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May 23, 2005

The Honorable Magalie Roman Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: Sixth Weekly DMA Report on Market Impacts of Amendment No. 66  
Docket No. ER05-718**

Dear Secretary Salas:

Pursuant to Paragraph 21 of the Commission's "Order on Tariff Filing" issued in this docket on April 7, 2005, 111 FERC ¶ 61,008 (2005), the California Independent System Operator Corporation ("ISO") respectfully submits an original and fourteen copies of the sixth weekly Report on Market Impacts of Amendment 66, as prepared by the ISO's Department of Market Analysis. Two additional copies of this filing are enclosed to be date-stamped and returned to our messenger. If there are any questions concerning this filing please contact the undersigned.

Respectfully Submitted,

Michael Kunselman

Counsel for the California Independent  
System Operator Corporation

## **Certificate of Service**

I hereby certify that I have this day served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 23<sup>rd</sup> day of May, 2005 at Folsom in the State of California.

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**CALIFORNIA ISO**

**Report on Market Impacts of  
Amendment 66:  
“As-Bid” Settlement of Pre-dispatched  
Inter-tie Bids for Real Time Energy**

Prepared by the Department of Market Analysis  
California Independent System Operator  
May 23, 2005

## Background

In Amendment No. 66, the California Independent System Operator (“CAISO”) proposed to modify the CAISO Tariff so that bids for incremental and decremental energy on inter-ties with neighboring control areas that are pre-dispatched by the CAISO are settled under a “pay as bid” rule. With this modification, bids would be paid (or pay the CAISO) their original bid price, rather than the “bid or better” in effect since October 1, 2004.<sup>1</sup>

In its April 7, 2005 order on Amendment No. 66, the Federal Regulatory Energy Commission (“Commission”) approved the “pay as bid” settlement rule effective as of March 24 until the earlier of September 30, 2005 or the effective date of a long-term solution filed and accepted by the Commission.<sup>2</sup> The Commission also ordered the CAISO's Department of Market Analysis (“DMA”) to file weekly reports on the market effects of these interim tariff provisions, including “the liquidity and sufficiency of bids at the inter-ties” until the earlier of the effective date of a future tariff change implementing a long-term solution or September 30, 2005.

The following report is submitted by DMA in response to the above directive in the Commission’s Order on Amendment 66. This sixth weekly report includes additional data for the week of May 7 through May 13.<sup>3</sup>

## Report Findings

### ***Cost Impacts of Amendment No. 66***

Figures 1 and 2 summarize total energy pre-dispatched by the CAISO for market clearing versus CAISO system demand for energy, and the costs associated with overlapping (or off-setting) incremental (“inc”) and decremental (“dec”) bids dispatched to clear the market. Table 1 summarizes these same data by week since implementation of Phase 1B on October 1, 2004.

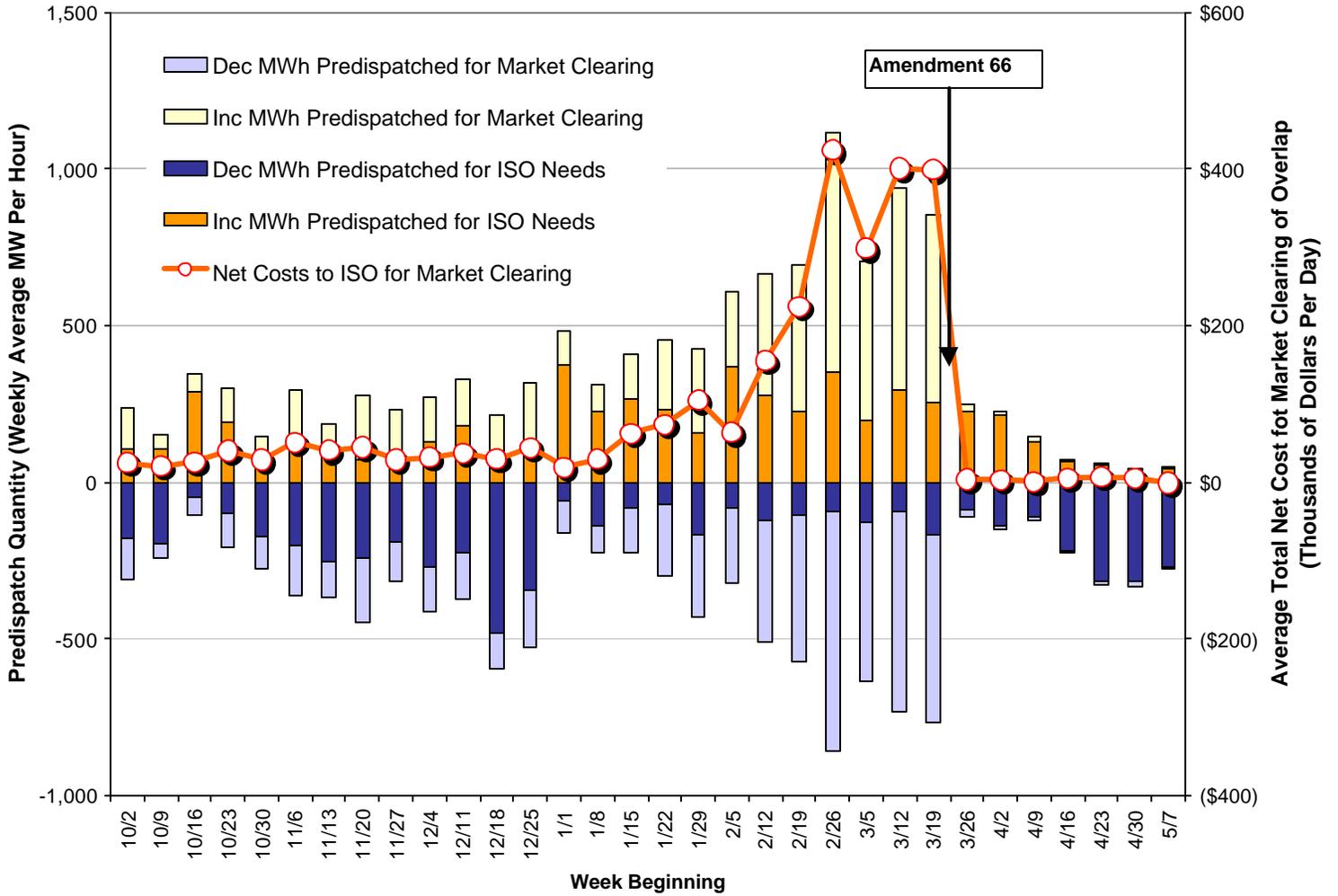
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<sup>1</sup> Under the “bid or better” settlement rule, inter-tie bids for incremental energy pre-dispatched by the CAISO prior to each operating hour were paid the higher of their bid price or the *ex post* real time market clearing price. Inter-tie bids for decremental energy pre-dispatched by the CAISO paid the lower of their bid price or the *ex post* real time market clearing price. See Amendment No. 66 Transmittal Letter.

<sup>2</sup> *California Independent System Operator Corporation*, 111 FERC ¶ 61,008 (2005) (“Amendment 66 Order”).

<sup>3</sup> The 7-day lag between the most recent data in this report and the filing date of this report reflects the time needed for post-operational checks and changes done as part of the CAISO settlement process, as well as time needed to prepare and review the report.

**Figure 1. Average Hourly Volume of Bids Pre-Dispatched by the CAISO and Average Daily Costs to CAISO of Market Clearing  
(By Week Since Phase1B Implementation)**

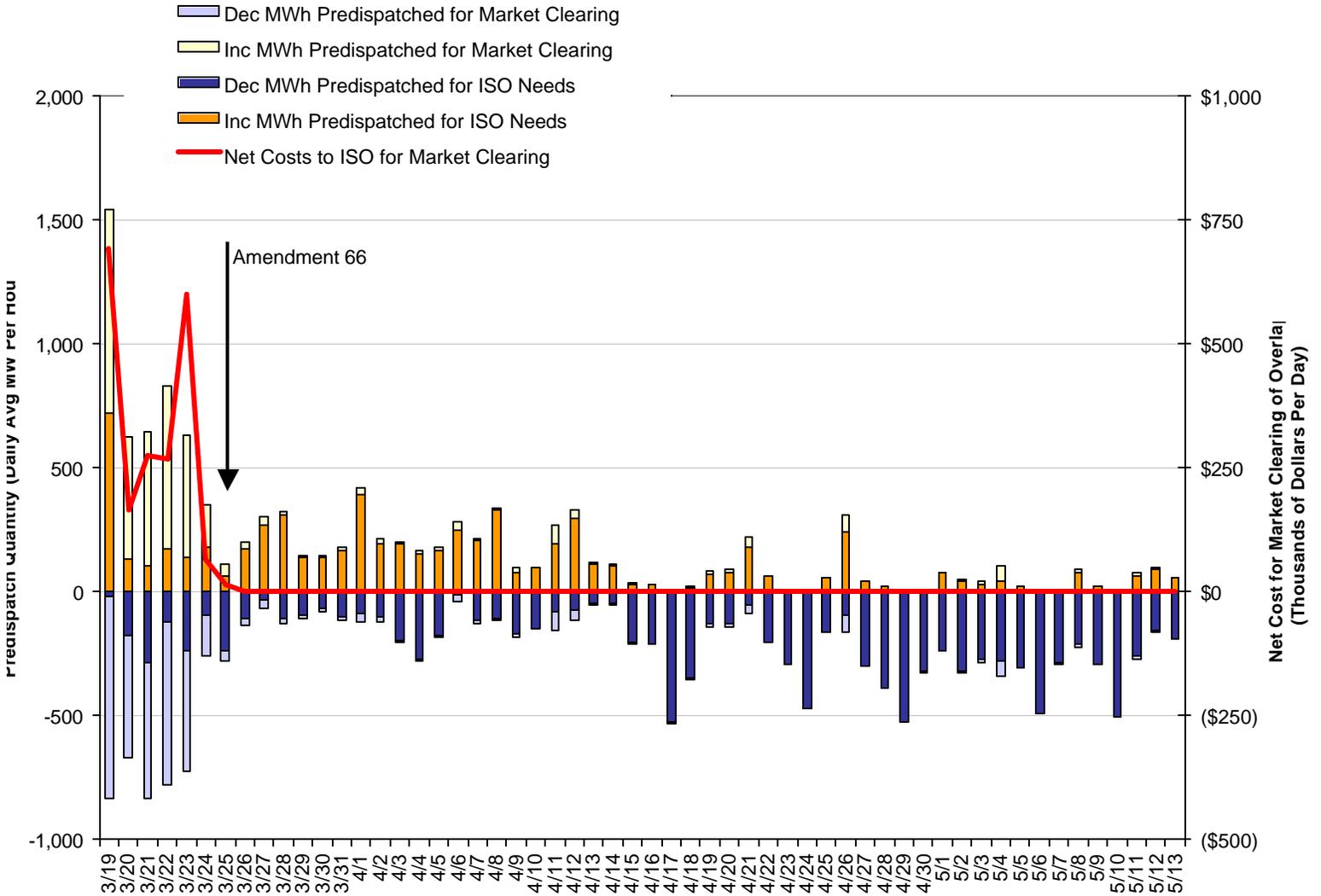


**Table 1. Weekly Summary Data (Before and After Amendment 66)**

Week Beginning	Market Clearing (Average MW/hour)		Net CAISO Imbalance Energy (Average MW/hour)		Average Daily Net Costs (Thousands per Day)	
	Inc	Dec	Inc	Dec	Market Clearing	Net ISO Energy
10/2/2004	129	-129	106	-180	\$25	(\$690)
10/9/2004	45	-45	105	-197	\$20	\$14
10/16/2004	57	-57	291	-49	\$25	\$326
10/23/2004	104	-104	194	-102	\$40	\$177
10/30/2004	100	-100	46	-174	\$28	(\$132)
11/6/2004	162	-162	135	-202	\$51	(\$17)
11/13/2004	112	-112	75	-253	\$40	(\$130)
11/20/2004	202	-202	74	-244	\$44	(\$128)
11/27/2004	128	-128	102	-189	\$28	(\$52)
12/4/2004	143	-143	128	-273	\$32	(\$127)
12/11/2004	149	-149	179	-225	\$37	\$4
12/18/2004	117	-117	99	-481	\$30	(\$332)
12/25/2004	182	-182	133	-344	\$44	(\$166)
1/1/2005	107	-107	376	-58	\$19	\$467
1/8/2005	88	-88	224	-137	\$29	\$162
1/15/2005	144	-144	265	-83	\$62	\$261
1/22/2005	224	-224	231	-74	\$74	\$198
1/29/2005	267	-267	156	-167	\$104	\$40
2/5/2005	238	-238	368	-82	\$63	\$385
2/12/2005	388	-388	278	-123	\$155	\$246
2/19/2005	468	-468	224	-105	\$224	\$216
2/26/2005	765	-765	353	-94	\$424	\$419
3/5/2005	508	-508	196	-126	\$298	\$143
3/12/2005	641	-641	297	-92	\$400	\$375
3/19/2005*	599	-599	253	-169	\$399	\$190
<i>Change from "Bid or Better" to "As-Bid" Settlement</i>						
<b>3/26/2005</b>	<b>22</b>	<b>-22</b>	<b>224</b>	<b>-87</b>	-	<b>\$211</b>
<b>4/2/2005</b>	<b>14</b>	<b>-14</b>	<b>213</b>	<b>-140</b>	-	<b>\$160</b>
<b>4/9/2005</b>	<b>15</b>	<b>-15</b>	<b>130</b>	<b>-109</b>	-	<b>\$88</b>
<b>4/16/2005</b>	<b>8</b>	<b>-8</b>	<b>64</b>	<b>-219</b>	-	<b>(\$106)</b>
<b>4/23/2005</b>	<b>10</b>	<b>-10</b>	<b>53</b>	<b>-319</b>	-	<b>(\$204)</b>
<b>4/30/2005</b>	<b>14</b>	<b>-14</b>	<b>28</b>	<b>-318</b>	-	<b>(\$208)</b>
<b>5/7/2005</b>	<b>5</b>	<b>-5</b>	<b>42</b>	<b>-273</b>	-	<b>(\$144)</b>

\* Average for the week beginning 3/19/05 includes data for 3/19 – 3/23 only. Data for 3/24 – 3/25 is excluded from the weekly average since during these two days Amendment 66 was in effect.

**Figure 2. Average Hourly Volume of Bids Pre-Dispatched by the CAISO  
and Average Daily Costs to CAISO of Market Clearing  
(By Day, Before and After Amendment 66)**



These data show the following with respect to the effectiveness of the Amendment 66 interim solution:

- The amount of overlapping inc and dec bids cleared by the CAISO dropped dramatically as soon as the CAISO moved from the “bid or better” settlement rule to the “as bid” settlement rule. In the seven weeks since the effective date of Amendment 66, an average of only about 13 MW of off-setting inc and dec bids have been pre-dispatched each hour, as opposed to an average of about 600 MW per hour in the month prior to implementation of Amendment 66. During the week of May 7 - 13, an average of only about 5 MW of off-setting inc and dec bids have been pre-dispatched each hour.
- Costs the CAISO associated with clearing the market by dispatching all overlapping inc and dec bids (beyond CAISO system demand) have been essentially eliminated under the “as bid” settlement rule, because revenues received by the CAISO for dec bids pre-dispatched to clear the market meet or exceed payments for off-setting inc bids pre-dispatched to clear the market.<sup>4</sup> As noted in the CAISO Amendment 66 tariff filing, the costs attributable to clearing of overlapping (or off-setting) inc and dec bids averaged about \$400,000 per day in the month prior to Amendment 66. Thus, savings from Amendment 66 may be estimated at about \$400,000 per day.<sup>5</sup>

Figure 3 summarizes the total cost of net incremental energy purchased by the CAISO for CAISO system needs (*i.e.* net energy pre-dispatched when the sum of all pre-dispatched bids was positive, indicating the CAISO was a net purchaser of imbalance energy in the pre-dispatch process). However, as shown in Figures 1 through 3, the CAISO has primarily been a net exporter of pre-dispatched energy over the last few weeks, thus, a relatively low volume of incremental energy has been purchased over this period. The trend of pre-dispatching net decremental energy on the inter-ties is consistent with the general trend within the CAISO system over this period, during which the CAISO has tended to be decrementing energy in both pre-dispatch and real time operations.

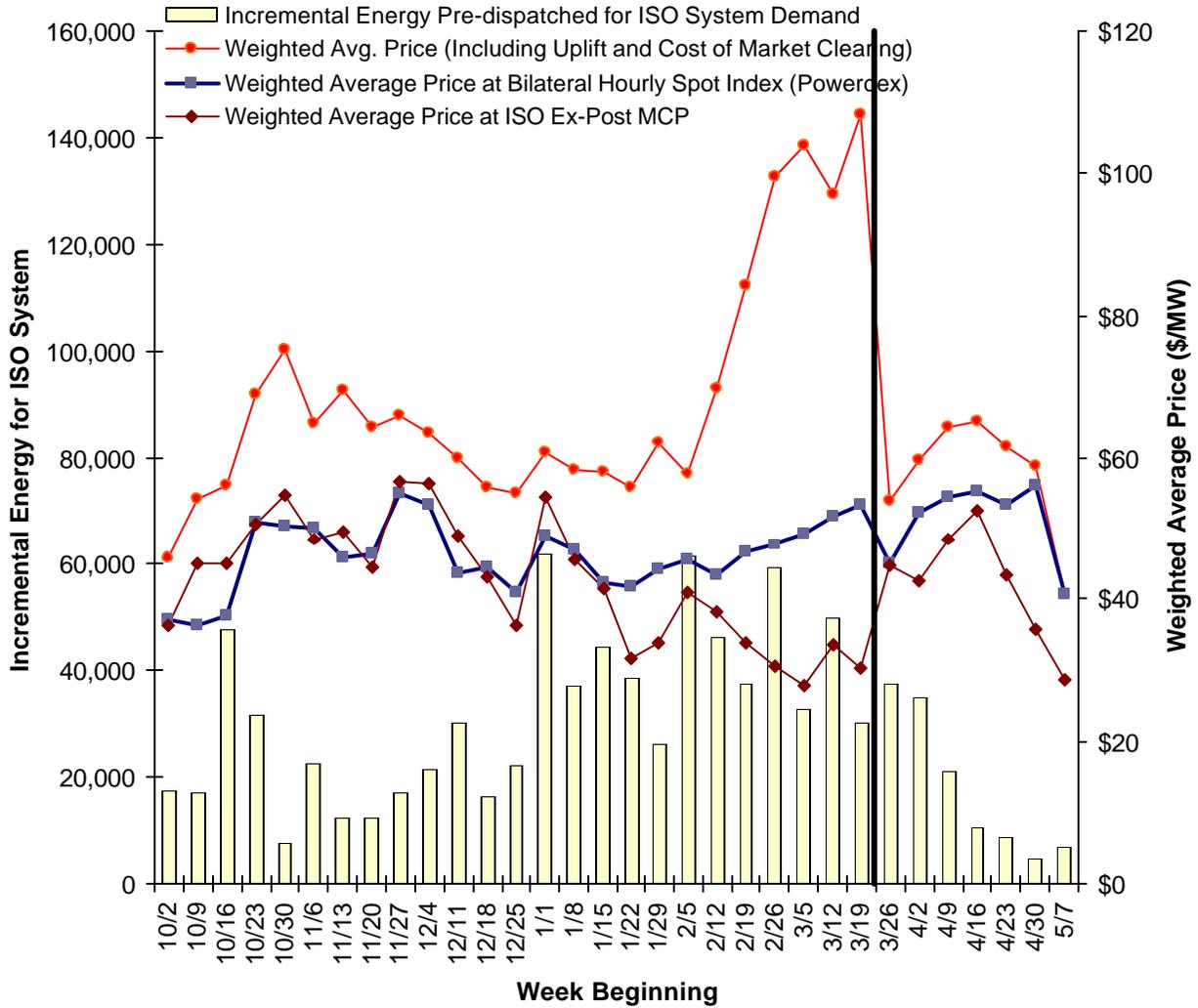
Figure 4 summarizes the total cost of net decremental energy sold by the CAISO for system needs (*i.e.* net energy pre-dispatched when the sum of all pre-dispatched bids was negative, indicating the CAISO was a net seller of imbalance energy in the pre-dispatch process). In order to compare the net price paid and received for net incremental and decremental energy by the CAISO from inter-tie bids to prices outside and inside of the CAISO system, the value of the incremental and decremental energy pre-dispatched by the CAISO was also calculated based on a bilateral price index for hourly spot market transactions (Powerdex Weekly Subscription Service) and at the CAISO’s real time ex-post prices.

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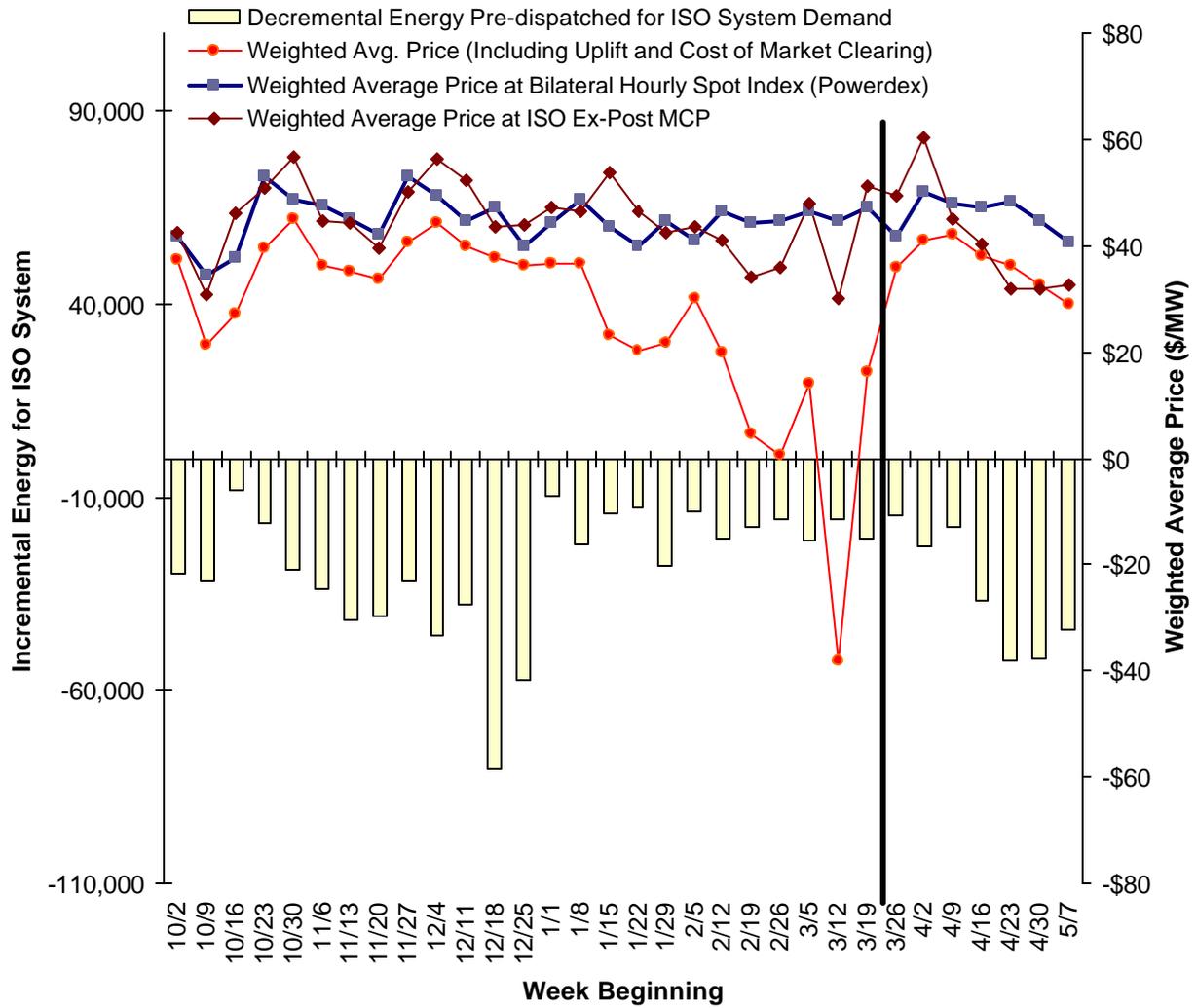
<sup>4</sup> After the change to the “as-bid” settlement rule, minor net costs from market clearing result from the fact that the methodology used to calculate net costs based on the total overall average price for all inc and dec energy pre-dispatched in hour. Thus, when incremental energy exceeds decremental energy pre-dispatched, the weighted average price per MWh of incremental energy may exceed the weighted average price of all decremental bids pre-dispatched. In practice, market clearing would be revenue neutral or produce small positive net revenue. However, due to the very small volume of off-setting inc and dec bids pre-dispatched under the “as-bid” rule (*i.e.* 16 MW per hour) any net revenues from clearing the market on an “as-bid” basis would be minimal.

<sup>5</sup> The bulk of these savings would reduce charges to Load Serving Entities (“LSEs”) within the ISO, since uplift charges are allocated to Schedule Coordinators (“SCs”) based on a combination of negative uninstructed deviations and total load.

**Figure 3. Total Net Cost of Incremental Energy Pre-dispatched for CAISO System Demand**



**Figure 4. Total Net Cost of Decremental Energy Pre-dispatched for CAISO System Demand**



As shown in Figure 4, prices received by the CAISO for net decremental energy have tracked closely with ex post prices for real time energy within the CAISO. During the week of May 7-13, the net price for net decremental energy pre-dispatched as a result of CAISO system conditions averaged about \$29/MWh, while the weighed average price of this decremental energy pre-dispatched by the CAISO calculated at the ex post price in the CAISO's real time market was about \$33/MWh. The weighted average price reported for hourly spot market transactions in bilateral markets (Powerdex) during these hours was about \$40/MWh.

### ***Inter-tie Bid Sufficiency and Liquidity***

Figure 5 shows the daily total volumes of incremental and decremental inter-tie bids during the period March 1 to May 13, 2005, categorized by bid price levels.<sup>6</sup> Figure 6 shows these same bid data, but highlights the average hourly volume of net incremental bids submitted during weekdays on a weekly basis.

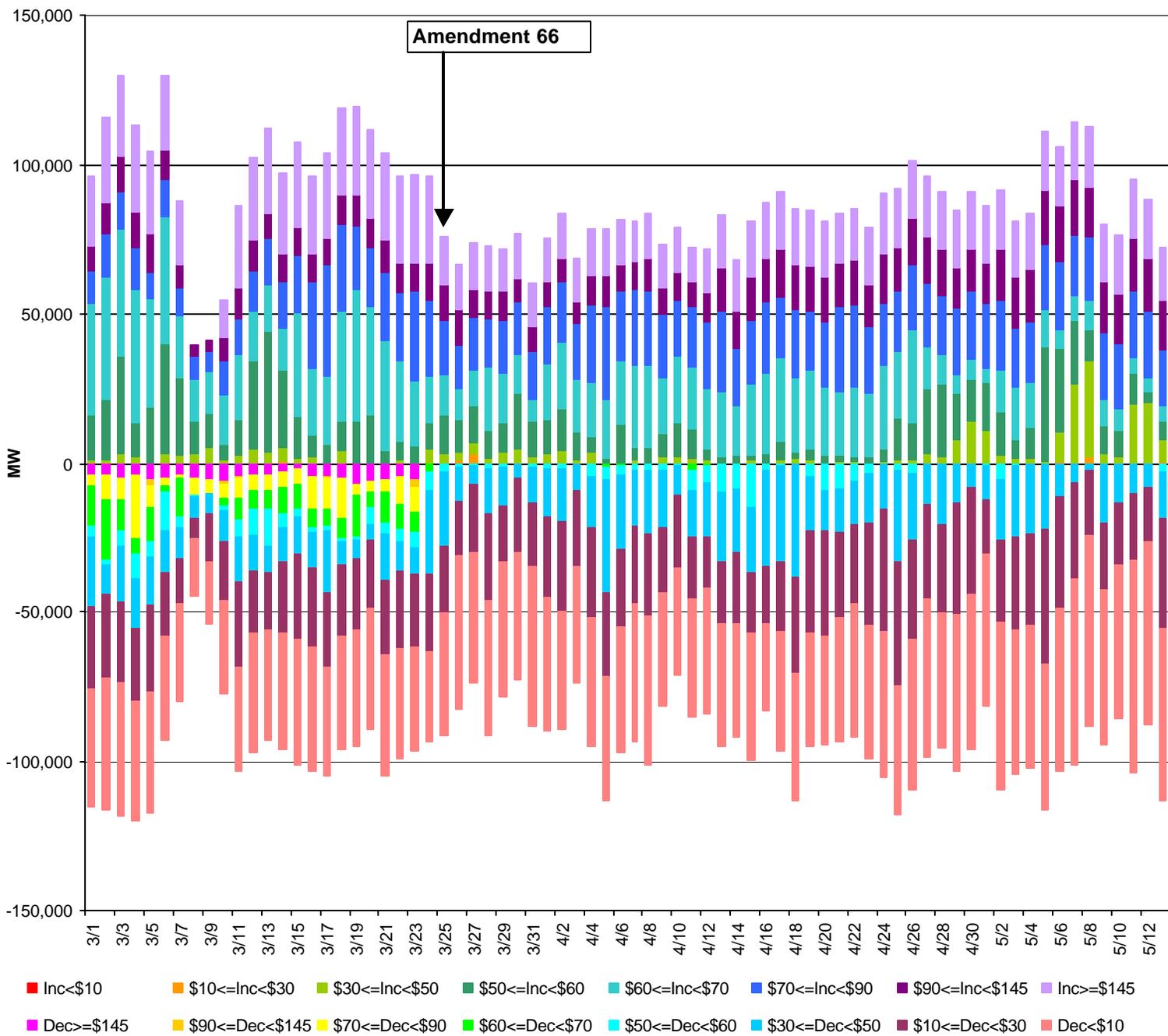
As shown in Figures 5 and 6, the volume of inter-tie bids received by the CAISO dropped slightly immediately after implementation of Amendment 66, but has subsequently increased to a level almost equal to the volume of bids the in the week prior to Amendment 66. In addition, as shown in Figure 6, a larger volume of lower priced bids are now being submitted than in the week prior to Amendment 66.

DMA will be monitoring and analyzing the issues of inter-tie bid sufficiency and liquidity over a longer-term basis, and will include the results of this analysis in future weekly reports.

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<sup>6</sup> Last week's report indicated that these "overlapping" bids are not actually available to meet CAISO system demand, as they are, in effect, netted from the actual supply of bids available to meet CAISO imbalance energy needs through the market clearing process incorporated in the RTMA software." In practice, overlapping bids are cleared simultaneously with CAISO system demand so that these bids may be used to meet CAISO imbalance energy needs. However, since it appears the volume of bids submitted to the CAISO was inflated in the weeks prior to Amendment 66 by Market Participant's seeking to take advantage of the "bid or better" settlement rule, these offsetting bids were netted off of data in last week's report to demonstrate the trends in bidding volumes taking this into account.

Figure 5. Inter-tie Bid Quantities and Prices



**Figure 6. Inter-Tie Bid Quantities and Prices for Incremental Energy**  
**Hourly Averages, Weekdays Only**

