes.

Dispatch decisions and Visibility:

- *Third Parties* – Broad Interoperability – third parties in BPA's AGC.
- *Visibility Tool Kit* – Better manage BR deployment by creating better visibility tools, by dispatching more efficiently, and by better forecasting the need for BRs - includes:
  i. Dispatch Stack Tool
  ii. Security Constrained Dispatch tool
  iii. Monitor Overall Reserve use
  iv. Monitor Non-Federal Reserve Deployment
  v. Predictive uses of info
  vi. Facility Specific Data