Response to Williams Power Company

Provided below is a written response to the questions posed by Mr. Brian Theaker (Williams Power Company) at the August 3, 2006 CAISO Board meeting and submitted to CAISO staff and Chairman of the Market Surveillance Committee (MSC) via e-mail following the Board meeting. In developing these responses, DMM sought and relied upon substantial input from Grid Operations staff with respect to operational practices and issues. As requested by Mr. Theaker, the questions were addressed and discussed at the August 8 MSC meeting in San Francisco. A copy of the CAISO's presentation to the MSC can be found on the CAISO website at http://www.caiso.com/184c/184c69676f680.pdf.

1. Can the CAISO explain why the June 2006 market performance report notes that average Ancillary Services prices declined but must-offer commitment costs increased?

   CAISO Response

   As noted in the CAISO "Market Performance Report June 2006", the decline in average ancillary service prices in June relative to May was attributable to additional bids being made available to the market as a result of more units being on-line (from both self-commitments as well as Must-Offer waiver denials) with more unloaded capacity available to bid into the A/S markets.

   The increase in must-offer commitment costs in June relative to May is primarily attributable to the following factors:

   - *Various transmission work in southern California (e.g., Palo Verde – Devers).*
   - *Local environmental constraints and operating requirements*
   - *Higher load levels and load uncertainty, which required additional unloaded capacity to be available for overall system reliability needs and for potential transmission contingencies in SP26.*

   A detailed breakdown of MOW denials by these different categories was provide in DMM's presentation at the August 8 MSC meeting.

2. Can the CAISO provide more detail on what "SP26 capacity and energy requirements" are, given that the CAISO has used that term both in (1) market notices indicating that the CAISO expected to require a Condition 2 RMR unit out-of-market and (2) reports on why it committed non-contracted units through the must-offer obligation. More specifically, what constraints require this capacity to be procured only in SP26? And why isn't this capacity acquired through the CAISO's Ancillary Services markets instead of through the must-offer obligation and from Condition 2 RMR units?

   CAISO Response

   Must-Offer waiver denials tagged as "SP26 Capacity" are based on the worst single contingency of either the loss of the PDCI or Midway-Vincent #3 500 kV line or capacity requirements due to load uncertainty in SP26 that can sometimes result from volatile weather *patterns in Southern California. Because the capacity requirement for transmission contingencies is only needed within 20-30 minutes or greater, as opposed to a 10-minute requirement, they are not procured through the A/S market – which is limited to 10-minute spin and non-spin products. Procuring 10-minute reserves to meet fairly substantial 20- or 30-minute capacity requirements would likely result in excessive and unwarranted costs to the market.*

The only instance in which the CAISO committed Condition 2 RMR for SP26 Capacity occurred on July 24, when RMR Condition 2 capacity was used to provide additional 10-minute Operating Reserves after the CAISO received insufficient A/S bids to meet its Operating Reserve requirements for that day.

3. Why hasn't the CAISO implemented the special SP26 operating procedures posted on its web site on May 26, 2006 and discussed at the May 31, 2006 Market Surveillance Committee meeting?

CAISO Response

These procedures and various tools described in the documents referenced above have not been fully implemented. Specifically, none of the procedures relating to Ancillary Services procurement or real time operations were implemented for a combination of reasons. In addition to the fact that tools to implement these procedures had not been developed, these procedures involved a number of unresolved policy issues, such as:

- *Should the CAISO procure 10-minute reserves in SP15 to meet a 20-minute operating requirement, particularly if the requirement could be met by committing RA units?*
- *Are the proposed Real Time Market procedures of dispatching up slow ramping resources in order to free-up capacity on fast ramping resources a sound market design policy or consistent with the current CAISO Tariff?*

Tools for implementing procedures relating to Day Ahead scheduling decisions were developed but were only used on an advisory basis to help assess the risk of needing to call upon interruptible or firm load should there be a contingency in SP26 and other mitigation measures prove unsuccessful. One of the specific problems encountered in directly using the Day Ahead tool for unit commitment decisions was insufficient information on market schedules in the Day Ahead process due to incomplete scheduling in the preferred Day Ahead market. The Day Ahead procedure for SP26 was designed to run between the "Preferred" and "Revised Preferred" iterations of the Day Ahead Market. However, because some market participants do not provide preferred schedules for some of their resources and only provide revised preferred schedules (or may significantly modify initial preferred schedules when submitting revised preferred schedules), Operations staff determined that the proposed Day Ahead SP26 procedure could not be directly utilized for unit commitment decisions, given the significant uncertainty about initial preferred schedules.

4. The June 7, 2006 market monitoring report included a discussion of the Special SP26 operating procedures and raised a number of questions about those procedures. Why didn't

the July 27, 2006 market monitoring report even mention this topic or provide a follow up to the questions raised in the previous report?

CAISO Response

DMM did not provide an update in its July 27 memo because it had learned that the procedures were not being implemented this summer and had other priority issues to address in the memo.

5. Why, on the day of an all-time system peak demand, when day-ahead prices were reportedly trading at the price cap, and when the CAISO was in a Stage 2 emergency, were hourly real-time prices clearing only at $68 and $91?

CAISO Response

As shown in DMM's August 8 presentation to the MSC, Real Time Market prices were generally moderate during the Stage 2 period on July 24, primarily due to a combination of (1) a high level of forward scheduling (DA and HA), (2) actual loads that were significantly below the DA forecast, and (3) load reductions from interruptible loads. According to Operations staff, once a Stage 2 emergency was declared, this triggered an immediate reduction of about 300 MW of interruptible load from end use customers who anticipated mandatory curtailments and sought to avoid any charges due to non-compliance with such curtailments. This reduction was then followed by several hundred more MW of load reduction when orders for interruptible loads were actually issued. These factors combined to result in very little need for additional Real Time Market dispatch and thus produced fairly moderate Real Time Market prices for most of that afternoon.

At the same time, minimum load energy from units denied must offer waivers and some Out-of-Market inter-tie transactions also attributed to lower Real Time Market prices, but the volumes from these sources were relatively moderate – as noted in the presentation to the MSC.

6. When the CAISO reports its actual level of operating reserves, does it include unloaded capacity operating under the must-offer obligation but not purchased or self-provided through the CAISO's Ancillary Service markets?

CAISO Response

The Operating Reserve levels reported on OASIS includes 1) unused spin and non-spin bids procured through the market (including self-provision), 2) available 10-minute upward regulation capacity, and 3) unused spin and non-spin scheduled from RMR units due to bid insufficiency in the DA and HA A/S markets. Reported 10-minute reserves do not include available 10-minute ramping capacity of other RA and non-RA resources.

7. Please provide the amount of energy that was dispatched out-of-market across peak hours on July 24, 2006 and the average price paid for that OOM energy.

CAISO Response

As shown in DMM's presentation at the August 8 MSC meeting (p.18), the quantity of energy purchased out-of-market over the inter-ties during the peak hours 13-18 on July 24 ranged from about 300 to 400 MW. Because the CAISO has not yet determined final price information for some of these transactions, the average price of those OOM transactions is not available. Meanwhile, the CAISO dispatched about 200 MW of energy from RMR Condition 2 units out-of-market during the peak hours 15-18 on July 24, which is also shown on p.18 of the DMM presentation to the MSC.

8. What was the MW amount of available but un-dispatched incremental real-time imbalance energy bids in hours ending 15 and 16 on July 24, 2006?

CAISO Response

The estimated amount of undispatched incremental real time energy bids available within each operating hour (i.e., dispatchable bids available on a 5-minute basis, after accounting for ramping constraints), is provided in DMM's August 8 presentation to the MSC (slide 20). As noted and discussed during the presentation, the amounts of import bids for supplemental incremental energy submitted to the CAISO were very low during these hours and the CAISO pre-dispatched essentially all import bids submitted. Volumes of import bids pre-dispatched these hours are shown in slide 18 of DMM's August 8 presentation to the MSC.