

# **NOTES FROM OCTOBER 9, 2002 MEETING OF THE ANCILLARY SERVICES TASK TEAM (formed under the RTO West Stage 3 Market Design Work Group)**

[Prepared by Sarah Dennison-Leonard]

## Attending the meeting:

Jon Kaake (for PacifiCorp); Kurt Conger (for Seattle City Light); Paul Schmidt (for Sierra Pacific Power and Nevada Power); Fran Halpin (for BPA); Warren Clark (for Avista); Rohan Soulsby (for BC Hydro); Marc Donaldson (for NorthWestern); Sarah Dennison-Leonard (RTO West Coordinating Team)

## What we worked on at the meeting:

1. Working assumptions
2. What are our deliverables?
3. Definitions of ancillary services in the RTO West Stage 2 filing versus FERC SMD; Interconnected Operations Services (“IOS”) versus ancillary services
4. Zonal approach to ancillary services provision – all ancillary services or only reserves?
5. Multi-part versus single-part bids and what do we mean by the term “multi-part”; limits on time and location of supply bids
6. Bidding to supply ancillary services on the basis of individual units versus plants or systems
7. “Must-offer”
8. Assignments
9. Next meetings

## What we plan to work on at our next meeting (and when):

### **Next meeting:**

- The Ancillary Services Task Team will meet next on the morning of Thursday, October 17 if the morning is not needed for a meeting of the full Market Design Work Group
- If we are not able to meet on Thursday, October 17, as a fallback we will have a conference call on Friday morning, October 18 from 9:00 – 11:00 a.m. (Pacific Time)
- We also decided to use Fridays from 9:00 – 11:00 a.m. as a standing reserved time for Ancillary Services Task Team conference calls (starting with October 18).

### **Preliminary agenda for next meeting:**

- A. Review preliminary first draft of description of requirements for those supplying ancillary services (technically, IOS)

- B. Review preliminary first draft of description of customer obligations related to ancillary services
- C. Review preliminary outline of types of agreements or tariff provisions the Ancillary Services Task Team expects will have some connection to ancillary services
- D. Decide on further tasks and assignments

Summary of meeting results:

**1. Working assumptions**

- 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
- 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 (see more below concerning the Ancillary Services Task Team’s deliverables)

## 2. What are our deliverables?

- Explain what customer obligations are with respect to ancillary services
- Explain technical requirements for supplier participation in IOS markets (without limiting participation solely to generators)
- Describe the framework of agreements or tariff provisions we believe will be needed:
  - Supplier participation (technical requirements and rules for those who want to bid into IOS supply market)

- Operating/integration (data requirements, voltage and frequency control, protective relays, etc.)
  - Reliability Must-Run (“RMR”)
  - Interconnection (studies, construction, financial responsibilities for interconnection facilities)
  - Behind-the-meter, customer-owned generation (?) - not sure if this will be a separate agreement or tariff section or special provisions in the overall generator agreements or tariff sections
- Our deliverables need to support the work of the RTO West tariff drafting task team (first draft to be delivered to the tariff drafters by November 21, 2002) and as well as the work relating to bidding and settlement that is to be done by the Market Operations Task Team

**3. Definitions of ancillary services in the RTO West Stage 2 filing versus FERC SMD; Interconnected Operations Services (“IOS”) versus ancillary services**

- Our working approach will be to use the 12 types of IOS/ancillary services identified in the RTO West Stage 2 filing (Attachment G) in terms of supplier participation and requirements
- We will look at simplifying how the 12 distinct types of IOS translate into customer charges for ancillary services (for example, does the customer need to see separate entries for regulation up and regulation down?)

**4. Zonal approach to ancillary services provision – all ancillary services or only reserves?**

- Our working approach will be that suppliers will not have to bid IOS into specific zones. Instead, the information suppliers will be required to submit with their bids will include the location of the resource being bid in. The degree to which there is a zonal aspect to ancillary services delivery will be part of RTO West’s engineering analysis for system operations. That is, we assume that during RTO West’s analysis of what set of bids satisfies its total system-wide need for reserves (for example), RTO West will take into account binding constraints on the system affecting deliverability of reserves and select the most cost-effective bids that will meet system-wide requirements in view of those constraints
- Binding constraints will also affect whether there are different clearing prices in different areas or zones for particular ancillary services
- We assume that to the extent the current NWPP reserve sharing program has a zonal structure and is operationally valid, then if system configuration remains consistent (transmission facilities, location of loads and resources), the NWPP program will likely be a good starting point. We also expect that the zonal aspect of ancillary services in RTO West will be likely to change over time (different seasons, water conditions, system upgrades and expansions, etc.)

- A customer may satisfy its reserve requirements by self-providing (designating a resource it makes available to RTO West for RTO West's system use) but not self-tracking. The only ancillary services requirements that can be met through self-tracking are load following, regulation, and frequency response

**5. Multi-part versus single-part bids and what do we mean by the term “multi-part”; limits on time and location of supply bids**

- See discussion below under “must-offer” concerning the need to develop bidding rules and information requirements that work for both thermal and hydro suppliers

**6. Bidding to supply ancillary services on the basis of individual units versus plants or systems**

- RTO West's rules concerning what can be designated as a single “resource” for purposes of supplying IOS will allow entire plants or systems to be bid in as a single resource (thereby potentially giving plant or system operators some internal flexibility) so long as the impact of changing from one unit to another within the resource boundary is undetectable from a transmission system operation standpoint (*i.e.*, the resource is associated with a single specific node on the transmission system)

**7. “Must-offer”**

- Everyone attending the Ancillary Services Task Team meeting recognized the need for and supports vigorous market monitoring to protect against gaming and price manipulation. At the same time, we see a tension between the notion of voluntary participation in IOS markets and the possible consequences of after-the-fact assessments by the RTO West market monitor concerning the behavior of participants in the IOS supply market
- We will try to do what we can to at least flag, and to the degree possible, lessen this tension by the rules we set up and in how we develop the template for the information IOS suppliers are required to submit to RTO West in the bidding process
- We want to look for ways to develop rules and templates that are neither “thermal-centric” nor “hydro-centric” but meet the needs of both those types of resources to provide not only information concerning physical operating characteristics, but other constraints as well (“non-power” requirements for hydro, for example)
- As described above, we are particularly concerned about how to resolve the tension related to market monitor assessments of bidding behavior that have a rigid short-term timeframe (real time and day ahead), when the considerations that affect supply decisions (particularly for hydro) are not based solely on economic considerations or the real time and day ahead timeframes

- If market monitor second-guessing of bidding or supply decisions could lead to compelled market participation at specified prices (“must-offer”), this could make it very difficult for suppliers to be comfortable that they can manage the risks of market participation
- At the same time, we don’t want to create “loopholes” that lend themselves to gaming and market manipulation

## 8. Assignments

- Develop preliminary initial draft explanation of what customer obligations are with respect to ancillary services – Kurt Conger – **due to Task Team by Wednesday, October 16**
- Develop preliminary initial draft explanation of technical requirements for supplier participation in IOS markets – Rohan Soulsby – **due to Task Team by Wednesday, October 16**
- Develop preliminary initial draft description of the framework of agreements or tariff provisions we believe will be needed – Sarah Dennison-Leonard – **due to Task Team by Wednesday, October 16**

## 9. Next meetings

- We will meet next on the morning of Thursday, October 17 if the morning is not needed for a meeting of the full Market Design Work Group
- If we are not able to meet on Thursday, October 17, as a fallback we will have a conference call on Friday morning, October 18 from 9:00 – 11:00 a.m. (Pacific Time)
- We also decided to use Fridays from 9:00 – 11:00 a.m. as a standing reserved time for Ancillary Services Task Team conference calls (starting with October 18).