

May 30, 2013

The Honorable Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

> Re: California Independent System Operator Corporation Docket Nos. ER08-1178-\_\_\_, and EL08-88-\_ February 2013 Exceptional Dispatch Report (Chart 2 data)

Dear Secretary Bose:

Pursuant to the September 2, 2009 and May 4, 2010 orders in the above referenced docket, the California Independent System Operator Corporation submits the attached report. The attached report provides Exceptional Dispatch information that the Commission directed be included in "Chart 2", which was set forth in Appendix A to the September 2 Order, as modified the Commission's May 4 Order.

The attached report provides Chart 2 data for the month of February, 2013. The attached Chart 2 report also includes the price impact analysis for the month of February 2013 required by Paragraph 44 of the September 2 Order as well as the degree of mitigation analysis required by ISO tariff section 34.9.4 for the month of February 2013.

Respectfully submitted,

By: /s/ Sidney M. Davies\_

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# **Exceptional Dispatch Report**

Table 2: February 2013

Market Quality and Renewable Integration

May 30, 2013

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## Introduction

This report is filed pursuant to FERC's September 2, 2009, and May 4, 2010, orders in ER08-1178. These orders require two monthly Exceptional Dispatch reports—one issued on the 15<sup>th</sup> of each month and one issued on the 30<sup>th</sup> of each month. This report provides data on the frequency, reasons and costs for Exceptional Dispatches issued in February 2013.

In addition, this report contains a price impact analysis as prescribed by FERC in its September 2 order. The price impact analysis for the month of February is presented in Appendix B. This report also includes the degree of mitigation analysis for February 2013 required by section 34.9.4 of the ISO tariff. As it has previously explained, the ISO indicated that it would start including the degree of mitigation analysis beginning with the month of August 2009 when the more limited Exceptional Dispatch bid mitigation took effect. This analysis will compare those Exceptional Dispatches subject to bid mitigation (i.e. Exceptional Dispatches to address noncompetitive constraints and Delta Dispatch), and determine the cost difference between the Exceptional Dispatch bid mitigation settlement rules and what the settlement amount would have been had the Exceptional Dispatches not been subject to bid mitigation. The Exceptional Dispatch bid mitigation analysis for February is presented in Appendix C.

# The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-dayahead unit commitment, a post day-ahead unit commitment or a real-time exceptional dispatch. A pre-day-ahead unit commitment is an exceptional dispatch instruction committing a resource at or above its physical minimum (Pmin) operating level in the day-ahead market. A post-day-ahead unit commitment is an exceptional dispatch instruction committing a resource at or above its (Pmin) operating level in the real-time market. A real-time exceptional dispatch instructs a resource to operate at or above its physical minimum operating point. For the purposes of this report, a real-time exceptional dispatch above the resource's day-ahead award is considered an incremental exceptional dispatch instruction and a real-time exceptional dispatch below the day-ahead award is considered a decremental dispatch instruction. The ISO issues exceptional dispatch instructions primarily to manage transmission constraints that are not modeled in the market software. In addition to constraints, the ISO also issues exceptional dispatch instructions relating to reliability requirements and, on occasion, software failures. Reliability requirements are calculated for both local area and the system wide needs, and are classified into various requirements including local generation, transmission management, nonmodeled transmission outages, ramping and intertie emergency assistance. Whenever the ISO issues an exceptional dispatch instruction, these instructions are logged by the operators into the scheduling and logging system (SLIC), including an associated reason for each exceptional dispatch instruction.

In February 2013, the ISO issued exceptional dispatches for the following generation and transmission operating requirements: (1) Operating procedure 7320, transmission facilities in Bay Area; and (2) other transmission outages in PG&E, SCE and SDG&E area.

Most of the generation procedures are internal to the ISO and not available publically on the ISO website; however, all of the transmission procedures are available on the ISO website.<sup>1</sup>

The following additional reason for exceptional dispatch instructions in February 2013 was not related to specific generation or transmission operating procedures: Software Limitation, when an exceptional dispatch instruction was used to bridge schedules across days for resources with a minimum down time of 24 hours, as the ISO software does not handle multi day commitment. For instance, a resource has a day-ahead schedule from 0600 till 2300, and then is shut down in 2400. If this resource had a minimum down time of 24 hours and it is required the following day, then the ISO issues an exceptional dispatch to commit this resource in 2400 so that it can be dispatched economically in the following day. Software limitation reason was also used for exceptional dispatches to manually issue shut down instructions to a resource because of a temporary Automatic Dispatch System ("ADS") failure, or similar issues. There were a few other reasons used to explain exceptional dispatch instructions in February, which are self explanatory.

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order.<sup>2</sup> This table contains all the information published in Table 1 of the first report for February. In addition, it contains volume (MWh) and cost information. Each entry in Table 1 is a summary of exceptional dispatches classified by (1) the reason for the exceptional dispatch; (2) the location of the resource by Participating Transmission Owner (PTO) service area; (3) the Local Reliability Area (LRA) where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification, the following information is provided: (1) Megawatts (MW); (2) Commitment; (3) Inc or Dec; (4) Hours; (5) Begin Time; (6) End Time; (7) Total Volume (MWh); (8) Min Load Cost; (9) Start Up Cost; (10) CC6470; (11) ED Volume (MWh INC/DEC); (12) CC6470 INC; (13) CC6470 DEC; (14) CC6482; (15) CC6488; and (16) CC6620. Each column is defined as follows:

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A list of all of the ISO's Operating Procedures and all the publicly available Operating Procedures are available at the following link:

http://www.caiso.com/thegrid/operations/opsdoc/index.html

The data in Table 1 is principally SLIC information supplemented with data from the Market Quality System (MQS) and Settlements database. The volume and cost information is based on t+51B Recalculation Statements.

- The MW column shows the range of exceptional dispatch instruction in MW for the classification.
- The Commitment column specifies if there was a unit commitment for the classification.
- The INC/DEC/NA column specifies if there was an incremental dispatch (INC), a decremental dispatch (DEC), or only a unit commitment (NA).
   The Begin Time and End Time columns show the start and end time of exceptional dispatch for the classification respectively.
- The Hours column is the time difference between begin time and end time rounded up to the next hour.
- The total volume column shows the total MWh dispatch quantity dispatched for that classification. This quantity includes the minimum load quantity, the imbalance energy quantity, and the exceptional dispatch quantity.
- The Min-Load Cost column shows eligible minimum load cost for the classification.
- The Start-Up Cost column shows the eligible start up cost for the classification. Please note that the ISO does not explicitly pay resources for its start up and minimum load costs; however, it ensures that resources are compensated adequately through its bid cost recovery process.<sup>3</sup>
- The CC6470 column shows the total imbalance energy costs for the classification. This cost contains the portion of exceptional dispatch instruction that was settled as optimal energy by virtue of its bid price being less than the LMP in that specific settlement interval.
- The ED Volume MWh (MWh INC/DEC) column shows the incremental or the decremental portion of the real-time exceptional dispatch MWh for the classification. The CC6470-INC shows that portion of incremental exceptional dispatch instruction which is settled at the resource specific LMP.
- The CC6470-DEC column shows that portion of decremental exceptional dispatch instruction which is settled at the resource specific LMP. Both these charge codes are portion of the real-time instructed imbalance energy charge code (6470).<sup>4</sup>
- The CC6482 column shows the real-time excess cost for the classification.<sup>5</sup>
- The CC6488 column shows the real-time exceptional dispatch uplift settlement for the classification.<sup>6</sup> The CC6620 shows the bid cost recovery

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<sup>&</sup>lt;sup>3</sup> For further details regarding the Bid Cost Recovery process please refer to section 11.8 of the ISO tariff

<sup>&</sup>lt;sup>4</sup> For further details please refer to the BPM configuration Guide: Real-Time Instructed Imbalance Energy Settlement published on the ISO's website.

<sup>&</sup>lt;sup>5</sup> For further details please refer to the BPM configuration Guide: Real Time Excess Cost for Instructed Energy Settlement published on the ISO's website.

<sup>&</sup>lt;sup>6</sup> For further details please refer to the BPM configuration Guide: Real Time Exceptional Dispatch Uplift Settlement published on the ISO's website.

payment for the classification. This cost is shown for all pre-day-ahead unit commitments only.

Charge codes 6470, 6470 INC, 6470 DEC, 6482 and 6488 are shown in Table 1 because all these charge codes pertain to real-time exceptional dispatch MWH quantities. The classification of data is further explained by way of example in Attachment A. The ISO issued an Exceptional Dispatch CPM designation to Morro Bay Unit 4 from February 22 to April 22, 2013. Morro Bay Unit 4 was designated for 50.01 MW of capacity for a 60-day term under the Exceptional Dispatch CPM provisions of the tariff to address a non-system reliability need.

**Table 1: Exceptional Dispatches in February 2013** 

# California Independent System Operator Corporation Exceptional Dispatch Report May 30 , 2013

# Chart 2: Table of Exceptional Dispatches for Period 01/February/2013 - 28/February/2013

Mark			Local						Dagin	End		Min								
Num et			Reliability		MW	Comm	INC_		Begin Time	Time	Total	Load	Startup		ED MWH	CC6470	CC6470			
ber Type	Reason	Location	Area	Trade Date		itment	DEC	Hours			MWH	cost	Cost	CC6470	(INC/DEC)	INC	DEC	CC6482	CC6488	CC6620
1 DA	Transmission Outage PG&E	PG&E	N/A	22-Feb-13	50.00	Yes	N/A	17	7:00	23:00	850.00	\$53,376	\$17,991	\$0	0	\$0	\$0	\$0	\$0	\$35,051
2 RT	7320	PG&E	Bay Area	5-Feb-13	37	No	INC	2	17:29	18:03	13.15	\$0	\$0	(\$2,018)	0	\$0	\$0	\$0	\$0	
3 RT	7320	PG&E	Bay Area	18-Feb-13	20	Yes	INC	2	17:43	18:14	5.67	\$534	\$40	(\$231)	0	\$0	\$0	\$0	\$0	
4 RT	Bridging Schedules	PG&E	Bay Area	14-Feb-13	45	Yes	INC	1	23:00	23:59	45.01	\$3,196	\$0	(\$1,376)	0	(\$0)	\$0	\$0	\$0	
5 RT	Bridging Schedules	SCE	LA Basin	5-Feb-13	20	No	INC	2	22:00	23:59	40.02	\$0	\$0	(\$1,195)	0	(\$1)	\$0	\$0	\$0	
6 RT	Bridging Schedules	SCE	LA Basin	28-Feb-13	60	Yes	INC	1	23:00	23:59	99.08	\$8,597	\$0	(\$3,900)	0	\$0	\$0	\$0	\$0	\$0
7 RT	Bridging Schedules	SDG&E	San Diego-IV	28-Feb-13	20- 40	Yes	INC	3	21:00	23:59	99.95	\$7,619	\$0	(\$3,980)	0	\$0	\$0	\$0	\$0	\$0
8 RT	Intertie Emergency Assistance	Intertie	N/A	16-Feb-13	110	No	INC	2	14:44	15:59	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
9 RT	Intertie Emergency Assistance	Intertie	N/A	21-Feb-13	22	No	INC	1	23:00	23:59	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
10 RT	Load Forecast Uncertainty	SCE	LA Basin	25-Feb-13	25	Yes	INC	5	16:00	20:59	125.05	\$16,731	\$0	(\$3,913)	0	(\$2)	\$0	(\$1)	\$0	\$0
					71				15:00	20:59				(\$22,065		(\$17,05				
11 RT	Load Pull	SCE	LA Basin	4-Feb-13	, 1	Yes	INC	6	13.00	20.37	424.95	\$0	\$0	)	275	0)	\$0	\$0	\$0	\$0
12 RT	Load Pull	SCE	LA Basin	5-Feb-13	97- 300	No	DEC	10	5:40	14:14	557.77	\$0	\$0	\$19,313	0	\$0	\$0	\$0	\$0	\$0
13 RT	Load Pull	SCE	LA Basin	5-Feb-13	30- 140	No	INC	10	5:30	14:14	626.02	\$0	\$0	(\$27,542	593	(\$26,31	\$0	\$0	\$0	\$0
13 10	Loud I till	BCL	Err Busin	3 1 65 13	<b>5</b> 0	110	11,0	10	6.00	20.50	1070.0	ΨΟ	ΨΟ	(\$44,358	373	(\$29,92	ΨΟ	ΨΟ	ΨΟ	Ψ0
14 RT	Load Pull	SCE	LA Basin	6-Feb-13	70	Yes	INC	15	6:00	20:59	9	\$40,858	\$18,026	)	700	0)	\$0	\$0	\$0	\$0
					70				4:10	9:59				(\$22,559		(\$14,05				
15 RT	Load Pull	SCE	LA Basin	7-Feb-13		No	INC	6			448.95	\$0	\$0	)	271	9)	\$0	\$0	\$0	\$0
16 RT	Over Generation	SCE	LA Basin	3-Feb-13	352	No	DEC	1	17:00	17:02	-58.67	\$0	\$0	\$1,484	-29	\$0	\$719	\$0	\$0	\$0
17 RT	Over Generation	SCE	LA Basin	3-Feb-13	160	No	INC	1	6:00	6:59	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
18 RT	Over Generation	SCE	LA Basin	17-Feb-13	240	No	INC	4	10:53	13:59	998.01	\$11,296	\$0	(\$606)	-445	\$0	\$11,055	\$0	\$0	\$0
19 RT	Path 26	SCE	LA Basin	1-Feb-13	126	No	DEC	2	17:21	18:59	220.21	\$0	\$0	\$69,083	0	\$0	\$0	\$0	\$0	\$0
		302		1123 13	70	1.0	1220	† †	17.05	22.50	220.21	40	40	(\$81,650	Ü	(\$16,37	40	Ψ0	Ψ0	40
20 RT	Path 26	SCE	LA Basin	2-Feb-13	70	No	INC	7	17:25	23:59	618.90	\$0	\$0	)	267	0)	\$0	\$0	\$0	\$0
21 RT	SCE Import Limit	SCE	LA Basin	3-Feb-13	20	Yes	INC	16	8:00	23:59	318.33	\$43,582	\$0	(\$9,973)	0	\$0	\$0	\$0	\$0	\$0
22 RT	SCE Import Limit	SCE	LA Basin	16-Feb-13	46	Yes	INC	2	20:43	21:16	22.99	\$1,988	\$467	(\$1,061)	0	(\$2)	\$0	(\$0)	\$0	\$0
23 RT	SP26 Capacity	SDG&E	San Diego-IV	28-Feb-13	44- 50	No	INC	8	12:05	19:59	334.25	\$27,633	\$639	(\$14,647	24	(\$926)	\$0	(\$316)	\$0	\$0
24 RT	Software Limitation	PG&E	Bay Area	19-Feb-13	834	No	INC	2	22:00	23:47	-2.73	\$17,120	\$0	\$85	0	\$0	\$0	\$0	\$0	
25 RT	Software Limitation	PG&E	Fresno	3-Feb-13	318	No	DEC	2	2:45	3:29	265.00	\$0	\$0	\$9,486	0	\$0	\$0	\$0	\$0	\$0
26 RT	Software Limitation	PG&E	Fresno	12-Feb-13	0	Yes	INC	2	13:20	14:19	0.00	\$984	\$21	(\$0)	0	\$0	\$0	\$0 \$0	\$0	
20 K1	Software Limitation	TOXE	1 TCSHO	12-1.00-13	U	103	IIIC		13.20	17.17	0.00	ψ <b>704</b>	φ∠1	(ΦU)	1 0	φU	<b>Φ</b> 0	φU	φU	φυ

Mark			Local		M				Begin	End		Min								
Num et ber Type	Reason	Location	Reliability Area	Trade Date	MW	Comm	INC_ DEC	Hours	Time	Time	Total MWH	Load cost	Startup Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
27 RT	Software Limitation	PG&E	Fresno	19-Feb-13	0	Yes	INC	2	19:45	20:44	4.08	\$621	\$117	(\$161)	0	\$0	\$0	\$0	\$0	\$0
28 RT	Software Limitation	PG&E	Fresno	24-Feb-13	315	Yes	DEC	1	2:20	2:29	-52.50	\$0	\$0	\$1,769	0	\$0	\$0	\$0	\$0	\$0
29 RT	Software Limitation	PG&E	Humboldt	14-Feb-13	44	No	INC	1	23:15	23:58	4.53	\$228	\$0	(\$168)	0	(\$13)	\$0	\$0	\$0	\$0
30 RT	Software Limitation	PG&E	Humboldt	15-Feb-13	15	No	INC	1	0:00	0:29	1.99	\$0	\$0	(\$77)	0	(\$7)	\$0	\$0	\$0	\$0
31 RT	Software Limitation	SCE	Big Creek- Ventura	2-Feb-13	0	Yes	INC	2	21:45	22:14	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
32 RT	Software Limitation	SCE	Big Creek- Ventura Big	12-Feb-13	0	Yes	INC	23	1:45	23:09	1.33	\$184	\$125	(\$40)	0	\$0	\$0	\$0	\$0	\$0
33 RT	Software Limitation	SCE	Creek- Ventura	27-Feb-13	0	Yes	INC	2	0:30	1:29	0.00	\$0	\$0	(\$0)	0	\$0	\$0	\$0	\$0	\$0
34 RT	Software Limitation	SCE	LA Basin	17-Feb-13	300	No	INC	4	16:00	19:59	1154.4	\$17,875	\$0	\$28,890	0	\$0	\$0	\$0	\$0	\$0
35 RT	Software Limitation	SCE	LA Basin	20-Feb-13	0	Yes	INC	1	21:00	21:59	0.00	\$0	\$0	(\$0)	0	\$0	\$0	\$0	\$0	\$0
36 RT	Software Limitation	SDG&E	San Diego-IV	7-Feb-13	68	No	INC	6	4:10	9:59	409.61	\$28,386	\$0	(\$18,184	0	(\$6)	\$0	\$0	\$0	\$0
37 RT	Software Limitation	SDG&E	San Diego-IV	13-Feb-13	0	Yes	INC	1	23:05	23:59	1.67	\$323	\$0	(\$53)	0	\$0	\$0	\$0	\$0	\$0
38 RT	Software Limitation	SDG&E	San Diego-IV	14-Feb-13	510	No	INC	24	0:00	23:04	0.00	\$0	\$0	(\$4)	0	\$0	\$0	\$0	\$0	\$0
39 RT	Software Limitation	SDG&E	San Diego-IV	15-Feb-13	310	No	INC	3	21:45	23:59	282.75	\$0	\$0	\$9,684	0	\$0	\$0	\$0	\$0	\$0
40 RT	Software Limitation	SDG&E	San Diego-IV	28-Feb-13	150	No	INC	2	5:15	6:59	477.26	\$10,325	\$0	(\$14,753	0	\$0	\$0	\$0	\$0	\$0
41 RT	System Energy	Intertie	N/A	17-Feb-13	75	No	DEC	1	13:00	13:59	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
42 RT	System Energy	Intertie	N/A	17-Feb-13	500	Yes	INC	1	13:00	13:59	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
43 RT	Thermal Margin	SCE	LA Basin	5-Feb-13	25	Yes	INC	18	6:00	23:59	465.43	\$55,214	\$6,598	(\$14,971	0	\$0	\$0	\$0	\$0	\$0
44 RT	Thermal Margin	SCE	LA Basin	6-Feb-13	20	Yes	INC	24	0:00	23:59	217.35	\$8,172	\$3,605	(\$7,676)	0	(\$3)	\$0	(\$2)	\$0	\$0
45 RT	Thermal Margin	SCE	LA Basin	7-Feb-13	25	Yes	INC	3	21:55	23:59	54.19	\$6,692	\$0	(\$1,883) (\$19,599	0	(\$1)	\$0	\$0	\$0	\$0
46 RT	Thermal Margin	SCE	LA Basin	8-Feb-13	25	Yes	INC	24	0:00	23:59	601.44	\$80,309	\$0	(\$10,931	0	(\$8)	\$0	(\$3)	\$0	\$0
47 RT	Thermal Margin	SCE	LA Basin	17-Feb-13	20	Yes	INC	24	0:00	23:59	485.45	\$79,732	\$0	)	0	(\$5)	\$0	(\$7)	\$0	\$0
48 RT	Thermal Margin	SCE	N/A	8-Feb-13	40	Yes	INC	18	6:20	23:59	942.00	\$84,402	\$9,717	(\$34,339	0	(\$4)	\$0	(\$0)	\$0	\$0
49 RT	Thermal Margin	SDG&E	San Diego-IV	5-Feb-13	20	No	INC	14	10:00	23:59	279.31	\$34,422	\$15,894	(\$13,486	0	\$0	\$0	\$0	\$0	\$0
50 RT	Thermal Margin	SDG&E	San Diego-IV	6-Feb-13	20	No	INC	21	3:00	23:59		\$51,632	\$0	(\$13,572	0	(\$6)	\$0	(\$3)	\$0	\$0
51 RT	Thermal Margin	SDG&E	San Diego-IV	7-Feb-13	20	No	INC	24	0:00	23:59	1435.7 3	. /	\$0	(\$90,789	0	(\$1)	\$0	(\$0)	\$0	\$0
52 RT	Thermal Margin	SDG&E	San Diego-IV	8-Feb-13	20	No	INC	24	0:00	23:59	2454.0	\$126,41 6	\$0	(\$105,81 4)	0	\$0	\$0	\$0	\$0	\$0

	Mark et			Local Reliability		MW	Comm	INC_		Begin Time	End Time	Total	Min Load	Startup		ED MWH	CC6470	CC6470			
ber	Type	Reason	Location	Area	Trade Date		itment	DEC	Hours	Time	Time	MWH	cost	Cost	CC6470	(INC/DEC)	INC	DEC	CC6482	CC6488	CC6620
						300- 445				18:25	23:59	1026.1									
53	RT	Transmission Outage PG&E	PG&E	N/A	6-Feb-13	300 443	No	INC	6	10.23	23.37	8	\$8,948	\$0	\$41,277	-802	\$0	\$32,840	\$0	(\$9,475)	\$0
54	RT	Transmission Outage PG&E	PG&E	N/A	22-Feb-13	0	Yes	INC	17	7:00	23:59	3.96	\$0	\$0	(\$148)	0	\$0	\$0	\$0	\$0	\$0
55	RT	Transmission Outage PG&E	PG&E	Sierra	15-Feb-13	20	Yes	INC	8	14:20	21:59	191.81	\$13,367	\$523	(\$9,127)	0	\$0	\$0	\$0	\$0	\$0
56	RT	Transmission Outage PG&E	PG&E	Sierra	16-Feb-13	26	No	INC	16	6:25	21:59	404.27	\$0	\$0	(\$12,006	403	(\$11,98 5) (\$7,525	\$0	\$0	(\$6,227)	\$0
57	RT	Transmission Outage PG&E	PG&E	Sierra	17-Feb-13	25	No	INC	16	6:00	21:59	400.27	\$0	\$0	(\$7,548)	399	(\$7,323	\$0	\$0	#######	\$0
58	RT	Transmission Outage PG&E	PG&E	Sierra	18-Feb-13	24- 66	Yes	INC	16	6:05	21:59	366.98	\$0	\$0	(\$11,045	540	(\$16,41 2)	\$0	\$0	(\$6,696)	\$0
59	RT	Transmission Outage SCE	SCE	LA Basin	23-Feb-13	20- 40	Yes	INC	19	5:00	23:59	579.61	\$79,059	\$33,847	(\$19,136	0	\$0	\$0	\$0	\$0	\$0
						239				9:03	20:59	2404.1									
60	RT	Transmission Outage SCE	SCE	N/A	5-Feb-13	239	No	INC	12	9:03	20:39	2404.1	\$17,834	\$0	\$61,257	-1830	\$0	\$36,828	\$0	#######	\$0
	RT	Transmission Outage SCE	SCE	N/A	7-Feb-13	173	No	INC	6	18:50	23:59	882.75		\$15,845	\$307,798	0	\$0	\$0	\$0	\$0	\$0
						173				0:00	23:59	3508.1			(\$102,77	_					
62	RT	Transmission Outage SCE	SCE	N/A San	8-Feb-13		No	INC	24		23.57	3	\$0	\$0	(\$57,407	0	\$0	\$0	\$0	\$0	\$0
63	RT	Transmission Outage SDG&E	SDG&E	Diego-IV	27-Feb-13	20- 70	Yes	INC	13	11:00	23:59	684.15	\$44,445	\$118	(\$37,407	24	(\$910)	\$0	\$0	(\$368)	\$0
				San		150				7:00	21:59	3338.4		·	(\$177,21		, ,	,		, i	
64	RT	Transmission Outage SDG&E	SDG&E	Diego-IV	28-Feb-13	150	No	INC	15	7.00	21.57	7	\$71,964	\$0	(\$02.100	1	(\$28)	\$0	\$0	\$0	\$0
-	RT	Unit Testing	PG&E	N/A	27-Feb-13	242- 321	Yes	INC	9	8:15	16:59	2484.2	\$0	\$0	(\$82,108	520	(\$21,10	\$0	\$0	\$0	\$0
	RT	Unit Testing	PG&E	Sierra	8-Feb-13	135	Yes	DEC	1	14:14	14:23	0.00	\$0	\$0	\$0	0	\$0	\$0	\$0	\$0	\$0
67	RT	Unit Testing	PG&E	Sierra	8-Feb-13	4	Yes	INC	2	13:48	14:37	0.00	\$0	\$0	\$0 (\$13,697	0	\$0 (\$4,836	\$0	\$0	\$0	\$0
	RT	Unit Testing	PG&E	Sierra	22-Feb-13	290	No	INC	3	12:30	14:59	392.98	\$0	\$0	)	139	)	\$0	\$0	\$0	\$0
69	RT	Unit Testing	SCE	LA Basin	20-Feb-13	47	Yes	INC	1	8:00	8:59	35.21	\$3,438	\$281	(\$1,363) (\$32,504	0	(\$1) (\$14,38	\$0	\$0	\$0	\$0
70	RT	Unit Testing	SCE	N/A	15-Feb-13	50- 257	Yes	INC	10	9:50	18:59	967.89	\$0	\$0	(\$32,304	384	4)	\$0	\$0	\$0	\$0
71	RT	Unit Testing	SCE	N/A	16-Feb-13	90- 200	Yes	INC	12	7:35	18:59	974.14	\$0	\$0	(\$84,023	424	(\$37,73 8)	\$0	\$0	\$0	\$0
72	рт	Hait Tastina	SCE	NT/A	17 E-1 12	92- 202	Van	INC	12	7:20	19:59	452.06	\$0	\$0	(\$10,604	205	(\$7,431	\$0	¢0	\$0	0.0
72	KI	Unit Testing	SCE	N/A	17-Feb-13		Yes	INC	13	0.40	17.70	453.06	\$0	\$0	(\$21,360	205	(\$9,968	\$0	\$0	\$0	\$0
73	RT	Unit Testing	SCE	N/A	20-Feb-13	87	Yes	INC	8	8:10	15:59	644.96	\$0	\$0	)	262	)	\$0	\$0	\$0	\$0
74	RT	Unit Testing	SCE	N/A	21-Feb-13	50- 170	Yes	INC	13	8:40	20:59	1400.9 4	\$0	\$0	(\$13,001	460	(\$19,73 6)	\$0	\$0	\$0	\$0
75	RT	Unit Testing	SCE	N/A	22-Feb-13	90- 270	Yes	INC	7	9:15	15:59	848.28	\$0	\$0	(\$30,242	375	(\$14,90 6)	\$0	\$0	\$0	\$0
76	RT	Unit Testing	SCE	N/A	23-Feb-13	50- 180	Yes	INC	13	7:50	19:59	719.52	\$0	\$0	(\$22,854 )	258	(\$9,559	\$0	\$0	\$0	\$0
77	RT	Unit Testing	SCE	N/A	24-Feb-13	50- 100	Yes	INC	11	7:00	17:59	1089.1	\$0	\$0	(\$34,082	4	(\$152)	\$0	\$0	\$0	\$0
78	RT	Unit Testing	SCE	N/A	27-Feb-13	85- 245	Yes	INC	13	7:50	19:59	876.86	\$0	\$0	(\$34,745	309	(\$12,87 0)	\$0	\$0	\$0	\$0

## Department of Market Qality and Renewable Integration - California ISO

Num ber	Mark et Type	Reason	Location	Local Reliability Area	Trade Date	MW	Comm itment	INC_ DEC	Hours	Begin Time	End Time	Total MWH	Min Load cost	Startup Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
79	RT	Unit Testing	SCE	N/A	28-Feb-13	85- 140	Yes	INC	12	8:45	19:59	813.11	\$0	\$0	(\$31,097	337	(\$13,30 5)	\$0	\$0	\$0	\$0
80	RT	Voltage Support	PG&E	Fresno	3-Feb-13	83	Yes	INC	6	7:57	12:14	687.79	\$22,060	\$1,038	(\$21,493	0	\$0	\$0	\$0	\$0	\$0
81	RT	Voltage Support	PG&E	Fresno	18-Feb-13	320	Yes	DEC	1	5:00	5:14	-80.00	\$0	\$0	\$2,511	0	\$0	\$0	\$0	\$0	\$0
82	RT	Voltage Support	PG&E	Fresno	18-Feb-13	318	Yes	INC	1	4:20	4:59	213.33	\$0	\$0	\$8,145	0	\$0	\$0	\$0	\$0	\$0
83	RT	Voltage Support	SCE	N/A	9-Feb-13	172	No	INC	23	1:30	23:59	3089.4 6	\$118,87 6	\$0	(\$68,207	0	\$0	\$0	\$0	\$0	\$0

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# **Appendix A: Explanation by Example**

All examples listed below are based on fictitious data. Many simplified assumptions are made to explain settlement charge codes, and not all assumptions are explicitly stated in these examples.

For instance settlement charge codes are calculated based on metered quantities, whereas, in these examples the dispatch quantities are assumed to be equal to metered quantities. These assumptions have been made to simplify the understanding of settlements calculations.

### **Example 1: Exceptional Dispatch Instructions Prior to DAM**

In this fictitious example the ISO issued an exceptional dispatch instruction for resource A to be committed at its Pmin of 50 MW from hours ending 5 through 10 for a generation procedure 7630. Similarly, the ISO issued additional instructions to resources B and C for the same reason as shown in Table 2. Generally exceptional dispatches prior to the day-ahead market are commitments to minimum load. In this case the dispatch levels are all at minimum load. Table 2 below also shows the commitment costs and the total volume (MWh) of exceptional dispatch instruction for each resource. The minimum load costs and start up costs, shown in Table 2 are the eligible minimum load and start up costs which are different from the bid-in minimum load and start up costs. Only those quantities which are relevant to pre-day-ahead unit commitments are shown in this table.

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch level (MW)	Reason	Total Volume (MWh)	Min-Load Cost	Start- Up Cost	CC6620 (BCR)
01-Jul-09	DA	Α	SCE	LA BASIN	05:00	10:00	50	7630	300	\$5000	\$0	0
01-Jul-09	DA	В	SCE	LA BASIN	08:00	20:00	30	7630	390	\$6000	\$500	\$4000
01-Jul-09	DA	С	SCE	LA BASIN	09:00	23:00	20	7630	300	\$400	\$1000	\$1000

**Table 2: Instructions Prior to Day-Ahead Market** 

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. Commitments are broken out separately from energy dispatches. In the day-ahead, however the exceptional dispatches are nearly always just commitments, as in this example. The Begin Time column shows hour ending 5 as this was the hour ending for first dispatch of the day, and the End Time column shows hour ending 23, as this was the hour with last dispatch. It is also possible that there might not be exceptional dispatch instructions for the given reason, meaning that the range between the begin time and end time can include null hours with no dispatch. The total volume (MWh) is the sum of MWh quantity for each resource, which adds up to 990 MWh. Similarly, all cost information is sum of individual resource costs. It is possible that some resources bid-in zero for its start up cost. Since the ISO does not explicitly pay a resource for bid-in minimum load costs and start-up costs; these costs are recovered through the charge code CC6620 (Bid Cost Recovery), this table shows the summary of CC6620 for the classification. In this case, it is the sum of CC6620 for all three resources which adds up to \$5000. This column shows the impact of exceptional dispatch on bid cost recovery for all pre-day-ahead exceptional dispatch commitments.

**Table 3: FERC Summary of Instructions Prior to DAM** 

Nu	umber	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time	Total Volume (MWh)	Min- Load Cost	Start-Up Cost	CC6620
	1	DA	7630	SCE	LA Basin	1-Jul-09	20-100	Yes	N/A	19	05:00	23:00	990	\$11,400	\$1,500	\$5000

<sup>&</sup>lt;sup>7</sup> Please refer to the BPM configuration Guide: Bid Cost Recovery Settlements published on the ISO's website for details about eligible minimum load and start up costs.

### **Example 2: Incremental Exceptional Dispatch Instructions in RTM**

In this fictitious example the ISO issued an exceptional dispatch instruction to resource A to be committed at its Pmin of 30 MW from hours 6:00 through 11:00 after completion of the day-ahead market for the transmission procedure 7110. This resource did not have a day-ahead award in those hours. The ISO issued another exceptional dispatch instruction to resource B, to be dispatched at 40 MW from hours 7:00 through 9:00 in real-time for the transmission procedure 7110. This resource had a day-ahead schedule of 20 MW from the day-ahead market, which implies that this exceptional dispatch instruction was an incremental instruction and the exceptional dispatch MW was 20 MW. Similarly, the details of exceptional dispatch (ED) instruction for resource C is shown in Table 4. This table also shows volume (MWh) and various real-time charge codes associated with the exceptional dispatch instructions. The total MWh column for each resource shows the sum of all types of imbalance energy quantities for this resource between the begin time and end time which includes both the exceptional dispatch energy quantities and optimal energy quantities.

Resource A was committed at its Pmin so its total volume (MWh) is equal to its Pmin times the number of hours, which is calculated as 30 MW times 6 hours and is equal to 180 MWh. The resource Minimum load costs and the start up costs are its eligible commitment costs for that period. LMP at this resource is \$10/MWh for hours, so the charge code CC6470 is calculated at (180 MWh \*\$10/MWh) and is equal to 1800. Since this resource is not dispatched above its Pmin, it has a zero volume (MWh) of exceptional dispatch. As a result, all charge codes associated with the exceptional dispatch increment or decrement quantities are zero.

Resource B is dispatched 20 MW above its day-ahead schedule, so its total volume (MWH) is calculated as 20 MW times 3 hours which is equal to 60 MWh. Since the resource was committed in the Day-Ahead Market there are no minimum load quantity and start up costs associated with this resource. The resource had a bid price of \$100/MWh and the LMP at that resource was \$10/MWh. All of 60 MWh is considered as exceptional dispatch incremental quantity which is shown in ED Volume (MWH INC/DEC) column. The charge code CC6470 INC is calculated as 60 MWh \* resource LMP (\$10/MWh) which is equal to \$600. Since the only imbalance energy in this timeframe was the exceptional dispatch volume, the charge code CC6470 INC. The charge code CC6488 is calculated as MWH quantity \*(bid price – LMP), which is equal to \$5400 (60 MWh \*(\$10/MWh-\$100/MWh)). Similarly, volumes and real-time charge codes are calculated for resource C.

**Table 4: Incremental Exceptional Dispatch Instructions in RTM** 

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch level (MW)	Day- Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488
1-Jul-09	RT	Α	PG&E	Humboldt	6:00	11:00	30	0	Yes	INC	30	7110	180	1000	50	1800	0	0	0	0	0
1-Jul-09	RT	В	PG&E	Humboldt	7:00	9:00	40	20	No	INC	20	7110	60	0	0	600	60	600	0	0	5400
1-Jul-09	RT	С	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110	0	0	0	0	0	0	0	0	0
1-Jul-09	RT	С	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	7110	50	0	0	300	20	300	0	0	200

This data is summarized as shown in Table 5 and is classified by reason, resource location, local reliability area, and trade date. The MW column in Table 5 is the range of MW; in this case the minimum instruction MW is 0 MW for resource C which occurs from hours ending 13 through 15. The maximum instruction occurs in hours ending 8 & 9, as during these two hours both resources A and B have an ED MW of 30MW and 20MW, respectively. This adds up to 50 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. This column shows a commitment if there was a single commitment in the entire interval of exceptional dispatch. The Begin Time column shows the time of the first dispatch of the day. This is a time not a range. Similarly, the End Time column shows a time and not a range. Exceptional dispatches occurred between these two times. Since there was a commitment between the begin time and end time then the Commitment column displays yes for the summary. Similarly, the INC/DEC column shows an INC as there was an incremental dispatch between the begin time and end time. As mentioned in the previous example it is possible that there might be some hours between the begin time and end time where there were no exceptional dispatch instructions for the given reason. Both volume and cost information columns are simply the summation for all the respective columns for resource A, B and C. For instance the Total volume (MWh) column is calculated as summation of 180,60,0 and 50 which are the individual volumes (MWh) for resources A, B and C for time periods shown in Table 4 on the previous page.

**Table 5: FERC Summary of ED Instructions in RTM** 

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488
1	RT	7110	PG&E	Humboldt	1-Jul- 09	0-50	Yes	INC	15	6:00	20:00	290	1000	50	1700	140	1500	0	0	11000

Please note that it is possible that the ISO would dispatch a particular resource for instance at 10 MW from hours ending 1 through 4, and all or part of its energy might settle as optimal energy. This situation occurs when the LMP at the resource pricing node is above the resource bid price. This cost will only be captured in charge code 6470. It is also possible that ISO issues an exceptional dispatch for the resource to operate at a minimum of 10 MW which is its Pmin; however the market application might dispatch this resource above Pmin because the resource is economical. When this occurs, the charge code CC6470 and the total MWh quantity might overstate the actual exceptional dispatch MWh quantities. So, to best estimate the cost and volume (MWH) of exceptional dispatch it is appropriate to consider only the following columns: ED MWh (INC/DEC), CC6470 INC, CC6470 DEC, CC6488.

### **Example 3: Decremental Exceptional Dispatch Instructions in RTM**

This example highlights decremental exceptional dispatch instructions in the real-time market. In this fictitious example the ISO issued an exceptional dispatch instruction to resource A to be committed at its Pmin of 20 MW from hours ending 15 through 20 after completion of the day-ahead market for the transmission procedure 7430. The ISO issued additional exceptional dispatch instructions for resources B and C; details of those instructions are shown in Table 6. This table also includes volume (MWh) and cost information.

Resource A is committed in real-time at its Pmin, its total volume (MWh) is 20MW \*6 hours which is equal to 120 MWh. This resource has a zero MW of incremental dispatch in all hours, so all other relevant cost and volume columns result in zeros. Resource B has a decremental MW of 20 MW in 3 hours, which results in 60 MWh of decremental volume. Since this resource is not committed in real-time, both the minimum load cost and start up costs are zero. This resource had a bid price of \$50/MWh and LMP at the resource pricing node is \$10/MWh. Based on this information CC6470-Dec is calculated as 60 MWh \*\$10/MWh which is equal to \$600. Since this resource has its ED volume (MWh) equal to its Total volume, CC6470 is equal to CC6470-DEC. The CC6488 is calculated as (60 MWh \* (\$50/MWh and the LMP at its pricing node is \$50/MWh. Based on this information, volume and cost information is calculated for resource C.

Date	Market Type	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch level (MW)	Day- Ahead Award (MW)	Commitment	INC/DEC	ED (MW)	Reason	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488
1- Jul- 09	RT	А	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430	120	\$ 120	\$ 100	\$ -	0	\$ -	\$ -	\$ -	\$ -
1- Jul- 09	RT	В	PG&E	Fresno	7:00	9:00	40	60	No	DEC	20	7430	(60)	\$ -	\$	\$ 600	-60	\$ -	\$ 600	\$ -	\$2,400
1- Jul- 09	RT	С	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430	(50)	\$	\$	\$ 500	-50	\$ -	\$ 500	\$ -	\$2,000

Table 6: Decremental Exceptional Dispatch Instructions in RTM

This data is summarized according to FERC convention as shown in Table 7. This summary classifies the data by reason, resource location, local reliability area, and trade date. Please note that incs and decs are broken out separately. The inc entry is self-explanatory and similar to the previous example. Regarding the dec entry the MW column is the range of MW; in this case the minimum dec instruction is 10 MW (actually -10MW as it is a dec) for resource C which occurs from hours ending 10 through 14. The maximum instruction occurs from hours ending 7 through 9, when resource B was issued a dec instruction of 20 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. The volume and cost information are summarized by INC and DEC classification.

Table 7: FERC Summary of Decremental ED Instructions in RTM

Number	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH (INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488
1	RT	7430	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00	120	\$ 120	\$ 100	\$ -	0	\$ -	\$ -	\$ -	\$ -
2	RT	7430	PG&E	Fresno	1-Jul-09	10-20	Yes	DEC	8	7:00	14:00	(110)	\$ -	\$ -	\$ (1,100)	\$ (110)	\$ -	\$ (1,100)	\$ -	\$ (4,400)

# **Appendix B: Price Impact Analysis**

In the September 2 FERC order, FERC requested the ISO to perform price impact analysis on two distinct pricing nodes for the entire reporting period. The order also mentioned that the ISO must pick two pricing nodes for the entire reporting period that are most impacted by the exceptional dispatch instructions, and the two pricing nodes must belong to two different load aggregation points (LAPs).

Based on this requirement the ISO implemented a methodology to perform price impact analysis. First, the ISO identified a heavily impacted pricing node from each of the Pacific Gas & Electric (PGAE) LAP and Southern California Edison (SCE) LAP. These two pricing nodes had the maximum amount of exceptional dispatch volume (MWh) in their respective LAP. Point A is in PGAE LAP and point B is in SCE LAP. Please note these two points correspond to an actual pricing node in the ISO system. Only one resource was connected to each of these pricing nodes. For each resource the following input parameters were obtained to perform the analysis:

- Exceptional dispatch information: constrained level, constraint type, start of exceptional dispatch instruction and end of exceptional dispatch instruction.
- Real-Time LMPs for each of the five minute intervals for the month.
- Real-Time hourly bid set for each trade hour.
- Day-Ahead award for the resources.

The exceptional dispatch intervals have a begin time and an end time which can span as small as one minute to as large as 24 hours. Since the market application dispatches resources on five-minute basis, the exceptional dispatch instructions for each of these resources were broken down into five-minute intervals. If the begin time or end time for an instruction was in the middle of the five-minute interval, that instruction was rounded up to the next five-minute interval. These five-minute intervals were then coupled with resource five-minute LMPs calculated by the real-time market application. Also, the hourly bid information and the hourly day-ahead schedule were put together to create a dataset that had all the necessary information to perform price impact analysis.

An exceptional dispatch instruction can be generally classified as a start up instruction, an instruction to be dispatched at or above the constrained level, an instruction to be dispatched at a fixed constrained level, or a shut down instruction. In general, the Locational Marginal Price (LMP) is set by a resource which can provide the next incremental MW of energy. Based on this definition of LMP and the classification of exceptional dispatches based on constraint type, a resource is allowed to set the LMP in only those intervals in which the resource is eligible to move either up or down from its constrained level. Hence, in those intervals in which the resource was constrained up at its Pmax or, in other words, the resource was exceptionally dispatched to its Pmax and forced to generate at that level, the resource was considered ineligible to set the price as it had no room to move up. Similarly, if the resource was constrained down at its Pmin, then the resource was not eligible to set the price. All those intervals in which the resource was ineligible to set the price were dropped from the dataset under consideration. From this dataset of only eligible intervals, for both pricing nodes A and B, LMPs were calculated for all intervals based on the resource dispatch level and the its bid set. The calculated LMP is equal to that bid price corresponding to the constrained MW segment.

Table 8 shows the price impact analysis information for node A, which is located in the PGAE area. This table shows all the five minute intervals in which the resource at PNode A was issued an exceptional dispatch instruction. Out of the 8064 five-minute intervals in February, this resource was issued exceptional dispatch instructions in 662 five-minute intervals. This resource was eligible to set the LMP in 475 intervals. Resource calculated LMP was larger than the market LMP in 468 of the 475 intervals, the average increase in five minute LMP was \$18.92/MWh. This implies that if the ISO was able to model the constraint for this exceptional dispatch, then this resource and all other pricing nodes associated with that constraint would observe an average increase of \$18.92/MWh. Note that 468 five minute intervals are approximately 5.80 percent of the total 8064 five minute intervals.

Table 9 shows the price impact analysis information for node B, which is located in the SCE area. This table shows all the five minute intervals in which the resource at PNode B was issued an exceptional dispatch instruction. Out of the 8064 five minute intervals, this resource was issued an exceptional dispatch instruction in 758 five minute intervals. This resource was eligible to set the LMP in all 758 intervals. Out of the 758 intervals, resource calculated LMP was larger than the market LMP in 736 intervals, the average increase in five minute LMP was \$17.45/MWh. This implies that if the ISO was able to model the constraint for this exceptional dispatch, then this resource and all other pricing nodes associated with that constraint would observe an average increase of \$17.45/MWh. The 736 five minute intervals account for approximately 9.13 percent of the total 8064 five minute intervals.

Table 8: Price Impact Analysis Information for Pricing Node A in PGAE LAP

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
1	15-Feb-13	15	5	\$31.61	Yes	\$45.97	\$14.36
2	15-Feb-13	15	6	\$30.66	Yes	\$45.97	\$15.31
3	15-Feb-13	15	7	\$30.51	Yes	\$45.97	\$15.46
4	15-Feb-13	15	8	\$28.29	Yes	\$45.97	\$17.68
5	15-Feb-13	15	9	\$29.49	Yes	\$45.97	\$16.48
6	15-Feb-13	15	10	\$28.40	Yes	\$45.97	\$17.57
7	15-Feb-13	15	11	\$28.04	Yes	\$45.97	\$17.93
8	15-Feb-13	15	12	\$28.04	Yes	\$45.97	\$17.93
9	15-Feb-13	16	1	\$28.77	Yes	\$45.97	\$17.20
10	15-Feb-13	16	2	\$29.87	Yes	\$45.97	\$16.10
11	15-Feb-13	16	3	\$29.89	Yes	\$45.97	\$16.08
12	15-Feb-13	16	4	\$31.15	Yes	\$45.97	\$14.82
13	15-Feb-13	16	5	\$30.02	Yes	\$45.97	\$15.95
14	15-Feb-13	16	6	\$30.25	Yes	\$45.97	\$15.72
15	15-Feb-13	16	7	\$29.19	Yes	\$45.97	\$16.78
16	15-Feb-13	16	8	\$30.20	Yes	\$45.97	\$15.77
17	15-Feb-13	16	9	\$30.25	Yes	\$45.97	\$15.72
18	15-Feb-13	16	10	\$31.32	Yes	\$45.97	\$14.65
19	15-Feb-13	16	11	\$30.93	Yes	\$45.97	\$15.04
20	15-Feb-13	16	12	\$29.25	Yes	\$45.97	\$16.72
21	15-Feb-13	17	1	\$27.85	Yes	\$45.97	\$18.12
22	15-Feb-13	17	2	\$28.09	Yes	\$45.97	\$17.88
23	15-Feb-13	17	3	\$28.32	Yes	\$45.97	\$17.65
24	15-Feb-13	17	4	\$28.50	Yes	\$45.97	\$17.47
25	15-Feb-13	17	5	\$30.08	Yes	\$45.97	\$15.89
26	15-Feb-13	17	6	\$29.80	Yes	\$45.97	\$16.17
27	15-Feb-13	17	7	\$30.26	Yes	\$45.97	\$15.71
28	15-Feb-13	17	8	\$30.11	Yes	\$45.97	\$15.86
29	15-Feb-13	17	9	\$30.11	Yes	\$45.97	\$15.86
30	15-Feb-13	17	10	\$34.25	Yes	\$45.97	\$11.72
31	15-Feb-13	17	11	\$33.55	Yes	\$45.97	\$12.42
32	15-Feb-13	17	12	\$51.65	Yes	\$45.97	(\$5.68)
33	15-Feb-13	18	1	\$29.98	Yes	\$45.97	\$15.99
34	15-Feb-13	18	2	\$29.01	Yes	\$45.97	\$16.96
35	15-Feb-13	18	3	\$29.99	Yes	\$45.97	\$15.98
36	15-Feb-13	18	4	\$31.17	Yes	\$45.97	\$14.80

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
37	15-Feb-13	18	5	\$31.19	Yes	\$45.97	\$14.78
38	15-Feb-13	18	6	\$31.67	Yes	\$45.97	\$14.30
39	15-Feb-13	18	7	\$31.12	Yes	\$45.97	\$14.85
40	15-Feb-13	18	8	\$31.53	Yes	\$45.97	\$14.44
41	15-Feb-13	18	9	\$36.36	Yes	\$45.97	\$9.61
42	15-Feb-13	18	10	\$38.90	Yes	\$45.97	\$7.07
43	15-Feb-13	18	11	\$40.60	Yes	\$45.97	\$5.37
44	15-Feb-13	18	12	\$39.74	Yes	\$45.97	\$6.23
45	15-Feb-13	19	1	\$38.87	Yes	\$45.97	\$7.10
46	15-Feb-13	19	2	\$39.33	Yes	\$45.97	\$6.64
47	15-Feb-13	19	3	\$39.23	Yes	\$45.97	\$6.74
48	15-Feb-13	19	4	\$42.38	Yes	\$45.97	\$3.59
49	15-Feb-13	19	5	\$42.38	Yes	\$45.97	\$3.59
50	15-Feb-13	19	6	\$42.36	Yes	\$45.97	\$3.61
51	15-Feb-13	19	7	\$43.28	Yes	\$45.97	\$2.69
52	15-Feb-13	19	8	\$43.28	Yes	\$45.97	\$2.69
53	15-Feb-13	19	9	\$43.94	Yes	\$45.97	\$2.03
54	15-Feb-13	19	10	\$46.12	Yes	\$45.97	(\$0.15)
55	15-Feb-13	19	11	\$39.79	Yes	\$45.97	\$6.18
56	15-Feb-13	19	12	\$38.97	Yes	\$45.97	\$7.00
57	15-Feb-13	20	1	\$38.92	Yes	\$45.97	\$7.05
58	15-Feb-13	20	2	\$38.04	Yes	\$45.97	\$7.93
59	15-Feb-13	20	3	\$37.50	Yes	\$45.97	\$8.47
60	15-Feb-13	20	4	\$39.04	Yes	\$45.97	\$6.93
61	15-Feb-13	20	5	\$40.76	Yes	\$45.97	\$5.21
62	15-Feb-13	20	6	\$43.26	Yes	\$45.97	\$2.71
63	15-Feb-13	20	7	\$39.19	Yes	\$45.97	\$6.78
64	15-Feb-13	20	8	\$38.88	Yes	\$45.97	\$7.09
65	15-Feb-13	20	9	\$38.10	Yes	\$45.97	\$7.87
66	15-Feb-13	20	10	\$31.24	Yes	\$45.97	\$14.73
67	15-Feb-13	20	11	\$37.20	Yes	\$45.97	\$8.77
68	15-Feb-13	20	12	\$36.92	Yes	\$45.97	\$9.05
69	15-Feb-13	21	1	\$41.44	Yes	\$45.97	\$4.53
70	15-Feb-13	21	2	\$45.82	Yes	\$45.97	\$0.15
71	15-Feb-13	21	3	\$49.46	Yes	\$45.97	(\$3.49)
72	15-Feb-13	21	4	\$49.82	Yes	\$45.97	(\$3.85)
73	15-Feb-13	21	5	\$311.71	Yes	\$45.97	(\$265.74)
74	15-Feb-13	21	6	\$311.71	Yes	\$45.97	(\$265.74)

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
75	15-Feb-13	21	7	\$46.86	Yes	\$45.97	(\$0.89)
76	15-Feb-13	21	8	\$45.70	Yes	\$45.97	\$0.27
77	15-Feb-13	21	9	\$35.11	Yes	\$45.97	\$10.86
78	15-Feb-13	21	10	\$31.24	Yes	\$45.97	\$14.73
79	15-Feb-13	21	11	\$31.09	Yes	\$45.97	\$14.88
80	15-Feb-13	21	12	\$30.41	Yes	\$45.97	\$15.56
81	15-Feb-13	22	1	\$37.71	Yes	\$45.97	\$8.26
82	15-Feb-13	22	2	\$34.72	Yes	\$45.97	\$11.25
83	15-Feb-13	22	3	\$35.78	Yes	\$45.97	\$10.19
84	15-Feb-13	22	4	\$35.94	Yes	\$45.97	\$10.03
85	15-Feb-13	22	5	\$33.57	Yes	\$45.97	\$12.40
86	15-Feb-13	22	6	\$32.34	Yes	\$45.97	\$13.63
87	15-Feb-13	22	7	\$31.19	Yes	\$45.97	\$14.78
88	15-Feb-13	22	8	\$30.30	Yes	\$45.97	\$15.67
89	15-Feb-13	22	9	\$31.26	Yes	\$45.97	\$14.71
90	15-Feb-13	22	10	\$31.09	Yes	\$45.97	\$14.88
91	15-Feb-13	22	11	\$30.73	Yes	\$45.97	\$15.24
92	15-Feb-13	22	12	\$30.73	Yes	\$45.97	\$15.24
93	16-Feb-13	7	6	\$31.19	No	\$45.25	\$14.06
94	16-Feb-13	7	7	\$31.07	No	\$45.25	\$14.18
95	16-Feb-13	7	8	\$30.88	No	\$45.25	\$14.37
96	16-Feb-13	7	9	\$30.88	No	\$45.25	\$14.37
97	16-Feb-13	7	10	\$30.51	No	\$45.25	\$14.74
98	16-Feb-13	7	11	\$30.85	No	\$45.25	\$14.40
99	16-Feb-13	7	12	\$30.21	No	\$45.25	\$15.04
100	16-Feb-13	8	1	\$29.50	No	\$45.25	\$15.75
101	16-Feb-13	8	2	\$29.45	No	\$45.25	\$15.80
102	16-Feb-13	8	3	\$29.17	No	\$45.25	\$16.08
103	16-Feb-13	8	4	\$29.47	No	\$45.25	\$15.78
104	16-Feb-13	8	5	\$29.49	No	\$45.25	\$15.76
105	16-Feb-13	8	6	\$29.49	No	\$45.25	\$15.76
106	16-Feb-13	8	7	\$29.61	No	\$45.25	\$15.64
107	16-Feb-13	8	8	\$29.61	No	\$45.25	\$15.64
108	16-Feb-13	8	9	\$29.83	No	\$45.25	\$15.42
109	16-Feb-13	8	10	\$30.10	No	\$45.25	\$15.15
110	16-Feb-13	8	11	\$29.72	No	\$45.25	\$15.53
111	16-Feb-13	8	12	\$30.10	No	\$45.25	\$15.15
112	16-Feb-13	9	1	\$29.85	No	\$45.25	\$15.40

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
113	16-Feb-13	9	2	\$29.91	No	\$45.25	\$15.34
114	16-Feb-13	9	3	\$29.32	No	\$45.25	\$15.93
115	16-Feb-13	9	4	\$29.44	No	\$45.25	\$15.81
116	16-Feb-13	9	5	\$29.70	No	\$45.25	\$15.55
117	16-Feb-13	9	6	\$30.01	No	\$45.25	\$15.24
118	16-Feb-13	9	7	\$29.54	No	\$45.25	\$15.71
119	16-Feb-13	9	8	\$29.55	No	\$45.25	\$15.70
120	16-Feb-13	9	9	\$29.71	No	\$45.25	\$15.54
121	16-Feb-13	9	10	\$29.89	No	\$45.25	\$15.36
122	16-Feb-13	9	11	\$29.89	No	\$45.25	\$15.36
123	16-Feb-13	9	12	\$29.89	No	\$45.25	\$15.36
124	16-Feb-13	10	1	\$29.66	No	\$45.25	\$15.59
125	16-Feb-13	10	2	\$30.40	No	\$45.25	\$14.85
126	16-Feb-13	10	3	\$30.03	No	\$45.25	\$15.22
127	16-Feb-13	10	4	\$30.42	No	\$45.25	\$14.83
128	16-Feb-13	10	5	\$30.43	No	\$45.25	\$14.82
129	16-Feb-13	10	6	\$30.43	No	\$45.25	\$14.82
130	16-Feb-13	10	7	\$30.50	No	\$45.25	\$14.75
131	16-Feb-13	10	8	\$30.65	No	\$45.25	\$14.60
132	16-Feb-13	10	9	\$30.65	No	\$45.25	\$14.60
133	16-Feb-13	10	10	\$30.84	No	\$45.25	\$14.41
134	16-Feb-13	10	11	\$30.84	No	\$45.25	\$14.41
135	16-Feb-13	10	12	\$31.50	No	\$45.25	\$13.75
136	16-Feb-13	11	1	\$30.43	No	\$45.25	\$14.82
137	16-Feb-13	11	2	\$30.52	No	\$45.25	\$14.73
138	16-Feb-13	11	3	\$30.44	No	\$45.25	\$14.81
139	16-Feb-13	11	4	\$30.47	No	\$45.25	\$14.78
140	16-Feb-13	11	5	\$30.47	No	\$45.25	\$14.78
141	16-Feb-13	11	6	\$30.47	No	\$45.25	\$14.78
142	16-Feb-13	11	7	\$30.46	No	\$45.25	\$14.79
143	16-Feb-13	11	8	\$30.46	No	\$45.25	\$14.79
144	16-Feb-13	11	9	\$30.46	No	\$45.25	\$14.79
145	16-Feb-13	11	10	\$30.34	No	\$45.25	\$14.91
146	16-Feb-13	11	11	\$30.25	No	\$45.25	\$15.00
147	16-Feb-13	11	12	\$30.32	No	\$45.25	\$14.93
148	16-Feb-13	12	1	\$30.74	No	\$45.25	\$14.51
149	16-Feb-13	12	2	\$30.74	No	\$45.25	\$14.51
150	16-Feb-13	12	3	\$30.74	No	\$45.25	\$14.51

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
151	16-Feb-13	12	4	\$30.99	No	\$45.25	\$14.26
152	16-Feb-13	12	5	\$30.99	No	\$45.25	\$14.26
153	16-Feb-13	12	6	\$30.99	No	\$45.25	\$14.26
154	16-Feb-13	12	7	\$30.76	No	\$45.25	\$14.49
155	16-Feb-13	12	8	\$30.87	No	\$45.25	\$14.38
156	16-Feb-13	12	9	\$30.87	No	\$45.25	\$14.38
157	16-Feb-13	12	10	\$30.83	No	\$45.25	\$14.42
158	16-Feb-13	12	11	\$30.46	No	\$45.25	\$14.79
159	16-Feb-13	12	12	\$30.36	No	\$45.25	\$14.89
160	16-Feb-13	13	1	\$30.62	No	\$45.25	\$14.63
161	16-Feb-13	13	2	\$30.62	No	\$45.25	\$14.63
162	16-Feb-13	13	3	\$30.62	No	\$45.25	\$14.63
163	16-Feb-13	13	4	\$30.44	No	\$45.25	\$14.81
164	16-Feb-13	13	5	\$30.29	No	\$45.25	\$14.96
165	16-Feb-13	13	6	\$30.25	No	\$45.25	\$15.00
166	16-Feb-13	13	7	\$29.81	No	\$45.25	\$15.44
167	16-Feb-13	13	8	\$29.81	No	\$45.25	\$15.44
168	16-Feb-13	13	9	\$29.81	No	\$45.25	\$15.44
169	16-Feb-13	13	10	\$29.78	No	\$45.25	\$15.47
170	16-Feb-13	13	11	\$29.78	No	\$45.25	\$15.47
171	16-Feb-13	13	12	\$29.78	No	\$45.25	\$15.47
172	16-Feb-13	14	1	\$29.35	No	\$45.25	\$15.90
173	16-Feb-13	14	2	\$29.10	No	\$45.25	\$16.15
174	16-Feb-13	14	3	\$29.10	No	\$45.25	\$16.15
175	16-Feb-13	14	4	\$29.19	No	\$45.25	\$16.06
176	16-Feb-13	14	5	\$29.08	No	\$45.25	\$16.17
177	16-Feb-13	14	6	\$29.08	No	\$45.25	\$16.17
178	16-Feb-13	14	7	\$29.20	No	\$45.25	\$16.05
179	16-Feb-13	14	8	\$29.20	No	\$45.25	\$16.05
180	16-Feb-13	14	9	\$30.26	No	\$45.25	\$14.99
181	16-Feb-13	14	10	\$29.61	No	\$45.25	\$15.64
182	16-Feb-13	14	11	\$29.61	No	\$45.25	\$15.64
183	16-Feb-13	14	12	\$29.61	No	\$45.25	\$15.64
184	16-Feb-13	15	1	\$29.36	No	\$45.25	\$15.89
185	16-Feb-13	15	2	\$29.36	No	\$45.25	\$15.89
186	16-Feb-13	15	3	\$29.94	No	\$45.25	\$15.31
187	16-Feb-13	15	4	\$29.64	No	\$45.25	\$15.61
188	16-Feb-13	15	5	\$29.64	No	\$45.25	\$15.61

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
189	16-Feb-13	15	6	\$29.64	No	\$45.25	\$15.61
190	16-Feb-13	15	7	\$29.60	No	\$45.25	\$15.65
191	16-Feb-13	15	8	\$30.11	No	\$45.25	\$15.14
192	16-Feb-13	15	9	\$29.10	No	\$45.25	\$16.15
193	16-Feb-13	15	10	\$33.76	No	\$45.25	\$11.49
194	16-Feb-13	15	11	\$30.30	No	\$45.25	\$14.95
195	16-Feb-13	15	12	\$30.30	No	\$45.25	\$14.95
196	16-Feb-13	16	1	\$30.57	No	\$45.25	\$14.68
197	16-Feb-13	16	2	\$33.87	No	\$45.25	\$11.38
198	16-Feb-13	16	3	\$33.77	No	\$45.25	\$11.48
199	16-Feb-13	16	4	\$30.25	No	\$45.25	\$15.00
200	16-Feb-13	16	5	\$30.19	No	\$45.25	\$15.06
201	16-Feb-13	16	6	\$30.25	No	\$45.25	\$15.00
202	16-Feb-13	16	7	\$30.20	No	\$45.25	\$15.05
203	16-Feb-13	16	8	\$33.76	No	\$45.25	\$11.49
204	16-Feb-13	16	9	\$33.76	No	\$45.25	\$11.49
205	16-Feb-13	16	10	\$35.42	No	\$45.25	\$9.83
206	16-Feb-13	16	11	\$32.03	No	\$45.25	\$13.22
207	16-Feb-13	16	12	\$32.72	No	\$45.25	\$12.53
208	16-Feb-13	17	1	\$28.98	No	\$45.25	\$16.27
209	16-Feb-13	17	2	\$29.19	No	\$45.25	\$16.06
210	16-Feb-13	17	3	\$28.84	No	\$45.25	\$16.41
211	16-Feb-13	17	4	\$28.99	No	\$45.25	\$16.26
212	16-Feb-13	17	5	\$29.01	No	\$45.25	\$16.24
213	16-Feb-13	17	6	\$28.70	No	\$45.25	\$16.55
214	16-Feb-13	17	7	\$28.99	No	\$45.25	\$16.26
215	16-Feb-13	17	8	\$30.02	No	\$45.25	\$15.23
216	16-Feb-13	17	9	\$30.02	No	\$45.25	\$15.23
217	16-Feb-13	17	10	\$30.34	No	\$45.25	\$14.91
218	16-Feb-13	17	11	\$30.34	No	\$45.25	\$14.91
219	16-Feb-13	17	12	\$30.34	No	\$45.25	\$14.91
220	16-Feb-13	18	1	\$28.32	No	\$45.25	\$16.93
221	16-Feb-13	18	2	\$28.21	No	\$45.25	\$17.04
222	16-Feb-13	18	3	\$28.32	No	\$45.25	\$16.93
223	16-Feb-13	18	4	\$26.58	No	\$45.25	\$18.67
224	16-Feb-13	18	5	\$27.32	No	\$45.25	\$17.93
225	16-Feb-13	18	6	\$7.44	No	\$45.25	\$37.81
226	16-Feb-13	18	7	\$13.77	No	\$45.25	\$31.48

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
227	16-Feb-13	18	8	\$27.93	No	\$45.25	\$17.32
228	16-Feb-13	18	9	\$29.42	No	\$45.25	\$15.83
229	16-Feb-13	18	10	\$29.14	No	\$45.25	\$16.11
230	16-Feb-13	18	11	\$19.68	No	\$45.25	\$25.57
231	16-Feb-13	18	12	\$15.36	No	\$45.25	\$29.89
232	16-Feb-13	19	1	\$30.30	No	\$45.25	\$14.95
233	16-Feb-13	19	2	\$30.81	No	\$45.25	\$14.44
234	16-Feb-13	19	3	\$31.04	No	\$45.25	\$14.21
235	16-Feb-13	19	4	\$36.38	No	\$45.25	\$8.87
236	16-Feb-13	19	5	\$33.55	No	\$45.25	\$11.70
237	16-Feb-13	19	6	\$33.37	No	\$45.25	\$11.88
238	16-Feb-13	19	7	\$29.23	No	\$45.25	\$16.02
239	16-Feb-13	19	8	\$29.23	No	\$45.25	\$16.02
240	16-Feb-13	19	9	\$29.20	No	\$45.25	\$16.05
241	16-Feb-13	19	10	\$29.58	No	\$45.25	\$15.67
242	16-Feb-13	19	11	\$30.46	No	\$45.25	\$14.79
243	16-Feb-13	19	12	\$14.51	No	\$45.25	\$30.74
244	16-Feb-13	20	1	\$33.01	No	\$45.25	\$12.24
245	16-Feb-13	20	2	\$33.12	No	\$45.25	\$12.13
246	16-Feb-13	20	3	\$33.23	No	\$45.25	\$12.02
247	16-Feb-13	20	4	\$33.13	No	\$45.25	\$12.12
248	16-Feb-13	20	5	\$33.13	No	\$45.25	\$12.12
249	16-Feb-13	20	6	\$31.14	No	\$45.25	\$14.11
250	16-Feb-13	20	7	\$32.36	No	\$45.25	\$12.89
251	16-Feb-13	20	8	\$31.23	No	\$45.25	\$14.02
252	16-Feb-13	20	9	\$29.56	No	\$45.25	\$15.69
253	16-Feb-13	20	10	\$29.54	No	\$45.25	\$15.71
254	16-Feb-13	20	11	\$29.54	No	\$45.25	\$15.71
255	16-Feb-13	20	12	\$29.52	No	\$45.25	\$15.73
256	16-Feb-13	21	1	\$30.43	No	\$45.25	\$14.82
257	16-Feb-13	21	2	\$30.45	No	\$45.25	\$14.80
258	16-Feb-13	21	3	\$30.45	No	\$45.25	\$14.80
259	16-Feb-13	21	4	\$30.36	No	\$45.25	\$14.89
260	16-Feb-13	21	5	\$29.49	No	\$45.25	\$15.76
261	16-Feb-13	21	6	\$29.42	No	\$45.25	\$15.83
262	16-Feb-13	21	7	\$29.49	No	\$45.25	\$15.76
263	16-Feb-13	21	8	\$28.95	No	\$45.25	\$16.30
264	16-Feb-13	21	9	\$29.45	No	\$45.25	\$15.80

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
265	16-Feb-13	21	10	\$28.62	No	\$45.25	\$16.63
266	16-Feb-13	21	11	\$28.44	No	\$45.25	\$16.81
267	16-Feb-13	21	12	\$27.65	No	\$45.25	\$17.60
268	16-Feb-13	22	1	\$29.17	No	\$45.25	\$16.08
269	16-Feb-13	22	2	\$28.79	No	\$45.25	\$16.46
270	16-Feb-13	22	3	\$29.16	No	\$45.25	\$16.09
271	16-Feb-13	22	4	\$28.69	No	\$45.25	\$16.56
272	16-Feb-13	22	5	\$29.20	No	\$45.25	\$16.05
273	16-Feb-13	22	6	\$29.26	No	\$45.25	\$15.99
274	16-Feb-13	22	7	\$28.96	No	\$45.25	\$16.29
275	16-Feb-13	22	8	\$28.79	No	\$45.25	\$16.46
276	16-Feb-13	22	9	\$28.18	No	\$45.25	\$17.07
277	16-Feb-13	22	10	\$27.96	No	\$45.25	\$17.29
278	16-Feb-13	22	11	\$24.68	No	\$45.25	\$20.57
279	16-Feb-13	22	12	\$27.18	No	\$45.25	\$18.07
280	17-Feb-13	7	1	\$9.92	Yes	\$45.23	\$35.31
281	17-Feb-13	7	2	\$9.92	Yes	\$45.23	\$35.31
282	17-Feb-13	7	3	\$25.13	Yes	\$45.23	\$20.10
283	17-Feb-13	7	4	\$26.85	Yes	\$45.23	\$18.38
284	17-Feb-13	7	5	\$27.48	Yes	\$45.23	\$17.75
285	17-Feb-13	7	6	\$26.85	Yes	\$45.23	\$18.38
286	17-Feb-13	7	7	\$27.96	Yes	\$45.23	\$17.27
287	17-Feb-13	7	8	\$28.83	Yes	\$45.23	\$16.40
288	17-Feb-13	7	9	\$28.83	Yes	\$45.23	\$16.40
289	17-Feb-13	7	10	\$28.80	Yes	\$45.23	\$16.43
290	17-Feb-13	7	11	\$26.74	Yes	\$45.23	\$18.49
291	17-Feb-13	7	12	\$28.80	Yes	\$45.23	\$16.43
292	17-Feb-13	8	1	\$26.73	Yes	\$45.23	\$18.50
293	17-Feb-13	8	2	\$24.07	Yes	\$45.23	\$21.16
294	17-Feb-13	8	3	\$27.07	Yes	\$45.23	\$18.16
295	17-Feb-13	8	4	\$25.76	Yes	\$45.23	\$19.47
296	17-Feb-13	8	5	\$28.56	Yes	\$45.23	\$16.67
297	17-Feb-13	8	6	\$29.43	Yes	\$45.23	\$15.80
298	17-Feb-13	8	7	\$29.35	Yes	\$45.23	\$15.88
299	17-Feb-13	8	8	\$29.35	Yes	\$45.23	\$15.88
300	17-Feb-13	8	9	\$29.74	Yes	\$45.23	\$15.49
301	17-Feb-13	8	10	\$29.76	Yes	\$45.23	\$15.47
302	17-Feb-13	8	11	\$29.57	Yes	\$45.23	\$15.66

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
303	17-Feb-13	8	12	\$28.94	Yes	\$45.23	\$16.29
304	17-Feb-13	9	1	\$29.54	Yes	\$45.23	\$15.69
305	17-Feb-13	9	2	\$29.21	Yes	\$45.23	\$16.02
306	17-Feb-13	9	3	\$29.54	Yes	\$45.23	\$15.69
307	17-Feb-13	9	4	\$29.60	Yes	\$45.23	\$15.63
308	17-Feb-13	9	5	\$29.66	Yes	\$45.23	\$15.57
309	17-Feb-13	9	6	\$29.15	Yes	\$45.23	\$16.08
310	17-Feb-13	9	7	\$28.31	Yes	\$45.23	\$16.92
311	17-Feb-13	9	8	\$28.31	Yes	\$45.23	\$16.92
312	17-Feb-13	9	9	\$27.21	Yes	\$45.23	\$18.02
313	17-Feb-13	9	10	\$28.91	Yes	\$45.23	\$16.32
314	17-Feb-13	9	11	\$28.91	Yes	\$45.23	\$16.32
315	17-Feb-13	9	12	\$27.98	Yes	\$45.23	\$17.25
316	17-Feb-13	10	1	\$14.10	Yes	\$45.23	\$31.13
317	17-Feb-13	10	2	\$14.10	Yes	\$45.23	\$31.13
318	17-Feb-13	10	3	\$9.96	Yes	\$45.23	\$35.27
319	17-Feb-13	10	4	\$14.38	Yes	\$45.23	\$30.85
320	17-Feb-13	10	5	\$25.93	Yes	\$45.23	\$19.30
321	17-Feb-13	10	6	\$18.70	Yes	\$45.23	\$26.53
322	17-Feb-13	10	7	\$25.85	Yes	\$45.23	\$19.38
323	17-Feb-13	10	8	\$18.57	Yes	\$45.23	\$26.66
324	17-Feb-13	10	9	\$18.57	Yes	\$45.23	\$26.66
325	17-Feb-13	10	10	\$18.53	Yes	\$45.23	\$26.70
326	17-Feb-13	10	11	\$9.95	Yes	\$45.23	\$35.28
327	17-Feb-13	10	12	\$0.01	Yes	\$45.23	\$45.22
328	17-Feb-13	11	1	(\$30.62)	Yes	\$45.23	\$75.85
329	17-Feb-13	11	2	(\$30.62)	Yes	\$45.23	\$75.85
330	17-Feb-13	11	3	(\$30.62)	Yes	\$45.23	\$75.85
331	17-Feb-13	11	4	(\$30.56)	Yes	\$45.23	\$75.79
332	17-Feb-13	11	5	(\$30.56)	Yes	\$45.23	\$75.79
333	17-Feb-13	11	6	(\$30.56)	Yes	\$45.23	\$75.79
334	17-Feb-13	11	7	(\$30.38)	Yes	\$45.23	\$75.61
335	17-Feb-13	11	8	(\$30.38)	Yes	\$45.23	\$75.61
336	17-Feb-13	11	9	(\$30.38)	Yes	\$45.23	\$75.61
337	17-Feb-13	11	10	(\$30.66)	Yes	\$45.23	\$75.89
338	17-Feb-13	11	11	(\$30.66)	Yes	\$45.23	\$75.89
339	17-Feb-13	11	12	(\$30.66)	Yes	\$45.23	\$75.89
340	17-Feb-13	12	1	(\$30.58)	Yes	\$45.23	\$75.81

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
341	17-Feb-13	12	2	(\$30.58)	Yes	\$45.23	\$75.81
342	17-Feb-13	12	3	(\$30.58)	Yes	\$45.23	\$75.81
343	17-Feb-13	12	4	(\$29.97)	Yes	\$45.23	\$75.20
344	17-Feb-13	12	5	(\$29.95)	Yes	\$45.23	\$75.18
345	17-Feb-13	12	6	(\$29.56)	Yes	\$45.23	\$74.79
346	17-Feb-13	12	7	(\$29.63)	Yes	\$45.23	\$74.86
347	17-Feb-13	12	8	(\$29.63)	Yes	\$45.23	\$74.86
348	17-Feb-13	12	9	(\$29.63)	Yes	\$45.23	\$74.86
349	17-Feb-13	12	10	(\$30.75)	Yes	\$45.23	\$75.98
350	17-Feb-13	12	11	(\$29.62)	Yes	\$45.23	\$74.85
351	17-Feb-13	12	12	\$8.37	Yes	\$45.23	\$36.86
352	17-Feb-13	13	1	\$28.84	Yes	\$45.23	\$16.39
353	17-Feb-13	13	2	\$29.85	Yes	\$45.23	\$15.38
354	17-Feb-13	13	3	\$29.97	Yes	\$45.23	\$15.26
355	17-Feb-13	13	4	\$27.30	Yes	\$45.23	\$17.93
356	17-Feb-13	13	5	\$26.96	Yes	\$45.23	\$18.27
357	17-Feb-13	13	6	\$18.65	Yes	\$45.23	\$26.58
358	17-Feb-13	13	7	\$26.91	Yes	\$45.23	\$18.32
359	17-Feb-13	13	8	\$26.91	Yes	\$45.23	\$18.32
360	17-Feb-13	13	9	\$26.91	Yes	\$45.23	\$18.32
361	17-Feb-13	13	10	\$28.14	Yes	\$45.23	\$17.09
362	17-Feb-13	13	11	\$27.47	Yes	\$45.23	\$17.76
363	17-Feb-13	13	12	\$25.01	Yes	\$45.23	\$20.22
364	17-Feb-13	14	1	\$28.42	Yes	\$45.23	\$16.81
365	17-Feb-13	14	2	\$27.13	Yes	\$45.23	\$18.10
366	17-Feb-13	14	3	\$26.68	Yes	\$45.23	\$18.55
367	17-Feb-13	14	4	\$14.54	Yes	\$45.23	\$30.69
368	17-Feb-13	14	5	\$18.76	Yes	\$45.23	\$26.47
369	17-Feb-13	14	6	\$18.76	Yes	\$45.23	\$26.47
370	17-Feb-13	14	7	\$18.86	Yes	\$45.23	\$26.37
371	17-Feb-13	14	8	\$18.86	Yes	\$45.23	\$26.37
372	17-Feb-13	14	9	\$29.28	Yes	\$45.23	\$15.95
373	17-Feb-13	14	10	\$28.25	Yes	\$45.23	\$16.98
374	17-Feb-13	14	11	\$27.47	Yes	\$45.23	\$17.76
375	17-Feb-13	14	12	\$29.20	Yes	\$45.23	\$16.03
376	17-Feb-13	15	1	\$30.24	Yes	\$45.23	\$14.99
377	17-Feb-13	15	2	\$32.85	Yes	\$45.23	\$12.38
378	17-Feb-13	15	3	\$34.80	Yes	\$45.23	\$10.43

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
379	17-Feb-13	15	4	\$33.77	Yes	\$45.23	\$11.46
380	17-Feb-13	15	5	\$31.04	Yes	\$45.23	\$14.19
381	17-Feb-13	15	6	\$31.04	Yes	\$45.23	\$14.19
382	17-Feb-13	15	7	\$31.32	Yes	\$45.23	\$13.91
383	17-Feb-13	15	8	\$31.32	Yes	\$45.23	\$13.91
384	17-Feb-13	15	9	\$30.86	Yes	\$45.23	\$14.37
385	17-Feb-13	15	10	\$30.91	Yes	\$45.23	\$14.32
386	17-Feb-13	15	11	\$31.32	Yes	\$45.23	\$13.91
387	17-Feb-13	15	12	\$29.82	Yes	\$45.23	\$15.41
388	17-Feb-13	16	1	\$27.19	Yes	\$45.23	\$18.04
389	17-Feb-13	16	2	\$17.04	Yes	\$45.23	\$28.19
390	17-Feb-13	16	3	\$18.98	Yes	\$45.23	\$26.25
391	17-Feb-13	16	4	\$12.93	Yes	\$45.23	\$32.30
392	17-Feb-13	16	5	\$14.12	Yes	\$45.23	\$31.11
393	17-Feb-13	16	6	\$25.82	Yes	\$45.23	\$19.41
394	17-Feb-13	16	7	\$18.42	Yes	\$45.23	\$26.81
395	17-Feb-13	16	8	\$26.64	Yes	\$45.23	\$18.59
396	17-Feb-13	16	9	\$27.06	Yes	\$45.23	\$18.17
397	17-Feb-13	16	10	\$27.08	Yes	\$45.23	\$18.15
398	17-Feb-13	16	11	\$27.08	Yes	\$45.23	\$18.15
399	17-Feb-13	16	12	\$29.50	Yes	\$45.23	\$15.73
400	17-Feb-13	17	1	\$9.88	Yes	\$45.23	\$35.35
401	17-Feb-13	17	2	\$9.88	Yes	\$45.23	\$35.35
402	17-Feb-13	17	3	\$0.01	Yes	\$45.23	\$45.22
403	17-Feb-13	17	4	\$0.01	Yes	\$45.23	\$45.22
404	17-Feb-13	17	5	\$9.89	Yes	\$45.23	\$35.34
405	17-Feb-13	17	6	\$9.89	Yes	\$45.23	\$35.34
406	17-Feb-13	17	7	\$24.61	Yes	\$45.23	\$20.62
407	17-Feb-13	17	8	\$26.50	Yes	\$45.23	\$18.73
408	17-Feb-13	17	9	\$27.58	Yes	\$45.23	\$17.65
409	17-Feb-13	17	10	\$28.85	Yes	\$45.23	\$16.38
410	17-Feb-13	17	11	\$28.94	Yes	\$45.23	\$16.29
411	17-Feb-13	17	12	\$28.85	Yes	\$45.23	\$16.38
412	17-Feb-13	18	1	\$23.16	Yes	\$45.23	\$22.07
413	17-Feb-13	18	2	\$13.31	Yes	\$45.23	\$31.92
414	17-Feb-13	18	3	\$14.36	Yes	\$45.23	\$30.87
415	17-Feb-13	18	4	\$14.29	Yes	\$45.23	\$30.94
416	17-Feb-13	18	5	\$22.23	Yes	\$45.23	\$23.00

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
417	17-Feb-13	18	6	\$24.64	Yes	\$45.23	\$20.59
418	17-Feb-13	18	7	\$24.69	Yes	\$45.23	\$20.54
419	17-Feb-13	18	8	\$26.75	Yes	\$45.23	\$18.48
420	17-Feb-13	18	9	\$27.13	Yes	\$45.23	\$18.10
421	17-Feb-13	18	10	\$29.12	Yes	\$45.23	\$16.11
422	17-Feb-13	18	11	\$28.39	Yes	\$45.23	\$16.84
423	17-Feb-13	18	12	\$29.32	Yes	\$45.23	\$15.91
424	17-Feb-13	19	1	\$28.78	Yes	\$45.23	\$16.45
425	17-Feb-13	19	2	\$29.22	Yes	\$45.23	\$16.01
426	17-Feb-13	19	3	\$29.11	Yes	\$45.23	\$16.12
427	17-Feb-13	19	4	\$29.30	Yes	\$45.23	\$15.93
428	17-Feb-13	19	5	\$29.30	Yes	\$45.23	\$15.93
429	17-Feb-13	19	6	\$29.16	Yes	\$45.23	\$16.07
430	17-Feb-13	19	7	\$29.31	Yes	\$45.23	\$15.92
431	17-Feb-13	19	8	\$29.36	Yes	\$45.23	\$15.87
432	17-Feb-13	19	9	\$29.36	Yes	\$45.23	\$15.87
433	17-Feb-13	19	10	\$32.26	Yes	\$45.23	\$12.97
434	17-Feb-13	19	11	\$32.66	Yes	\$45.23	\$12.57
435	17-Feb-13	19	12	\$32.28	Yes	\$45.23	\$12.95
436	17-Feb-13	20	1	\$32.58	Yes	\$45.23	\$12.65
437	17-Feb-13	20	2	\$32.01	Yes	\$45.23	\$13.22
438	17-Feb-13	20	3	\$29.39	Yes	\$45.23	\$15.84
439	17-Feb-13	20	4	\$28.92	Yes	\$45.23	\$16.31
440	17-Feb-13	20	5	\$28.92	Yes	\$45.23	\$16.31
441	17-Feb-13	20	6	\$28.92	Yes	\$45.23	\$16.31
442	17-Feb-13	20	7	\$28.95	Yes	\$45.23	\$16.28
443	17-Feb-13	20	8	\$28.89	Yes	\$45.23	\$16.34
444	17-Feb-13	20	9	\$28.37	Yes	\$45.23	\$16.86
445	17-Feb-13	20	10	\$28.03	Yes	\$45.23	\$17.20
446	17-Feb-13	20	11	\$28.21	Yes	\$45.23	\$17.02
447	17-Feb-13	20	12	\$28.32	Yes	\$45.23	\$16.91
448	17-Feb-13	21	1	\$29.30	Yes	\$45.23	\$15.93
449	17-Feb-13	21	2	\$29.10	Yes	\$45.23	\$16.13
450	17-Feb-13	21	3	\$29.30	Yes	\$45.23	\$15.93
451	17-Feb-13	21	4	\$29.23	Yes	\$45.23	\$16.00
452	17-Feb-13	21	5	\$28.93	Yes	\$45.23	\$16.30
453	17-Feb-13	21	6	\$28.94	Yes	\$45.23	\$16.29
454	17-Feb-13	21	7	\$28.37	Yes	\$45.23	\$16.86

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
455	17-Feb-13	21	8	\$28.11	Yes	\$45.23	\$17.12
456	17-Feb-13	21	9	\$28.11	Yes	\$45.23	\$17.12
457	17-Feb-13	21	10	\$27.69	Yes	\$45.23	\$17.54
458	17-Feb-13	21	11	\$27.67	Yes	\$45.23	\$17.56
459	17-Feb-13	21	12	\$27.55	Yes	\$45.23	\$17.68
460	17-Feb-13	22	1	\$28.36	Yes	\$45.23	\$16.87
461	17-Feb-13	22	2	\$29.11	Yes	\$45.23	\$16.12
462	17-Feb-13	22	3	\$29.16	Yes	\$45.23	\$16.07
463	17-Feb-13	22	4	\$29.10	Yes	\$45.23	\$16.13
464	17-Feb-13	22	5	\$29.03	Yes	\$45.23	\$16.20
465	17-Feb-13	22	6	\$29.01	Yes	\$45.23	\$16.22
466	17-Feb-13	22	7	\$28.96	Yes	\$45.23	\$16.27
467	17-Feb-13	22	8	\$28.77	Yes	\$45.23	\$16.46
468	17-Feb-13	22	9	\$28.12	Yes	\$45.23	\$17.11
469	17-Feb-13	22	10	\$28.00	Yes	\$45.23	\$17.23
470	17-Feb-13	22	11	\$28.00	Yes	\$45.23	\$17.23
471	17-Feb-13	22	12	\$26.72	Yes	\$45.23	\$18.51
472	18-Feb-13	7	2	\$29.98	Yes	\$45.23	\$15.25
473	18-Feb-13	7	3	\$30.24	Yes	\$45.23	\$14.99
474	18-Feb-13	7	4	\$30.85	Yes	\$45.23	\$14.38
475	18-Feb-13	7	5	\$31.33	Yes	\$45.23	\$13.90
476	18-Feb-13	7	6	\$31.33	Yes	\$45.23	\$13.90
477	18-Feb-13	7	7	\$30.37	Yes	\$45.23	\$14.86
478	18-Feb-13	7	8	\$30.63	Yes	\$45.23	\$14.60
479	18-Feb-13	7	9	\$29.71	Yes	\$45.23	\$15.52
480	18-Feb-13	7	10	\$29.98	Yes	\$45.23	\$15.25
481	18-Feb-13	7	11	\$29.98	Yes	\$45.23	\$15.25
482	18-Feb-13	7	12	\$30.56	Yes	\$45.23	\$14.67
483	18-Feb-13	8	1	\$29.31	Yes	\$45.23	\$15.92
484	18-Feb-13	8	2	\$29.60	Yes	\$45.23	\$15.63
485	18-Feb-13	8	3	\$29.63	Yes	\$45.23	\$15.60
486	18-Feb-13	8	4	\$29.28	Yes	\$45.23	\$15.95
487	18-Feb-13	8	5	\$29.48	Yes	\$45.23	\$15.75
488	18-Feb-13	8	6	\$29.61	Yes	\$45.23	\$15.62
489	18-Feb-13	8	7	\$30.47	Yes	\$45.23	\$14.76
490	18-Feb-13	8	8	\$30.47	Yes	\$45.23	\$14.76
491	18-Feb-13	8	9	\$30.47	Yes	\$45.23	\$14.76
492	18-Feb-13	8	10	\$30.61	Yes	\$45.23	\$14.62

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
493	18-Feb-13	8	11	\$29.80	Yes	\$45.23	\$15.43
494	18-Feb-13	8	12	\$29.39	Yes	\$45.23	\$15.84
495	18-Feb-13	9	1	\$29.74	Yes	\$45.23	\$15.49
496	18-Feb-13	9	2	\$29.74	Yes	\$45.23	\$15.49
497	18-Feb-13	9	3	\$29.42	Yes	\$45.23	\$15.81
498	18-Feb-13	9	4	\$29.39	Yes	\$45.23	\$15.84
499	18-Feb-13	9	5	\$29.43	Yes	\$45.23	\$15.80
500	18-Feb-13	9	6	\$29.61	Yes	\$45.23	\$15.62
501	18-Feb-13	9	7	\$29.75	Yes	\$45.23	\$15.48
502	18-Feb-13	9	8	\$29.75	Yes	\$45.23	\$15.48
503	18-Feb-13	9	9	\$29.58	Yes	\$45.23	\$15.65
504	18-Feb-13	9	10	\$29.80	Yes	\$45.23	\$15.43
505	18-Feb-13	9	11	\$29.80	Yes	\$45.23	\$15.43
506	18-Feb-13	9	12	\$29.52	Yes	\$45.23	\$15.71
507	18-Feb-13	10	1	\$29.71	Yes	\$45.23	\$15.52
508	18-Feb-13	10	2	\$29.86	Yes	\$45.23	\$15.37
509	18-Feb-13	10	3	\$29.71	Yes	\$45.23	\$15.52
510	18-Feb-13	10	4	\$29.73	Yes	\$45.23	\$15.50
511	18-Feb-13	10	5	\$29.86	Yes	\$45.23	\$15.37
512	18-Feb-13	10	6	\$29.86	Yes	\$45.23	\$15.37
513	18-Feb-13	10	7	\$30.09	Yes	\$45.23	\$15.14
514	18-Feb-13	10	8	\$30.42	Yes	\$45.23	\$14.81
515	18-Feb-13	10	9	\$30.42	Yes	\$45.23	\$14.81
516	18-Feb-13	10	10	\$29.73	Yes	\$45.23	\$15.50
517	18-Feb-13	10	11	\$29.52	Yes	\$45.23	\$15.71
518	18-Feb-13	10	12	\$29.62	Yes	\$45.23	\$15.61
519	18-Feb-13	11	1	\$29.75	Yes	\$45.23	\$15.48
520	18-Feb-13	11	2	\$29.99	Yes	\$45.23	\$15.24
521	18-Feb-13	11	3	\$29.99	Yes	\$45.23	\$15.24
522	18-Feb-13	11	4	\$29.78	Yes	\$45.23	\$15.45
523	18-Feb-13	11	5	\$29.78	Yes	\$45.23	\$15.45
524	18-Feb-13	11	6	\$29.78	Yes	\$45.23	\$15.45
525	18-Feb-13	11	7	\$29.66	Yes	\$45.23	\$15.57
526	18-Feb-13	11	8	\$29.66	Yes	\$45.23	\$15.57
527	18-Feb-13	11	9	\$29.89	Yes	\$45.23	\$15.34
528	18-Feb-13	11	10	\$29.78	Yes	\$45.23	\$15.45
529	18-Feb-13	11	11	\$29.78	Yes	\$45.23	\$15.45
530	18-Feb-13	11	12	\$30.39	Yes	\$45.23	\$14.84

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
531	18-Feb-13	12	1	\$31.73	Yes	\$45.23	\$13.50
532	18-Feb-13	12	2	\$34.16	Yes	\$45.23	\$11.07
533	18-Feb-13	12	3	\$38.86	Yes	\$45.23	\$6.37
534	18-Feb-13	12	4	\$31.90	Yes	\$45.23	\$13.33
535	18-Feb-13	12	5	\$30.90	Yes	\$45.23	\$14.33
536	18-Feb-13	12	6	\$30.69	Yes	\$45.23	\$14.54
537	18-Feb-13	12	7	\$30.41	Yes	\$45.23	\$14.82
538	18-Feb-13	12	8	\$30.30	Yes	\$45.23	\$14.93
539	18-Feb-13	12	9	\$30.19	Yes	\$45.23	\$15.04
540	18-Feb-13	12	10	\$30.44	Yes	\$45.23	\$14.79
541	18-Feb-13	12	11	\$30.82	Yes	\$45.23	\$14.41
542	18-Feb-13	12	12	\$30.44	Yes	\$45.23	\$14.79
543	18-Feb-13	13	1	\$31.55	Yes	\$45.23	\$13.68
544	18-Feb-13	13	2	\$31.55	Yes	\$45.23	\$13.68
545	18-Feb-13	13	3	\$30.66	Yes	\$45.23	\$14.57
546	18-Feb-13	13	4	\$30.41	Yes	\$45.23	\$14.82
547	18-Feb-13	13	5	\$30.14	Yes	\$45.23	\$15.09
548	18-Feb-13	13	6	\$30.16	Yes	\$45.23	\$15.07
549	18-Feb-13	13	7	\$29.58	Yes	\$45.23	\$15.65
550	18-Feb-13	13	8	\$29.58	Yes	\$45.23	\$15.65
551	18-Feb-13	13	9	\$29.58	Yes	\$45.23	\$15.65
552	18-Feb-13	13	10	\$29.54	Yes	\$45.23	\$15.69
553	18-Feb-13	13	11	\$30.16	Yes	\$45.23	\$15.07
554	18-Feb-13	13	12	\$29.54	Yes	\$45.23	\$15.69
555	18-Feb-13	14	1	\$30.08	Yes	\$45.23	\$15.15
556	18-Feb-13	14	2	\$30.08	Yes	\$45.23	\$15.15
557	18-Feb-13	14	3	\$29.59	Yes	\$45.23	\$15.64
558	18-Feb-13	14	4	\$30.41	Yes	\$45.23	\$14.82
559	18-Feb-13	14	5	\$30.53	Yes	\$45.23	\$14.70
560	18-Feb-13	14	6	\$30.53	Yes	\$45.23	\$14.70
561	18-Feb-13	14	7	\$30.57	Yes	\$45.23	\$14.66
562	18-Feb-13	14	8	\$30.57	Yes	\$45.23	\$14.66
563	18-Feb-13	14	9	\$30.52	Yes	\$45.23	\$14.71
564	18-Feb-13	14	10	\$29.35	Yes	\$45.23	\$15.88
565	18-Feb-13	14	11	\$29.17	Yes	\$45.23	\$16.06
566	18-Feb-13	14	12	\$28.89	Yes	\$45.23	\$16.34
567	18-Feb-13	15	1	\$29.22	Yes	\$45.23	\$16.01
568	18-Feb-13	15	2	\$29.22	Yes	\$45.23	\$16.01

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
569	18-Feb-13	15	3	\$29.22	Yes	\$45.23	\$16.01
570	18-Feb-13	15	4	\$29.15	Yes	\$45.23	\$16.08
571	18-Feb-13	15	5	\$29.15	Yes	\$45.23	\$16.08
572	18-Feb-13	15	6	\$29.15	Yes	\$45.23	\$16.08
573	18-Feb-13	15	7	\$28.90	Yes	\$45.23	\$16.33
574	18-Feb-13	15	8	\$28.89	Yes	\$45.23	\$16.34
575	18-Feb-13	15	9	\$28.90	Yes	\$45.23	\$16.33
576	18-Feb-13	15	10	\$28.99	Yes	\$45.23	\$16.24
577	18-Feb-13	15	11	\$28.82	Yes	\$45.23	\$16.41
578	18-Feb-13	15	12	\$29.07	Yes	\$45.23	\$16.16
579	18-Feb-13	16	1	\$28.96	Yes	\$45.23	\$16.27
580	18-Feb-13	16	2	\$28.80	Yes	\$45.23	\$16.43
581	18-Feb-13	16	3	\$28.39	Yes	\$45.23	\$16.84
582	18-Feb-13	16	4	\$27.27	Yes	\$45.23	\$17.96
583	18-Feb-13	16	5	\$27.56	Yes	\$45.23	\$17.67
584	18-Feb-13	16	6	\$28.40	Yes	\$45.23	\$16.83
585	18-Feb-13	16	7	\$28.79	Yes	\$45.23	\$16.44
586	18-Feb-13	16	8	\$28.59	Yes	\$45.23	\$16.64
587	18-Feb-13	16	9	\$29.03	Yes	\$45.23	\$16.20
588	18-Feb-13	16	10	\$28.79	Yes	\$45.23	\$16.44
589	18-Feb-13	16	11	\$28.75	Yes	\$45.23	\$16.48
590	18-Feb-13	16	12	\$28.91	Yes	\$45.23	\$16.32
591	18-Feb-13	17	1	\$27.14	Yes	\$45.23	\$18.09
592	18-Feb-13	17	2	\$28.25	Yes	\$45.23	\$16.98
593	18-Feb-13	17	3	\$27.16	Yes	\$45.23	\$18.07
594	18-Feb-13	17	4	\$27.96	Yes	\$45.23	\$17.27
595	18-Feb-13	17	5	\$27.99	Yes	\$45.23	\$17.24
596	18-Feb-13	17	6	\$28.75	Yes	\$45.23	\$16.48
597	18-Feb-13	17	7	\$28.72	Yes	\$45.23	\$16.51
598	18-Feb-13	17	8	\$29.74	Yes	\$45.23	\$15.49
599	18-Feb-13	17	9	\$29.84	Yes	\$45.23	\$15.39
600	18-Feb-13	17	10	\$30.06	Yes	\$45.23	\$15.17
601	18-Feb-13	17	11	\$31.42	Yes	\$45.23	\$13.81
602	18-Feb-13	17	12	\$31.39	Yes	\$45.23	\$13.84
603	18-Feb-13	18	1	\$27.52	Yes	\$45.23	\$17.71
604	18-Feb-13	18	2	\$26.70	Yes	\$45.23	\$18.53
605	18-Feb-13	18	3	\$26.88	Yes	\$45.23	\$18.35
606	18-Feb-13	18	4	\$27.61	Yes	\$45.23	\$17.62

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
607	18-Feb-13	18	5	\$27.79	Yes	\$45.23	\$17.44
608	18-Feb-13	18	6	\$28.46	Yes	\$45.23	\$16.77
609	18-Feb-13	18	7	\$28.49	Yes	\$45.23	\$16.74
610	18-Feb-13	18	8	\$29.44	Yes	\$45.23	\$15.79
611	18-Feb-13	18	9	\$31.40	Yes	\$45.23	\$13.83
612	18-Feb-13	18	10	\$32.09	Yes	\$45.23	\$13.14
613	18-Feb-13	18	11	\$42.77	Yes	\$45.23	\$2.46
614	18-Feb-13	18	12	\$42.85	Yes	\$45.23	\$2.38
615	18-Feb-13	19	1	\$38.78	Yes	\$45.23	\$6.45
616	18-Feb-13	19	2	\$38.79	Yes	\$45.23	\$6.44
617	18-Feb-13	19	3	\$38.83	Yes	\$45.23	\$6.40
618	18-Feb-13	19	4	\$38.86	Yes	\$45.23	\$6.37
619	18-Feb-13	19	5	\$41.28	Yes	\$45.23	\$3.95
620	18-Feb-13	19	6	\$39.67	Yes	\$45.23	\$5.56
621	18-Feb-13	19	7	\$39.45	Yes	\$45.23	\$5.78
622	18-Feb-13	19	8	\$38.84	Yes	\$45.23	\$6.39
623	18-Feb-13	19	9	\$38.84	Yes	\$45.23	\$6.39
624	18-Feb-13	19	10	\$34.53	Yes	\$45.23	\$10.70
625	18-Feb-13	19	11	\$32.09	Yes	\$45.23	\$13.14
626	18-Feb-13	19	12	\$34.39	Yes	\$45.23	\$10.84
627	18-Feb-13	20	1	\$38.85	Yes	\$45.23	\$6.38
628	18-Feb-13	20	2	\$43.25	Yes	\$45.23	\$1.98
629	18-Feb-13	20	3	\$43.40	Yes	\$45.23	\$1.83
630	18-Feb-13	20	4	\$38.93	Yes	\$45.23	\$6.30
631	18-Feb-13	20	5	\$31.65	Yes	\$45.23	\$13.58
632	18-Feb-13	20	6	\$31.09	Yes	\$45.23	\$14.14
633	18-Feb-13	20	7	\$31.44	Yes	\$45.23	\$13.79
634	18-Feb-13	20	8	\$32.19	Yes	\$45.23	\$13.04
635	18-Feb-13	20	9	\$31.02	Yes	\$45.23	\$14.21
636	18-Feb-13	20	10	\$29.97	Yes	\$45.23	\$15.26
637	18-Feb-13	20	11	\$29.91	Yes	\$45.23	\$15.32
638	18-Feb-13	20	12	\$29.62	Yes	\$45.23	\$15.61
639	18-Feb-13	21	1	\$30.74	Yes	\$45.23	\$14.49
640	18-Feb-13	21	2	\$29.94	Yes	\$45.23	\$15.29
641	18-Feb-13	21	3	\$31.02	Yes	\$45.23	\$14.21
642	18-Feb-13	21	4	\$31.03	Yes	\$45.23	\$14.20
643	18-Feb-13	21	5	\$31.04	Yes	\$45.23	\$14.19
644	18-Feb-13	21	6	\$30.54	Yes	\$45.23	\$14.69

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## Department of Market Qality and Renewable Integration - California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
645	18-Feb-13	21	7	\$29.63	Yes	\$45.23	\$15.60
646	18-Feb-13	21	8	\$29.50	Yes	\$45.23	\$15.73
647	18-Feb-13	21	9	\$29.32	Yes	\$45.23	\$15.91
648	18-Feb-13	21	10	\$29.21	Yes	\$45.23	\$16.02
649	18-Feb-13	21	11	\$28.67	Yes	\$45.23	\$16.56
650	18-Feb-13	21	12	\$28.48	Yes	\$45.23	\$16.75
651	18-Feb-13	22	1	\$29.60	Yes	\$45.23	\$15.63
652	18-Feb-13	22	2	\$29.62	Yes	\$45.23	\$15.61
653	18-Feb-13	22	3	\$29.61	Yes	\$45.23	\$15.62
654	18-Feb-13	22	4	\$29.86	Yes	\$45.23	\$15.37
655	18-Feb-13	22	5	\$29.84	Yes	\$45.23	\$15.39
656	18-Feb-13	22	6	\$29.73	Yes	\$45.23	\$15.50
657	18-Feb-13	22	7	\$29.61	Yes	\$45.23	\$15.62
658	18-Feb-13	22	8	\$29.55	Yes	\$45.23	\$15.68
659	18-Feb-13	22	9	\$29.42	Yes	\$45.23	\$15.81
660	18-Feb-13	22	10	\$28.65	Yes	\$45.23	\$16.58
661	18-Feb-13	22	11	\$28.63	Yes	\$45.23	\$16.60
662	18-Feb-13	22	12	\$28.83	Yes	\$45.23	\$16.40

Table 9: Price Impact Analysis Information for Pricing Node B in SCE LAP

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
1	2-Feb-13	18	6	\$65.59	Yes	\$52.49	(\$13.10)
2	2-Feb-13	18	7	\$66.01	Yes	\$52.49	(\$13.52)
3	2-Feb-13	18	8	\$42.58	Yes	\$52.49	\$9.91
4	2-Feb-13	18	9	\$52.49	Yes	\$52.49	\$0.00
5	2-Feb-13	18	10	\$66.75	Yes	\$52.49	(\$14.26)
6	2-Feb-13	18	11	\$64.29	Yes	\$52.49	(\$11.80)
7	2-Feb-13	18	12	\$91.87	Yes	\$52.49	(\$39.38)
8	2-Feb-13	19	1	\$41.96	Yes	\$52.49	\$10.53
9	2-Feb-13	19	2	\$42.62	Yes	\$52.49	\$9.87
10	2-Feb-13	19	3	\$37.50	Yes	\$52.49	\$14.99
11	2-Feb-13	19	4	\$41.78	Yes	\$52.49	\$10.71
12	2-Feb-13	19	5	\$41.78	Yes	\$52.49	\$10.71
13	2-Feb-13	19	6	\$42.12	Yes	\$52.49	\$10.37
14	2-Feb-13	19	7	\$37.75	Yes	\$52.49	\$14.74
15	2-Feb-13	19	8	\$41.62	Yes	\$52.49	\$10.87
16	2-Feb-13	19	9	\$42.82	Yes	\$52.49	\$9.67
17	2-Feb-13	19	10	\$43.68	Yes	\$52.49	\$8.81
18	2-Feb-13	19	11	\$39.75	Yes	\$52.49	\$12.74
19	2-Feb-13	19	12	\$39.75	Yes	\$52.49	\$12.74
20	2-Feb-13	20	1	\$47.75	Yes	\$52.49	\$4.74
21	2-Feb-13	20	2	\$44.83	Yes	\$52.49	\$7.66
22	2-Feb-13	20	3	\$38.02	Yes	\$52.49	\$14.47
23	2-Feb-13	20	4	\$36.17	Yes	\$52.49	\$16.32
24	2-Feb-13	20	5	\$38.30	Yes	\$52.49	\$14.19
25	2-Feb-13	20	6	\$45.42	Yes	\$52.49	\$7.07
26	2-Feb-13	20	7	\$38.50	Yes	\$52.49	\$13.99
27	2-Feb-13	20	8	\$38.98	Yes	\$52.49	\$13.51
28	2-Feb-13	20	9	\$34.03	Yes	\$52.49	\$18.46
29	2-Feb-13	20	10	\$34.42	Yes	\$52.49	\$18.07
30	2-Feb-13	20	11	\$34.42	Yes	\$52.49	\$18.07
31	2-Feb-13	20	12	\$41.91	Yes	\$52.49	\$10.58
32	2-Feb-13	21	1	\$54.17	Yes	\$52.49	(\$1.68)
33	2-Feb-13	21	2	\$50.64	Yes	\$52.49	\$1.85
34	2-Feb-13	21	3	\$59.76	Yes	\$52.49	(\$7.27)
35	2-Feb-13	21	4	\$50.91	Yes	\$52.49	\$1.58

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
36	2-Feb-13	21	5	\$52.42	Yes	\$52.49	\$0.07
37	2-Feb-13	21	6	\$47.80	Yes	\$52.49	\$4.69
38	2-Feb-13	21	7	\$45.56	Yes	\$52.49	\$6.93
39	2-Feb-13	21	8	\$42.49	Yes	\$52.49	\$10.00
40	2-Feb-13	21	9	\$42.49	Yes	\$52.49	\$10.00
41	2-Feb-13	21	10	\$39.49	Yes	\$52.49	\$13.00
42	2-Feb-13	21	11	\$39.49	Yes	\$52.49	\$13.00
43	2-Feb-13	21	12	\$37.36	Yes	\$52.49	\$15.13
44	2-Feb-13	22	1	\$49.77	Yes	\$52.49	\$2.72
45	2-Feb-13	22	2	\$47.44	Yes	\$52.49	\$5.05
46	2-Feb-13	22	3	\$52.49	Yes	\$52.49	\$0.00
47	2-Feb-13	22	4	\$49.70	Yes	\$52.49	\$2.79
48	2-Feb-13	22	5	\$49.70	Yes	\$52.49	\$2.79
49	2-Feb-13	22	6	\$49.09	Yes	\$52.49	\$3.40
50	2-Feb-13	22	7	\$48.93	Yes	\$52.49	\$3.56
51	2-Feb-13	22	8	\$48.93	Yes	\$52.49	\$3.56
52	2-Feb-13	22	9	\$36.77	Yes	\$52.49	\$15.72
53	2-Feb-13	22	10	\$36.65	Yes	\$52.49	\$15.84
54	2-Feb-13	22	11	\$34.04	Yes	\$52.49	\$18.45
55	2-Feb-13	22	12	\$31.36	Yes	\$52.49	\$21.13
56	2-Feb-13	23	1	\$47.10	Yes	\$52.49	\$5.39
57	2-Feb-13	23	2	\$37.69	Yes	\$52.49	\$14.80
58	2-Feb-13	23	3	\$53.37	Yes	\$52.49	(\$0.88)
59	2-Feb-13	23	4	\$53.37	Yes	\$52.49	(\$0.88)
60	2-Feb-13	23	5	\$52.93	Yes	\$52.49	(\$0.44)
61	2-Feb-13	23	6	\$51.13	Yes	\$52.49	\$1.36
62	2-Feb-13	23	7	\$65.65	Yes	\$52.49	(\$13.16)
63	2-Feb-13	23	8	\$41.40	Yes	\$52.49	\$11.09
64	2-Feb-13	23	9	\$34.01	Yes	\$52.49	\$18.48
65	2-Feb-13	23	10	\$36.08	Yes	\$52.49	\$16.41
66	2-Feb-13	23	11	\$31.48	Yes	\$52.49	\$21.01
67	2-Feb-13	23	12	\$30.92	Yes	\$52.49	\$21.57
68	2-Feb-13	24	1	\$63.25	Yes	\$52.49	(\$10.76)
69	2-Feb-13	24	2	\$2,050.60	Yes	\$52.49	(\$1,998.11)
70	2-Feb-13	24	3	\$2,135.18	Yes	\$52.49	(\$2,082.69)
71	2-Feb-13	24	4	\$42.27	Yes	\$52.49	\$10.22
72	2-Feb-13	24	5	\$33.73	Yes	, \$52.49	\$18.76
73	2-Feb-13	24	6	\$32.85	Yes	\$52.49	\$19.64

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
74	2-Feb-13	24	7	\$30.78	Yes	\$52.49	\$21.71
75	2-Feb-13	24	8	\$31.43	Yes	\$52.49	\$21.06
76	2-Feb-13	24	9	\$31.43	Yes	\$52.49	\$21.06
77	2-Feb-13	24	10	\$31.39	Yes	\$52.49	\$21.10
78	2-Feb-13	24	11	\$30.50	Yes	\$52.49	\$21.99
79	2-Feb-13	24	12	\$27.74	Yes	\$52.49	\$24.75
80	3-Feb-13	9	1	\$32.66	Yes	\$51.61	\$18.95
81	3-Feb-13	9	2	\$32.75	Yes	\$51.61	\$18.86
82	3-Feb-13	9	3	\$32.75	Yes	\$51.61	\$18.86
83	3-Feb-13	9	4	\$28.64	Yes	\$51.61	\$22.97
84	3-Feb-13	9	5	\$30.73	Yes	\$51.61	\$20.88
85	3-Feb-13	9	6	\$30.88	Yes	\$51.61	\$20.73
86	3-Feb-13	9	7	\$31.41	Yes	\$51.61	\$20.20
87	3-Feb-13	9	8	\$31.51	Yes	\$51.61	\$20.10
88	3-Feb-13	9	9	\$31.51	Yes	\$51.61	\$20.10
89	3-Feb-13	9	10	\$31.60	Yes	\$51.61	\$20.01
90	3-Feb-13	9	11	\$31.60	Yes	\$51.61	\$20.01
91	3-Feb-13	9	12	\$31.60	Yes	\$51.61	\$20.01
92	3-Feb-13	10	1	\$31.48	Yes	\$51.61	\$20.13
93	3-Feb-13	10	2	\$31.52	Yes	\$51.61	\$20.09
94	3-Feb-13	10	3	\$31.78	Yes	\$51.61	\$19.83
95	3-Feb-13	10	4	\$31.86	Yes	\$51.61	\$19.75
96	3-Feb-13	10	5	\$31.86	Yes	\$51.61	\$19.75
97	3-Feb-13	10	6	\$31.58	Yes	\$51.61	\$20.03
98	3-Feb-13	10	7	\$31.88	Yes	\$51.61	\$19.73
99	3-Feb-13	10	8	\$31.88	Yes	\$51.61	\$19.73
100	3-Feb-13	10	9	\$31.88	Yes	\$51.61	\$19.73
101	3-Feb-13	10	10	\$32.14	Yes	\$51.61	\$19.47
102	3-Feb-13	10	11	\$31.73	Yes	\$51.61	\$19.88
103	3-Feb-13	10	12	\$31.69	Yes	\$51.61	\$19.92
104	3-Feb-13	11	1	\$31.52	Yes	\$51.61	\$20.09
105	3-Feb-13	11	2	\$31.59	Yes	\$51.61	\$20.02
106	3-Feb-13	11	3	\$30.10	Yes	\$51.61	\$21.51
107	3-Feb-13	11	4	\$30.98	Yes	\$51.61	\$20.63
108	3-Feb-13	11	5	\$31.09	Yes	\$51.61	\$20.52
109	3-Feb-13	11	6	\$31.54	Yes	\$51.61	\$20.07
110	3-Feb-13	11	7	\$31.59	Yes	\$51.61	\$20.02
111	3-Feb-13	11	8	\$31.59	Yes	\$51.61	\$20.02

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
112	3-Feb-13	11	9	\$31.02	Yes	\$51.61	\$20.59
113	3-Feb-13	11	10	\$31.19	Yes	\$51.61	\$20.42
114	3-Feb-13	11	11	\$31.19	Yes	\$51.61	\$20.42
115	3-Feb-13	11	12	\$31.59	Yes	\$51.61	\$20.02
116	3-Feb-13	12	1	\$31.68	Yes	\$51.61	\$19.93
117	3-Feb-13	12	2	\$31.68	Yes	\$51.61	\$19.93
118	3-Feb-13	12	3	\$31.79	Yes	\$51.61	\$19.82
119	3-Feb-13	12	4	\$31.66	Yes	\$51.61	\$19.95
120	3-Feb-13	12	5	\$31.66	Yes	\$51.61	\$19.95
121	3-Feb-13	12	6	\$31.66	Yes	\$51.61	\$19.95
122	3-Feb-13	12	7	\$31.57	Yes	\$51.61	\$20.04
123	3-Feb-13	12	8	\$31.57	Yes	\$51.61	\$20.04
124	3-Feb-13	12	9	\$31.57	Yes	\$51.61	\$20.04
125	3-Feb-13	12	10	\$31.59	Yes	\$51.61	\$20.02
126	3-Feb-13	12	11	\$31.59	Yes	\$51.61	\$20.02
127	3-Feb-13	12	12	\$31.24	Yes	\$51.61	\$20.37
128	3-Feb-13	13	1	\$32.11	Yes	\$51.61	\$19.50
129	3-Feb-13	13	2	\$31.75	Yes	\$51.61	\$19.86
130	3-Feb-13	13	3	\$31.61	Yes	\$51.61	\$20.00
131	3-Feb-13	13	4	\$31.61	Yes	\$51.61	\$20.00
132	3-Feb-13	13	5	\$31.73	Yes	\$51.61	\$19.88
133	3-Feb-13	13	6	\$32.57	Yes	\$51.61	\$19.04
134	3-Feb-13	13	7	\$32.43	Yes	\$51.61	\$19.18
135	3-Feb-13	13	8	\$32.75	Yes	\$51.61	\$18.86
136	3-Feb-13	13	9	\$32.78	Yes	\$51.61	\$18.83
137	3-Feb-13	13	10	\$32.53	Yes	\$51.61	\$19.08
138	3-Feb-13	13	11	\$32.25	Yes	\$51.61	\$19.36
139	3-Feb-13	13	12	\$32.26	Yes	\$51.61	\$19.35
140	3-Feb-13	14	1	\$33.22	Yes	\$51.61	\$18.39
141	3-Feb-13	14	2	\$32.60	Yes	\$51.61	\$19.01
142	3-Feb-13	14	3	\$31.81	Yes	\$51.61	\$19.80
143	3-Feb-13	14	4	\$31.80	Yes	\$51.61	\$19.81
144	3-Feb-13	14	5	\$31.80	Yes	\$51.61	\$19.81
145	3-Feb-13	14	6	\$31.80	Yes	\$51.61	\$19.81
146	3-Feb-13	14	7	\$31.82	Yes	\$51.61	\$19.79
147	3-Feb-13	14	8	\$31.82	Yes	\$51.61	\$19.79
148	3-Feb-13	14	9	\$31.93	Yes	\$51.61	\$19.68
149	3-Feb-13	14	10	\$31.86	Yes	\$51.61	\$19.75

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
150	3-Feb-13	14	11	\$31.86	Yes	\$51.61	\$19.75
151	3-Feb-13	14	12	\$31.71	Yes	\$51.61	\$19.90
152	3-Feb-13	15	1	\$31.35	Yes	\$51.61	\$20.26
153	3-Feb-13	15	2	\$31.82	Yes	\$51.61	\$19.79
154	3-Feb-13	15	3	\$31.82	Yes	\$51.61	\$19.79
155	3-Feb-13	15	4	\$31.64	Yes	\$51.61	\$19.97
156	3-Feb-13	15	5	\$31.64	Yes	\$51.61	\$19.97
157	3-Feb-13	15	6	\$31.61	Yes	\$51.61	\$20.00
158	3-Feb-13	15	7	\$31.61	Yes	\$51.61	\$20.00
159	3-Feb-13	15	8	\$31.13	Yes	\$51.61	\$20.48
160	3-Feb-13	15	9	\$31.62	Yes	\$51.61	\$19.99
161	3-Feb-13	15	10	\$31.81	Yes	\$51.61	\$19.80
162	3-Feb-13	15	11	\$31.82	Yes	\$51.61	\$19.79
163	3-Feb-13	15	12	\$31.81	Yes	\$51.61	\$19.80
164	3-Feb-13	16	1	\$31.12	Yes	\$51.61	\$20.49
165	3-Feb-13	16	2	\$30.60	Yes	\$51.61	\$21.01
166	3-Feb-13	16	3	\$31.22	Yes	\$51.61	\$20.39
167	3-Feb-13	16	4	\$30.60	Yes	\$51.61	\$21.01
168	3-Feb-13	16	5	\$31.14	Yes	\$51.61	\$20.47
169	3-Feb-13	16	6	\$31.16	Yes	\$51.61	\$20.45
170	3-Feb-13	16	7	\$31.14	Yes	\$51.61	\$20.47
171	3-Feb-13	16	8	\$30.40	Yes	\$51.61	\$21.21
172	3-Feb-13	16	9	\$30.40	Yes	\$51.61	\$21.21
173	3-Feb-13	16	10	\$30.63	Yes	\$51.61	\$20.98
174	3-Feb-13	16	11	\$31.70	Yes	\$51.61	\$19.91
175	3-Feb-13	16	12	\$31.10	Yes	\$51.61	\$20.51
176	3-Feb-13	17	1	\$27.77	Yes	\$51.61	\$23.84
177	3-Feb-13	17	2	\$27.78	Yes	\$51.61	\$23.83
178	3-Feb-13	17	3	\$29.33	Yes	\$51.61	\$22.28
179	3-Feb-13	17	4	\$28.76	Yes	\$51.61	\$22.85
180	3-Feb-13	17	5	\$29.40	Yes	\$51.61	\$22.21
181	3-Feb-13	17	6	\$29.17	Yes	\$51.61	\$22.44
182	3-Feb-13	17	7	\$27.78	Yes	\$51.61	\$23.83
183	3-Feb-13	17	8	\$29.33	Yes	\$51.61	\$22.28
184	3-Feb-13	17	9	\$31.56	Yes	\$51.61	\$20.05
185	3-Feb-13	17	10	\$32.78	Yes	\$51.61	\$18.83
186	3-Feb-13	17	11	\$32.78	Yes	\$51.61	\$18.83
187	3-Feb-13	17	12	\$33.08	Yes	\$51.61	\$18.53

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
188	3-Feb-13	18	1	\$27.90	Yes	\$51.61	\$23.71
189	3-Feb-13	18	2	\$25.88	Yes	\$51.61	\$25.73
190	3-Feb-13	18	3	\$25.88	Yes	\$51.61	\$25.73
191	3-Feb-13	18	4	\$27.82	Yes	\$51.61	\$23.79
192	3-Feb-13	18	5	\$29.52	Yes	\$51.61	\$22.09
193	3-Feb-13	18	6	\$32.76	Yes	\$51.61	\$18.85
194	3-Feb-13	18	7	\$33.75	Yes	\$51.61	\$17.86
195	3-Feb-13	18	8	\$35.33	Yes	\$51.61	\$16.28
196	3-Feb-13	18	9	\$36.40	Yes	\$51.61	\$15.21
197	3-Feb-13	18	10	\$32.65	Yes	\$51.61	\$18.96
198	3-Feb-13	18	11	\$33.62	Yes	\$51.61	\$17.99
199	3-Feb-13	18	12	\$33.79	Yes	\$51.61	\$17.82
200	3-Feb-13	19	1	\$32.85	Yes	\$51.61	\$18.76
201	3-Feb-13	19	2	\$33.10	Yes	\$51.61	\$18.51
202	3-Feb-13	19	3	\$32.34	Yes	\$51.61	\$19.27
203	3-Feb-13	19	4	\$30.51	Yes	\$51.61	\$21.10
204	3-Feb-13	19	5	\$31.41	Yes	\$51.61	\$20.20
205	3-Feb-13	19	6	\$31.57	Yes	\$51.61	\$20.04
206	3-Feb-13	19	7	\$32.71	Yes	\$51.61	\$18.90
207	3-Feb-13	19	8	\$32.67	Yes	\$51.61	\$18.94
208	3-Feb-13	19	9	\$32.67	Yes	\$51.61	\$18.94
209	3-Feb-13	19	10	\$32.33	Yes	\$51.61	\$19.28
210	3-Feb-13	19	11	\$32.71	Yes	\$51.61	\$18.90
211	3-Feb-13	19	12	\$32.92	Yes	\$51.61	\$18.69
212	3-Feb-13	20	1	\$33.08	Yes	\$51.61	\$18.53
213	3-Feb-13	20	2	\$33.08	Yes	\$51.61	\$18.53
214	3-Feb-13	20	3	\$32.92	Yes	\$51.61	\$18.69
215	3-Feb-13	20	4	\$31.90	Yes	\$51.61	\$19.71
216	3-Feb-13	20	5	\$31.90	Yes	\$51.61	\$19.71
217	3-Feb-13	20	6	\$32.05	Yes	\$51.61	\$19.56
218	3-Feb-13	20	7	\$31.78	Yes	\$51.61	\$19.83
219	3-Feb-13	20	8	\$31.78	Yes	\$51.61	\$19.83
220	3-Feb-13	20	9	\$31.71	Yes	\$51.61	\$19.90
221	3-Feb-13	20	10	\$31.82	Yes	\$51.61	\$19.79
222	3-Feb-13	20	11	\$30.58	Yes	\$51.61	\$21.03
223	3-Feb-13	20	12	\$29.46	Yes	\$51.61	\$22.15
224	3-Feb-13	21	1	\$33.01	Yes	\$51.61	\$18.60
225	3-Feb-13	21	2	\$34.59	Yes	\$51.61	\$17.02

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
226	3-Feb-13	21	3	\$34.62	Yes	\$51.61	\$16.99
227	3-Feb-13	21	4	\$33.85	Yes	\$51.61	\$17.76
228	3-Feb-13	21	5	\$32.73	Yes	\$51.61	\$18.88
229	3-Feb-13	21	6	\$32.92	Yes	\$51.61	\$18.69
230	3-Feb-13	21	7	\$32.99	Yes	\$51.61	\$18.62
231	3-Feb-13	21	8	\$33.82	Yes	\$51.61	\$17.79
232	3-Feb-13	21	9	\$34.04	Yes	\$51.61	\$17.57
233	3-Feb-13	21	10	\$34.64	Yes	\$51.61	\$16.97
234	3-Feb-13	21	11	\$33.79	Yes	\$51.61	\$17.82
235	3-Feb-13	21	12	\$33.79	Yes	\$51.61	\$17.82
236	3-Feb-13	22	1	\$32.97	Yes	\$51.61	\$18.64
237	3-Feb-13	22	2	\$33.03	Yes	\$51.61	\$18.58
238	3-Feb-13	22	3	\$32.97	Yes	\$51.61	\$18.64
239	3-Feb-13	22	4	\$32.67	Yes	\$51.61	\$18.94
240	3-Feb-13	22	5	\$32.81	Yes	\$51.61	\$18.80
241	3-Feb-13	22	6	\$32.81	Yes	\$51.61	\$18.80
242	3-Feb-13	22	7	\$31.74	Yes	\$51.61	\$19.87
243	3-Feb-13	22	8	\$31.21	Yes	\$51.61	\$20.40
244	3-Feb-13	22	9	\$31.21	Yes	\$51.61	\$20.40
245	3-Feb-13	22	10	\$29.75	Yes	\$51.61	\$21.86
246	3-Feb-13	22	11	\$30.31	Yes	\$51.61	\$21.30
247	3-Feb-13	22	12	\$30.31	Yes	\$51.61	\$21.30
248	3-Feb-13	23	1	\$31.86	Yes	\$51.61	\$19.75
249	3-Feb-13	23	2	\$32.00	Yes	\$51.61	\$19.61
250	3-Feb-13	23	3	\$32.37	Yes	\$51.61	\$19.24
251	3-Feb-13	23	4	\$31.50	Yes	\$51.61	\$20.11
252	3-Feb-13	23	5	\$31.50	Yes	\$51.61	\$20.11
253	3-Feb-13	23	6	\$31.31	Yes	\$51.61	\$20.30
254	3-Feb-13	23	7	\$30.32	Yes	\$51.61	\$21.29
255	3-Feb-13	23	8	\$29.07	Yes	\$51.61	\$22.54
256	3-Feb-13	23	9	\$27.83	Yes	\$51.61	\$23.78
257	3-Feb-13	23	10	\$27.07	Yes	\$51.61	\$24.54
258	3-Feb-13	23	11	\$26.24	Yes	\$51.61	\$25.37
259	3-Feb-13	23	12	\$21.50	Yes	\$51.61	\$30.11
260	3-Feb-13	24	1	\$26.02	Yes	\$51.61	\$25.59
261	3-Feb-13	24	2	\$26.99	Yes	\$51.61	\$24.62
262	3-Feb-13	24	3	\$27.29	Yes	\$51.61	\$24.32
263	3-Feb-13	24	4	\$27.17	Yes	\$51.61	\$24.44

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
264	3-Feb-13	24	5	\$27.17	Yes	\$51.61	\$24.44
265	3-Feb-13	24	6	\$27.17	Yes	\$51.61	\$24.44
266	3-Feb-13	24	7	\$27.05	Yes	\$51.61	\$24.56
267	3-Feb-13	24	8	\$30.84	Yes	\$51.61	\$20.77
268	3-Feb-13	24	9	\$30.13	Yes	\$51.61	\$21.48
269	3-Feb-13	24	10	\$28.34	Yes	\$51.61	\$23.27
270	3-Feb-13	24	11	\$28.37	Yes	\$51.61	\$23.24
271	3-Feb-13	24	12	\$30.50	Yes	\$51.61	\$21.11
272	5-Feb-13	6	7	\$33.33	Yes	\$52.02	\$18.70
273	5-Feb-13	6	8	\$33.80	Yes	\$52.02	\$18.22
274	5-Feb-13	6	9	\$35.96	Yes	\$52.02	\$16.06
275	5-Feb-13	6	10	\$33.62	Yes	\$52.02	\$18.40
276	5-Feb-13	6	11	\$33.62	Yes	\$52.02	\$18.40
277	5-Feb-13	6	12	\$34.72	Yes	\$52.02	\$17.30
278	5-Feb-13	7	1	\$31.99	Yes	\$52.02	\$20.03
279	5-Feb-13	7	2	\$27.77	Yes	\$52.02	\$24.25
280	5-Feb-13	7	3	\$31.63	Yes	\$52.02	\$20.39
281	5-Feb-13	7	4	\$31.05	Yes	\$52.02	\$20.97
282	5-Feb-13	7	5	\$31.69	Yes	\$52.02	\$20.33
283	5-Feb-13	7	6	\$33.73	Yes	\$52.02	\$18.29
284	5-Feb-13	7	7	\$35.00	Yes	\$52.02	\$17.02
285	5-Feb-13	7	8	\$42.12	Yes	\$52.02	\$9.90
286	5-Feb-13	7	9	\$42.12	Yes	\$52.02	\$9.90
287	5-Feb-13	7	10	\$42.48	Yes	\$52.02	\$9.54
288	5-Feb-13	7	11	\$44.29	Yes	\$52.02	\$7.73
289	5-Feb-13	7	12	\$45.35	Yes	\$52.02	\$6.67
290	5-Feb-13	8	1	\$33.84	Yes	\$52.02	\$18.18
291	5-Feb-13	8	2	\$33.97	Yes	\$52.02	\$18.05
292	5-Feb-13	8	3	\$34.99	Yes	\$52.02	\$17.03
293	5-Feb-13	8	4	\$35.19	Yes	\$52.02	\$16.83
294	5-Feb-13	8	5	\$42.68	Yes	\$52.02	\$9.34
295	5-Feb-13	8	6	\$45.93	Yes	\$52.02	\$6.09
296	5-Feb-13	8	7	\$42.96	Yes	\$52.02	\$9.06
297	5-Feb-13	8	8	\$42.91	Yes	\$52.02	\$9.11
298	5-Feb-13	8	9	\$42.72	Yes	\$52.02	\$9.30
299	5-Feb-13	8	10	\$35.22	Yes	\$52.02	\$16.80
300	5-Feb-13	8	11	\$35.22	Yes	\$52.02	\$16.80
301	5-Feb-13	8	12	\$32.97	Yes	\$52.02	\$19.05

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
302	5-Feb-13	9	1	\$33.27	Yes	\$52.02	\$18.75
303	5-Feb-13	9	2	\$32.33	Yes	\$52.02	\$19.69
304	5-Feb-13	9	3	\$32.57	Yes	\$52.02	\$19.45
305	5-Feb-13	9	4	\$32.34	Yes	\$52.02	\$19.68
306	5-Feb-13	9	5	\$32.33	Yes	\$52.02	\$19.69
307	5-Feb-13	9	6	\$32.33	Yes	\$52.02	\$19.69
308	5-Feb-13	9	7	\$32.49	Yes	\$52.02	\$19.53
309	5-Feb-13	9	8	\$31.72	Yes	\$52.02	\$20.30
310	5-Feb-13	9	9	\$31.45	Yes	\$52.02	\$20.57
311	5-Feb-13	9	10	\$31.69	Yes	\$52.02	\$20.33
312	5-Feb-13	9	11	\$31.43	Yes	\$52.02	\$20.59
313	5-Feb-13	9	12	\$31.11	Yes	\$52.02	\$20.91
314	5-Feb-13	10	1	\$31.79	Yes	\$52.02	\$20.23
315	5-Feb-13	10	2	\$31.79	Yes	\$52.02	\$20.23
316	5-Feb-13	10	3	\$31.79	Yes	\$52.02	\$20.23
317	5-Feb-13	10	4	\$31.79	Yes	\$52.02	\$20.23
318	5-Feb-13	10	5	\$31.79	Yes	\$52.02	\$20.23
319	5-Feb-13	10	6	\$31.80	Yes	\$52.02	\$20.22
320	5-Feb-13	10	7	\$31.79	Yes	\$52.02	\$20.23
321	5-Feb-13	10	8	\$32.88	Yes	\$52.02	\$19.14
322	5-Feb-13	10	9	\$32.88	Yes	\$52.02	\$19.14
323	5-Feb-13	10	10	\$32.49	Yes	\$52.02	\$19.53
324	5-Feb-13	10	11	\$32.49	Yes	\$52.02	\$19.53
325	5-Feb-13	10	12	\$31.82	Yes	\$52.02	\$20.20
326	5-Feb-13	11	1	\$31.64	Yes	\$52.02	\$20.38
327	5-Feb-13	11	2	\$31.37	Yes	\$52.02	\$20.65
328	5-Feb-13	11	3	\$31.64	Yes	\$52.02	\$20.38
329	5-Feb-13	11	4	\$31.30	Yes	\$52.02	\$20.72
330	5-Feb-13	11	5	\$31.77	Yes	\$52.02	\$20.25
331	5-Feb-13	11	6	\$31.30	Yes	\$52.02	\$20.72
332	5-Feb-13	11	7	\$31.44	Yes	\$52.02	\$20.58
333	5-Feb-13	11	8	\$31.44	Yes	\$52.02	\$20.58
334	5-Feb-13	11	9	\$31.18	Yes	\$52.02	\$20.84
335	5-Feb-13	11	10	\$30.90	Yes	\$52.02	\$21.12
336	5-Feb-13	11	11	\$30.57	Yes	\$52.02	\$21.45
337	5-Feb-13	11	12	\$29.72	Yes	\$52.02	\$22.30
338	5-Feb-13	12	1	\$29.88	Yes	\$52.02	\$22.14
339	5-Feb-13	12	2	\$30.70	Yes	\$52.02	\$21.32

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
340	5-Feb-13	12	3	\$30.70	Yes	\$52.02	\$21.32
341	5-Feb-13	12	4	\$30.67	Yes	\$52.02	\$21.35
342	5-Feb-13	12	5	\$30.84	Yes	\$52.02	\$21.18
343	5-Feb-13	12	6	\$30.67	Yes	\$52.02	\$21.35
344	5-Feb-13	12	7	\$31.61	Yes	\$52.02	\$20.41
345	5-Feb-13	12	8	\$31.24	Yes	\$52.02	\$20.78
346	5-Feb-13	12	9	\$31.24	Yes	\$52.02	\$20.78
347	5-Feb-13	12	10	\$31.36	Yes	\$52.02	\$20.66
348	5-Feb-13	12	11	\$31.60	Yes	\$52.02	\$20.42
349	5-Feb-13	12	12	\$32.23	Yes	\$52.02	\$19.79
350	5-Feb-13	13	1	\$37.51	Yes	\$52.02	\$14.51
351	5-Feb-13	13	2	\$35.52	Yes	\$52.02	\$16.50
352	5-Feb-13	13	3	\$43.40	Yes	\$52.02	\$8.62
353	5-Feb-13	13	4	\$36.74	Yes	\$52.02	\$15.28
354	5-Feb-13	13	5	\$37.52	Yes	\$52.02	\$14.50
355	5-Feb-13	13	6	\$37.52	Yes	\$52.02	\$14.50
356	5-Feb-13	13	7	\$46.03	Yes	\$52.02	\$5.99
357	5-Feb-13	13	8	\$34.56	Yes	\$52.02	\$17.46
358	5-Feb-13	13	9	\$37.06	Yes	\$52.02	\$14.96
359	5-Feb-13	13	10	\$33.16	Yes	\$52.02	\$18.86
360	5-Feb-13	13	11	\$31.93	Yes	\$52.02	\$20.09
361	5-Feb-13	13	12	\$33.68	Yes	\$52.02	\$18.34
362	5-Feb-13	14	1	\$31.94	Yes	\$52.02	\$20.08
363	5-Feb-13	14	2	\$31.82	Yes	\$52.02	\$20.20
364	5-Feb-13	14	3	\$31.94	Yes	\$52.02	\$20.08
365	5-Feb-13	14	4	\$32.93	Yes	\$52.02	\$19.09
366	5-Feb-13	14	5	\$44.69	Yes	\$52.02	\$7.33
367	5-Feb-13	14	6	\$41.93	Yes	\$52.02	\$10.09
368	5-Feb-13	14	7	\$41.72	Yes	\$52.02	\$10.30
369	5-Feb-13	14	8	\$41.72	Yes	\$52.02	\$10.30
370	5-Feb-13	14	9	\$41.53	Yes	\$52.02	\$10.49
371	5-Feb-13	14	10	\$40.56	Yes	\$52.02	\$11.46
372	5-Feb-13	14	11	\$44.54	Yes	\$52.02	\$7.48
373	5-Feb-13	14	12	\$31.06	Yes	\$52.02	\$20.96
374	5-Feb-13	15	1	\$44.67	Yes	\$52.02	\$7.35
375	5-Feb-13	15	2	\$44.67	Yes	\$52.02	\$7.35
376	5-Feb-13	15	3	\$41.81	Yes	\$52.02	\$10.21
377	5-Feb-13	23	1	\$32.90	Yes	\$51.16	\$18.26

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
378	5-Feb-13	23	2	\$32.53	Yes	\$51.16	\$18.63
379	5-Feb-13	23	3	\$32.53	Yes	\$51.16	\$18.63
380	5-Feb-13	23	4	\$31.69	Yes	\$51.16	\$19.47
381	5-Feb-13	23	5	\$31.37	Yes	\$51.16	\$19.79
382	5-Feb-13	23	6	\$31.60	Yes	\$51.16	\$19.56
383	5-Feb-13	23	7	\$30.60	Yes	\$51.16	\$20.56
384	5-Feb-13	23	8	\$30.60	Yes	\$51.16	\$20.56
385	5-Feb-13	23	9	\$28.15	Yes	\$51.16	\$23.01
386	5-Feb-13	23	10	\$25.38	Yes	\$51.16	\$25.78
387	5-Feb-13	23	11	\$25.54	Yes	\$51.16	\$25.62
388	5-Feb-13	23	12	\$25.38	Yes	\$51.16	\$25.78
389	5-Feb-13	24	1	\$31.66	Yes	\$51.16	\$19.50
390	5-Feb-13	24	2	\$31.46	Yes	\$51.16	\$19.70
391	5-Feb-13	24	3	\$31.77	Yes	\$51.16	\$19.39
392	5-Feb-13	24	4	\$31.55	Yes	\$51.16	\$19.61
393	5-Feb-13	24	5	\$31.27	Yes	\$51.16	\$19.89
394	5-Feb-13	24	6	\$30.47	Yes	\$51.16	\$20.69
395	5-Feb-13	24	7	\$30.32	Yes	\$51.16	\$20.84
396	5-Feb-13	24	8	\$30.04	Yes	\$51.16	\$21.12
397	5-Feb-13	24	9	\$29.41	Yes	\$51.16	\$21.75
398	5-Feb-13	24	10	\$26.33	Yes	\$51.16	\$24.83
399	5-Feb-13	24	11	\$27.59	Yes	\$51.16	\$23.57
400	5-Feb-13	24	12	\$26.33	Yes	\$51.16	\$24.83
401	6-Feb-13	1	1	\$32.40	Yes	\$51.68	\$19.28
402	6-Feb-13	1	2	\$32.40	Yes	\$51.68	\$19.28
403	6-Feb-13	1	3	\$32.17	Yes	\$51.68	\$19.51
404	6-Feb-13	1	4	\$31.98	Yes	\$51.68	\$19.70
405	6-Feb-13	1	5	\$31.98	Yes	\$51.68	\$19.70
406	6-Feb-13	1	6	\$30.29	Yes	\$51.68	\$21.39
407	6-Feb-13	1	7	\$30.23	Yes	\$51.68	\$21.45
408	6-Feb-13	1	8	\$28.97	Yes	\$51.68	\$22.71
409	6-Feb-13	1	9	\$30.23	Yes	\$51.68	\$21.45
410	6-Feb-13	1	10	\$30.49	Yes	\$51.68	\$21.19
411	6-Feb-13	1	11	\$30.29	Yes	\$51.68	\$21.39
412	6-Feb-13	1	12	\$31.77	Yes	\$51.68	\$19.91
413	6-Feb-13	2	1	\$33.07	Yes	\$51.68	\$18.61
414	6-Feb-13	2	2	\$33.07	Yes	\$51.68	\$18.61
415	6-Feb-13	2	3	\$33.93	Yes	\$51.68	\$17.75

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
416	6-Feb-13	2	4	\$33.30	Yes	\$51.68	\$18.38
417	6-Feb-13	2	5	\$32.43	Yes	\$51.68	\$19.25
418	6-Feb-13	2	6	\$33.04	Yes	\$51.68	\$18.64
419	6-Feb-13	2	7	\$32.28	Yes	\$51.68	\$19.40
420	6-Feb-13	2	8	\$32.29	Yes	\$51.68	\$19.39
421	6-Feb-13	2	9	\$33.17	Yes	\$51.68	\$18.51
422	6-Feb-13	2	10	\$33.38	Yes	\$51.68	\$18.30
423	6-Feb-13	2	11	\$32.06	Yes	\$51.68	\$19.62
424	6-Feb-13	2	12	\$32.06	Yes	\$51.68	\$19.62
425	6-Feb-13	3	1	\$32.63	Yes	\$51.68	\$19.05
426	6-Feb-13	3	2	\$32.26	Yes	\$51.68	\$19.42
427	6-Feb-13	3	3	\$32.26	Yes	\$51.68	\$19.42
428	6-Feb-13	3	4	\$32.95	Yes	\$51.68	\$18.73
429	6-Feb-13	3	5	\$32.95	Yes	\$51.68	\$18.73
430	6-Feb-13	3	6	\$32.29	Yes	\$51.68	\$19.39
431	6-Feb-13	3	7	\$32.19	Yes	\$51.68	\$19.49
432	6-Feb-13	3	8	\$31.99	Yes	\$51.68	\$19.69
433	6-Feb-13	3	9	\$30.29	Yes	\$51.68	\$21.39
434	6-Feb-13	3	10	\$28.62	Yes	\$51.68	\$23.06
435	6-Feb-13	3	11	\$28.62	Yes	\$51.68	\$23.06
436	6-Feb-13	3	12	\$27.21	Yes	\$51.68	\$24.47
437	6-Feb-13	4	1	\$26.45	Yes	\$51.68	\$25.23
438	6-Feb-13	4	2	\$26.45	Yes	\$51.68	\$25.23
439	6-Feb-13	4	3	\$27.44	Yes	\$51.68	\$24.24
440	6-Feb-13	4	4	\$27.41	Yes	\$51.68	\$24.27
441	6-Feb-13	4	5	\$27.41	Yes	\$51.68	\$24.27
442	6-Feb-13	4	6	\$28.37	Yes	\$51.68	\$23.31
443	6-Feb-13	4	7	\$30.06	Yes	\$51.68	\$21.62
444	6-Feb-13	4	8	\$28.37	Yes	\$51.68	\$23.31
445	6-Feb-13	4	9	\$30.14	Yes	\$51.68	\$21.54
446	6-Feb-13	4	10	\$28.68	Yes	\$51.68	\$23.00
447	6-Feb-13	4	11	\$27.97	Yes	\$51.68	\$23.71
448	6-Feb-13	4	12	\$28.68	Yes	\$51.68	\$23.00
449	6-Feb-13	5	1	\$28.85	Yes	\$51.68	\$22.83
450	6-Feb-13	5	2	\$30.29	Yes	\$51.68	\$21.39
451	6-Feb-13	5	3	\$30.87	Yes	\$51.68	\$20.81
452	6-Feb-13	5	4	\$29.76	Yes	\$51.68	\$21.92
453	6-Feb-13	5	5	\$29.80	Yes	\$51.68	\$21.88

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
454	6-Feb-13	5	6	\$30.77	Yes	\$51.68	\$20.91
455	6-Feb-13	5	7	\$26.85	Yes	\$51.68	\$24.83
456	6-Feb-13	5	8	\$26.85	Yes	\$51.68	\$24.83
457	6-Feb-13	5	9	\$27.37	Yes	\$51.68	\$24.31
458	6-Feb-13	5	10	\$29.88	Yes	\$51.68	\$21.80
459	6-Feb-13	5	11	\$30.78	Yes	\$51.68	\$20.90
460	6-Feb-13	5	12	\$30.78	Yes	\$51.68	\$20.90
461	6-Feb-13	6	1	\$27.06	Yes	\$51.68	\$24.62
462	6-Feb-13	6	2	\$27.06	Yes	\$51.68	\$24.62
463	6-Feb-13	6	3	\$13.98	Yes	\$51.68	\$37.70
464	6-Feb-13	6	4	\$13.99	Yes	\$51.68	\$37.69
465	6-Feb-13	6	5	\$0.01	Yes	\$51.68	\$51.67
466	6-Feb-13	6	6	\$13.99	Yes	\$51.68	\$37.69
467	6-Feb-13	6	7	\$15.88	Yes	\$51.68	\$35.80
468	6-Feb-13	6	8	\$26.87	Yes	\$51.68	\$24.81
469	6-Feb-13	6	9	\$26.87	Yes	\$51.68	\$24.81
470	6-Feb-13	6	10	\$27.23	Yes	\$51.68	\$24.45
471	6-Feb-13	6	11	\$27.23	Yes	\$51.68	\$24.45
472	6-Feb-13	6	12	\$27.15	Yes	\$51.68	\$24.53
473	6-Feb-13	7	1	\$0.01	Yes	\$52.55	\$52.54
474	6-Feb-13	7	2	\$0.01	Yes	\$52.55	\$52.54
475	6-Feb-13	7	3	\$10.56	Yes	\$52.55	\$41.99
476	6-Feb-13	7	4	\$14.23	Yes	\$52.55	\$38.32
477	6-Feb-13	7	5	\$20.77	Yes	\$52.55	\$31.78
478	6-Feb-13	7	6	\$23.68	Yes	\$52.55	\$28.87
479	6-Feb-13	7	7	\$28.38	Yes	\$52.55	\$24.17
480	6-Feb-13	7	8	\$28.95	Yes	\$52.55	\$23.60
481	6-Feb-13	7	9	\$30.42	Yes	\$52.55	\$22.13
482	6-Feb-13	7	10	\$30.93	Yes	\$52.55	\$21.62
483	6-Feb-13	7	11	\$31.46	Yes	\$52.55	\$21.09
484	6-Feb-13	7	12	\$32.27	Yes	\$52.55	\$20.28
485	6-Feb-13	8	1	\$30.58	Yes	\$52.55	\$21.97
486	6-Feb-13	8	2	\$29.72	Yes	\$52.55	\$22.83
487	6-Feb-13	8	3	\$29.22	Yes	\$52.55	\$23.33
488	6-Feb-13	8	4	\$30.15	Yes	\$52.55	\$22.40
489	6-Feb-13	8	5	\$30.75	Yes	\$52.55	\$21.80
490	6-Feb-13	8	6	\$30.75	Yes	\$52.55	\$21.80
491	6-Feb-13	8	7	\$30.66	Yes	\$52.55	\$21.89

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
492	6-Feb-13	8	8	\$30.66	Yes	\$52.55	\$21.89
493	6-Feb-13	8	9	\$30.46	Yes	\$52.55	\$22.09
494	6-Feb-13	8	10	\$30.64	Yes	\$52.55	\$21.91
495	6-Feb-13	8	11	\$30.64	Yes	\$52.55	\$21.91
496	6-Feb-13	8	12	\$29.76	Yes	\$52.55	\$22.79
497	6-Feb-13	9	1	\$30.30	Yes	\$52.55	\$22.25
498	6-Feb-13	9	2	\$30.35	Yes	\$52.55	\$22.20
499	6-Feb-13	9	3	\$30.54	Yes	\$52.55	\$22.01
500	6-Feb-13	9	4	\$30.54	Yes	\$52.55	\$22.01
501	6-Feb-13	9	5	\$30.39	Yes	\$52.55	\$22.16
502	6-Feb-13	9	6	\$30.39	Yes	\$52.55	\$22.16
503	6-Feb-13	9	7	\$29.64	Yes	\$52.55	\$22.91
504	6-Feb-13	9	8	\$29.51	Yes	\$52.55	\$23.04
505	6-Feb-13	9	9	\$29.20	Yes	\$52.55	\$23.35
506	6-Feb-13	9	10	\$28.68	Yes	\$52.55	\$23.87
507	6-Feb-13	9	11	\$28.68	Yes	\$52.55	\$23.87
508	6-Feb-13	9	12	\$28.98	Yes	\$52.55	\$23.57
509	6-Feb-13	10	1	\$30.95	Yes	\$52.55	\$21.60
510	6-Feb-13	10	2	\$30.17	Yes	\$52.55	\$22.38
511	6-Feb-13	10	3	\$29.46	Yes	\$52.55	\$23.09
512	6-Feb-13	10	4	\$30.69	Yes	\$52.55	\$21.86
513	6-Feb-13	10	5	\$30.69	Yes	\$52.55	\$21.86
514	6-Feb-13	10	6	\$30.75	Yes	\$52.55	\$21.80
515	6-Feb-13	10	7	\$31.05	Yes	\$52.55	\$21.50
516	6-Feb-13	10	8	\$31.01	Yes	\$52.55	\$21.54
517	6-Feb-13	10	9	\$31.05	Yes	\$52.55	\$21.50
518	6-Feb-13	10	10	\$31.07	Yes	\$52.55	\$21.48
519	6-Feb-13	10	11	\$33.40	Yes	\$52.55	\$19.15
520	6-Feb-13	10	12	\$32.07	Yes	\$52.55	\$20.48
521	6-Feb-13	11	1	\$32.31	Yes	\$52.55	\$20.24
522	6-Feb-13	11	2	\$32.31	Yes	\$52.55	\$20.24
523	6-Feb-13	11	3	\$32.14	Yes	\$52.55	\$20.41
524	6-Feb-13	11	4	\$32.15	Yes	\$52.55	\$20.40
525	6-Feb-13	11	5	\$32.10	Yes	\$52.55	\$20.45
526	6-Feb-13	11	6	\$32.10	Yes	\$52.55	\$20.45
527	6-Feb-13	11	7	\$32.45	Yes	\$52.55	\$20.10
528	6-Feb-13	11	8	\$32.45	Yes	\$52.55	\$20.10
529	6-Feb-13	11	9	\$33.77	Yes	\$52.55	\$18.78

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
530	6-Feb-13	11	10	\$31.36	Yes	\$52.55	\$21.19
531	6-Feb-13	11	11	\$31.24	Yes	\$52.55	\$21.31
532	6-Feb-13	11	12	\$30.20	Yes	\$52.55	\$22.35
533	6-Feb-13	12	1	\$46.08	Yes	\$52.55	\$6.47
534	6-Feb-13	12	2	\$38.94	Yes	\$52.55	\$13.61
535	6-Feb-13	12	3	\$28.99	Yes	\$52.55	\$23.56
536	6-Feb-13	12	4	\$29.83	Yes	\$52.55	\$22.72
537	6-Feb-13	12	5	\$30.17	Yes	\$52.55	\$22.38
538	6-Feb-13	12	6	\$29.83	Yes	\$52.55	\$22.72
539	6-Feb-13	12	7	\$25.92	Yes	\$52.55	\$26.63
540	6-Feb-13	12	8	\$26.06	Yes	\$52.55	\$26.49
541	6-Feb-13	12	9	\$29.19	Yes	\$52.55	\$23.36
542	6-Feb-13	12	10	\$31.22	Yes	\$52.55	\$21.33
543	6-Feb-13	12	11	\$30.24	Yes	\$52.55	\$22.31
544	6-Feb-13	12	12	\$29.90	Yes	\$52.55	\$22.65
545	6-Feb-13	13	1	\$32.47	Yes	\$52.55	\$20.08
546	6-Feb-13	13	2	\$32.16	Yes	\$52.55	\$20.39
547	6-Feb-13	13	3	\$31.42	Yes	\$52.55	\$21.13
548	6-Feb-13	13	4	\$31.39	Yes	\$52.55	\$21.16
549	6-Feb-13	13	5	\$31.39	Yes	\$52.55	\$21.16
550	6-Feb-13	13	6	\$32.08	Yes	\$52.55	\$20.47
551	6-Feb-13	13	7	\$52.12	Yes	\$52.55	\$0.43
552	6-Feb-13	13	8	\$41.86	Yes	\$52.55	\$10.69
553	6-Feb-13	13	9	\$50.90	Yes	\$52.55	\$1.65
554	6-Feb-13	13	10	\$32.14	Yes	\$52.55	\$20.41
555	6-Feb-13	13	11	\$32.10	Yes	\$52.55	\$20.45
556	6-Feb-13	13	12	\$31.27	Yes	\$52.55	\$21.28
557	6-Feb-13	14	1	\$31.53	Yes	\$52.55	\$21.02
558	6-Feb-13	14	2	\$31.45	Yes	\$52.55	\$21.10
559	6-Feb-13	14	3	\$31.53	Yes	\$52.55	\$21.02
560	6-Feb-13	14	4	\$31.44	Yes	\$52.55	\$21.11
561	6-Feb-13	14	5	\$31.44	Yes	\$52.55	\$21.11
562	6-Feb-13	14	6	\$32.30	Yes	\$52.55	\$20.25
563	6-Feb-13	14	7	\$32.15	Yes	\$52.55	\$20.40
564	6-Feb-13	14	8	\$31.31	Yes	\$52.55	\$21.24
565	6-Feb-13	14	9	\$31.31	Yes	\$52.55	\$21.24
566	6-Feb-13	14	10	\$31.08	Yes	\$52.55	\$21.47
567	6-Feb-13	14	11	\$31.42	Yes	\$52.55	\$21.13

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
568	6-Feb-13	14	12	\$31.42	Yes	\$52.55	\$21.13
569	6-Feb-13	15	1	\$31.50	Yes	\$52.55	\$21.05
570	6-Feb-13	15	2	\$31.48	Yes	\$52.55	\$21.07
571	6-Feb-13	15	3	\$31.45	Yes	\$52.55	\$21.10
572	6-Feb-13	15	4	\$31.45	Yes	\$52.55	\$21.10
573	6-Feb-13	15	5	\$31.45	Yes	\$52.55	\$21.10
574	6-Feb-13	15	6	\$31.45	Yes	\$52.55	\$21.10
575	6-Feb-13	15	7	\$31.40	Yes	\$52.55	\$21.15
576	6-Feb-13	15	8	\$31.38	Yes	\$52.55	\$21.17
577	6-Feb-13	15	9	\$31.46	Yes	\$52.55	\$21.09
578	6-Feb-13	15	10	\$32.94	Yes	\$52.55	\$19.61
579	6-Feb-13	15	11	\$34.19	Yes	\$52.55	\$18.36
580	6-Feb-13	15	12	\$33.71	Yes	\$52.55	\$18.84
581	6-Feb-13	16	1	\$32.84	Yes	\$52.55	\$19.72
582	6-Feb-13	16	2	\$33.16	Yes	\$52.55	\$19.39
583	6-Feb-13	16	3	\$34.64	Yes	\$52.55	\$17.91
584	6-Feb-13	16	4	\$34.61	Yes	\$52.55	\$17.94
585	6-Feb-13	16	5	\$34.61	Yes	\$52.55	\$17.94
586	6-Feb-13	16	6	\$34.61	Yes	\$52.55	\$17.94
587	6-Feb-13	16	7	\$34.85	Yes	\$52.55	\$17.70
588	6-Feb-13	16	8	\$34.85	Yes	\$52.55	\$17.70
589	6-Feb-13	16	9	\$35.47	Yes	\$52.55	\$17.08
590	6-Feb-13	16	10	\$35.59	Yes	\$52.55	\$16.96
591	6-Feb-13	16	11	\$36.05	Yes	\$52.55	\$16.50
592	6-Feb-13	16	12	\$33.89	Yes	\$52.55	\$18.66
593	6-Feb-13	17	1	\$42.60	Yes	\$52.55	\$9.95
594	6-Feb-13	17	2	\$42.65	Yes	\$52.55	\$9.90
595	6-Feb-13	17	3	\$42.65	Yes	\$52.55	\$9.90
596	6-Feb-13	17	4	\$42.69	Yes	\$52.55	\$9.86
597	6-Feb-13	17	5	\$38.99	Yes	\$52.55	\$13.56
598	6-Feb-13	17	6	\$37.59	Yes	\$52.55	\$14.96
599	6-Feb-13	17	7	\$32.40	Yes	\$52.55	\$20.15
600	6-Feb-13	17	8	\$33.99	Yes	\$52.55	\$18.56
601	6-Feb-13	17	9	\$39.73	Yes	\$52.55	\$12.82
602	6-Feb-13	17	10	\$41.44	Yes	\$52.55	\$11.11
603	6-Feb-13	17	11	\$38.73	Yes	\$52.55	\$13.82
604	6-Feb-13	17	12	\$36.06	Yes	\$52.55	\$16.49
605	6-Feb-13	18	1	\$28.83	Yes	\$52.55	\$23.72

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Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
606	6-Feb-13	18	2	\$30.13	Yes	\$52.55	\$22.42
607	6-Feb-13	18	3	\$30.98	Yes	\$52.55	\$21.57
608	6-Feb-13	18	4	\$33.63	Yes	\$52.55	\$18.92
609	6-Feb-13	18	5	\$34.32	Yes	\$52.55	\$18.23
610	6-Feb-13	18	6	\$39.11	Yes	\$52.55	\$13.44
611	6-Feb-13	18	7	\$47.73	Yes	\$52.55	\$4.82
612	6-Feb-13	18	8	\$45.61	Yes	\$52.55	\$6.94
613	6-Feb-13	18	9	\$43.02	Yes	\$52.55	\$9.53
614	6-Feb-13	18	10	\$52.55	Yes	\$52.55	\$0.00
615	6-Feb-13	18	11	\$42.60	Yes	\$52.55	\$9.95
616	6-Feb-13	18	12	\$52.12	Yes	\$52.55	\$0.43
617	6-Feb-13	19	1	\$37.41	Yes	\$52.55	\$15.14
618	6-Feb-13	19	2	\$45.65	Yes	\$52.55	\$6.90
619	6-Feb-13	19	3	\$51.99	Yes	\$52.55	\$0.56
620	6-Feb-13	19	4	\$42.95	Yes	\$52.55	\$9.60
621	6-Feb-13	19	5	\$45.31	Yes	\$52.55	\$7.24
622	6-Feb-13	19	6	\$45.34	Yes	\$52.55	\$7.21
623	6-Feb-13	19	7	\$41.20	Yes	\$52.55	\$11.35
624	6-Feb-13	19	8	\$42.98	Yes	\$52.55	\$9.57
625	6-Feb-13	19	9	\$102.82	Yes	\$52.55	(\$50.27)
626	6-Feb-13	19	10	\$52.12	Yes	\$52.55	\$0.43
627	6-Feb-13	19	11	\$52.12	Yes	\$52.55	\$0.43
628	6-Feb-13	19	12	\$52.12	Yes	\$52.55	\$0.43
629	6-Feb-13	20	1	\$42.53	Yes	\$52.55	\$10.02
630	6-Feb-13	20	2	\$45.77	Yes	\$52.55	\$6.78
631	6-Feb-13	20	3	\$45.77	Yes	\$52.55	\$6.78
632	6-Feb-13	20	4	\$47.81	Yes	\$52.55	\$4.74
633	6-Feb-13	20	5	\$47.60	Yes	\$52.55	\$4.95
634	6-Feb-13	20	6	\$47.38	Yes	\$52.55	\$5.17
635	6-Feb-13	20	7	\$45.72	Yes	\$52.55	\$6.83
636	6-Feb-13	20	8	\$45.47	Yes	\$52.55	\$7.08
637	6-Feb-13	20	9	\$47.68	Yes	\$52.55	\$4.87
638	6-Feb-13	20	10	\$46.30	Yes	\$52.55	\$6.25
639	6-Feb-13	20	11	\$38.55	Yes	\$52.55	\$14.00
640	6-Feb-13	20	12	\$34.56	Yes	\$52.55	\$17.99
641	6-Feb-13	21	1	\$54.15	Yes	\$52.55	(\$1.60)
642	6-Feb-13	21	2	\$52.43	Yes	\$52.55	\$0.12
643	6-Feb-13	21	3	\$51.58	Yes	\$52.55	\$0.97

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
644	6-Feb-13	21	4	\$51.26	Yes	\$52.55	\$1.29
645	6-Feb-13	21	5	\$51.74	Yes	\$52.55	\$0.81
646	6-Feb-13	21	6	\$48.42	Yes	\$52.55	\$4.13
647	6-Feb-13	21	7	\$43.08	Yes	\$52.55	\$9.47
648	6-Feb-13	21	8	\$40.94	Yes	\$52.55	\$11.61
649	6-Feb-13	21	9	\$35.95	Yes	\$52.55	\$16.60
650	6-Feb-13	21	10	\$37.25	Yes	\$52.55	\$15.30
651	6-Feb-13	21	11	\$40.95	Yes	\$52.55	\$11.60
652	6-Feb-13	21	12	\$33.28	Yes	\$52.55	\$19.27
653	6-Feb-13	22	1	\$48.58	Yes	\$51.68	\$3.10
654	6-Feb-13	22	2	\$42.93	Yes	\$51.68	\$8.75
655	6-Feb-13	22	3	\$51.25	Yes	\$51.68	\$0.43
656	6-Feb-13	22	4	\$51.60	Yes	\$51.68	\$0.08
657	6-Feb-13	22	5	\$53.30	Yes	\$51.68	(\$1.62)
658	6-Feb-13	22	6	\$51.33	Yes	\$51.68	\$0.35
659	6-Feb-13	22	7	\$46.15	Yes	\$51.68	\$5.53
660	6-Feb-13	22	8	\$43.23	Yes	\$51.68	\$8.45
661	6-Feb-13	22	9	\$43.23	Yes	\$51.68	\$8.45
662	6-Feb-13	22	10	\$33.34	Yes	\$51.68	\$18.34
663	6-Feb-13	22	11	\$32.17	Yes	\$51.68	\$19.51
664	6-Feb-13	22	12	\$29.47	Yes	\$51.68	\$22.21
665	6-Feb-13	23	1	\$47.51	Yes	\$51.68	\$4.17
666	6-Feb-13	23	2	\$51.69	Yes	\$51.68	(\$0.01)
667	6-Feb-13	23	3	\$59.75	Yes	\$51.68	(\$8.07)
668	6-Feb-13	23	4	\$48.40	Yes	\$51.68	\$3.28
669	6-Feb-13	23	5	\$47.85	Yes	\$51.68	\$3.83
670	6-Feb-13	23	6	\$45.83	Yes	\$51.68	\$5.85
671	6-Feb-13	23	7	\$42.69	Yes	\$51.68	\$8.99
672	6-Feb-13	23	8	\$42.69	Yes	\$51.68	\$8.99
673	6-Feb-13	23	9	\$36.90	Yes	\$51.68	\$14.78
674	6-Feb-13	23	10	\$32.45	Yes	\$51.68	\$19.23
675	6-Feb-13	23	11	\$32.44	Yes	\$51.68	\$19.24
676	6-Feb-13	23	12	\$31.10	Yes	\$51.68	\$20.58
677	6-Feb-13	24	1	\$42.84	Yes	\$51.68	\$8.84
678	6-Feb-13	24	2	\$42.36	Yes	\$51.68	\$9.32
679	6-Feb-13	24	3	\$44.41	Yes	\$51.68	\$7.27
680	6-Feb-13	24	4	\$42.62	Yes	\$51.68	\$9.06
681	6-Feb-13	24	5	\$44.28	Yes	\$51.68	\$7.40

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
682	6-Feb-13	24	6	\$43.25	Yes	\$51.68	\$8.43
683	6-Feb-13	24	7	\$37.27	Yes	\$51.68	\$14.41
684	6-Feb-13	24	8	\$34.66	Yes	\$51.68	\$17.02
685	6-Feb-13	24	9	\$34.66	Yes	\$51.68	\$17.02
686	6-Feb-13	24	10	\$34.03	Yes	\$51.68	\$17.65
687	6-Feb-13	24	11	\$33.47	Yes	\$51.68	\$18.21
688	6-Feb-13	24	12	\$33.47	Yes	\$51.68	\$18.21
689	7-Feb-13	5	3	\$32.21	Yes	\$52.99	\$20.78
690	7-Feb-13	5	4	\$32.39	Yes	\$52.99	\$20.60
691	7-Feb-13	5	5	\$33.03	Yes	\$52.99	\$19.96
692	7-Feb-13	5	6	\$32.63	Yes	\$52.99	\$20.36
693	7-Feb-13	5	7	\$37.32	Yes	\$52.99	\$15.67
694	7-Feb-13	5	8	\$33.98	Yes	\$52.99	\$19.01
695	7-Feb-13	5	9	\$37.32	Yes	\$52.99	\$15.67
696	7-Feb-13	5	10	\$34.08	Yes	\$52.99	\$18.91
697	7-Feb-13	5	11	\$32.99	Yes	\$52.99	\$20.00
698	7-Feb-13	5	12	\$35.98	Yes	\$52.99	\$17.01
699	7-Feb-13	6	1	\$32.47	Yes	\$52.99	\$20.52
700	7-Feb-13	6	2	\$32.47	Yes	\$52.99	\$20.52
701	7-Feb-13	6	3	\$32.77	Yes	\$52.99	\$20.22
702	7-Feb-13	6	4	\$32.89	Yes	\$52.99	\$20.10
703	7-Feb-13	6	5	\$34.26	Yes	\$52.99	\$18.73
704	7-Feb-13	6	6	\$42.84	Yes	\$52.99	\$10.15
705	7-Feb-13	6	7	\$43.85	Yes	\$52.99	\$9.14
706	7-Feb-13	6	8	\$43.32	Yes	\$52.99	\$9.67
707	7-Feb-13	6	9	\$47.49	Yes	\$52.99	\$5.50
708	7-Feb-13	6	10	\$45.78	Yes	\$52.99	\$7.21
709	7-Feb-13	6	11	\$50.42	Yes	\$52.99	\$2.57
710	7-Feb-13	6	12	\$47.53	Yes	\$52.99	\$5.46
711	7-Feb-13	7	1	\$32.43	Yes	\$52.99	\$20.56
712	7-Feb-13	7	2	\$31.51	Yes	\$52.99	\$21.48
713	7-Feb-13	7	3	\$32.33	Yes	\$52.99	\$20.66
714	7-Feb-13	7	4	\$38.84	Yes	\$52.99	\$14.15
715	7-Feb-13	7	5	\$42.94	Yes	\$52.99	\$10.05
716	7-Feb-13	7	6	\$45.65	Yes	\$52.99	\$7.34
717	7-Feb-13	7	7	\$37.57	Yes	\$52.99	\$15.42
718	7-Feb-13	7	8	\$44.17	Yes	\$52.99	\$8.82
719	7-Feb-13	7	9	\$44.85	Yes	\$52.99	\$8.14

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
720	7-Feb-13	7	10	\$46.30	Yes	\$52.99	\$6.69
721	7-Feb-13	7	11	\$40.87	Yes	\$52.99	\$12.12
722	7-Feb-13	7	12	\$47.31	Yes	\$52.99	\$5.68
723	7-Feb-13	8	1	\$45.45	Yes	\$52.99	\$7.54
724	7-Feb-13	8	2	\$44.66	Yes	\$52.99	\$8.33
725	7-Feb-13	8	3	\$45.45	Yes	\$52.99	\$7.54
726	7-Feb-13	8	4	\$45.27	Yes	\$52.99	\$7.72
727	7-Feb-13	8	5	\$49.66	Yes	\$52.99	\$3.33
728	7-Feb-13	8	6	\$50.92	Yes	\$52.99	\$2.07
729	7-Feb-13	8	7	\$50.70	Yes	\$52.99	\$2.29
730	7-Feb-13	8	8	\$50.35	Yes	\$52.99	\$2.64
731	7-Feb-13	8	9	\$49.88	Yes	\$52.99	\$3.11
732	7-Feb-13	8	10	\$44.72	Yes	\$52.99	\$8.27
733	7-Feb-13	8	11	\$45.56	Yes	\$52.99	\$7.43
734	7-Feb-13	8	12	\$43.14	Yes	\$52.99	\$9.85
735	7-Feb-13	9	1	\$43.20	Yes	\$52.99	\$9.79
736	7-Feb-13	9	2	\$44.32	Yes	\$52.99	\$8.67
737	7-Feb-13	9	3	\$43.20	Yes	\$52.99	\$9.79
738	7-Feb-13	9	4	\$47.76	Yes	\$52.99	\$5.23
739	7-Feb-13	9	5	\$47.76	Yes	\$52.99	\$5.23
740	7-Feb-13	9	6	\$47.76	Yes	\$52.99	\$5.23
741	7-Feb-13	9	7	\$45.38	Yes	\$52.99	\$7.61
742	7-Feb-13	9	8	\$43.76	Yes	\$52.99	\$9.23
743	7-Feb-13	9	9	\$43.76	Yes	\$52.99	\$9.23
744	7-Feb-13	9	10	\$43.67	Yes	\$52.99	\$9.32
745	7-Feb-13	9	11	\$43.67	Yes	\$52.99	\$9.32
746	7-Feb-13	9	12	\$41.03	Yes	\$52.99	\$11.96
747	7-Feb-13	10	1	\$43.67	Yes	\$52.99	\$9.32
748	7-Feb-13	10	2	\$50.23	Yes	\$52.99	\$2.76
749	7-Feb-13	10	3	\$58.76	Yes	\$52.99	(\$5.77)
750	7-Feb-13	10	4	\$61.57	Yes	\$52.99	(\$8.58)
751	7-Feb-13	10	5	\$77.05	Yes	\$52.99	(\$24.06)
752	7-Feb-13	10	6	\$52.99	Yes	\$52.99	\$0.00
753	7-Feb-13	10	7	\$51.33	Yes	\$52.99	\$1.66
754	7-Feb-13	10	8	\$50.14	Yes	\$52.99	\$2.85
755	7-Feb-13	10	9	\$47.93	Yes	\$52.99	\$5.06
756	7-Feb-13	10	10	\$43.40	Yes	\$52.99	\$9.59
757	7-Feb-13	10	11	\$44.82	Yes	\$52.99	\$8.17

## Department of Market Qality and Renewable Integration - California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
758	7-Feb-13	10	12	\$42.52	Yes	\$52.99	\$10.47

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## **Appendix C: Exceptional Dispatch Bid Mitigation Analysis**

In February 2013, the ISO applied the exceptional dispatch bid mitigation to the exceptional dispatches due to noncompetitive constraints. Table 10 shows the costs by instruction type in February. With exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches were \$93,127. Without the exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches would be \$100,120. The cost saving from the exceptional dispatch bid mitigation was \$6,993.

**Table 10: Bid Mitigation Analysis for February** 

Туре	Number of Resources	Costs without Bid Mitigation	Costs with Bid Mitigation	Cost Saving
NONTMOD	5	\$100,093	\$93,099	\$6,994
TMODEL7	1	\$27	\$28	(\$1)
Total	6	\$100,120	\$93,127	\$6,992

**CERTIFICATE OF SERVICE** 

I hereby certify that I have served the foregoing document upon the parties listed

on the official service lists in the above-referenced 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 at Folsom, California this 30<sup>th</sup> day of May 2013.

<u>Isl Anna Pascuzzo</u> Anna Pascuzzo