

**NOTES FROM OCTOBER 17, 2002 MEETING AND
OCTOBER 18, 2002 CONFERENCE CALL OF THE
ANCILLARY SERVICES TASK TEAM (formed under the RTO West
Stage 3 Market Design Work Group)**

[Prepared by Sarah Dennison-Leonard]

Attendance:

Various members of the Market Design Work Group were present at the Ancillary Services Task Team meeting on October 17 (no attendance taken)

Present for the conference call on Friday, October 18 were: Marty Downey (PG&E National Energy Group), Jon Kaake and Paul Kroger (PacifiCorp), Warren Clark (Avista), Rohan Soulsby (BC Hydro), Marc Donaldson (NorthWestern), Ron Schellberg (Idaho Power), Mike Ryan (Portland General), Fran Halpin (Bonneville), Paul Schmidt (Sierra Pacific and Nevada Power), Steve Johnson (Puget Sound Energy), and Sarah Dennison-Leonard (RTO West Coordinating Team)

What we worked on at the meeting and on the conference call:

1. Review of additional assignments and scope issues raised during October 16, 2002 Market Design Work Group meeting
2. Review of initial draft description of the framework of agreements or tariff provisions that relate to supply or use of ancillary services
3. Discussion of additional conceptual suggestions concerning how to define ancillary services requirements, both from a supplier (Interconnected Operations Services or “IOS”) perspective and from a customer perspective
4. Review and provide feedback on preliminary first draft of description of requirements for those supplying IOS
5. Discussion of how to deal with “zonal” constraints affecting deliverability of capacity-based ancillary services and in particular, straw proposal and spreadsheets prepared by Mike Ryan
6. Status check on work progress
7. Resolution of Ancillary Services Task Team Leadership
8. Assignments and 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 24 assuming current plans for the full Market Design Work Group meeting (only on October 23) stay in effect
- Even if we meet on October 24, we will also reserve the possibility of having an additional telephone conference call on Friday morning, October 25 from 9:00 – 11:00 a.m. (Pacific Time)

Preliminary agenda for next meeting:

- A. Review revised draft of technical requirements for those IOS suppliers
- B. Review preliminary draft of proposed parameters for IOS supplier bids
- C. Decide on further tasks and assignments

Summary of meeting and conference call results:

1. Review of additional assignments and scope issues raised during October 16, 2002 Market Design Work Group meeting

During the Market Design Work Group meeting, the following issues were designated for the Ancillary Services Task Team to address (please note that some of these overlap with issues already identified within the Ancillary Services Task Team's current scope):

- Conceptual explanation of how the IOS markets work and how they intersect with self-tracking
- Explain whether loads and generation of self-trackers are subtracted from RTO West's AGC calculations [Ray Brush and Warren Clark volunteered to prepare a paper on this question]
- Identify the information and operational characteristics that suppliers wishing to participate in the IOS market will need to provide to RTO West
- What should be our recommendations concerning RTO West's procurement of resources to meet its obligations as ancillary services provider-of-last resort obligations if RTO

West wishes to look beyond the Day-Ahead and Real-Time markets to obtain supplies?
(RTO West's ability to purchase IOS in forward markets)

- Can there be fewer markets for IOS supply than the 12 types of IOS that were defined in the Stage 2 filing?
- Can regulation, load following, and other capacity-based IOS be supplied from outside the RTO West control area boundary? (This would cover both "island" systems that are entirely surrounded by the RTO West area as well as external, adjacent systems such as WestConnect and the California ISO) [Jon Kaake volunteered to prepare a paper on this issue]

2. Review of initial draft description of the framework of agreements or tariff provisions that relate to supply or use of ancillary services

The Ancillary Services Task Team reviewed the initial draft paper explaining the framework of agreements or tariff provisions we assume will be in place that relate to supply or use of ancillary services. No one had any proposed revisions, so the paper will remain as initially drafted for now.

3. Discussion of additional conceptual suggestions concerning how to define ancillary services requirements, both from a supplier (Interconnected Operations Services or "IOS") perspective and from a customer perspective

Marty Downey suggested that the emphasis on how we look at ancillary services should be on providing the system operator (RTO West) with the tools it needs to be able to reliably operate the system in real time. This means that in developing the technical requirements for IOS suppliers, we should focus on what the tools need to be able to do. There was general support for this approach.

The Ancillary Services Task Team's approach will to try to focus on and communicate what distinctions (for example, in the response capabilities of a generator) are relevant for suppliers, as well those that are relevant for customers (but there may not be a one-to-one correspondence between these two categories).

During the October 17 meeting, Jim Tucker proposed that further work to define technical requirements for ancillary services should be organized as follows:

- A. Define the performance criteria for each type of IOS RTO West will need to use (what does the operator need the tool to do?)
- B. Evaluate whether there are zonal constraints that affect the deliverability of different types of IOS

- C. Evaluate how the tariff should define and charge for the ancillary services products customers must supply or purchase (*i.e.*, do we describe the ancillary services obligations as direct counter-parts to what IOS suppliers provide, or is there a bundling or translation process?) – this could also mean that we may want to distinguish between what we require customers to buy or provide and what information we give them concerning how the prices of the ancillary service products they buy were derived

- D. Evaluate whether there are any seams issues that should be addressed or resolved in how we propose to design and operate the RTO West IOS and ancillary services markets

There was general support among those attending the meeting to work from this approach. On the question of whether we work from the 12 different products defined in the ancillary services proposal submitted with the Stage 2 filing, the group decided not to revisit the Stage 2 filing proposal (we will make our work consistent with it), but many felt that it was important to distinguish between defining different uses for supplier outputs versus different product categories or markets.

See further discussion below under item number 5 concerning zones and bidding process for IOS suppliers.

4. Review and provide feedback on preliminary first draft of description of requirements for those supplying IOS

The Ancillary Services Task Team members provided initial feedback to Rohan Soulsby at the October 17 meeting on his draft description of technical requirements for IOS suppliers. (The initial draft was distributed to the Ancillary Services Task Team by e-mail and also made available in hard copy at the meeting). There was not enough time at the October 17 meeting to work all the way through Rohan's draft, and so the group agreed that further comments should be sent to Rohan by e-mail. Rohan agreed to provide a revised draft for the week of October 21, 2002 (sending the draft out by close of business on Monday, October 21). Rohan also volunteered to provide a preliminary draft of proposed bid parameters in time for the Ancillary Services Task Team's next in-person meeting on October 24.

5. Discussion of how to deal with “zonal” constraints affecting deliverability of capacity-based ancillary services and in particular, straw proposal and spreadsheets prepared by Mike Ryan

The Ancillary Services Task Team met by conference call on October 18. The main topics were the issue of zonal constraints on IOS supply and the straw proposal and associated spreadsheets prepared by Mike Ryan.

Through the course of the discussions, the Ancillary Services Task Team developed a working proposal (building on earlier discussion that constraints on deliverability would be built into

RTO West security process and RTO West to take these into account in deciding which IOS bids to accept). The working approach is as follows:

- There will not be 12 separate markets or bidding process corresponding to the different types of IOS identified in the Stage 2 filing
- Instead, our goal is to design a single bidding process with a comprehensive and flexible bidding template that would enable suppliers (for each resource) to:
 - Identify/describe the operational capabilities and characteristics (and limitations) of the supply resource
 - Identify the prices at which the supplier is willing to provide energy products and capacity products for which the resource qualifies
 - Bidders would be able to either (a) specify each category of use for which they are willing to act as a supplier (assuming the resource qualified) – this is an “opt-in” approach or (b) specify any categories from which they would like their resource to be excluded even if it qualifies – this is an “opt-out” approach. We have not yet decided if “opt-in” or “opt-out” is preferable
 - For suppliers that are selected and paid to provide capacity products – if they are actually called on to supply energy, the suppliers would be “price takers” with respect to the actual energy supplied (*i.e.*, the nodal price set through energy bids would apply)
- We will develop our technical and informational requirements so that they do not automatically assume that a resource is a generator. Rather, if there are non-generation supplies that can meet the technical requirements for one or more IOS, those resources can also bid in (assuming the supplier’s participation would be within the applicable regulatory and legal provisions)
- We assume that RTO West will work from the supply bids it receives to develop the least-cost solution available to supply all needed ancillary services, taking into account any operational constraints that affect deliverability
- Some on the Ancillary Services Task Team think it is important for us to be careful not to give negative incentives for suppliers to participate in the IOS market – for example, we should give suppliers to ability to decide the output uses (IOS categories) for which they are willing to be available – Mike Ryan emphasized that he believes this is an area that needs additional work and he volunteered to spend some time on it.
- Both Paul Schmidt and Mike Ryan urged that we pay attention to defining the bidding and supply process using “materials that are currently available.” Paul requested in

particular that we try to rely on existing metering, communications, institutional structures, etc. as much as possible without creating distortions

- 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. A generator that cannot respond more quickly than 10 minutes cannot be used to provide regulation, but capacity a generator made available for load-following could also be used for contingency reserves – assuming the supplier had not opted out of the less-demanding use.

6. Status check on work progress

The Ancillary Services Task Team checked in about progress on its deliverables. The general view was that the most important documents to support tariff drafting work were those Rohan Soulsby is working on – the description of the technical requirements for IOS suppliers and draft bidding template. With the need to “shop” these to the full Market Design Work Group before handing off to the tariff drafting group on November 21, 2002, we thought we are making good progress but will need to continue working as rapidly as possible. No one identified any additional products we should be developing right now.

7. Resolution of Ancillary Services Task Team Leadership

During the conference call, Marc Donaldson from NorthWestern volunteered to become the leader for the Ancillary Services Task Team. Marc noted, however, that he would not be available for the meetings the week of October 21. Rohan Soulsby volunteered to cover for Marc for those meetings.

8. Assignments and next meetings

The following team members volunteered for assignments:

- A. Rohan Soulsby – revised draft of technical requirements for IOS suppliers (by 10/21/2002) and draft bidding template (by 10/24/2002)
- B. Jon Kaake – paper on supplying capacity-based IOS from outside RTO West control area boundary (no specific deadline)
- C. Ray Brush and Warren Clark – answer to question of whether loads and generation of self-trackers need to be subtracted from RTO West’s AGC calculations (completed 10/21/2002)
- D. Mike Ryan – additional work on avoiding unnecessary disincentives to participate in IOS supply market (but balancing with need to make sure suppliers meet the technical requirements for IOS they supply) (no specific deadline)

Next meetings:

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Informational: Additions to Working Assumptions

[Additions to the working assumptions described in the notes for the October 9 Ancillary Services Task Team meeting are shown in redline 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
- 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