

NOTES FROM OCTOBER 24, 2002 MEETING OF THE ANCILLARY SERVICES TASK TEAM (formed under the RTO West Stage 3 Market Design Work Group)

[Prepared by Rohan Soulsby]

Attendance:

Present for the Ancillary Services Task Team meeting on October 24 were: Jon Kaake (PacifiCorp), Warren Clark (Avista), Rohan Soulsby (BC Hydro), , Ron Schellberg (Idaho Power), Fran Halpin (Bonneville), Chris Reese (Puget) – part-time via conf., Kurt Conger (for Seattle City Light)

What we worked on at the meeting:

1. Review of additional assignments and scope issues raised during October 23, 2002 Market Design Work Group meeting: no assignments or issues for the AST
1. Review of Sarah's notes from the previous meeting: no comments or concerns were identified.
2. Discussion of supplying Ancillary Services from Suppliers External to RTO West (paper provided by Jon Kaake)
 - There are many examples today of providing A/S from outside a control area boundary if dynamic scheduling is used;
 - Whether "external" supplier is nested within the RTO or is on the periphery, the supplier is responsible for providing transmission to the RTO West boundary.
 - Fran Halpin noted that bilateral contracts for A/S originating outside the RTO West area being used inside RTO west should be treated the same as external supplier providing to RTO West directly.
 - Capacity reservations across seams: communication with affected parties – is there a mechanism, or a need, for redispatch provisions between RTOs?
 - Settlement of inadvertants: financial or physical? – this is an issue for the Seams group.
3. Review and provide feedback on preliminary first draft of summary table Ancillary Services provided by Ron Schellberg
 - A useful way to summarize the A/S types and characteristics and to distinguish between capacity products, energy products and those products (e.g black start) that should be contracted for in advance and that do not lend themselves to markets.

4. Discussion of revised Technical Requirements and Bid Characteristics document provided by Rohan Soulsby.
 - See documents attached to the notes.

5. Status check on work progress:
 - Zonal approach: group recognized the efforts of Mike Ryan in demonstrating how a zonal approach to A/S could work. The group could not identify any technical barriers to adopting a zonal approach to A/S – nor could it identify any technical merits to doing so. The group felt that the RTO West should determine the A/S requirements for the entire RTO region. If there are certain areas within the RTO that have specific needs then the RTO should have the authority to meet those needs by selecting A/S suppliers (possibly out of merit order) from a single stack of bids.

 - Active or Passive Participation: Part of our discussion on Load Following related to the mechanics of how SC would participate once their bids had been accepted by RTO West. There were 2 views put forward:
 - **Passive Participation:** SCs would move generators in response to LMPs at their node (passive participation by the RTO) – if the nodal price rises above the energy strike price then the SC would bring the unit on-line in accordance with the bid. Similarly, when the price drops below the energy strike price in the bid, the SC will cease generating, or
 - **Active Participation** by the RTO: the RTO would send explicit instructions to SCs requesting them to move generation to set points specified by RTO West.
 - Advocates for Active participation assert that passive participation will result in an unstable system because there is so much hydro capacity in the west that generators will be “hunting” for elusive strike prices – each generator adjustment can affect the LMPs and dozens of generators could be changing simultaneously. It is also asserted that additional staff requirements would be needed by some entities to be able to continuously respond to market prices.
 - Advocates for Passive participation claim that incremental effort required by the RTO to send instructions to all SCs is onerous and that staffing levels for responding to market prices are no different from staffing levels required to respond to instructions from RTO West. Furthermore, participation in the A/S markets is voluntary so bids need not be submitted if an entity is not prepared to follow market prices. Passive participation works in PJM although it is predominantly a thermal system.
 - [post meeting note: perhaps voluntary approach would meet the needs of all parties]

6. Assignments and next meetings:

- C10. Voltage Support - **Kurt Conger** to refine the technical requirements and bid characteristics write-up on Voltage Support (by COB Monday, Oct 28 for posting in the AST file on the web site)
- Re-draft of Tech and Bid document to reflect the discussion at the meeting – **Rohan Soulsby** (by COB Monday, Oct 28 for posting in the AST file on the web site)
- White Paper on Limited Self-Provision of Reserves - **Chris Reese**
- Notes of meeting – **Rohan Soulsby** (by COB Monday, Oct 28 for posting in the AST file on the web site)

Informational: Additions to Working Assumptions

[Additions to the working assumptions based on the discussions at the [October 17 Ancillary Services Task Team meeting](#) are shown below]

- We assume that the Market Operations Task Team is responsible for deciding whether there will be one bidding process or two with respect to ancillary services in day ahead and real time
- We assume that working through the settlement process (for all aspects of day ahead and real time market operations, including ancillary services) is a Market Operations Task Team responsibility
- For ancillary service bids that contain a capacity price, we assume that this capacity price reflects the bidders evaluation of (i) “availability” (SMD NOPR sec. 292) and (ii) opportunity cost.
- We assume that all ancillary services must be bid in increments not smaller than 1 MW. Participation by resources smaller than the minimum size is accommodated through aggregation by the SCs
- Rather than having separate processes for suppliers to bid into the IOS market, we will define a process based on a “single point of entry” where necessary price information, operational characteristics, and other bid parameters are submitted on a single bid template for each supply resource
- We have assumed that there will be a “quality hierarchy” with respect to IOS. That is, while resources that are capable of a higher level of response can also be used for a less demanding purpose, (provided the supplier’s price is met), the reverse is not true

- We will do whatever we can to work from materials that are currently available, such as existing metering, communications, institutional structures, etc. as long as that doesn't create reliability problems or market distortions
- The way that market monitoring could introduce after-the-fact assessments of the bidding behavior of ancillary services suppliers is a significant complicating factor; this is particularly true given the need for the market monitor to be able to distinguish between (a) physical or economic withholding as a means to "game" or manipulate markets and (b) reasonable, rational behavior that reflects long-term considerations as well as day-ahead and real-time economic considerations (see more detailed discussion below under "must-offer")
 - The market monitor's ability to appropriately evaluate the working of our IOS supply market is especially important because of the possibility that where the market monitor believes market performance is anomalous or produces outcomes that are not just and reasonable, one possible consequence may be for suppliers to become subject to "must-offer" obligations
 - It will be very difficult to capture, within a strictly day-ahead and real-time timeframe, all the drivers for suppliers' decisions about how much to bid and at what price – especially in the case of hydro where decision drivers can be heavily judgment-based, tied to much longer timeframe, and affected by numerous non-economic considerations
- The Ancillary Services Task Team recognizes that the current working model for the RTO West scheduling sequence calls for a supplemental unit commitment process if RTO West's own post-day-ahead load forecast shows that there are not enough resources scheduled to serve expected load.
 - The supplemental commitment process is an "in-between" step between enabling market participants to make their economically driven choices in the day ahead about how to serve load and having to resolve operating problems in real time through the security coordination process
 - This supplemental commitment process is not a type of ancillary service (or IOS); therefore the Ancillary Services Task Team has assumed that it is not charged with working this process out (rather, it is part of the Market Operations task set)
- Accepted bids to supply ancillary services (IOS) are binding as to location of the resource bid and as to the time the resource is bid to be available
- We assume that those who elect to meet their ancillary services requirements for load following, regulation, and frequency response through self-tracking are not precluded from also participating in the market to supply IOS

- We assume that remedial actions schemes (RAS) are not part of the ancillary services process or market; rather, we assume that RTO West will supplemental whatever RAS it receives from transmission owners under the RTO West Transmission Operating Agreements through periodic bilateral arrangements
 - Types of RAS include generation dropping, underfrequency load-shedding, and undervoltage load-shedding (but this is not necessarily an exhaustive list)
- Whatever ancillary services requirements we develop will need to be compatible with demand response approaches that may be adopted by various utilities or governmental authorities
- We assume that the rules concerning participation in the ISO supply market will be handled separately (through separate agreements or tariff provisions or both) from operating (integration) requirements that would apply to generators interconnected within the RTO West control area boundary