



California ISO
Your Link to Power

California Independent
System Operator Corporation

Market Monitoring Report

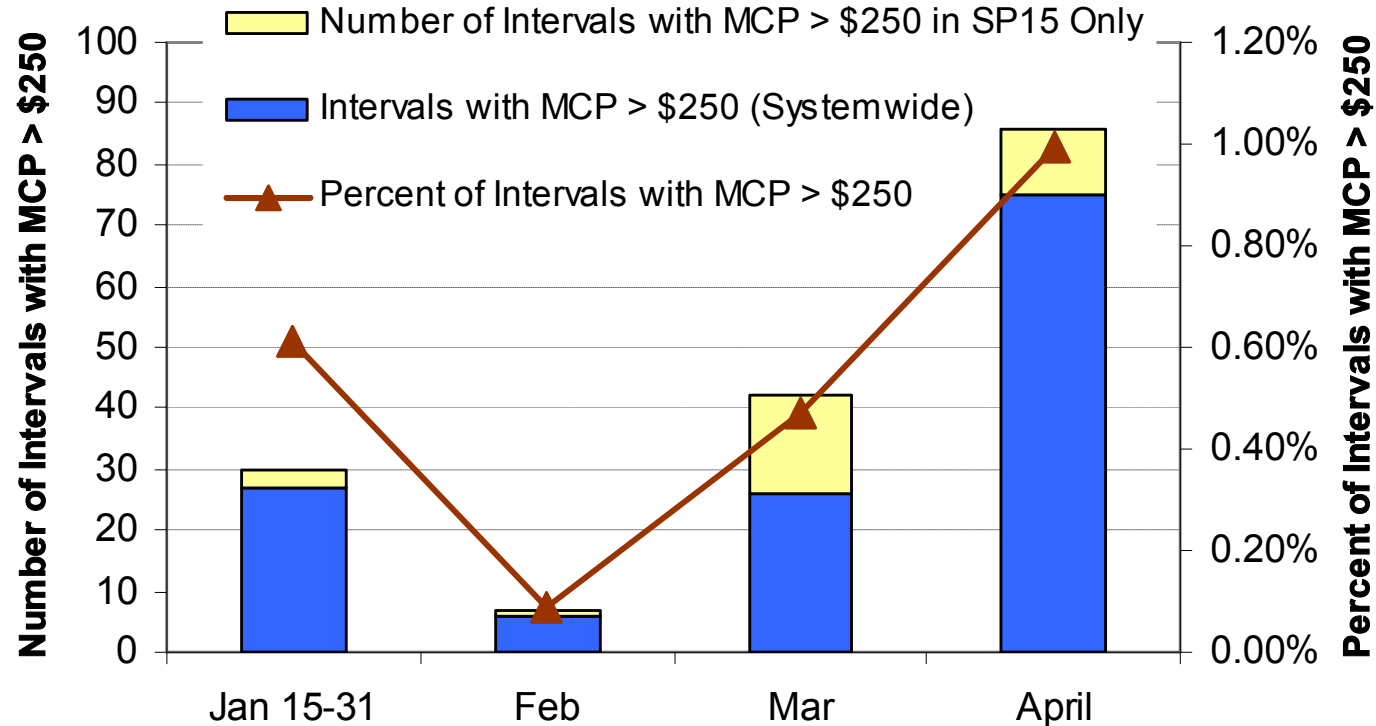
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ISO Operations Committee
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Key Issues and Events (April 2006)

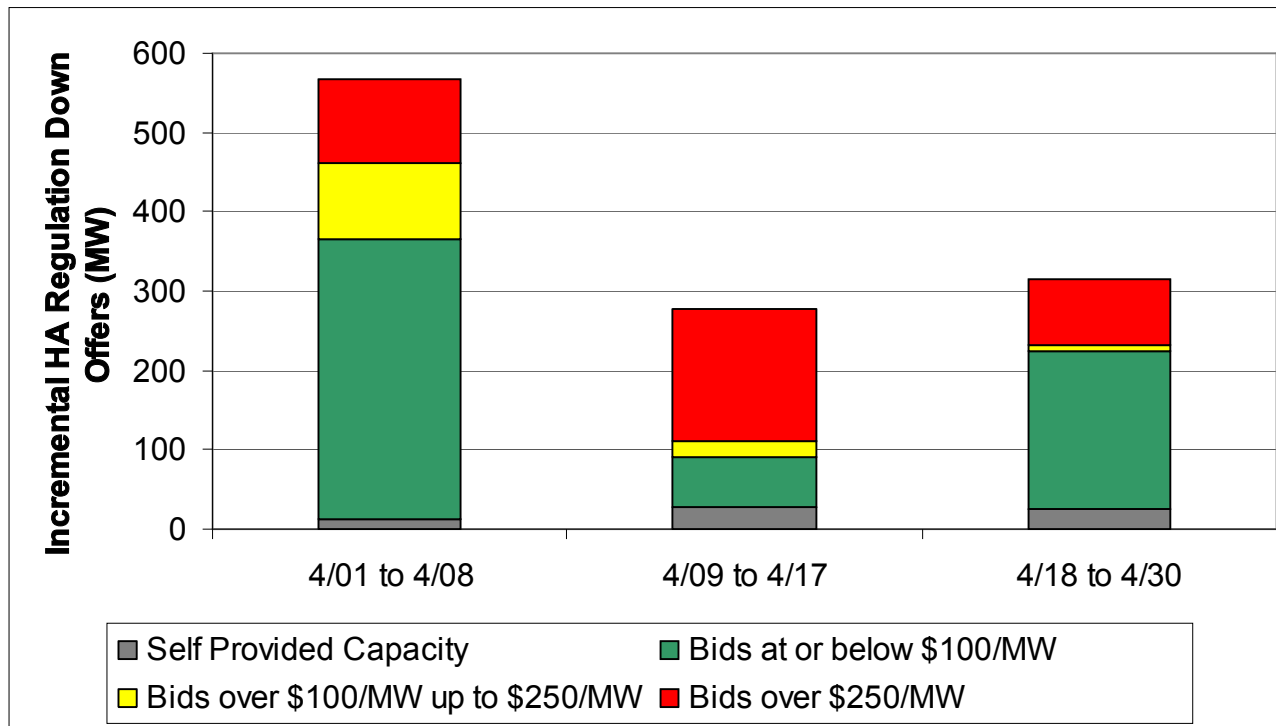
- **Low overall spot market prices, but:**
 - Sporadic real time energy price spikes ($> \$250$) continue during ramping hours.
 - Several days of price spikes ($> \$250$) in Regulation markets during off-peak hours, when supply very thin due to hydro and load conditions.
 - Large volumes of export bids pre-dispatched at very low prices due to overgeneration, load over-scheduling and congestion/loop flows.
- **DMM comments/recommendations on Summer Operating Plan for Southern California.**

Real Time Energy Price Spikes



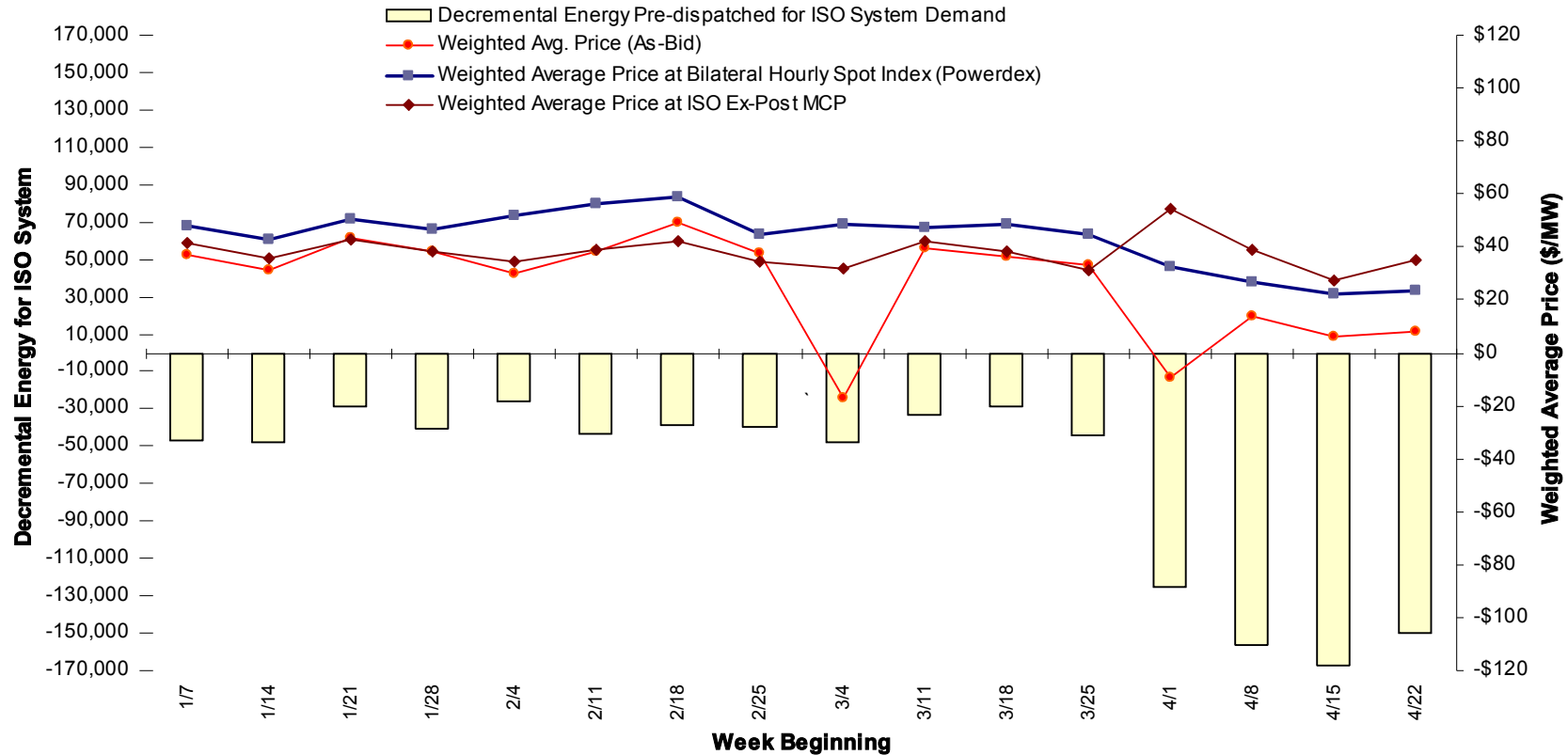
Since energy bid cap was raised to \$400, DMM estimates that real-time price spikes > \$250 may have increased net real-time energy costs by about \$1.2 million (~2.3% of total cost for instructed incremental real-time).

Hour Ahead Supply Bids - Regulation Down



Regulation price spikes ($\$ > 250$) during off peak hours of April 9-17 due to decrease in competitively bid supply increased cost by about \$2.1 million. However, increase in supply by other participants eliminated further price spikes.

Pre-Dispatched Export Bid Volumes and Prices



Large volumes of pre-dispatched exports of real-time energy (as-bid) at relatively low prices (compared to real-time MCP) creates potential \$20 million energy revenue imbalance that would be allocated based on participant load (at rate of > \$1/MWh of load).



DMM Recommendations on Summer 2006 Operating Plan for Southern California

- **Integrate with Must Offer Waiver Denial process**
 - **Ensure that sufficient fast ramping capacity (≤ 20 minutes) is committed through must-offer process to meet 20-minute reliability requirements, and avoid actual use of interruptible load and real time dispatch of slow ramping resources if possible**

- **Clarification of criteria/mechanism for dispatch of slow ramping resources**
 - **Plan calls for potential dispatch of slower ramping capacity (> 20 minutes) to unload capacity on Path 26 and/or preserve faster ramping capacity in SP15**
 - **Procedures should clarify whether slower ramping capacity would be dispatched out-of-sequence (paid “as bid”) or in-sequence (i.e., by “skipping” fast ramping resources, and letting bids for slower ramping capacity set MCP).**