September 28, 2012

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-___**
> **June 2012 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 June 2012. The attached Chart 2 report also includes the price impact analysis for the month of June 2012 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 June 2012.

Respectfully submitted,

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Exceptional Dispatch Report

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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 15th of each month and one issued on the 30th of each month. This report provides data on the frequency, reasons and costs for Exceptional Dispatches issued in June 2012.

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 June is presented in Appendix B. This report also includes the degree of mitigation analysis for June 2012 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 June is presented in Appendix C.

The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-day-ahead 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 exceptional 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 system wide needs, and are classified into various requirements including local generation, transmission management, non-modeled 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 June 2012, the ISO issued exceptional dispatches for the following local area generation requirement: (1) 7810, San Diego area generation requirements; and (2) 7630, SCE area generation requirements. Exceptional dispatch instructions were also issued for the following transmission management requirements: (1) 6110, COI master operating procedure; (2) 6510, Southern California import transmission (SCIT) nomogram; (3) 7110, transmission facilities in Humboldt area; (4) 7230, transmission facilities in Palermo Rio-Oso area; (5) 7320, transmission facilities in Bay Area; (6) 7410, transmission facilities in Tesla/Bellota Area; (7) 7430, transmission facilities in Fresno area; (8) 7510, South of Magunden Nomogram Operations; (9) 7820, transmission facilities in San Diego and Imperial Valley area; (10) 8710, Hoodoo Wash-N.Gila 500 kV line flow mitigation; and (11) 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.[1]

The following additional reasons for exceptional dispatch instructions in June 2012 were not related to specific generation or transmission operating procedures: (1) 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; and (2) Ramp Rate, when exceptional dispatch instructions were issued to dispatch a resource above its physical minimum to a level where the resource has significantly higher ramp rate capability. For example, a resource could have a ramp rate of 2 MW/min at its physical minimum of 100 MW, but a significantly higher ramp rate of 10 MW/min at 250 MW. The operators could issue an exceptional dispatch for this resource to be dispatched to 250 MW, so that the resource could respond to the anticipated steep load ramp or to a potential contingency. There were a few other reasons used to explain exceptional dispatch instructions in June, which are self explanatory.

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[1] 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

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order.[2] This table contains all the information published in Table 1 of the first report for June. 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:

- 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.[3]
- The CC6470 column shows the total imbalance energy costs for the classification. This cost contains the portion of exceptional dispatch

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[2] 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.

[3] For further details regarding the Bid Cost Recovery process please refer to section 11.8 of the ISO tariff.

- 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 a portion of the real-time instructed imbalance energy charge code (6470). [4]
- The CC6482 column shows the real-time excess cost for the classification.[5]
- The CC6488 column shows the real-time exceptional dispatch uplift settlement for the classification.[6] The CC6620 shows the bid cost recovery 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. There was no designation of capacity under Capacity Procurement Mechanism (CPM) in June 2012.

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[4] For further details please refer to the BPM configuration Guide: Real-Time Instructed Imbalance Energy Settlement published on the ISO's website.

[5] For further details please refer to the BPM configuration Guide: Real Time Excess Cost for Instructed Energy Settlement published on the ISO's website.

[6] For further details please refer to the BPM configuration Guide: Real Time Exceptional Dispatch Uplift Settlement published on the ISO's website.

Table 1: Exceptional Dispatches in June 2012

California Independent System Operator Corporation
Exceptional Dispatch Report
September 30, 2012

Chart 2: Table of Exceptional Dispatches for Period 01/June/2012 - 30/June/2012

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
1	DA	Unit Testing	SCE	Big Creek-Ventura	20-Jun-12	50	Yes	N/A	13	11:00	23:00	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$226,551
2	RT	6110	PG&E	Sierra	17-Jun-12	20-80	No	DEC	7	15:15	21:59	-69.78	$0	$0	($10,616)	-86.55	$0	$20,099	$0	($16,016)	$0
3	RT	6110	PG&E	Sierra	17-Jun-12	0	No	INC	1	15:40	15:59	0.53	$0	$0	($532)	-0.73	$0	$63	$0	($28)	$0
4	RT	6510	SCE	Big Creek-Ventura	1-Jun-12	20-40	Yes	INC	17	7:00	23:59	1791.86	$46,214	$1,727	($77,345)	0.00	$0	$0	$0	$0	$0
5	RT	6510	SCE	LA Basin	1-Jun-12	25-295	Yes	INC	24	0:00	23:59	5684.84	$219,335	$0	($206,628)	0.00	$0	$0	$0	$0	$0
6	RT	6510	SCE	LA Basin	22-Jun-12	160	No	INC	13	8:00	20:59	2598.96	$65,318	$15,694	($54,077)	0.00	$0	$0	$0	$0	$0
7	RT	6510	SCE	LA Basin	27-Jun-12	45	Yes	INC	16	8:00	23:59	1265.08	$76,814	$14,129	($53,195)	386.44	($14,567)	$0	$0	$0	$0
8	RT	6510	SDG&E	San Diego	27-Jun-12	20	Yes	INC	24	0:00	23:59	507.85	$35,684	$0	($16,099)	0.00	$0	$0	$0	$0	$0
9	RT	7110	PG&E	Humboldt	1-Jun-12	45	No	INC	1	22:07	22:56	10.16	$302	$0	($213)	5.94	($129)	$0	$0	($52)	$0
10	RT	7110	PG&E	Humboldt	4-Jun-12	29-58	No	INC	9	8:20	16:59	227.59	$6,850	$0	($4,365)	53.07	($1,033)	$0	$0	($491)	$0
11	RT	7110	PG&E	Humboldt	20-Jun-12	32	No	INC	8	13:58	20:09	-116.31	$141	$0	$2,468	-75.13	$0	$61	$0	($61)	$0
12	RT	7230	PG&E	Bay Area	8-Jun-12	20	Yes	INC	10	10:25	19:59	199.75	$8,960	$269	($4,259)	0.00	$0	$0	$0	$0	$0
13	RT	7230	PG&E	N/A	16-Jun-12	40	No	DEC	5	16:32	20:59	-207.03	$0	$0	$269,993	-160.61	$0	$261,841	$0	($259,875)	$0
14	RT	7230	PG&E	N/A	17-Jun-12	40	No	DEC	1	14:00	14:59	-39.19	$0	$0	$25,733	-39.19	$0	$25,733	$0	($17,282)	$0
15	RT	7230	PG&E	Sierra	1-Jun-12	40	Yes	INC	7	17:00	23:59	135.58	$2,080	$0	($1,520)	0.00	$0	$0	$0	$0	$0
16	RT	7230	PG&E	Sierra	7-Jun-12	26	Yes	DEC	2	11:45	12:59	-20.58	$0	$0	$150	-19.50	$0	$131	$0	$0	$0
17	RT	7230	PG&E	Sierra	13-Jun-12	24-36	No	DEC	6	15:18	20:59	-228.07	$0	$0	$84,266	-220.93	$0	$82,857	$0	($78,956)	$0
18	RT	7230	PG&E	Sierra	14-Jun-12	16-27	No	DEC	5	16:26	20:59	-68.00	$0	$0	$12,100	-70.84	$0	$12,166	$0	($8,019)	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
19	RT	7230	PG&E	Sierra	16-Jun-12	8-13	No	INC	4	16:18	19:59	49.97	$0	$0	($34,460)	51.14	($34,255)	$0	$0	$0	$0
20	RT	7230	PG&E	Sierra	17-Jun-12	100-200	No	DEC	2	14:05	15:59	-360.76	$0	$0	$145,539	-315.22	$0	$123,617	$0	($112,648)	$0
21	RT	7230	SDG&E	N/A	13-Jun-12	525	No	INC	4	17:00	20:59	-150.60	$0	$0	$2,148	-155.42	$0	$2,252	$0	$0	$0
22	RT	7320	PG&E	Bay Area	1-Jun-12	20	Yes	INC	2	21:55	22:47	20.00	$160	$45	($477)	0.00	$0	$0	$0	$0	$0
23	RT	7320	PG&E	Bay Area	2-Jun-12	20-46	Yes	INC	9	14:05	22:59	359.27	$8,640	$285	($6,643)	167.10	($3,202)	$0	$0	($1,615)	$0
24	RT	7320	PG&E	Bay Area	6-Jun-12	20	No	INC	3	20:58	22:14	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
25	RT	7320	PG&E	Bay Area	8-Jun-12	20	Yes	INC	12	10:10	21:59	27.33	$480	$0	($427)	0.00	$0	$0	$0	$0	$0
26	RT	7320	PG&E	Bay Area	10-Jun-12	20	Yes	INC	8	15:50	22:59	312.80	$6,080	$465	($51,299)	0.05	($1)	$0	$0	$0	$0
27	RT	7320	PG&E	Sierra	1-Jun-12	20	Yes	INC	6	18:50	23:17	86.67	$0	$0	($2,176)	0.00	$0	$0	$0	$0	$0
28	RT	7410	PG&E	Bay Area	8-Jun-12	20	Yes	INC	3	21:05	23:29	50.00	$1,920	$0	($707)	0.00	$0	$0	$0	$0	$0
29	RT	7410	PG&E	Stockton	3-Jun-12	4	No	DEC	8	14:55	21:59	-21.77	$0	$0	$322	-23.07	$0	$340	$0	($116)	$0
30	RT	7410	PG&E	Stockton	3-Jun-12	37	No	INC	8	14:55	21:59	2.80	$0	$0	($33)	0.00	$0	$0	$0	$0	$0
31	RT	7410	PG&E	Stockton	17-Jun-12	46	No	INC	7	15:00	21:59	119.53	$0	$0	($11,807)	115.40	($12,203)	$0	$0	$0	$0
32	RT	7430	PG&E	Fresno	1-Jun-12	5	No	DEC	13	11:25	23:59	-188.25	$0	$0	$25,793	-69.58	$0	$13,132	$0	($12,769)	$0
33	RT	7430	PG&E	Fresno	3-Jun-12	0	No	INC	2	16:10	17:09	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
34	RT	7430	PG&E	Fresno	6-Jun-12	20	Yes	INC	18	6:50	23:59	-45.81	$0	$0	$1,062	0.00	$0	$0	$0	$0	$0
35	RT	7430	PG&E	Fresno	8-Jun-12	48-94	Yes	INC	6	16:25	21:59	454.62	$6,506	$931	($8,435)	247.15	($4,636)	$0	$0	($16,804)	$0
36	RT	7430	PG&E	Fresno	9-Jun-12	5	No	DEC	7	14:50	20:59	-15.16	$0	$0	$225	-15.21	$0	$226	$0	($190)	$0
37	RT	7430	PG&E	Fresno	9-Jun-12	15	No	INC	7	14:50	20:59	-19.00	$0	$0	$1,157	0.00	$0	$0	$0	$0	$0
38	RT	7430	PG&E	Fresno	15-Jun-12	13-56	Yes	INC	3	19:10	21:59	106.13	$0	$0	($2,573)	81.51	($1,739)	$0	$0	($1,108)	$0
39	RT	7430	PG&E	Fresno	16-Jun-12	37-45	Yes	INC	8	14:30	21:59	283.25	$0	$0	($51,743)	58.83	($1,833)	$0	$0	($2,701)	$0
40	RT	7430	PG&E	Fresno	17-Jun-12	3-49	Yes	DEC	7	15:25	21:59	-17.91	$0	$0	$522	0.00	$0	$0	$0	$0	$0
41	RT	7430	PG&E	Fresno	17-Jun-12	66	Yes	INC	7	15:45	21:59	343.86	$0	$0	($28,459)	81.03	($1,715)	$0	$0	($1,034)	$0
42	RT	7430	PG&E	Fresno	18-Jun-12	70	Yes	INC	15	6:30	20:59	518.56	$0	$0	($10,156)	458.63	($9,142)	$0	$0	($9,010)	$0
43	RT	7430	PG&E	Fresno	19-Jun-12	15	Yes	INC	2	22:30	23:59	10.81	$0	$0	($215)	0.00	$0	$0	$0	$0	$0
44	RT	7430	PG&E	Fresno	20-Jun-12	65	Yes	INC	1	0:00	0:59	53.72	$0	$0	($1,427)	0.00	$0	$0	$0	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
45	RT	7430	PG&E	Fresno	21-Jun-12	10	No	DEC	2	15:40	16:59	-1.92	$0	$0	$37	0.00	$0	$0	$0	$0	$0
46	RT	7430	PG&E	Fresno	21-Jun-12	77	Yes	INC	21	0:35	20:59	155.07	$0	$0	($3,423)	134.47	($2,824)	$0	$0	($1,202)	$0
47	RT	7430	PG&E	Fresno	24-Jun-12	65	Yes	INC	2	1:52	2:12	11.01	$0	$0	($180)	0.00	$0	$0	$0	$0	$0
48	RT	7510	SCE	Big Creek-Ventura	25-Jun-12	105-136	No	DEC	6	13:07	18:59	-580.90	$0	$0	$18,721	-540.29	$0	$18,068	$0	($17,321)	$0
49	RT	7510	SCE	Big Creek-Ventura	26-Jun-12	80-131	No	DEC	5	14:40	18:59	-465.16	$0	$0	$9,259	-372.74	$0	$7,520	$0	($6,798)	$0
50	RT	7630	SCE	Big Creek-Ventura	12-Jun-12	20-40	Yes	INC	24	0:00	23:59	799.84	$70,835	$3,862	($15,742)	0.00	$0	$0	$0	$0	$0
51	RT	7630	SDG&E	N/A	12-Jun-12	30	No	DEC	2	16:50	17:59	-11.53	$0	$0	$292	-11.53	$0	$292	$0	($51)	$0
52	RT	7810	SDG&E	San Diego	1-Jun-12	20	Yes	INC	24	0:00	23:59	1226.20	$36,565	$0	($47,239)	0.00	$0	$0	$0	$0	$0
53	RT	7810	SDG&E	San Diego	7-Jun-12	20	Yes	INC	3	21:00	23:59	85.63	$4,571	$0	($1,689)	0.00	$0	$0	$0	$0	$0
54	RT	7810	SDG&E	San Diego	8-Jun-12	20	Yes	INC	24	0:00	23:59	667.94	$36,565	$0	($47,214)	0.00	$0	$0	$0	$0	$0
55	RT	7810	SDG&E	San Diego	14-Jun-12	68	No	INC	8	0:42	7:59	357.43	$31,725	$0	($3,144)	16.01	($382)	$0	$0	($99)	$0
56	RT	7820	SDG&E	N/A	1-Jun-12	20-173	Yes	DEC	7	13:40	19:59	-296.56	$0	$0	$3,959	-264.84	$0	$3,384	$0	$0	$0
57	RT	7820	SDG&E	N/A	1-Jun-12	270-450	No	INC	13	10:00	22:59	-4895.43	$909	$0	$162,370	-1471.04	$0	$17,963	$0	$0	$0
58	RT	7820	SDG&E	N/A	3-Jun-12	575	No	INC	8	14:40	21:59	-328.14	$0	$0	$4,705	-164.77	$0	$2,437	$0	$0	$0
59	RT	7820	SDG&E	N/A	12-Jun-12	113-121	Yes	DEC	4	13:30	16:59	-394.55	$0	$0	$10,361	-392.49	$0	$10,310	$0	($4,830)	$0
60	RT	7820	SDG&E	N/A	12-Jun-12	400-550	No	INC	8	13:30	20:59	-1186.61	$0	$0	$31,476	-1105.51	$0	$29,271	$0	($13,332)	$0
61	RT	7820	SDG&E	N/A	13-Jun-12	525	No	INC	2	16:18	17:35	-126.18	$0	$0	$1,830	-115.79	$0	$1,678	$0	$0	$0
62	RT	7820	SDG&E	N/A	16-Jun-12	5-81	Yes	DEC	5	15:55	19:59	-143.95	$0	$0	$34,788	-136.75	$0	$34,508	$0	($29,686)	$0
63	RT	7820	SDG&E	N/A	16-Jun-12	7- 8	Yes	INC	2	18:10	19:59	-0.48	$0	$0	$17	-0.43	$0	$15	$0	($12)	$0
64	RT	8710	Intertie	N/A	29-Jun-12	10	No	DEC	2	13:10	14:59	-11.43	$0	$0	($2,179)	-11.14	$0	($1,978)	$0	$0	$0
65	RT	8710	SCE	LA Basin	28-Jun-12	235	No	INC	4	14:50	17:59	524.03	$0	$0	($16,634)	439.54	($13,913)	$0	($412,887)	$0	$0	$0
66	RT	8710	SDG&E	San Diego	28-Jun-12	80	Yes	INC	8	16:35	23:59	261.07	$11,399	$0	($18,906)	43.23	($1,610)	$0	($233)	$0	$0	$0
67	RT	8710	SDG&E	San Diego	29-Jun-12	20-	Yes	INC	24	0:00	23:59	1439.5	$94,9	$8,1	($80,32	1.45	($49)	$0	($5)	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
						40						2	18	97	6)						
68	RT	Bridging Schedules	PG&E	Bay Area	11-Jun-12	45	Yes	INC	4	20:00	23:59	183.31	$9,216	$0	($3,781)	0.00	$0	$0	$0	$0	$0
69	RT	Bridging Schedules	PG&E	Fresno	16-Jun-12	0	Yes	INC	2	0:24	1:29	34.86	$1,215	$600	($1,027)	0.00	$0	$0	$0	$0	$0
70	RT	Bridging Schedules	PG&E	N/A	4-Jun-12	185	No	INC	1	23:00	23:59	169.91	$0	$0	($2,699)	0.00	$0	$0	$0	$0	$0
71	RT	Bridging Schedules	PG&E	N/A	5-Jun-12	185	No	INC	1	1:00	1:59	236.55	$6,689	$0	$3,421	0.00	$0	$0	$0	$0	$0
72	RT	Bridging Schedules	PG&E	N/A	14-Jun-12	52	No	INC	2	22:00	23:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
73	RT	Bridging Schedules	PG&E	N/A	17-Jun-12	52	No	INC	9	15:55	23:59	182.05	$5,904	$0	($3,134)	0.00	$0	$0	$0	$0	$0
74	RT	Bridging Schedules	SCE	Big Creek-Ventura	17-Jun-12	20	Yes	INC	5	19:00	23:59	149.52	$7,388	$2,704	($2,812)	0.00	$0	$0	$0	$0	$0
75	RT	Bridging Schedules	SCE	LA Basin	11-Jun-12	40	Yes	INC	1	23:00	23:59	25.48	$0	$0	($417)	0.18	($6)	$0	$0	$0	$0
76	RT	Bridging Schedules	SCE	N/A	4-Jun-12	162-335	No	DEC	5	3:45	7:59	30.49	$0	$0	($2,647)	0.00	$0	$0	$0	$0	$0
77	RT	Bridging Schedules	SCE	N/A	4-Jun-12	0	No	INC	5	3:45	7:59	30.85	$0	$0	($1,082)	0.00	$0	$0	$0	$0	$0
78	RT	Bridging Schedules	SDG&E	San Diego	11-Jun-12	20	No	INC	3	21:00	23:59	56.13	$0	$0	($1,047)	0.29	($11)	$0	$0	$0	$0
79	RT	Bridging Schedules	SDG&E	San Diego	18-Jun-12	20-40	Yes	INC	24	0:00	23:59	1360.34	$75,414	$0	($27,678)	71.11	($3,922)	$0	($46)	($355)	$0
80	RT	COI Mitigation	SDG&E	San Diego	16-Jun-12	20-68	No	INC	13	2:00	14:59	85.60	$16,647	$0	($1,811)	0.00	$0	$0	$0	$0	$0
81	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	26-Jun-12	350-445	No	INC	6	15:15	20:59	-581.17	$0	$0	$9,844	-218.66	$0	$4,235	$0	$0	$0
82	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	27-Jun-12	63-208	No	DEC	6	16:00	21:59	-1105.58	$0	$0	$14,787	-1036.63	$0	$12,669	$0	$0	$0
83	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	28-Jun-12	75-90	No	DEC	4	16:25	19:59	-333.83	$0	$0	$6,589	-326.54	$0	$6,439	$0	$0	$0
84	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	28-Jun-12	420	No	INC	1	16:10	16:25	-21.90	$0	$0	$432	-15.65	$0	$309	$0	$0	$0
85	RT	Contingency	PG&E	Bay Area	15-Jun-12	25	No	INC	1	23:14	23:58	15.83	$0	$0	($5,728)	0.25	($31)	$0	$0	$0	$0
86	RT	Contingency	PG&E	Bay Area	16-Jun-12	25	No	INC	1	0:00	0:25	12.46	$0	$0	($351)	0.25	($7)	$0	$0	$0	$0
87	RT	Contingency	PG&E	Fresno	14-Jun-12	83	No	INC	1	20:12	20:59	69.17	$893	$143	($2,853)	0.00	$0	$0	$0	$0	$0
88	RT	Contingency	PG&E	Fresno	15-Jun-12	326-960	Yes	INC	1	23:08	23:59	448.16	$3,232	$1,586	($84,119)	75.78	($8,745)	$0	($433)	$0	$0
89	RT	Contingency	PG&E	Fresno	16-Jun-12	428	Yes	INC	23	0:00	22:29	952.56	$27,171	$3,600	($57,356)	84.41	($2,614)	$0	($942)	$0	$0
90	RT	Contingency	PG&E	Fresno	28-Jun-12	166	Yes	INC	3	8:44	10:04	505.68	$12,8	$1,5	($16,47	0.00	$0	$0	$0	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
													94	00	5)						
91	RT	Contingency	PG&E	Stockton	15-Jun-12	25	No	INC	1	23:14	23:58	15.70	$0	$0	($5,818)	1.08	($136)	$0	$0	$0	$0
92	RT	Contingency	PG&E	Stockton	16-Jun-12	25	No	INC	1	0:00	0:09	4.13	$0	$0	($116)	0.43	($12)	$0	$0	$0	$0
93	RT	Contingency	SCE	Big Creek-Ventura	15-Jun-12	183	No	INC	1	23:12	23:59	158.05	$1,972	$0	($48,090)	69.80	($6,643)	$0	($1,160)	$0	$0
94	RT	Contingency	SCE	Big Creek-Ventura	16-Jun-12	184	Yes	INC	3	0:00	2:14	193.46	$4,024	$772	($5,336)	118.45	($3,212)	$0	($2,653)	$0	$0
95	RT	Contingency	SCE	LA Basin	15-Jun-12	136-155	Yes	INC	1	23:12	23:59	101.82	$2,605	$1,092	($36,173)	0.00	$0	$0	$0	$0	$0
96	RT	Contingency	SCE	LA Basin	16-Jun-12	157	Yes	INC	3	0:00	2:44	119.22	$4,334	$1,823	($3,252)	0.00	$0	$0	$0	$0	$0
97	RT	Contingency	SDG&E	N/A	16-Jun-12	5	No	DEC	1	19:10	19:14	-0.42	$0	$0	$61	-0.36	$0	$54	$0	($21)	$0
98	RT	Contingency	SDG&E	San Diego	15-Jun-12	62-69	No	INC	1	23:30	23:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
99	RT	Contingency	SDG&E	San Diego	16-Jun-12	69	No	INC	1	0:00	0:04	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
100	RT	Contingency	SDG&E	San Diego	27-Jun-12	420-470	No	INC	6	10:55	15:59	-421.83	$0	$0	$12,734	-420.77	$0	$12,706	$0	($3,555)	$0
101	RT	Dispatch Modification	PG&E	Fresno	8-Jun-12	317	No	DEC	2	0:45	1:59	-409.46	$0	$0	$2,263	0.00	$0	$0	$0	$0	$0
102	RT	Dispatch Modification	SCE	LA Basin	18-Jun-12	0	Yes	INC	5	19:15	23:59	40.30	$2,460	$1,513	($1,543)	15.73	($897)	$0	$0	$0	$0
103	RT	Dispatchability	SCE	Big Creek-Ventura	16-Jun-12	100	Yes	INC	8	14:50	21:59	1048.91	$16,532	$3,603	($222,475)	152.56	($7,910)	$0	($2,520)	$0	$0
104	RT	Fire	SDG&E	N/A	20-Jun-12	350	No	INC	1	15:00	15:59	-74.84	$0	$0	$1,194	-74.84	$0	$1,194	$0	$0	$0
105	RT	Generation Outage	PG&E	Bay Area	15-Jun-12	45	Yes	INC	13	11:00	23:59	705.91	$29,952	$0	($45,241)	0.00	$0	$0	$0	$0	$0
106	RT	Generation Outage	PG&E	Bay Area	17-Jun-12	45	Yes	INC	24	0:00	23:59	1339.65	$55,296	$0	($36,581)	2.07	($39)	$0	($27)	$0	$0
107	RT	Generation Outage	PG&E	N/A	19-Jun-12	52	No	INC	2	22:00	23:59	201.33	$6,786	$0	($4,212)	0.01	($0)	$0	($0)	$0	$0
108	RT	Generation Outage	PG&E	N/A	20-Jun-12	52	No	INC	24	0:00	23:59	6703.69	$193,679	$0	($181,582)	0.13	($3)	$0	($0)	$0	$0
109	RT	Generation Outage	SCE	LA Basin	20-Jun-12	25	Yes	INC	14	10:00	23:59	351.01	$38,989	$0	($9,135)	0.00	$0	$0	$0	$0	$0
110	RT	Generation Outage	SDG&E	San Diego	15-Jun-12	20	No	INC	22	2:00	23:59	1035.79	$75,826	$0	($25,857)	1.35	($48)	$0	$0	$0	$0
111	RT	Generation Outage	SDG&E	San Diego	19-Jun-12	20	No	INC	8	0:43	7:59	238.53	$19,550	$0	($4,177)	0.52	($9)	$0	($7)	$0	$0
112	RT	Load Forecast Uncertainty	PG&E	Bay Area	12-Jun-12	45	Yes	INC	24	0:00	23:59	1113.97	$55,296	$0	($18,638)	0.00	$0	$0	$0	$0	$0
113	RT	Load Forecast Uncertainty	PG&E	Bay Area	18-Jun-12	45	Yes	INC	24	0:00	23:59	1082.6	$55,2	$0	($11,35	2.40	($25)	$0	($51)	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
												1	96		3)						
114	RT	Load Forecast Uncertainty	PG&E	N/A	18-Jun-12	52	No	INC	24	0:00	23:59	1397.16	$23,157	$0	$6,939	0.00	$0	$0	$0	$0	$0
115	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	11-Jun-12	40	Yes	INC	13	11:00	23:59	512.62	$46,450	$13,355	($20,888)	0.00	$0	$0	$0	$0	$0
116	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	13-Jun-12	40	Yes	INC	12	10:00	21:59	506.78	$43,729	$0	($18,793)	0.00	$0	$0	$0	$0	$0
117	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	14-Jun-12	20	No	INC	4	14:40	17:59	82.19	$5,541	$0	($2,337)	0.00	$0	$0	$0	$0	$0
118	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	16-Jun-12	20-40	Yes	INC	11	13:00	23:59	144.77	$9,135	$3,326	($11,651)	5.70	($165)	$0	($98)	$0	$0
119	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	18-Jun-12	20	Yes	INC	24	0:00	23:59	482.44	$44,329	$0	($5,411)	2.40	($27)	$0	($70)	$0	$0
120	RT	Load Forecast Uncertainty	SCE	LA Basin	9-Jun-12	160	No	INC	24	0:00	23:59	7536.20	$152,695	$0	($222,801)	0.00	$0	$0	$0	$0	$0
121	RT	Load Forecast Uncertainty	SCE	LA Basin	11-Jun-12	20-70	Yes	INC	20	4:00	23:59	2507.11	$136,412	$28,578	($90,070)	642.94	($27,685)	$0	$0	$0	$0
122	RT	Load Forecast Uncertainty	SCE	LA Basin	12-Jun-12	25-50	Yes	INC	24	0:00	23:59	1690.38	$111,121	$5,930	($45,754)	623.23	($23,029)	$0	$0	$0	$0
123	RT	Load Forecast Uncertainty	SCE	LA Basin	13-Jun-12	20-40	Yes	INC	24	0:00	23:59	3247.98	$98,015	$0	($243,920)	1652.74	($67,441)	$0	$0	$0	$0
124	RT	Load Forecast Uncertainty	SCE	LA Basin	18-Jun-12	25-50	Yes	INC	19	5:00	23:59	1153.94	$76,531	$28,226	($39,597)	463.50	($27,149)	$0	$0	$0	$0
125	RT	Load Forecast Uncertainty	SCE	LA Basin	21-Jun-12	25	Yes	INC	24	0:00	23:59	600.00	$66,838	$0	($11,672)	0.00	$0	$0	$0	$0	$0
126	RT	Load Forecast Uncertainty	SCE	N/A	12-Jun-12	150-190	Yes	DEC	14	10:00	23:59	100.55	$0	$0	($2,833)	0.00	$0	$0	$0	$0	$0
127	RT	Load Forecast Uncertainty	SCE	N/A	12-Jun-12	40	Yes	INC	14	10:00	23:59	496.69	$19,272	$0	($10,897)	0.00	$0	$0	$0	$0	$0
128	RT	Load Forecast Uncertainty	SDG&E	San Diego	17-Jun-12	20-40	Yes	INC	24	0:00	23:59	582.14	$36,565	$0	($12,135)	2.55	($50)	$0	($25)	$0	$0
129	RT	Load Forecast Uncertainty	SDG&E	San Diego	20-Jun-12	20	No	INC	24	0:00	23:59	1678.75	$87,686	$0	($55,675)	1.06	($34)	$0	($1)	$0	$0
130	RT	MSG Plant Startup	PG&E	N/A	8-Jun-12	50	No	INC	1	20:15	20:59	31.19	$1,318	$0	($587)	1.38	($26)	$0	$0	($3)	$0
131	RT	MSG Plant Startup	SCE	LA Basin	10-Jun-12	160	No	INC	3	14:10	16:59	-776.44	$13,054	$0	$17,476	0.00	$0	$0	$0	$0	$0
132	RT	Over Generation	PG&E	Fresno	18-Jun-12	1	No	DEC	3	3:11	5:29	110.45	$0	$0	($95)	-1.06	$0	($33)	$0	$0	$0
133	RT	Over Generation	PG&E	Fresno	18-Jun-12	0	No	INC	1	3:13	3:59	52.83	$0	$0	$1,719	0.00	$0	$0	$0	$0	$0
134	RT	Over Generation	PG&E	N/A	18-Jun-12	50	No	DEC	3	3:11	5:29	-110.83	$0	$0	($3,407)	-115.83	$0	($3,409)	$0	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC66620
135	RT	Path 15	PG&E	Fresno	1-Jun-12	154	Yes	DEC	1	16:18	16:59	-96.75	$0	$0	$4,206	-92.84	$0	$2,795	$0	$0	$0
136	RT	Pump Management	PG&E	Fresno	23-Jun-12	305	No	DEC	1	7:25	7:59	-196.98	$0	$0	$4,283	0.00	$0	$0	$0	$0	$0
137	RT	Ramp Rate	SCE	LA Basin	1-Jun-12	220	No	INC	3	14:53	16:59	420.54	$0	$0	($26,089)	247.28	($14,009)	$0	$0	$0	$0
138	RT	Ramp Rate	SCE	LA Basin	3-Jun-12	264-360	No	INC	4	18:10	21:29	656.76	$0	$0	($18,246)	588.90	($17,097)	$0	$0	$0	$0
139	RT	Ramp Rate	SCE	LA Basin	11-Jun-12	142	Yes	INC	7	15:00	21:59	1003.13	$40,160	$12,998	($36,277)	642.94	($27,685)	$0	$0	$0	$0
140	RT	Ramp Rate	SCE	LA Basin	12-Jun-12	142	Yes	INC	7	15:00	21:59	1005.45	$40,160	$2,767	($33,892)	623.23	($23,029)	$0	$0	$0	$0
141	RT	Ramp Rate	SCE	LA Basin	13-Jun-12	190	Yes	INC	11	10:00	20:59	1911.23	$24,816	$0	($76,579)	1652.74	($67,441)	$0	$0	$0	$0
142	RT	Ramp Rate	SCE	LA Basin	14-Jun-12	170	No	INC	2	19:05	20:29	254.25	$0	$0	($8,206)	240.08	($7,756)	$0	$0	$0	$0
143	RT	Ramp Rate	SCE	LA Basin	18-Jun-12	71-142	Yes	INC	6	15:05	20:59	739.59	$31,471	$13,404	($33,033)	463.50	($27,149)	$0	$0	$0	$0
144	RT	Ramp Rate	SCE	LA Basin	19-Jun-12	170	No	INC	3	12:35	14:59	206.25	$0	$0	($7,198)	205.78	($7,192)	$0	$0	$0	$0
145	RT	Ramp Rate	SCE	LA Basin	27-Jun-12	70-240	Yes	INC	10	12:50	21:59	1465.13	$25,529	$8,095	($75,108)	985.44	($43,363)	$0	$0	$0	$0
146	RT	Ramp Rate	SDG&E	San Diego	8-Jun-12	68	No	INC	16	6:15	21:29	-852.80	$9,290	$0	$64,352	0.05	($2)	$0	$0	$0	$0
147	RT	Ramp Rate	SDG&E	San Diego	10-Jun-12	68	No	INC	15	7:50	21:59	1189.23	$54,355	$0	($113,770)	0.06	($2)	$0	$0	$0	$0
148	RT	Ramp Rate	SDG&E	San Diego	13-Jun-12	68	No	INC	12	10:05	21:59	786.61	$47,671	$0	($33,977)	1.00	($20)	$0	$0	$0	$0
149	RT	Ramp Rate	SDG&E	San Diego	14-Jun-12	68	No	INC	9	12:00	20:59	471.77	$37,272	$0	($12,906)	0.00	$0	$0	$0	$0	$0
150	RT	Ramp Rate	SDG&E	San Diego	15-Jun-12	63	No	INC	14	7:05	20:59	877.97	$60,681	$0	($18,630)	1.35	($48)	$0	$0	$0	$0
151	RT	Ramp Rate	SDG&E	San Diego	18-Jun-12	68	No	INC	9	12:10	20:59	672.07	$39,906	$0	($22,966)	68.40	($3,878)	$0	$0	($355)	$0
152	RT	Ramp Rate	SDG&E	San Diego	19-Jun-12	68	No	INC	17	7:10	23:59	1462.30	$84,166	$0	($26,600)	219.30	($3,048)	$0	$0	($3,552)	$0
153	RT	Ramp Rate	SDG&E	San Diego	20-Jun-12	68	No	INC	14	8:35	21:59	1396.57	$63,353	$0	($49,624)	1.04	($34)	$0	$0	$0	$0
154	RT	Ramp Rate	SDG&E	San Diego	29-Jun-12	68	No	INC	11	10:20	20:59	780.09	$45,632	$3,020	($55,347)	0.95	($40)	$0	$0	$0	$0
155	RT	Revenue Meter Testing	PG&E	Bay Area	7-Jun-12	761	No	INC	3	11:00	13:59	-108.92	$0	$0	$2,173	-50.00	$0	$1,009	$0	$0	$0
156	RT	Risk Predictor	PG&E	N/A	25-Jun-12	327	Yes	INC	12	12:00	23:59	4824.25	$81,811	$12,105	($75,839)	11.31	($229)	$0	($54)	$0	$0
157	RT	SP26 Capacity	SDG&E	San Diego	6-Jun-12	20	No	INC	10	14:43	23:59	261.61	$18,9	$13,	($3,179)	0.00	$0	$0	$0	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
													67	431							
158	RT	SP26 Capacity	SDG&E	San Diego	7-Jun-12	20	No	INC	24	0:00	23:59	681.54	$57,317	$0	($22,216)	0.00	$0	$0	$0	$0	$0
159	RT	SP26 Capacity	SDG&E	San Diego	25-Jun-12	20	Yes	INC	16	8:00	23:59	365.91	$24,376	$0	($20,907)	0.00	$0	$0	$0	$0	$0
160	RT	Software Issue	PG&E	Fresno	8-Jun-12	317	No	DEC	1	1:05	1:59	-303.79	$0	$0	$4,289	0.00	$0	$0	$0	$0	$0
161	RT	Software Limitation	Intertie	CAISO Import	5-Jun-12	0	No	INC	1	23:30	23:59	35.61	$0	$0	($306)	0.00	$0	$0	$0	$0	$0
162	RT	Software Limitation	Intertie	N/A	18-Jun-12	300-333	No	INC	1	0:37	0:46	49.88	$0	$0	($604)	23.40	($555)	$0	$0	$0	$0
163	RT	Software Limitation	PG&E	Bay Area	3-Jun-12	45-140	No	DEC	15	9:00	23:59	-1752.29	$0	$0	$22,579	-1221.04	$0	$15,439	$0	$0	$0
164	RT	Software Limitation	PG&E	Bay Area	6-Jun-12	380	No	INC	2	12:05	13:59	-1256.04	$0	$0	$19,147	0.00	$0	$0	$0	$0	$0
165	RT	Software Limitation	PG&E	Bay Area	16-Jun-12	180	Yes	DEC	6	1:00	6:59	-75.18	$0	$0	($636)	-97.50	$0	$0	$0	$0	$0
166	RT	Software Limitation	PG&E	Bay Area	16-Jun-12	45	Yes	INC	24	0:00	23:59	1950.62	$57,984	$0	($189,597)	0.00	$0	$0	$0	$0	$0
167	RT	Software Limitation	PG&E	Bay Area	18-Jun-12	657	No	INC	1	0:43	0:48	-27.82	$0	$0	($7)	0.00	$0	$0	$0	$0	$0
168	RT	Software Limitation	PG&E	Bay Area	28-Jun-12	0	Yes	INC	2	12:10	13:09	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
169	RT	Software Limitation	PG&E	Fresno	2-Jun-12	317	No	INC	3	0:20	2:14	66.04	$0	$0	($1,486)	0.00	$0	$0	$0	$0	$0
170	RT	Software Limitation	PG&E	Fresno	3-Jun-12	0	No	INC	2	13:50	14:49	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
171	RT	Software Limitation	PG&E	Fresno	11-Jun-12	0	No	INC	16	8:00	23:39	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
172	RT	Software Limitation	PG&E	Fresno	12-Jun-12	0	No	INC	2	9:20	10:34	2.13	$0	$0	($44)	0.00	$0	$0	$0	$0	$0
173	RT	Software Limitation	PG&E	Fresno	15-Jun-12	0	Yes	INC	2	22:25	23:24	92.05	$2,846	$231	($16,588)	14.47	($510)	$0	($27)	$0	$0
174	RT	Software Limitation	PG&E	Fresno	20-Jun-12	317	Yes	DEC	2	0:00	1:59	-621.25	$0	$0	$17,864	0.00	$0	$0	$0	$0	$0
175	RT	Software Limitation	PG&E	Fresno	23-Jun-12	305	No	DEC	2	0:50	1:59	-406.67	$0	$0	$8,889	0.00	$0	$0	$0	$0	$0
176	RT	Software Limitation	PG&E	Fresno	24-Jun-12	305	No	DEC	2	0:35	1:29	-305.00	$0	$0	$6,814	0.00	$0	$0	$0	$0	$0
177	RT	Software Limitation	PG&E	Fresno	29-Jun-12	305	No	DEC	1	1:15	1:59	-230.02	$0	$0	$1,423	0.00	$0	$0	$0	$0	$0
178	RT	Software Limitation	PG&E	N/A	16-Jun-12	0	No	INC	2	1:47	2:59	7.83	$439	$0	$231	0.00	$0	$0	$0	$0	$0
179	RT	Software Limitation	PG&E	N/A	18-Jun-12	79	No	INC	1	0:39	0:46	6.14	$0	$0	($1,381)	2.84	($1,374)	$0	$0	$0	$0
180	RT	Software Limitation	SCE	Big Creek-Ventura	4-Jun-12	0	Yes	INC	2	12:35	13:04	0.85	$260	$28	($16)	0.00	$0	$0	$0	$0	$0
181	RT	Software Limitation	SCE	Big Creek-Ventura	11-Jun-12	100	Yes	INC	6	9:45	14:54	607.92	$50,492	$21,395	($40,405)	30.00	($765)	$0	$0	$0	$0
182	RT	Software Limitation	SCE	LA Basin	1-Jun-12	0	Yes	INC	2	20:20	21:29	3.08	$288	$0	($85)	0.00	$0	$0	$0	$0	$0
183	RT	Software Limitation	SCE	LA Basin	10-Jun-12	310-	No	INC	10	14:05	23:59	-	$46,0	$0	$90,169	0.00	$0	$0	$0	$0	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
						620						1154.40	18								
184	RT	Software Limitation	SCE	LA Basin	18-Jun-12	10-945	No	INC	10	0:41	9:59	39.86	$0	$0	($464)	4.27	($88)	$0	$0	$0	$0
185	RT	Software Limitation	SCE	LA Basin	19-Jun-12	0	No	INC	5	0:00	4:29	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
186	RT	Software Limitation	SCE	LA Basin	20-Jun-12	0	Yes	INC	2	19:30	20:29	11.48	$0	$0	($236)	0.00	$0	$0	$0	$0	$0
187	RT	Software Limitation	SCE	LA Basin	27-Jun-12	0	Yes	INC	2	21:25	22:24	7.92	$261	$6	($176)	0.00	$0	$0	$0	$0	$0
188	RT	Software Limitation	SCE	LA Basin	28-Jun-12	0	Yes	INC	6	18:45	23:14	44.49	$616	$0	($1,049)	0.00	$0	$0	$0	$0	$0
189	RT	Software Limitation	SDG&E	San Diego	21-Jun-12	291	No	INC	3	14:00	16:59	-63.07	$0	$0	$1,264	0.00	$0	$0	$0	$0	$0
190	RT	Software Limitation	SDG&E	San Diego	28-Jun-12	0	No	INC	2	20:58	21:59	0.63	$360	$0	($18)	0.00	$0	$0	$0	$0	$0
191	RT	Stranded A/S or RUC	SCE	LA Basin	1-Jun-12	18	No	DEC	3	15:10	17:59	-47.46	$0	$0	$2,948	0.00	$0	$0	$0	$0	$0
192	RT	Stranded A/S or RUC	SCE	LA Basin	1-Jun-12	90-170	No	INC	4	14:53	17:59	41.23	$0	$0	($1,099)	76.32	($3,704)	$0	$0	$0	$0
193	RT	Stranded A/S or RUC	SCE	LA Basin	14-Jun-12	170	No	INC	9	11:55	19:59	1193.75	$0	$0	($38,663)	1193.20	($38,642)	$0	$0	$0	$0
194	RT	System Energy	Intertie	N/A	4-Jun-12	300	Yes	INC	1	9:00	9:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
195	RT	System Energy	Intertie	N/A	8-Jun-12	524	No	DEC	1	4:00	4:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
196	RT	System Energy	Intertie	N/A	10-Jun-12	324	No	DEC	1	3:00	3:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
197	RT	System Energy	Intertie	N/A	10-Jun-12	100	Yes	INC	1	3:00	3:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
198	RT	System Energy	Intertie	N/A	11-Jun-12	230	No	DEC	1	3:00	3:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
199	RT	System Energy	Intertie	N/A	11-Jun-12	270	No	INC	1	3:00	3:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
200	RT	System Energy	Intertie	N/A	25-Jun-12	25-300	Yes	INC	15	6:00	20:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
201	RT	System Energy	PG&E	Fresno	28-Jun-12	95	Yes	INC	3	15:08	17:59	329.33	$5,911	$542	($9,416)	142.08	($3,997)	$0	($595)	$0	$0
202	RT	System Reliability	PG&E	Bay Area	9-Jun-12	253	No	INC	6	16:15	21:59	1504.67	$36,744	$1,681	($143,937)	0.00	$0	$0	$0	$0	$0
203	RT	Transmission Outage PG&E	PG&E	Bay Area	2-Jun-12	46	Yes	INC	2	13:34	14:14	19.36	$0	$0	($393)	8.52	($173)	$0	$0	($74)	$0
204	RT	Transmission Outage PG&E	PG&E	Bay Area	3-Jun-12	45	Yes	INC	2	19:28	20:59	78.44	$0	$0	($2,627)	3.18	($54)	$0	$0	($21)	$0
205	RT	Transmission Outage PG&E	PG&E	Bay Area	28-Jun-12	19-37	No	INC	4	19:00	22:59	175.64	$5,211	$0	($20,472)	43.33	($1,041)	$0	$0	($415)	$0
206	RT	Transmission Outage PG&E	PG&E	Bay Area	30-Jun-12	20	Yes	INC	12	11:03	22:59	235.49	$10,080	$269	($6,561)	0.00	$0	$0	$0	$0	$0
207	RT	Transmission Outage PG&E	PG&E	Humboldt	6-Jun-12	29-73	No	INC	17	7:35	23:59	185.46	$5,058	$0	($3,857)	62.24	($1,044)	$0	$0	($970)	$0
208	RT	Transmission Outage PG&E	PG&E	Humboldt	7-Jun-12	44-45	No	INC	5	19:16	23:49	27.19	$411	$0	($343)	12.71	($163)	$0	$0	($212)	$0
209	RT	Transmission Outage PG&E	PG&E	Humboldt	8-Jun-12	29	No	INC	1	0:00	0:59	18.48	$547	$0	($6)	5.08	($7)	$0	$0	($149)	$0
210	RT	Transmission Outage PG&E	PG&E	Humboldt	18-Jun-12	29-	No	INC	15	6:44	20:59	147.74	$6,31	$92	($2,012)	11.35	($846)	$633	$0	($1,348)	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC /DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
						58							0								
211	RT	Transmission Outage PG&E	PG&E	Humboldt	23-Jun-12	33	No	INC	3	21:13	23:42	8.98	$0	$0	($92)	8.26	($74)	$0	$0	($133)	$0
212	RT	Transmission Outage PG&E	PG&E	Humboldt	30-Jun-12	32	No	INC	4	19:33	22:37	40.83	$834	$0	$1,409	17.33	$554	$0	$0	($971)	$0
213	RT	Transmission Outage PG&E	PG&E	N/A	7-Jun-12	52-1134	No	INC	6	18:00	23:59	9606.53	$57,066	$1,850	($139,916)	1109.35	($19,191)	$0	$0	($7,378)	$0
214	RT	Transmission Outage PG&E	PG&E	N/A	8-Jun-12	52-102	No	INC	24	0:00	23:59	3987.58	$65,788	$0	($71,250)	2.68	($48)	$0	($1)	($6)	$0
215	RT	Transmission Outage PG&E	PG&E	N/A	13-Jun-12	10-48	No	DEC	15	8:10	22:59	-402.92	$0	$0	$60,101	-390.50	$0	$59,817	$0	($57,347)	$0
216	RT	Transmission Outage PG&E	PG&E	N/A	13-Jun-12	0	No	INC	4	18:10	21:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
217	RT	Transmission Outage PG&E	PG&E	N/A	14-Jun-12	6-31	No	DEC	24	0:00	23:59	-460.61	$0	$0	$33,224	-434.11	$0	$29,289	$0	($22,942)	$0
218	RT	Transmission Outage PG&E	PG&E	N/A	14-Jun-12	3- 8	No	INC	11	11:30	21:59	42.84	$0	$0	($4,647)	0.00	$0	$0	$0	$0	$0
219	RT	Transmission Outage PG&E	PG&E	N/A	15-Jun-12	9-62	No	DEC	18	0:00	17:59	-447.65	$0	$0	$10,375	-429.70	$0	$10,086	$0	($3,531)	$0
220	RT	Transmission Outage PG&E	PG&E	N/A	15-Jun-12	0	No	INC	2	0:25	1:59	0.76	$0	$0	($14)	0.00	$0	$0	$0	$0	$0
221	RT	Transmission Outage PG&E	PG&E	N/A	22-Jun-12	47	No	INC	2	20:22	21:34	49.35	$1,976	$462	($1,075)	2.35	($49)	$0	$0	($1)	$0
222	RT	Transmission Outage PG&E	PG&E	NCNB	11-Jun-12	10-53	No	DEC	12	6:54	17:59	-445.51	$0	$0	$17,013	-428.80	$0	$16,657	$0	($33,224)	$0
223	RT	Transmission Outage PG&E	PG&E	NCNB	27-Jun-12	1-55	No	DEC	7	9:07	15:59	-97.97	$0	$0	$2,182	-94.18	$0	$2,104	$0	($5,558)	$0
224	RT	Transmission Outage PG&E	PG&E	NCNB	27-Jun-12	1	No	INC	7	9:25	15:59	-2.39	$0	$0	$44	0.00	$0	$0	$0	$0	$0
225	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-12	12-19	No	DEC	9	13:47	21:24	-106.21	$0	$0	$64,150	-101.92	$0	$59,269	$0	($46,052)	$0
226	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-12	86	No	INC	4	18:50	21:24	-3.09	$0	$0	$88	0.00	$0	$0	$0	$0	$0
227	RT	Transmission Outage PG&E	PG&E	Sierra	2-Jun-12	20	Yes	INC	8	0:25	7:59	157.56	$7,360	$275	($1,420)	0.00	$0	$0	$0	$0	$0
228	RT	Transmission Outage PG&E	PG&E	Sierra	7-Jun-12	18-43	No	DEC	6	9:05	14:59	-195.39	$0	$0	($5,539)	-196.61	$0	($5,829)	$0	$0	$0
229	RT	Transmission Outage PG&E	PG&E	Sierra	18-Jun-12	120-240	No	DEC	3	12:10	14:59	-850.76	$0	$0	$15,969	-800.05	$0	$14,990	$0	($9,294)	$0
230	RT	Transmission Outage PG&E	PG&E	Sierra	25-Jun-12	20	No	DEC	3	19:41	21:59	-47.63	$0	$0	$718	-46.01	$0	$707	$0	($653)	$0
231	RT	Transmission Outage PG&E	PG&E	Stockton	1-Jun-12	2-55	No	DEC	9	13:35	21:09	-55.11	$0	$0	$23,795	-55.21	$0	$24,607	$0	($23,575)	$0
232	RT	Transmission Outage PG&E	PG&E	Stockton	1-Jun-12	10-69	No	INC	9	13:15	21:09	203.79	$0	$0	($222,343)	107.01	($118,339)	$0	$0	$0	$0
233	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	4-Jun-12	120	Yes	INC	4	7:55	10:59	400.56	$4,937	$262	($50,155)	310.98	($16,674)	$0	$0	($6,887)	$0

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time	Total MWH	Min Load Cost	Start Up Cost	CC6470	ED MWH(INC/DEC)	CC6470 INC	CC6470 DEC	CC6482	CC6488	CC6620
234	RT	Transmission Outage SDG&E	SDG&E	N/A	18-Jun-12	310	No	INC	2	14:55	15:59	-6.39	$0	$0	$136	-6.23	$0	$133	$0	($25)	$0
235	RT	Transmission Outage SDG&E	SDG&E	N/A	19-Jun-12	30-69	Yes	DEC	2	11:00	12:59	-85.54	$0	$0	$1,090	-86.83	$0	$1,105	$0	($747)	$0
236	RT	Transmission Outage SDG&E	SDG&E	N/A	19-Jun-12	50-100	Yes	INC	3	11:00	13:59	-7.88	$0	$0	$115	-0.31	$0	$5	$0	$0	$0
237	RT	Transmission Outage SDG&E	SDG&E	San Diego	1-Jun-12	0	Yes	INC	3	15:25	17:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
238	RT	Transmission Outage SDG&E	SDG&E	San Diego	7-Jun-12	0	Yes	INC	3	15:25	17:04	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
239	RT	Transmission Outage SDG&E	SDG&E	San Diego	18-Jun-12	36	Yes	DEC	2	14:52	15:59	-135.66	$0	$0	$14,064	0.00	$0	$0	$0	$0	$0
240	RT	Transmission Outage SDG&E	SDG&E	San Diego	18-Jun-12	946-997	Yes	INC	2	14:44	15:59	655.84	$10,212	$677	($36,157)	260.02	($11,212)	$0	$0	($1,542)	$0
241	RT	Transmission Outage SDG&E	SDG&E	San Diego	19-Jun-12	180	No	INC	4	10:50	13:59	566.50	$16,306	$0	($7,963)	328.50	($4,577)	$0	$0	($5,624)	$0
242	RT	Transmission Outage SDG&E	SDG&E	San Diego	27-Jun-12	21	No	INC	3	12:15	14:59	66.49	$3,328	$720	($1,939)	0.00	$0	$0	$0	$0	$0
243	RT	Transmission Outage SDG&E	SDG&E	San Diego	28-Jun-12	0	Yes	INC	6	14:20	19:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
244	RT	Unit Testing	PG&E	N/A	26-Jun-12	100-310	No	INC	18	6:35	23:59	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0
245	RT	Unit Testing	PG&E	N/A	27-Jun-12	50-290	Yes	INC	14	10:40	23:59	895.73	$0	$0	($34,896)	485.24	($21,618)	$0	$0	$0	$0
246	RT	Unit Testing	PG&E	N/A	28-Jun-12	50-240	Yes	INC	24	0:00	23:59	1172.49	$0	$0	($35,177)	364.42	($15,094)	$0	$0	$0	$0
247	RT	Unit Testing	SCE	Big Creek-Ventura	11-Jun-12	100-741	Yes	INC	18	6:00	23:59	4935.25	$114,013	$52,818	($164,020)	3441.55	($99,656)	$0	$0	$0	$0
248	RT	Unit Testing	SCE	Big Creek-Ventura	20-Jun-12	50-775	Yes	INC	12	11:00	22:59	5446.58	$78,094	$0	($190,063)	4242.23	($143,784)	$0	$0	$0	$0
249	RT	Unit Testing	SDG&E	San Diego	14-Jun-12	575	No	INC	2	14:53	15:22	0.00	$0	$0	$0	0.00	$0	$0	$0	$0	$0

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[7]. Only those quantities which are relevant to pre-day-ahead unit commitments are shown in this table.

Table 2: Instructions Prior to Day-Ahead Market

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	A	SCE	LA BASIN	05:00	10:00	50	7630	300	$5000	$0	0
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	7630	390	$6000	$500	$4000
01-Jul-09	DA	C	SCE	LA BASIN	09:00	23:00	20	7630	300	$400	$1000	$1000

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 the dispatch of the day, and the End Time column shows hour ending 23, as this was the hour with the last dispatch. It is also possible that there might be some hours between the begin time and the end time where 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 start-up cost; as seen in this example, resource A 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

Number	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

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[7] 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 ending 7 through 11 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 ending 8 through 9 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 is equal to 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	A	PG&E	Humboldt	6:00	11:00	30	0	Yes	INC	30	7110	180	1000	50	800	60	600	0	0	5400
1-Jul-09	RT	B	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	C	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	C	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, CC6482, 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 - $10/MWh)) which is equal to $2400. Resource C had a bid price of $10/MWh and the LMP at its pricing node is $50/MWh. Based on this information, volume and cost information is calculated for resource C.

Table 6: Decremental Exceptional Dispatch Instructions in RTM

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	A	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430	120	$ 120	$ 100	$ -	0	$ -	$ -	$ -	$ -
1-Jul-09	RT	B	PG&E	Fresno	7:00	9:00	40	60	No	DEC	20	7430	(60)	$ -	$ -	$ 600	-60	$ -	$ 600	$ -	$2,400
1-Jul-09	RT	C	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430	(50)	$ -	$ -	$ 500	-50	$ -	$ 500	$ -	$2,000

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 or below a 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 8,640 five-minute intervals in June, this resource was issued exceptional dispatch instructions in 281 five-minute intervals. This resource was eligible to set the LMP in all 281 intervals. Resource calculated LMP was larger than the market LMP in 218 of the 281 intervals. In the 218 intervals, the average increase in five minute LMP was $37.52/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 $37.52/MWh. Note that 218 five minute intervals are approximately 2.52 percent of the total 8,640 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 8,640 five minute intervals, this resource was issued an exceptional dispatch instruction in 776 five minute intervals. This resource was eligible to set the LMP in all 776 intervals. Out of the 776 intervals, resource calculated LMP was larger than the market LMP in 747 intervals. In the 747 intervals, the average increase in five minute LMP was $701.96/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 $701.96/MWh. The 747 five minute intervals account for approximately 8.65 percent of the total 8,640 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	8-Jun-12	17	6	$20.24	Yes	$88.00	$67.76
2	8-Jun-12	17	7	$20.54	Yes	$88.00	$67.46
3	8-Jun-12	17	8	$20.25	Yes	$88.00	$67.75
4	8-Jun-12	17	9	$20.25	Yes	$88.00	$67.75
5	8-Jun-12	17	10	$19.99	Yes	$88.00	$68.01
6	8-Jun-12	17	11	$19.64	Yes	$88.00	$68.36
7	8-Jun-12	17	12	$19.64	Yes	$88.00	$68.36
8	8-Jun-12	18	1	$19.71	Yes	$88.00	$68.29
9	8-Jun-12	18	2	$34.41	Yes	$88.00	$53.59
10	8-Jun-12	18	3	$32.74	Yes	$88.00	$55.26
11	8-Jun-12	18	4	$18.01	Yes	$88.00	$69.99
12	8-Jun-12	18	5	$19.29	Yes	$88.00	$68.71
13	8-Jun-12	18	6	$18.94	Yes	$88.00	$69.06
14	8-Jun-12	18	7	$19.29	Yes	$88.00	$68.71
15	8-Jun-12	18	8	$19.09	Yes	$88.00	$68.91
16	8-Jun-12	18	9	$18.11	Yes	$88.00	$69.89
17	8-Jun-12	18	10	$19.92	Yes	$88.00	$68.08
18	8-Jun-12	18	11	$19.15	Yes	$88.00	$68.85
19	8-Jun-12	18	12	$19.13	Yes	$88.00	$68.87
20	8-Jun-12	19	1	$19.16	Yes	$88.00	$68.84
21	8-Jun-12	19	2	$18.34	Yes	$88.00	$69.66
22	8-Jun-12	19	3	$18.33	Yes	$88.00	$69.67
23	8-Jun-12	19	4	$18.66	Yes	$88.00	$69.34
24	8-Jun-12	19	5	$18.70	Yes	$88.00	$69.30
25	8-Jun-12	19	6	$19.06	Yes	$88.00	$68.94
26	8-Jun-12	19	7	$19.00	Yes	$88.00	$69.00
27	8-Jun-12	19	8	$18.45	Yes	$88.00	$69.55
28	8-Jun-12	19	9	$19.15	Yes	$88.00	$68.85
29	8-Jun-12	19	10	$28.28	Yes	$88.00	$59.72
30	8-Jun-12	19	11	$22.39	Yes	$88.00	$65.61
31	8-Jun-12	19	12	$20.36	Yes	$88.00	$67.64
32	8-Jun-12	20	1	$20.07	Yes	$88.00	$67.93
33	8-Jun-12	20	2	$19.97	Yes	$88.00	$68.03
34	8-Jun-12	20	3	$19.09	Yes	$88.00	$68.91
35	8-Jun-12	20	4	$19.05	Yes	$88.00	$68.95

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
36	8-Jun-12	20	5	$19.05	Yes	$88.00	$68.95
37	8-Jun-12	20	6	$19.05	Yes	$88.00	$68.95
38	8-Jun-12	20	7	$19.02	Yes	$88.00	$68.98
39	8-Jun-12	20	8	$19.89	Yes	$88.00	$68.11
40	8-Jun-12	20	9	$19.82	Yes	$88.00	$68.18
41	8-Jun-12	20	10	$19.74	Yes	$88.00	$68.26
42	8-Jun-12	20	11	$18.73	Yes	$88.00	$69.27
43	8-Jun-12	20	12	$18.75	Yes	$88.00	$69.25
44	8-Jun-12	21	1	$17.61	Yes	$88.00	$70.39
45	8-Jun-12	21	2	$16.93	Yes	$88.00	$71.07
46	8-Jun-12	21	3	$18.34	Yes	$88.00	$69.66
47	8-Jun-12	21	4	$19.77	Yes	$88.00	$68.23
48	8-Jun-12	21	5	$19.74	Yes	$88.00	$68.26
49	8-Jun-12	21	6	$19.69	Yes	$88.00	$68.31
50	8-Jun-12	21	7	$19.74	Yes	$88.00	$68.26
51	8-Jun-12	21	8	$19.16	Yes	$88.00	$68.84
52	8-Jun-12	21	9	$18.31	Yes	$88.00	$69.69
53	8-Jun-12	21	10	$18.48	Yes	$88.00	$69.52
54	8-Jun-12	21	11	$17.92	Yes	$88.00	$70.08
55	8-Jun-12	21	12	$17.88	Yes	$88.00	$70.12
56	8-Jun-12	22	1	$17.92	Yes	$88.00	$70.08
57	8-Jun-12	22	2	$17.03	Yes	$88.00	$70.97
58	8-Jun-12	22	3	$15.09	Yes	$88.00	$72.91
59	8-Jun-12	22	4	$15.10	Yes	$88.00	$72.90
60	8-Jun-12	22	5	$14.14	Yes	$88.00	$73.86
61	8-Jun-12	22	6	$13.92	Yes	$88.00	$74.08
62	8-Jun-12	22	7	$13.42	Yes	$88.00	$74.58
63	8-Jun-12	22	8	$13.25	Yes	$88.00	$74.75
64	8-Jun-12	22	9	$9.27	Yes	$88.00	$78.73
65	8-Jun-12	22	10	$11.20	Yes	$88.00	$76.80
66	8-Jun-12	22	11	$11.14	Yes	$88.00	$76.86
67	8-Jun-12	22	12	$13.18	Yes	$88.00	$74.82
68	16-Jun-12	15	7	$30.33	Yes	$88.00	$57.67
69	16-Jun-12	15	8	$30.39	Yes	$88.00	$57.61
70	16-Jun-12	15	9	$30.39	Yes	$88.00	$57.61
71	16-Jun-12	15	10	$29.45	Yes	$88.00	$58.55
72	16-Jun-12	15	11	$29.45	Yes	$88.00	$58.55
73	16-Jun-12	15	12	$31.72	Yes	$88.00	$56.28

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
74	16-Jun-12	16	1	$28.44	Yes	$88.00	$59.56
75	16-Jun-12	16	2	$28.94	Yes	$88.00	$59.06
76	16-Jun-12	16	3	$29.46	Yes	$88.00	$58.54
77	16-Jun-12	16	4	$29.79	Yes	$88.00	$58.21
78	16-Jun-12	16	5	$32.86	Yes	$88.00	$55.14
79	16-Jun-12	16	6	$32.86	Yes	$88.00	$55.14
80	16-Jun-12	16	7	$32.27	Yes	$88.00	$55.73
81	16-Jun-12	16	8	$32.92	Yes	$88.00	$55.08
82	16-Jun-12	16	9	$33.14	Yes	$88.00	$54.86
83	16-Jun-12	16	10	$32.92	Yes	$88.00	$55.08
84	16-Jun-12	16	11	$32.92	Yes	$88.00	$55.08
85	16-Jun-12	16	12	$32.96	Yes	$88.00	$55.04
86	16-Jun-12	17	1	$54.71	Yes	$33.18	($21.53)
87	16-Jun-12	17	2	$54.95	Yes	$33.18	($21.77)
88	16-Jun-12	17	3	$51.49	Yes	$33.18	($18.31)
89	16-Jun-12	17	4	$57.57	Yes	$33.18	($24.39)
90	16-Jun-12	17	5	$56.45	Yes	$33.18	($23.27)
91	16-Jun-12	17	6	$79.58	Yes	$33.18	($46.40)
92	16-Jun-12	17	7	$57.65	Yes	$33.18	($24.47)
93	16-Jun-12	17	8	$132.65	Yes	$33.18	($99.47)
94	16-Jun-12	17	9	$914.94	Yes	$33.18	($881.76)
95	16-Jun-12	17	10	$913.11	Yes	$33.18	($879.93)
96	16-Jun-12	17	11	$1,028.10	Yes	$33.18	($994.92)
97	16-Jun-12	17	12	$913.11	Yes	$33.18	($879.93)
98	16-Jun-12	18	1	$1,000.83	Yes	$33.18	($967.65)
99	16-Jun-12	18	2	$1,028.60	Yes	$33.18	($995.42)
100	16-Jun-12	18	3	$1,028.60	Yes	$33.18	($995.42)
101	16-Jun-12	18	4	$912.35	Yes	$33.18	($879.17)
102	16-Jun-12	18	5	$905.67	Yes	$33.18	($872.49)
103	16-Jun-12	18	6	$241.84	Yes	$33.18	($208.66)
104	16-Jun-12	18	7	$242.13	Yes	$33.18	($208.95)
105	16-Jun-12	18	8	$149.91	Yes	$33.18	($116.73)
106	16-Jun-12	18	9	$129.44	Yes	$33.18	($96.26)
107	16-Jun-12	18	10	$132.44	Yes	$33.18	($99.26)
108	16-Jun-12	18	11	$132.44	Yes	$33.18	($99.26)
109	16-Jun-12	18	12	$125.81	Yes	$33.18	($92.63)
110	16-Jun-12	19	1	$107.92	Yes	$33.18	($74.74)
111	16-Jun-12	19	2	$127.00	Yes	$33.18	($93.82)

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
112	16-Jun-12	19	3	$127.00	Yes	$33.18	($93.82)
113	16-Jun-12	19	4	$130.79	Yes	$33.18	($97.61)
114	16-Jun-12	19	5	$132.10	Yes	$33.18	($98.92)
115	16-Jun-12	19	6	$104.06	Yes	$33.18	($70.88)
116	16-Jun-12	19	7	$138.20	Yes	$33.18	($105.02)
117	16-Jun-12	19	8	$218.03	Yes	$33.18	($184.85)
118	16-Jun-12	19	9	$135.11	Yes	$33.18	($101.93)
119	16-Jun-12	19	10	$37.32	Yes	$33.18	($4.14)
120	16-Jun-12	19	11	$35.16	Yes	$33.18	($1.98)
121	16-Jun-12	19	12	$36.46	Yes	$33.18	($3.28)
122	16-Jun-12	20	1	$36.49	Yes	$33.18	($3.31)
123	16-Jun-12	20	2	$47.16	Yes	$33.18	($13.98)
124	16-Jun-12	20	3	$111.84	Yes	$33.18	($78.66)
125	16-Jun-12	20	4	$244.75	Yes	$33.18	($211.57)
126	16-Jun-12	20	5	$104.77	Yes	$33.18	($71.59)
127	16-Jun-12	20	6	$104.77	Yes	$33.18	($71.59)
128	16-Jun-12	20	7	$41.88	Yes	$33.18	($8.70)
129	16-Jun-12	20	8	$29.72	Yes	$33.18	$3.46
130	16-Jun-12	20	9	$29.72	Yes	$33.18	$3.46
131	16-Jun-12	20	10	$34.60	Yes	$33.18	($1.42)
132	16-Jun-12	20	11	$33.25	Yes	$33.18	($0.07)
133	16-Jun-12	20	12	$32.79	Yes	$33.18	$0.39
134	16-Jun-12	21	1	$113.22	Yes	$33.18	($80.04)
135	16-Jun-12	21	2	$113.13	Yes	$33.18	($79.95)
136	16-Jun-12	21	3	$120.87	Yes	$33.18	($87.69)
137	16-Jun-12	21	4	$112.77	Yes	$33.18	($79.59)
138	16-Jun-12	21	5	$121.10	Yes	$33.18	($87.92)
139	16-Jun-12	21	6	$126.76	Yes	$33.18	($93.58)
140	16-Jun-12	21	7	$148.91	Yes	$33.18	($115.73)
141	16-Jun-12	21	8	$38.24	Yes	$33.18	($5.06)
142	16-Jun-12	21	9	$41.49	Yes	$33.18	($8.31)
143	16-Jun-12	21	10	$38.29	Yes	$33.18	($5.11)
144	16-Jun-12	21	11	$34.10	Yes	$33.18	($0.92)
145	16-Jun-12	21	12	$29.93	Yes	$33.18	$3.25
146	16-Jun-12	22	1	$283.67	Yes	$33.18	($250.49)
147	16-Jun-12	22	2	$38.33	Yes	$33.18	($5.15)
148	16-Jun-12	22	3	$45.11	Yes	$33.18	($11.93)
149	16-Jun-12	22	4	$1,058.50	Yes	$33.18	($1,025.32)

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
150	16-Jun-12	22	5	$1,058.50	Yes	$33.18	($1,025.32)
151	16-Jun-12	22	6	$45.04	Yes	$33.18	($11.86)
152	16-Jun-12	22	7	$34.62	Yes	$33.18	($1.44)
153	16-Jun-12	22	8	$32.98	Yes	$33.18	$0.20
154	16-Jun-12	22	9	$31.81	Yes	$33.18	$1.37
155	16-Jun-12	22	10	$29.44	Yes	$33.18	$3.74
156	16-Jun-12	22	11	$28.94	Yes	$33.18	$4.24
157	16-Jun-12	22	12	$22.58	Yes	$33.18	$10.60
158	18-Jun-12	11	9	$15.58	Yes	$88.00	$72.42
159	18-Jun-12	11	10	$15.32	Yes	$88.00	$72.68
160	18-Jun-12	11	11	$18.77	Yes	$88.00	$69.23
161	18-Jun-12	11	12	$20.11	Yes	$88.00	$67.89
162	18-Jun-12	12	1	$15.64	Yes	$52.00	$36.36
163	18-Jun-12	12	2	$15.64	Yes	$52.00	$36.36
164	18-Jun-12	12	3	$15.55	Yes	$52.00	$36.45
165	18-Jun-12	12	4	$16.81	Yes	$52.00	$35.19
166	18-Jun-12	12	5	$18.91	Yes	$52.00	$33.09
167	18-Jun-12	12	6	$19.15	Yes	$52.00	$32.85
168	18-Jun-12	12	7	$19.57	Yes	$52.00	$32.43
169	18-Jun-12	12	8	$19.26	Yes	$52.00	$32.74
170	18-Jun-12	12	9	$19.26	Yes	$52.00	$32.74
171	18-Jun-12	12	10	$19.00	Yes	$52.00	$33.00
172	18-Jun-12	12	11	$19.33	Yes	$52.00	$32.67
173	18-Jun-12	12	12	$20.34	Yes	$52.00	$31.66
174	18-Jun-12	13	1	$15.40	Yes	$52.00	$36.60
175	18-Jun-12	13	2	$15.58	Yes	$52.00	$36.42
176	18-Jun-12	13	3	$16.49	Yes	$52.00	$35.51
177	18-Jun-12	13	4	$18.91	Yes	$52.00	$33.09
178	18-Jun-12	13	5	$18.91	Yes	$52.00	$33.09
179	18-Jun-12	13	6	$19.09	Yes	$52.00	$32.91
180	18-Jun-12	13	7	$19.80	Yes	$52.00	$32.20
181	18-Jun-12	13	8	$20.14	Yes	$52.00	$31.86
182	18-Jun-12	13	9	$20.14	Yes	$52.00	$31.86
183	18-Jun-12	13	10	$20.34	Yes	$52.00	$31.66
184	18-Jun-12	13	11	$20.34	Yes	$52.00	$31.66
185	18-Jun-12	13	12	$20.67	Yes	$52.00	$31.33
186	18-Jun-12	14	1	$20.02	Yes	$35.00	$14.98
187	18-Jun-12	14	2	$20.11	Yes	$35.00	$14.89

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
188	18-Jun-12	14	3	$20.12	Yes	$35.00	$14.88
189	18-Jun-12	14	4	$20.28	Yes	$35.00	$14.72
190	18-Jun-12	14	5	$20.18	Yes	$35.00	$14.82
191	18-Jun-12	14	6	$20.18	Yes	$35.00	$14.82
192	18-Jun-12	14	7	$20.25	Yes	$35.00	$14.75
193	18-Jun-12	14	8	$20.24	Yes	$35.00	$14.76
194	18-Jun-12	14	9	$20.74	Yes	$35.00	$14.26
195	18-Jun-12	14	10	$20.80	Yes	$35.00	$14.20
196	18-Jun-12	14	11	$20.98	Yes	$35.00	$14.02
197	18-Jun-12	14	12	$21.05	Yes	$35.00	$13.95
198	18-Jun-12	15	1	$19.43	Yes	$35.00	$15.57
199	18-Jun-12	15	2	$19.44	Yes	$35.00	$15.56
200	18-Jun-12	15	3	$20.27	Yes	$35.00	$14.73
201	18-Jun-12	15	4	$20.28	Yes	$35.00	$14.72
202	18-Jun-12	15	5	$20.22	Yes	$35.00	$14.78
203	18-Jun-12	15	6	$20.70	Yes	$35.00	$14.30
204	18-Jun-12	15	7	$19.39	Yes	$35.00	$15.61
205	18-Jun-12	15	8	$19.36	Yes	$35.00	$15.64
206	18-Jun-12	15	9	$19.35	Yes	$35.00	$15.65
207	18-Jun-12	15	10	$18.15	Yes	$35.00	$16.85
208	18-Jun-12	15	11	$21.81	Yes	$35.00	$13.19
209	18-Jun-12	15	12	$20.09	Yes	$35.00	$14.91
210	18-Jun-12	16	1	$19.25	Yes	$35.00	$15.75
211	18-Jun-12	16	2	$19.22	Yes	$35.00	$15.78
212	18-Jun-12	16	3	$19.21	Yes	$35.00	$15.79
213	18-Jun-12	16	4	$18.09	Yes	$35.00	$16.91
214	18-Jun-12	16	5	$18.05	Yes	$35.00	$16.95
215	18-Jun-12	16	6	$16.79	Yes	$35.00	$18.21
216	18-Jun-12	16	7	$19.98	Yes	$35.00	$15.02
217	18-Jun-12	16	8	$19.35	Yes	$35.00	$15.65
218	18-Jun-12	16	9	$19.36	Yes	$35.00	$15.64
219	18-Jun-12	16	10	$19.35	Yes	$35.00	$15.65
220	18-Jun-12	16	11	$20.03	Yes	$35.00	$14.97
221	18-Jun-12	16	12	$20.59	Yes	$35.00	$14.41
222	18-Jun-12	17	1	$21.01	Yes	$35.00	$13.99
223	18-Jun-12	17	2	$20.88	Yes	$35.00	$14.12
224	18-Jun-12	17	3	$20.88	Yes	$35.00	$14.12
225	18-Jun-12	17	4	$20.11	Yes	$35.00	$14.89

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
226	18-Jun-12	17	5	$20.13	Yes	$35.00	$14.87
227	18-Jun-12	17	6	$20.03	Yes	$35.00	$14.97
228	18-Jun-12	17	7	$20.05	Yes	$35.00	$14.95
229	18-Jun-12	17	8	$20.88	Yes	$35.00	$14.12
230	18-Jun-12	17	9	$20.96	Yes	$35.00	$14.04
231	18-Jun-12	17	10	$20.95	Yes	$35.00	$14.05
232	18-Jun-12	17	11	$20.95	Yes	$35.00	$14.05
233	18-Jun-12	17	12	$20.83	Yes	$35.00	$14.17
234	18-Jun-12	18	1	$20.90	Yes	$35.00	$14.10
235	18-Jun-12	18	2	$20.90	Yes	$35.00	$14.10
236	18-Jun-12	18	3	$20.90	Yes	$35.00	$14.10
237	18-Jun-12	18	4	$20.91	Yes	$35.00	$14.09
238	18-Jun-12	18	5	$20.84	Yes	$35.00	$14.16
239	18-Jun-12	18	6	$20.84	Yes	$35.00	$14.16
240	18-Jun-12	18	7	$20.93	Yes	$35.00	$14.07
241	18-Jun-12	18	8	$20.83	Yes	$35.00	$14.17
242	18-Jun-12	18	9	$20.26	Yes	$35.00	$14.74
243	18-Jun-12	18	10	$20.37	Yes	$35.00	$14.63
244	18-Jun-12	18	11	$20.37	Yes	$35.00	$14.63
245	18-Jun-12	18	12	$18.71	Yes	$35.00	$16.29
246	18-Jun-12	19	1	$20.58	Yes	$35.00	$14.42
247	18-Jun-12	19	2	$21.16	Yes	$35.00	$13.84
248	18-Jun-12	19	3	$23.24	Yes	$35.00	$11.76
249	18-Jun-12	19	4	$23.31	Yes	$35.00	$11.69
250	18-Jun-12	19	5	$25.52	Yes	$35.00	$9.48
251	18-Jun-12	19	6	$23.24	Yes	$35.00	$11.76
252	18-Jun-12	19	7	$21.46	Yes	$35.00	$13.54
253	18-Jun-12	19	8	$19.61	Yes	$35.00	$15.39
254	18-Jun-12	19	9	$19.85	Yes	$35.00	$15.15
255	18-Jun-12	19	10	$21.10	Yes	$35.00	$13.90
256	18-Jun-12	19	11	$19.47	Yes	$35.00	$15.53
257	18-Jun-12	19	12	$19.59	Yes	$35.00	$15.41
258	18-Jun-12	20	1	$20.94	Yes	$35.00	$14.06
259	18-Jun-12	20	2	$20.45	Yes	$35.00	$14.55
260	18-Jun-12	20	3	$21.39	Yes	$35.00	$13.61
261	18-Jun-12	20	4	$21.08	Yes	$35.00	$13.92
262	18-Jun-12	20	5	$20.90	Yes	$35.00	$14.10
263	18-Jun-12	20	6	$20.44	Yes	$35.00	$14.56

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
264	18-Jun-12	20	7	$20.41	Yes	$35.00	$14.59
265	18-Jun-12	20	8	$20.51	Yes	$35.00	$14.49
266	18-Jun-12	20	9	$20.47	Yes	$35.00	$14.53
267	18-Jun-12	20	10	$20.92	Yes	$35.00	$14.08
268	18-Jun-12	20	11	$20.92	Yes	$35.00	$14.08
269	18-Jun-12	20	12	$20.42	Yes	$35.00	$14.58
270	18-Jun-12	21	1	$20.56	Yes	$35.00	$14.44
271	18-Jun-12	21	2	$20.56	Yes	$35.00	$14.44
272	18-Jun-12	21	3	$20.08	Yes	$35.00	$14.92
273	18-Jun-12	21	4	$20.11	Yes	$35.00	$14.89
274	18-Jun-12	21	5	$20.17	Yes	$35.00	$14.83
275	18-Jun-12	21	6	$20.17	Yes	$35.00	$14.83
276	18-Jun-12	21	7	$20.17	Yes	$35.00	$14.83
277	18-Jun-12	21	8	$20.43	Yes	$35.00	$14.57
278	18-Jun-12	21	9	$20.43	Yes	$35.00	$14.57
279	18-Jun-12	21	10	$20.34	Yes	$35.00	$14.66
280	18-Jun-12	21	11	$20.34	Yes	$35.00	$14.66
281	18-Jun-12	21	12	$20.30	Yes	$35.00	$14.70

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	3-Jun-12	19	3	$19.98	Yes	1,000.00	980.02
2	3-Jun-12	19	4	$20.02	Yes	1,000.00	979.98
3	3-Jun-12	19	5	$20.04	Yes	1,000.00	979.96
4	3-Jun-12	19	6	$20.02	Yes	1,000.00	979.98
5	3-Jun-12	19	7	$18.91	Yes	1,000.00	981.09
6	3-Jun-12	19	8	$17.03	Yes	1,000.00	982.97
7	3-Jun-12	19	9	$17.33	Yes	1,000.00	982.67
8	3-Jun-12	19	10	$17.75	Yes	1,000.00	982.25
9	3-Jun-12	19	11	$17.75	Yes	1,000.00	982.25
10	3-Jun-12	19	12	$16.94	Yes	1,000.00	983.06
11	3-Jun-12	20	1	$18.93	Yes	1,000.00	981.07
12	3-Jun-12	20	2	$18.93	Yes	1,000.00	981.07
13	3-Jun-12	20	3	$18.83	Yes	1,000.00	981.17
14	3-Jun-12	20	4	$18.14	Yes	1,000.00	981.86
15	3-Jun-12	20	5	$16.59	Yes	1,000.00	983.41
16	3-Jun-12	20	6	$16.67	Yes	1,000.00	983.33
17	3-Jun-12	20	7	$16.65	Yes	1,000.00	983.35
18	3-Jun-12	20	8	$16.43	Yes	1,000.00	983.57
19	3-Jun-12	20	9	$16.59	Yes	1,000.00	983.41
20	3-Jun-12	20	10	$16.48	Yes	1,000.00	983.52
21	3-Jun-12	20	11	$16.48	Yes	1,000.00	983.52
22	3-Jun-12	20	12	$14.42	Yes	1,000.00	985.58
23	3-Jun-12	21	1	$13.81	Yes	1,000.00	986.19
24	3-Jun-12	21	2	$13.84	Yes	1,000.00	986.16
25	3-Jun-12	21	3	$13.84	Yes	1,000.00	986.16
26	3-Jun-12	21	4	$13.86	Yes	1,000.00	986.14
27	3-Jun-12	21	5	$14.97	Yes	1,000.00	985.03
28	3-Jun-12	21	6	$14.97	Yes	1,000.00	985.03
29	3-Jun-12	21	7	$15.60	Yes	1,000.00	984.40
30	3-Jun-12	21	8	$16.61	Yes	1,000.00	983.39
31	3-Jun-12	21	9	$16.87	Yes	1,000.00	983.13
32	3-Jun-12	21	10	$16.77	Yes	1,000.00	983.23
33	3-Jun-12	21	11	$16.77	Yes	1,000.00	983.23
34	3-Jun-12	21	12	$17.10	Yes	1,000.00	982.90
35	3-Jun-12	22	1	$17.46	Yes	1,000.00	982.54

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
36	3-Jun-12	22	2	$18.35	Yes	1,000.00	981.65
37	3-Jun-12	22	3	$18.35	Yes	1,000.00	981.65
38	3-Jun-12	22	4	$16.77	Yes	1,000.00	983.23
39	3-Jun-12	22	5	$16.77	Yes	1,000.00	983.23
40	3-Jun-12	22	6	$16.67	Yes	1,000.00	983.33
41	11-Jun-12	5	1	$18.24	Yes	1,000.00	981.76
42	11-Jun-12	5	2	$18.24	Yes	1,000.00	981.76
43	11-Jun-12	5	3	$18.24	Yes	1,000.00	981.76
44	11-Jun-12	5	4	$18.23	Yes	1,000.00	981.77
45	11-Jun-12	5	5	$18.41	Yes	1,000.00	981.59
46	11-Jun-12	5	6	$18.23	Yes	1,000.00	981.77
47	11-Jun-12	5	7	$18.86	Yes	1,000.00	981.14
48	11-Jun-12	5	8	$18.57	Yes	1,000.00	981.43
49	11-Jun-12	5	9	$19.37	Yes	1,000.00	980.63
50	11-Jun-12	5	10	$19.82	Yes	1,000.00	980.18
51	11-Jun-12	5	11	$19.80	Yes	1,000.00	980.20
52	11-Jun-12	5	12	$19.80	Yes	1,000.00	980.20
53	11-Jun-12	6	1	$18.66	Yes	1,000.00	981.34
54	11-Jun-12	6	2	$18.51	Yes	1,000.00	981.49
55	11-Jun-12	6	3	$17.17	Yes	1,000.00	982.83
56	11-Jun-12	6	4	$18.40	Yes	1,000.00	981.60
57	11-Jun-12	6	5	$18.61	Yes	1,000.00	981.39
58	11-Jun-12	6	6	$18.82	Yes	1,000.00	981.18
59	11-Jun-12	6	7	$18.82	Yes	1,000.00	981.18
60	11-Jun-12	6	8	$18.83	Yes	1,000.00	981.17
61	11-Jun-12	6	9	$18.83	Yes	1,000.00	981.17
62	11-Jun-12	6	10	$19.82	Yes	1,000.00	980.18
63	11-Jun-12	6	11	$18.85	Yes	1,000.00	981.15
64	11-Jun-12	6	12	$23.22	Yes	1,000.00	976.78
65	11-Jun-12	7	1	$2.92	Yes	1,000.00	997.08
66	11-Jun-12	7	2	$0.40	Yes	1,000.00	999.60
67	11-Jun-12	7	3	$14.32	Yes	1,000.00	985.68
68	11-Jun-12	7	4	$14.87	Yes	1,000.00	985.13
69	11-Jun-12	7	5	$15.77	Yes	1,000.00	984.23
70	11-Jun-12	7	6	$18.92	Yes	1,000.00	981.08
71	11-Jun-12	7	7	$19.58	Yes	1,000.00	980.42
72	11-Jun-12	7	8	$18.94	Yes	1,000.00	981.06
73	11-Jun-12	7	9	$19.77	Yes	1,000.00	980.23

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
74	11-Jun-12	7	10	$19.80	Yes	1,000.00	980.20
75	11-Jun-12	7	11	$19.80	Yes	1,000.00	980.20
76	11-Jun-12	7	12	$24.89	Yes	1,000.00	975.11
77	11-Jun-12	8	1	$17.05	Yes	29.99	12.94
78	11-Jun-12	8	2	$17.05	Yes	29.99	12.94
79	11-Jun-12	8	3	$17.05	Yes	29.99	12.94
80	11-Jun-12	8	4	$19.01	Yes	29.99	10.98
81	11-Jun-12	8	5	$19.01	Yes	29.99	10.98
82	11-Jun-12	8	6	$32.74	Yes	29.99	(2.75)
83	11-Jun-12	8	7	$19.91	Yes	29.99	10.08
84	11-Jun-12	8	8	$19.85	Yes	29.99	10.14
85	11-Jun-12	8	9	$19.85	Yes	29.99	10.14
86	11-Jun-12	8	10	$19.92	Yes	29.99	10.07
87	11-Jun-12	8	11	$19.92	Yes	29.99	10.07
88	11-Jun-12	8	12	$21.70	Yes	29.99	8.29
89	11-Jun-12	9	1	$14.64	Yes	1,000.00	985.36
90	11-Jun-12	9	2	$15.30	Yes	1,000.00	984.70
91	11-Jun-12	9	3	$15.96	Yes	1,000.00	984.04
92	11-Jun-12	9	4	$15.97	Yes	1,000.00	984.03
93	11-Jun-12	9	5	$19.80	Yes	1,000.00	980.20
94	11-Jun-12	9	6	$19.80	Yes	1,000.00	980.20
95	11-Jun-12	9	7	$19.88	Yes	1,000.00	980.12
96	11-Jun-12	9	8	$19.88	Yes	1,000.00	980.12
97	11-Jun-12	9	9	$19.88	Yes	1,000.00	980.12
98	11-Jun-12	9	10	$20.15	Yes	1,000.00	979.85
99	11-Jun-12	9	11	$34.56	Yes	1,000.00	965.44
100	11-Jun-12	9	12	$26.54	Yes	1,000.00	973.46
101	11-Jun-12	10	1	$20.75	Yes	29.99	9.24
102	11-Jun-12	10	2	$20.87	Yes	29.99	9.12
103	11-Jun-12	10	3	$20.75	Yes	29.99	9.24
104	11-Jun-12	10	4	$19.94	Yes	29.99	10.05
105	11-Jun-12	10	5	$20.59	Yes	29.99	9.40
106	11-Jun-12	10	6	$21.35	Yes	29.99	8.64
107	11-Jun-12	10	7	$19.69	Yes	29.99	10.30
108	11-Jun-12	10	8	$19.69	Yes	29.99	10.30
109	11-Jun-12	10	9	$19.69	Yes	29.99	10.30
110	11-Jun-12	10	10	$22.14	Yes	29.99	7.85
111	11-Jun-12	10	11	$20.85	Yes	29.99	9.14

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
112	11-Jun-12	10	12	$19.65	Yes	29.99	10.34
113	11-Jun-12	11	1	$18.94	Yes	29.99	11.05
114	11-Jun-12	11	2	$19.02	Yes	29.99	10.97
115	11-Jun-12	11	3	$19.18	Yes	29.99	10.81
116	11-Jun-12	11	4	$19.12	Yes	29.99	10.87
117	11-Jun-12	11	5	$19.12	Yes	29.99	10.87
118	11-Jun-12	11	6	$20.19	Yes	29.99	9.80
119	11-Jun-12	11	7	$21.29	Yes	29.99	8.70
120	11-Jun-12	11	8	$20.89	Yes	29.99	9.11
121	11-Jun-12	11	9	$20.85	Yes	29.99	9.14
122	11-Jun-12	11	10	$21.00	Yes	29.99	8.99
123	11-Jun-12	11	11	$21.26	Yes	29.99	8.73
124	11-Jun-12	11	12	$23.39	Yes	29.99	6.60
125	11-Jun-12	12	1	$17.90	Yes	1,000.00	982.10
126	11-Jun-12	12	2	$17.90	Yes	1,000.00	982.10
127	11-Jun-12	12	3	$18.78	Yes	1,000.00	981.22
128	11-Jun-12	12	4	$19.15	Yes	1,000.00	980.85
129	11-Jun-12	12	5	$19.05	Yes	1,000.00	980.95
130	11-Jun-12	12	6	$19.15	Yes	1,000.00	980.85
131	11-Jun-12	12	7	$19.25	Yes	1,000.00	980.75
132	11-Jun-12	12	8	$20.71	Yes	1,000.00	979.29
133	11-Jun-12	12	9	$20.71	Yes	1,000.00	979.29
134	11-Jun-12	12	10	$20.91	Yes	1,000.00	979.09
135	11-Jun-12	12	11	$20.91	Yes	1,000.00	979.09
136	11-Jun-12	12	12	$21.99	Yes	1,000.00	978.01
137	11-Jun-12	13	1	$21.05	Yes	1,000.00	978.95
138	11-Jun-12	13	2	$20.71	Yes	1,000.00	979.29
139	11-Jun-12	13	3	$20.71	Yes	1,000.00	979.29
140	11-Jun-12	13	4	$20.02	Yes	1,000.00	979.98
141	11-Jun-12	13	5	$20.81	Yes	1,000.00	979.19
142	11-Jun-12	13	6	$20.97	Yes	1,000.00	979.03
143	11-Jun-12	13	7	$21.92	Yes	1,000.00	978.08
144	11-Jun-12	13	8	$22.08	Yes	1,000.00	977.92
145	11-Jun-12	13	9	$23.59	Yes	1,000.00	976.41
146	11-Jun-12	13	10	$23.43	Yes	1,000.00	976.57
147	11-Jun-12	13	11	$23.47	Yes	1,000.00	976.53
148	11-Jun-12	13	12	$23.99	Yes	1,000.00	976.01
149	11-Jun-12	14	1	$19.79	Yes	1,000.00	980.21

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
150	11-Jun-12	14	2	$20.83	Yes	1,000.00	979.17
151	11-Jun-12	14	3	$21.77	Yes	1,000.00	978.23
152	11-Jun-12	14	4	$22.14	Yes	1,000.00	977.86
153	11-Jun-12	14	5	$22.37	Yes	1,000.00	977.63
154	11-Jun-12	14	6	$23.13	Yes	1,000.00	976.87
155	11-Jun-12	14	7	$23.15	Yes	1,000.00	976.85
156	11-Jun-12	14	8	$23.44	Yes	1,000.00	976.56
157	11-Jun-12	14	9	$23.96	Yes	1,000.00	976.04
158	11-Jun-12	14	10	$24.44	Yes	1,000.00	975.56
159	11-Jun-12	14	11	$24.91	Yes	1,000.00	975.09
160	11-Jun-12	14	12	$25.75	Yes	1,000.00	974.25
161	11-Jun-12	15	1	$20.68	Yes	1,000.00	979.32
162	11-Jun-12	15	2	$22.19	Yes	1,000.00	977.81
163	11-Jun-12	15	3	$22.05	Yes	1,000.00	977.95
164	11-Jun-12	15	4	$20.84	Yes	1,000.00	979.16
165	11-Jun-12	15	5	$21.76	Yes	1,000.00	978.24
166	11-Jun-12	15	6	$20.84	Yes	1,000.00	979.16
167	11-Jun-12	15	7	$21.08	Yes	1,000.00	978.92
168	11-Jun-12	15	8	$29.15	Yes	1,000.00	970.85
169	11-Jun-12	15	9	$988.35	Yes	1,000.00	11.65
170	11-Jun-12	15	10	$559.50	Yes	1,000.00	440.50
171	11-Jun-12	15	11	$53.73	Yes	1,000.00	946.27
172	11-Jun-12	15	12	$29.52	Yes	1,000.00	970.48
173	11-Jun-12	16	1	$26.69	Yes	1,000.00	973.31
174	11-Jun-12	16	2	$27.15	Yes	1,000.00	972.85
175	11-Jun-12	16	3	$29.00	Yes	1,000.00	971.00
176	11-Jun-12	16	4	$28.61	Yes	1,000.00	971.39
177	11-Jun-12	16	5	$28.85	Yes	1,000.00	971.15
178	11-Jun-12	16	6	$29.19	Yes	1,000.00	970.81
179	11-Jun-12	16	7	$28.15	Yes	1,000.00	971.85
180	11-Jun-12	16	8	$24.82	Yes	1,000.00	975.18
181	11-Jun-12	16	9	$27.17	Yes	1,000.00	972.83
182	11-Jun-12	16	10	$27.71	Yes	1,000.00	972.29
183	11-Jun-12	16	11	$28.39	Yes	1,000.00	971.61
184	11-Jun-12	16	12	$28.54	Yes	1,000.00	971.46
185	11-Jun-12	17	1	$28.49	Yes	1,000.00	971.51
186	11-Jun-12	17	2	$26.68	Yes	1,000.00	973.32
187	11-Jun-12	17	3	$26.60	Yes	1,000.00	973.40

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
188	11-Jun-12	17	4	$22.32	Yes	1,000.00	977.68
189	11-Jun-12	17	5	$24.90	Yes	1,000.00	975.10
190	11-Jun-12	17	6	$24.50	Yes	1,000.00	975.50
191	11-Jun-12	17	7	$22.30	Yes	1,000.00	977.70
192	11-Jun-12	17	8	$22.29	Yes	1,000.00	977.71
193	11-Jun-12	17	9	$22.29	Yes	1,000.00	977.71
194	11-Jun-12	17	10	$23.38	Yes	1,000.00	976.62
195	11-Jun-12	17	11	$24.63	Yes	1,000.00	975.37
196	11-Jun-12	17	12	$21.85	Yes	1,000.00	978.15
197	11-Jun-12	18	1	$23.15	Yes	1,000.00	976.85
198	11-Jun-12	18	2	$23.15	Yes	1,000.00	976.85
199	11-Jun-12	18	3	$25.58	Yes	1,000.00	974.42
200	11-Jun-12	18	4	$28.77	Yes	1,000.00	971.23
201	11-Jun-12	18	5	$26.12	Yes	1,000.00	973.88
202	11-Jun-12	18	6	$26.53	Yes	1,000.00	973.47
203	11-Jun-12	18	7	$26.53	Yes	1,000.00	973.47
204	11-Jun-12	18	8	$25.27	Yes	1,000.00	974.73
205	11-Jun-12	18	9	$21.85	Yes	1,000.00	978.15
206	11-Jun-12	18	10	$23.27	Yes	1,000.00	976.73
207	11-Jun-12	18	11	$21.05	Yes	1,000.00	978.95
208	11-Jun-12	18	12	$21.26	Yes	1,000.00	978.74
209	11-Jun-12	19	1	$23.10	Yes	1,000.00	976.90
210	11-Jun-12	19	2	$25.55	Yes	1,000.00	974.45
211	11-Jun-12	19	3	$25.55	Yes	1,000.00	974.45
212	11-Jun-12	19	4	$24.63	Yes	1,000.00	975.37
213	11-Jun-12	19	5	$24.02	Yes	1,000.00	975.98
214	11-Jun-12	19	6	$24.69	Yes	1,000.00	975.31
215	11-Jun-12	19	7	$24.06	Yes	1,000.00	975.94
216	11-Jun-12	19	8	$24.76	Yes	1,000.00	975.24
217	11-Jun-12	19	9	$24.66	Yes	1,000.00	975.34
218	11-Jun-12	19	10	$24.75	Yes	1,000.00	975.25
219	11-Jun-12	19	11	$24.62	Yes	1,000.00	975.38
220	11-Jun-12	19	12	$23.95	Yes	1,000.00	976.05
221	11-Jun-12	20	1	$26.53	Yes	1,000.00	973.47
222	11-Jun-12	20	2	$25.77	Yes	1,000.00	974.23
223	11-Jun-12	20	3	$25.64	Yes	1,000.00	974.36
224	11-Jun-12	20	4	$25.68	Yes	1,000.00	974.32
225	11-Jun-12	20	5	$25.68	Yes	1,000.00	974.32

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
226	11-Jun-12	20	6	$25.68	Yes	1,000.00	974.32
227	11-Jun-12	20	7	$25.64	Yes	1,000.00	974.36
228	11-Jun-12	20	8	$24.73	Yes	1,000.00	975.27
229	11-Jun-12	20	9	$24.62	Yes	1,000.00	975.38
230	11-Jun-12	20	10	$24.64	Yes	1,000.00	975.36
231	11-Jun-12	20	11	$24.58	Yes	1,000.00	975.42
232	11-Jun-12	20	12	$25.11	Yes	1,000.00	974.89
233	11-Jun-12	21	1	$23.55	Yes	1,000.00	976.45
234	11-Jun-12	21	2	$23.01	Yes	1,000.00	976.99
235	11-Jun-12	21	3	$23.35	Yes	1,000.00	976.65
236	11-Jun-12	21	4	$28.88	Yes	1,000.00	971.12
237	11-Jun-12	21	5	$26.92	Yes	1,000.00	973.08
238	11-Jun-12	21	6	$25.88	Yes	1,000.00	974.12
239	11-Jun-12	21	7	$25.89	Yes	1,000.00	974.11
240	11-Jun-12	21	8	$25.80	Yes	1,000.00	974.20
241	11-Jun-12	21	9	$23.83	Yes	1,000.00	976.17
242	11-Jun-12	21	10	$23.86	Yes	1,000.00	976.14
243	11-Jun-12	21	11	$23.86	Yes	1,000.00	976.14
244	11-Jun-12	21	12	$22.79	Yes	1,000.00	977.21
245	11-Jun-12	22	1	$22.42	Yes	1,000.00	977.58
246	11-Jun-12	22	2	$20.77	Yes	1,000.00	979.23
247	11-Jun-12	22	3	$19.84	Yes	1,000.00	980.16
248	11-Jun-12	22	4	$19.91	Yes	1,000.00	980.09
249	11-Jun-12	22	5	$19.91	Yes	1,000.00	980.09
250	11-Jun-12	22	6	$19.44	Yes	1,000.00	980.56
251	11-Jun-12	22	7	$19.51	Yes	1,000.00	980.49
252	11-Jun-12	22	8	$18.99	Yes	1,000.00	981.01
253	11-Jun-12	22	9	$18.68	Yes	1,000.00	981.32
254	11-Jun-12	22	10	$18.85	Yes	1,000.00	981.15
255	11-Jun-12	22	11	$18.63	Yes	1,000.00	981.37
256	11-Jun-12	22	12	$15.40	Yes	1,000.00	984.60
257	11-Jun-12	23	1	$23.09	Yes	1,000.00	976.91
258	11-Jun-12	23	2	$19.90	Yes	1,000.00	980.10
259	11-Jun-12	23	3	$21.53	Yes	1,000.00	978.47
260	11-Jun-12	23	4	$19.34	Yes	1,000.00	980.66
261	11-Jun-12	23	5	$20.19	Yes	1,000.00	979.81
262	11-Jun-12	23	6	$20.34	Yes	1,000.00	979.66
263	11-Jun-12	23	7	$19.16	Yes	1,000.00	980.84

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
264	11-Jun-12	23	8	$18.89	Yes	1,000.00	981.11
265	11-Jun-12	23	9	$18.89	Yes	1,000.00	981.11
266	11-Jun-12	23	10	$18.43	Yes	1,000.00	981.57
267	11-Jun-12	23	11	$18.43	Yes	1,000.00	981.57
268	11-Jun-12	23	12	$13.18	Yes	1,000.00	986.82
269	11-Jun-12	24	1	$18.47	Yes	1,000.00	981.53
270	11-Jun-12	24	2	$17.67	Yes	1,000.00	982.33
271	11-Jun-12	24	3	$18.42	Yes	1,000.00	981.58
272	11-Jun-12	24	4	$18.95	Yes	1,000.00	981.05
273	11-Jun-12	24	5	$18.76	Yes	1,000.00	981.24
274	11-Jun-12	24	6	$18.41	Yes	1,000.00	981.59
275	11-Jun-12	24	7	$18.40	Yes	1,000.00	981.60
276	11-Jun-12	24	8	$16.58	Yes	1,000.00	983.42
277	11-Jun-12	24	9	$15.53	Yes	1,000.00	984.47
278	11-Jun-12	24	10	$15.45	Yes	1,000.00	984.55
279	11-Jun-12	24	11	$13.43	Yes	1,000.00	986.57
280	11-Jun-12	24	12	$7.47	Yes	1,000.00	992.53
281	13-Jun-12	3	1	$19.23	Yes	28.04	8.81
282	13-Jun-12	3	2	$19.23	Yes	28.04	8.81
283	13-Jun-12	3	3	$19.23	Yes	28.04	8.81
284	13-Jun-12	3	4	$19.27	Yes	28.04	8.77
285	13-Jun-12	3	5	$19.25	Yes	28.04	8.79
286	13-Jun-12	3	6	$19.14	Yes	28.04	8.90
287	13-Jun-12	3	7	$19.07	Yes	28.04	8.97
288	13-Jun-12	3	8	$19.08	Yes	28.04	8.96
289	13-Jun-12	3	9	$19.14	Yes	28.04	8.90
290	13-Jun-12	3	10	$19.01	Yes	28.04	9.03
291	13-Jun-12	3	11	$16.03	Yes	28.04	12.01
292	13-Jun-12	3	12	$18.75	Yes	28.04	9.29
293	13-Jun-12	4	1	$18.71	Yes	28.04	9.33
294	13-Jun-12	4	2	$17.67	Yes	28.04	10.37
295	13-Jun-12	4	3	$17.67	Yes	28.04	10.37
296	13-Jun-12	4	4	$15.11	Yes	28.04	12.93
297	13-Jun-12	4	5	$17.20	Yes	28.04	10.84
298	13-Jun-12	4	6	$15.11	Yes	28.04	12.93
299	13-Jun-12	4	7	$15.12	Yes	28.04	12.92
300	13-Jun-12	4	8	$13.81	Yes	28.04	14.23
301	13-Jun-12	4	9	$15.12	Yes	28.04	12.92

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
302	13-Jun-12	4	10	$17.71	Yes	28.04	10.33
303	13-Jun-12	4	11	$15.12	Yes	28.04	12.92
304	13-Jun-12	4	12	$15.12	Yes	28.04	12.92
305	13-Jun-12	5	1	$15.40	Yes	28.04	12.64
306	13-Jun-12	5	2	$15.40	Yes	28.04	12.64
307	13-Jun-12	5	3	$15.40	Yes	28.04	12.64
308	13-Jun-12	5	4	$15.41	Yes	28.04	12.63
309	13-Jun-12	5	5	$18.79	Yes	28.04	9.25
310	13-Jun-12	5	6	$19.01	Yes	28.04	9.03
311	13-Jun-12	5	7	$19.00	Yes	28.04	9.04
312	13-Jun-12	5	8	$19.01	Yes	28.04	9.03
313	13-Jun-12	5	9	$19.11	Yes	28.04	8.93
314	13-Jun-12	5	10	$19.19	Yes	28.04	8.85
315	13-Jun-12	5	11	$19.15	Yes	28.04	8.89
316	13-Jun-12	5	12	$19.25	Yes	28.04	8.79
317	13-Jun-12	6	1	$18.37	Yes	28.04	9.67
318	13-Jun-12	6	2	$18.96	Yes	28.04	9.08
319	13-Jun-12	6	3	$18.96	Yes	28.04	9.08
320	13-Jun-12	6	4	$19.05	Yes	28.04	8.99
321	13-Jun-12	6	5	$19.00	Yes	28.04	9.04
322	13-Jun-12	6	6	$19.00	Yes	28.04	9.04
323	13-Jun-12	6	7	$19.21	Yes	28.04	8.83
324	13-Jun-12	6	8	$19.10	Yes	28.04	8.94
325	13-Jun-12	6	9	$19.10	Yes	28.04	8.94
326	13-Jun-12	6	10	$19.22	Yes	28.04	8.82
327	13-Jun-12	6	11	$19.26	Yes	28.04	8.78
328	13-Jun-12	6	12	$19.46	Yes	28.04	8.58
329	13-Jun-12	7	1	($31.59)	Yes	28.04	59.63
330	13-Jun-12	7	2	($30.12)	Yes	28.04	58.16
331	13-Jun-12	7	3	($30.16)	Yes	28.04	58.20
332	13-Jun-12	7	4	$0.40	Yes	28.04	27.64
333	13-Jun-12	7	5	$18.95	Yes	28.04	9.09
334	13-Jun-12	7	6	$19.25	Yes	28.04	8.79
335	13-Jun-12	7	7	$19.02	Yes	28.04	9.02
336	13-Jun-12	7	8	$0.40	Yes	28.04	27.64
337	13-Jun-12	7	9	$12.94	Yes	28.04	15.10
338	13-Jun-12	7	10	$19.28	Yes	28.04	8.76
339	13-Jun-12	7	11	$19.11	Yes	28.04	8.93

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
340	13-Jun-12	7	12	$19.03	Yes	28.04	9.01
341	13-Jun-12	8	1	$0.39	Yes	28.04	27.65
342	13-Jun-12	8	2	$10.31	Yes	28.04	17.73
343	13-Jun-12	8	3	$18.71	Yes	28.04	9.33
344	13-Jun-12	8	4	$19.62	Yes	28.04	8.42
345	13-Jun-12	8	5	$19.59	Yes	28.04	8.45
346	13-Jun-12	8	6	$19.62	Yes	28.04	8.42
347	13-Jun-12	8	7	$19.67	Yes	28.04	8.37
348	13-Jun-12	8	8	$19.61	Yes	28.04	8.43
349	13-Jun-12	8	9	$19.64	Yes	28.04	8.40
350	13-Jun-12	8	10	$19.73	Yes	28.04	8.31
351	13-Jun-12	8	11	$19.44	Yes	28.04	8.60
352	13-Jun-12	8	12	$21.51	Yes	28.04	6.53
353	13-Jun-12	9	1	$14.87	Yes	28.04	13.17
354	13-Jun-12	9	2	$15.62	Yes	28.04	12.42
355	13-Jun-12	9	3	$16.62	Yes	28.04	11.42
356	13-Jun-12	9	4	$19.82	Yes	28.04	8.22
357	13-Jun-12	9	5	$22.39	Yes	28.04	5.65
358	13-Jun-12	9	6	$20.31	Yes	28.04	7.73
359	13-Jun-12	9	7	$20.31	Yes	28.04	7.73
360	13-Jun-12	9	8	$19.78	Yes	28.04	8.26
361	13-Jun-12	9	9	$20.31	Yes	28.04	7.73
362	13-Jun-12	9	10	$20.31	Yes	28.04	7.73
363	13-Jun-12	9	11	$20.31	Yes	28.04	7.73
364	13-Jun-12	9	12	$21.34	Yes	28.04	6.70
365	13-Jun-12	10	1	$19.81	Yes	28.04	8.23
366	13-Jun-12	10	2	$20.24	Yes	28.04	7.80
367	13-Jun-12	10	3	$18.72	Yes	28.04	9.32
368	13-Jun-12	10	4	$19.39	Yes	28.04	8.65
369	13-Jun-12	10	5	$19.39	Yes	28.04	8.65
370	13-Jun-12	10	6	$19.42	Yes	28.04	8.62
371	13-Jun-12	10	7	$19.48	Yes	28.04	8.56
372	13-Jun-12	10	8	$22.30	Yes	28.04	5.74
373	13-Jun-12	10	9	$25.02	Yes	28.04	3.02
374	13-Jun-12	10	10	$26.11	Yes	28.04	1.93
375	13-Jun-12	10	11	$20.42	Yes	28.04	7.62
376	13-Jun-12	10	12	$24.34	Yes	28.04	3.70
377	13-Jun-12	11	1	$26.97	Yes	28.04	1.07

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
378	13-Jun-12	11	2	$26.24	Yes	28.04	1.80
379	13-Jun-12	11	3	$24.81	Yes	28.04	3.23
380	13-Jun-12	11	4	$26.59	Yes	28.04	1.45
381	13-Jun-12	11	5	$28.36	Yes	28.04	(0.32)
382	13-Jun-12	11	6	$31.51	Yes	28.04	(3.47)
383	13-Jun-12	11	7	$31.35	Yes	28.04	(3.31)
384	13-Jun-12	11	8	$30.43	Yes	28.04	(2.39)
385	13-Jun-12	11	9	$31.51	Yes	28.04	(3.47)
386	13-Jun-12	11	10	$31.23	Yes	28.04	(3.19)
387	13-Jun-12	11	11	$33.31	Yes	28.04	(5.27)
388	13-Jun-12	11	12	$36.82	Yes	28.04	(8.78)
389	13-Jun-12	12	1	$36.93	Yes	50.00	13.07
390	13-Jun-12	12	2	$28.51	Yes	50.00	21.49
391	13-Jun-12	12	3	$24.44	Yes	50.00	25.56
392	13-Jun-12	12	4	$26.08	Yes	50.00	23.92
393	13-Jun-12	12	5	$26.39	Yes	50.00	23.61
394	13-Jun-12	12	6	$27.01	Yes	50.00	22.99
395	13-Jun-12	12	7	$28.00	Yes	50.00	22.00
396	13-Jun-12	12	8	$27.30	Yes	50.00	22.70
397	13-Jun-12	12	9	$25.99	Yes	50.00	24.01
398	13-Jun-12	12	10	$32.54	Yes	50.00	17.46
399	13-Jun-12	12	11	$32.34	Yes	50.00	17.66
400	13-Jun-12	12	12	$36.60	Yes	50.00	13.40
401	13-Jun-12	13	1	$28.40	Yes	1,000.00	971.60
402	13-Jun-12	13	2	$28.64	Yes	1,000.00	971.36
403	13-Jun-12	13	3	$28.76	Yes	1,000.00	971.24
404	13-Jun-12	13	4	$29.23	Yes	1,000.00	970.77
405	13-Jun-12	13	5	$26.01	Yes	1,000.00	973.99
406	13-Jun-12	13	6	$23.33	Yes	1,000.00	976.67
407	13-Jun-12	13	7	$26.55	Yes	1,000.00	973.45
408	13-Jun-12	13	8	$26.96	Yes	1,000.00	973.04
409	13-Jun-12	13	9	$25.96	Yes	1,000.00	974.04
410	13-Jun-12	13	10	$26.16	Yes	1,000.00	973.84
411	13-Jun-12	13	11	$29.54	Yes	1,000.00	970.46
412	13-Jun-12	13	12	$28.18	Yes	1,000.00	971.82
413	13-Jun-12	14	1	$20.98	Yes	1,000.00	979.02
414	13-Jun-12	14	2	$22.11	Yes	1,000.00	977.89
415	13-Jun-12	14	3	$23.75	Yes	1,000.00	976.25

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
416	13-Jun-12	14	4	$22.02	Yes	1,000.00	977.98
417	13-Jun-12	14	5	$28.53	Yes	1,000.00	971.47
418	13-Jun-12	14	6	$28.53	Yes	1,000.00	971.47
419	13-Jun-12	14	7	$25.93	Yes	1,000.00	974.07
420	13-Jun-12	14	8	$25.60	Yes	1,000.00	974.40
421	13-Jun-12	14	9	$28.38	Yes	1,000.00	971.62
422	13-Jun-12	14	10	$28.46	Yes	1,000.00	971.54
423	13-Jun-12	14	11	$27.48	Yes	1,000.00	972.52
424	13-Jun-12	14	12	$29.47	Yes	1,000.00	970.53
425	13-Jun-12	15	1	$26.18	Yes	1,000.00	973.82
426	13-Jun-12	15	2	$28.33	Yes	1,000.00	971.67
427	13-Jun-12	15	3	$28.93	Yes	1,000.00	971.07
428	13-Jun-12	15	4	$27.53	Yes	1,000.00	972.47
429	13-Jun-12	15	5	$28.42	Yes	1,000.00	971.58
430	13-Jun-12	15	6	$29.17	Yes	1,000.00	970.83
431	13-Jun-12	15	7	$28.70	Yes	1,000.00	971.30
432	13-Jun-12	15	8	$20.98	Yes	1,000.00	979.02
433	13-Jun-12	15	9	$24.33	Yes	1,000.00	975.67
434	13-Jun-12	15	10	$28.18	Yes	1,000.00	971.82
435	13-Jun-12	15	11	$27.82	Yes	1,000.00	972.18
436	13-Jun-12	15	12	$28.59	Yes	1,000.00	971.41
437	13-Jun-12	16	1	$24.35	Yes	1,000.00	975.65
438	13-Jun-12	16	2	$26.55	Yes	1,000.00	973.45
439	13-Jun-12	16	3	$27.33	Yes	1,000.00	972.67
440	13-Jun-12	16	4	$26.81	Yes	1,000.00	973.19
441	13-Jun-12	16	5	$26.53	Yes	1,000.00	973.47
442	13-Jun-12	16	6	$24.51	Yes	1,000.00	975.49
443	13-Jun-12	16	7	$30.78	Yes	1,000.00	969.22
444	13-Jun-12	16	8	$26.89	Yes	1,000.00	973.11
445	13-Jun-12	16	9	$26.72	Yes	1,000.00	973.28
446	13-Jun-12	16	10	$28.33	Yes	1,000.00	971.67
447	13-Jun-12	16	11	$30.52	Yes	1,000.00	969.48
448	13-Jun-12	16	12	$28.33	Yes	1,000.00	971.67
449	13-Jun-12	17	1	$30.38	Yes	1,000.00	969.62
450	13-Jun-12	17	2	$30.50	Yes	1,000.00	969.50
451	13-Jun-12	17	3	$31.09	Yes	1,000.00	968.91
452	13-Jun-12	17	4	$33.69	Yes	1,000.00	966.31
453	13-Jun-12	17	5	$27.60	Yes	1,000.00	972.40

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
454	13-Jun-12	17	6	$27.74	Yes	1,000.00	972.26
455	13-Jun-12	17	7	$28.06	Yes	1,000.00	971.94
456	13-Jun-12	17	8	$29.87	Yes	1,000.00	970.13
457	13-Jun-12	17	9	$31.69	Yes	1,000.00	968.31
458	13-Jun-12	17	10	$34.50	Yes	1,000.00	965.50
459	13-Jun-12	17	11	$29.11	Yes	1,000.00	970.89
460	13-Jun-12	17	12	$27.42	Yes	1,000.00	972.58
461	13-Jun-12	18	1	$992.50	Yes	1,000.00	7.50
462	13-Jun-12	18	2	$41.94	Yes	1,000.00	958.06
463	13-Jun-12	18	3	$41.56	Yes	1,000.00	958.44
464	13-Jun-12	18	4	$43.50	Yes	1,000.00	956.50
465	13-Jun-12	18	5	$37.33	Yes	1,000.00	962.67
466	13-Jun-12	18	6	$36.59	Yes	1,000.00	963.41
467	13-Jun-12	18	7	$34.72	Yes	1,000.00	965.28
468	13-Jun-12	18	8	$33.60	Yes	1,000.00	966.40
469	13-Jun-12	18	9	$34.05	Yes	1,000.00	965.95
470	13-Jun-12	18	10	$33.80	Yes	1,000.00	966.20
471	13-Jun-12	18	11	$33.40	Yes	1,000.00	966.60
472	13-Jun-12	18	12	$33.97	Yes	1,000.00	966.03
473	13-Jun-12	19	1	$30.40	Yes	1,000.00	969.60
474	13-Jun-12	19	2	$32.64	Yes	1,000.00	967.36
475	13-Jun-12	19	3	$36.96	Yes	1,000.00	963.04
476	13-Jun-12	19	4	$39.14	Yes	1,000.00	960.86
477	13-Jun-12	19	5	$40.64	Yes	1,000.00	959.36
478	13-Jun-12	19	6	$32.36	Yes	1,000.00	967.64
479	13-Jun-12	19	7	$33.77	Yes	1,000.00	966.23
480	13-Jun-12	19	8	$22.94	Yes	1,000.00	977.06
481	13-Jun-12	19	9	$26.61	Yes	1,000.00	973.39
482	13-Jun-12	19	10	$38.56	Yes	1,000.00	961.44
483	13-Jun-12	19	11	$48.11	Yes	1,000.00	951.89
484	13-Jun-12	19	12	$50.71	Yes	1,000.00	949.29
485	13-Jun-12	20	1	$25.45	Yes	1,000.00	974.55
486	13-Jun-12	20	2	$24.16	Yes	1,000.00	975.84
487	13-Jun-12	20	3	$25.50	Yes	1,000.00	974.50
488	13-Jun-12	20	4	$24.04	Yes	1,000.00	975.96
489	13-Jun-12	20	5	$22.80	Yes	1,000.00	977.20
490	13-Jun-12	20	6	$22.80	Yes	1,000.00	977.20
491	13-Jun-12	20	7	$22.02	Yes	1,000.00	977.98

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
492	13-Jun-12	20	8	$21.62	Yes	1,000.00	978.38
493	13-Jun-12	20	9	$19.53	Yes	1,000.00	980.47
494	13-Jun-12	20	10	$19.43	Yes	1,000.00	980.57
495	13-Jun-12	20	11	$19.40	Yes	1,000.00	980.60
496	13-Jun-12	20	12	$18.49	Yes	1,000.00	981.51
497	13-Jun-12	21	1	$19.74	Yes	1,000.00	980.26
498	13-Jun-12	21	2	$19.71	Yes	1,000.00	980.29
499	13-Jun-12	21	3	$19.72	Yes	1,000.00	980.28
500	13-Jun-12	21	4	$22.13	Yes	1,000.00	977.87
501	13-Jun-12	21	5	$23.31	Yes	1,000.00	976.69
502	13-Jun-12	21	6	$24.25	Yes	1,000.00	975.75
503	13-Jun-12	21	7	$27.41	Yes	1,000.00	972.59
504	13-Jun-12	21	8	$27.77	Yes	1,000.00	972.23
505	13-Jun-12	21	9	$23.35	Yes	1,000.00	976.65
506	13-Jun-12	21	10	$23.35	Yes	1,000.00	976.65
507	13-Jun-12	21	11	$22.50	Yes	1,000.00	977.50
508	13-Jun-12	21	12	$22.30	Yes	1,000.00	977.70
509	13-Jun-12	22	1	$30.60	Yes	1,000.00	969.40
510	13-Jun-12	22	2	$27.97	Yes	1,000.00	972.03
511	13-Jun-12	22	3	$27.64	Yes	1,000.00	972.36
512	13-Jun-12	22	4	$26.08	Yes	1,000.00	973.92
513	13-Jun-12	22	5	$28.16	Yes	1,000.00	971.84
514	13-Jun-12	22	6	$20.62	Yes	1,000.00	979.38
515	13-Jun-12	22	7	$19.65	Yes	1,000.00	980.35
516	13-Jun-12	22	8	$19.50	Yes	1,000.00	980.50
517	13-Jun-12	22	9	$19.50	Yes	1,000.00	980.50
518	13-Jun-12	22	10	$19.74	Yes	1,000.00	980.26
519	13-Jun-12	22	11	$19.33	Yes	1,000.00	980.67
520	13-Jun-12	22	12	$15.03	Yes	1,000.00	984.97
521	13-Jun-12	23	1	$15.03	Yes	1,000.00	984.97
522	13-Jun-12	23	2	$19.44	Yes	1,000.00	980.56
523	13-Jun-12	23	3	$19.39	Yes	1,000.00	980.61
524	13-Jun-12	23	4	$19.39	Yes	1,000.00	980.61
525	13-Jun-12	23	5	$21.77	Yes	1,000.00	978.23
526	13-Jun-12	23	6	$23.85	Yes	1,000.00	976.15
527	13-Jun-12	23	7	$21.12	Yes	1,000.00	978.88
528	13-Jun-12	23	8	$21.31	Yes	1,000.00	978.69
529	13-Jun-12	23	9	$20.03	Yes	1,000.00	979.97

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
530	13-Jun-12	23	10	$18.74	Yes	1,000.00	981.26
531	13-Jun-12	23	11	$19.41	Yes	1,000.00	980.59
532	13-Jun-12	23	12	$18.59	Yes	1,000.00	981.41
533	13-Jun-12	24	1	$23.49	Yes	1,000.00	976.51
534	13-Jun-12	24	2	$25.55	Yes	1,000.00	974.45
535	13-Jun-12	24	3	$34.47	Yes	1,000.00	965.53
536	13-Jun-12	24	4	$34.47	Yes	1,000.00	965.53
537	13-Jun-12	24	5	$31.88	Yes	1,000.00	968.12
538	13-Jun-12	24	6	$34.47	Yes	1,000.00	965.53
539	13-Jun-12	24	7	$26.85	Yes	1,000.00	973.15
540	13-Jun-12	24	8	$26.08	Yes	1,000.00	973.92
541	13-Jun-12	24	9	$24.78	Yes	1,000.00	975.22
542	13-Jun-12	24	10	$23.38	Yes	1,000.00	976.62
543	13-Jun-12	24	11	$23.38	Yes	1,000.00	976.62
544	13-Jun-12	24	12	$23.38	Yes	1,000.00	976.62
545	14-Jun-12	12	12	$40.72	Yes	50.00	9.28
546	14-Jun-12	13	1	$30.02	Yes	50.00	19.98
547	14-Jun-12	13	2	$29.01	Yes	50.00	20.99
548	14-Jun-12	13	3	$29.53	Yes	50.00	20.47
549	14-Jun-12	13	4	$36.04	Yes	50.00	13.96
550	14-Jun-12	13	5	$39.47	Yes	50.00	10.53
551	14-Jun-12	13	6	$36.54	Yes	50.00	13.46
552	14-Jun-12	13	7	$36.05	Yes	50.00	13.95
553	14-Jun-12	13	8	$37.69	Yes	50.00	12.31
554	14-Jun-12	13	9	$38.46	Yes	50.00	11.54
555	14-Jun-12	13	10	$38.58	Yes	50.00	11.42
556	14-Jun-12	13	11	$39.26	Yes	50.00	10.74
557	14-Jun-12	13	12	$45.83	Yes	50.00	4.17
558	14-Jun-12	14	1	$25.65	Yes	1,000.00	974.35
559	14-Jun-12	14	2	$25.65	Yes	1,000.00	974.35
560	14-Jun-12	14	3	$27.74	Yes	1,000.00	972.26
561	14-Jun-12	14	4	$25.70	Yes	1,000.00	974.30
562	14-Jun-12	14	5	$26.40	Yes	1,000.00	973.60
563	14-Jun-12	14	6	$25.70	Yes	1,000.00	974.30
564	14-Jun-12	14	7	$26.67	Yes	1,000.00	973.33
565	14-Jun-12	14	8	$25.56	Yes	1,000.00	974.44
566	14-Jun-12	14	9	$26.77	Yes	1,000.00	973.23
567	14-Jun-12	14	10	$32.30	Yes	1,000.00	967.70

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
568	14-Jun-12	14	11	$33.87	Yes	1,000.00	966.13
569	14-Jun-12	14	12	$35.72	Yes	1,000.00	964.28
570	14-Jun-12	15	1	$26.12	Yes	1,000.00	973.88
571	14-Jun-12	15	2	$25.63	Yes	1,000.00	974.37
572	14-Jun-12	15	3	$25.63	Yes	1,000.00	974.37
573	14-Jun-12	15	4	$26.51	Yes	1,000.00	973.49
574	14-Jun-12	15	5	$26.57	Yes	1,000.00	973.43
575	14-Jun-12	15	6	$31.44	Yes	1,000.00	968.56
576	14-Jun-12	15	7	$29.00	Yes	1,000.00	971.00
577	14-Jun-12	15	8	$29.24	Yes	1,000.00	970.76
578	14-Jun-12	15	9	$36.25	Yes	1,000.00	963.75
579	14-Jun-12	15	10	$35.53	Yes	1,000.00	964.47
580	14-Jun-12	15	11	$34.56	Yes	1,000.00	965.44
581	14-Jun-12	15	12	$26.49	Yes	1,000.00	973.51
582	14-Jun-12	16	1	$29.35	Yes	1,000.00	970.65
583	14-Jun-12	16	2	$29.09	Yes	1,000.00	970.91
584	14-Jun-12	16	3	$31.37	Yes	1,000.00	968.63
585	14-Jun-12	16	4	$28.22	Yes	1,000.00	971.78
586	14-Jun-12	16	5	$29.71	Yes	1,000.00	970.29
587	14-Jun-12	16	6	$34.54	Yes	1,000.00	965.46
588	14-Jun-12	16	7	$31.18	Yes	1,000.00	968.82
589	14-Jun-12	16	8	$31.37	Yes	1,000.00	968.63
590	14-Jun-12	16	9	$34.54	Yes	1,000.00	965.46
591	14-Jun-12	16	10	$36.09	Yes	1,000.00	963.91
592	14-Jun-12	16	11	$34.28	Yes	1,000.00	965.72
593	14-Jun-12	16	12	$34.63	Yes	1,000.00	965.37
594	14-Jun-12	17	1	$27.73	Yes	1,000.00	972.27
595	14-Jun-12	17	2	$29.44	Yes	1,000.00	970.56
596	14-Jun-12	17	3	$32.85	Yes	1,000.00	967.15
597	14-Jun-12	17	4	$33.45	Yes	1,000.00	966.55
598	14-Jun-12	17	5	$23.86	Yes	1,000.00	976.14
599	14-Jun-12	17	6	$26.54	Yes	1,000.00	973.46
600	14-Jun-12	17	7	$23.85	Yes	1,000.00	976.15
601	14-Jun-12	17	8	$27.32	Yes	1,000.00	972.68
602	14-Jun-12	17	9	$26.49	Yes	1,000.00	973.51
603	14-Jun-12	17	10	$26.58	Yes	1,000.00	973.42
604	14-Jun-12	17	11	$26.20	Yes	1,000.00	973.80
605	14-Jun-12	17	12	$24.36	Yes	1,000.00	975.64

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
606	14-Jun-12	18	1	$24.55	Yes	1,000.00	975.45
607	14-Jun-12	18	2	$24.41	Yes	1,000.00	975.59
608	14-Jun-12	18	3	$24.41	Yes	1,000.00	975.59
609	14-Jun-12	18	4	$24.40	Yes	1,000.00	975.60
610	14-Jun-12	18	5	$23.69	Yes	1,000.00	976.31
611	14-Jun-12	18	6	$23.69	Yes	1,000.00	976.31
612	14-Jun-12	18	7	$23.67	Yes	1,000.00	976.33
613	14-Jun-12	18	8	$23.83	Yes	1,000.00	976.17
614	14-Jun-12	18	9	$24.57	Yes	1,000.00	975.43
615	14-Jun-12	18	10	$23.85	Yes	1,000.00	976.15
616	14-Jun-12	18	11	$22.71	Yes	1,000.00	977.29
617	14-Jun-12	18	12	$23.85	Yes	1,000.00	976.15
618	14-Jun-12	19	1	$24.94	Yes	1,000.00	975.06
619	14-Jun-12	19	2	$24.61	Yes	1,000.00	975.39
620	14-Jun-12	19	3	$24.47	Yes	1,000.00	975.53
621	14-Jun-12	19	4	$19.97	Yes	1,000.00	980.03
622	14-Jun-12	19	5	$19.97	Yes	1,000.00	980.03
623	14-Jun-12	19	6	$21.16	Yes	1,000.00	978.84
624	14-Jun-12	19	7	$20.06	Yes	1,000.00	979.94
625	14-Jun-12	19	8	$22.04	Yes	1,000.00	977.96
626	14-Jun-12	19	9	$21.06	Yes	1,000.00	978.94
627	14-Jun-12	19	10	$22.49	Yes	1,000.00	977.51
628	14-Jun-12	19	11	$22.88	Yes	1,000.00	977.12
629	14-Jun-12	19	12	$19.13	Yes	1,000.00	980.87
630	14-Jun-12	20	1	$25.23	Yes	1,000.00	974.77
631	14-Jun-12	20	2	$24.03	Yes	1,000.00	975.97
632	14-Jun-12	20	3	$24.03	Yes	1,000.00	975.97
633	14-Jun-12	20	4	$7.65	Yes	1,000.00	992.35
634	14-Jun-12	20	5	$10.62	Yes	1,000.00	989.38
635	14-Jun-12	20	6	$13.01	Yes	1,000.00	986.99
636	14-Jun-12	20	7	$17.70	Yes	1,000.00	982.30
637	14-Jun-12	20	8	$19.71	Yes	1,000.00	980.29
638	14-Jun-12	20	9	$19.30	Yes	1,000.00	980.70
639	14-Jun-12	20	10	$19.82	Yes	1,000.00	980.18
640	14-Jun-12	20	11	$19.77	Yes	1,000.00	980.23
641	14-Jun-12	20	12	$19.77	Yes	1,000.00	980.23
642	14-Jun-12	21	1	$19.87	Yes	1,000.00	980.13
643	14-Jun-12	21	2	$19.59	Yes	1,000.00	980.41

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
644	14-Jun-12	21	3	$29.83	Yes	1,000.00	970.17
645	14-Jun-12	21	4	$35.84	Yes	1,000.00	964.16
646	14-Jun-12	21	5	$35.13	Yes	1,000.00	964.87
647	14-Jun-12	21	6	$35.69	Yes	1,000.00	964.31
648	19-Jun-12	13	8	$12.88	Yes	38.81	25.93
649	19-Jun-12	13	9	$13.82	Yes	38.81	24.99
650	19-Jun-12	13	10	$14.95	Yes	38.81	23.86
651	19-Jun-12	13	11	$16.08	Yes	38.81	22.73
652	19-Jun-12	13	12	$16.08	Yes	38.81	22.73
653	19-Jun-12	14	1	$14.13	Yes	38.81	24.68
654	19-Jun-12	14	2	$14.18	Yes	38.81	24.63
655	19-Jun-12	14	3	$14.13	Yes	38.81	24.68
656	19-Jun-12	14	4	$14.24	Yes	38.81	24.57
657	19-Jun-12	14	5	$14.24	Yes	38.81	24.57
658	19-Jun-12	14	6	$14.99	Yes	38.81	23.82
659	19-Jun-12	14	7	$15.08	Yes	38.81	23.73
660	19-Jun-12	14	8	$15.92	Yes	38.81	22.89
661	19-Jun-12	14	9	$16.42	Yes	38.81	22.39
662	19-Jun-12	14	10	$18.67	Yes	38.81	20.14
663	19-Jun-12	14	11	$18.67	Yes	38.81	20.14
664	19-Jun-12	14	12	$19.11	Yes	38.81	19.70
665	19-Jun-12	15	1	$16.38	Yes	38.81	22.43
666	19-Jun-12	15	2	$18.52	Yes	38.81	20.29
667	19-Jun-12	15	3	$17.44	Yes	38.81	21.37
668	19-Jun-12	15	4	$18.52	Yes	38.81	20.29
669	19-Jun-12	15	5	$17.44	Yes	38.81	21.37
670	19-Jun-12	15	6	$19.31	Yes	38.81	19.50
671	19-Jun-12	15	7	$19.74	Yes	38.81	19.07
672	19-Jun-12	15	8	$20.94	Yes	38.81	17.87
673	19-Jun-12	15	9	$20.69	Yes	38.81	18.12
674	19-Jun-12	15	10	$21.15	Yes	38.81	17.66
675	19-Jun-12	15	11	$21.80	Yes	38.81	17.01
676	19-Jun-12	15	12	$22.34	Yes	38.81	16.47
677	27-Jun-12	13	11	$31.71	Yes	31.42	(0.29)
678	27-Jun-12	13	12	$31.77	Yes	31.42	(0.35)
679	27-Jun-12	14	1	$31.49	Yes	31.42	(0.07)
680	27-Jun-12	14	2	$31.55	Yes	31.42	(0.13)
681	27-Jun-12	14	3	$31.75	Yes	31.42	(0.33)

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
682	27-Jun-12	14	4	$31.77	Yes	31.42	(0.35)
683	27-Jun-12	14	5	$31.79	Yes	31.42	(0.37)
684	27-Jun-12	14	6	$31.86	Yes	31.42	(0.44)
685	27-Jun-12	14	7	$30.66	Yes	31.42	0.76
686	27-Jun-12	14	8	$30.46	Yes	31.42	0.96
687	27-Jun-12	14	9	$31.62	Yes	31.42	(0.20)
688	27-Jun-12	14	10	$31.71	Yes	31.42	(0.29)
689	27-Jun-12	14	11	$34.94	Yes	31.42	(3.52)
690	27-Jun-12	14	12	$36.70	Yes	31.42	(5.28)
691	27-Jun-12	15	1	$28.39	Yes	31.42	3.03
692	27-Jun-12	15	2	$34.53	Yes	31.42	(3.11)
693	27-Jun-12	15	3	$34.63	Yes	31.42	(3.21)
694	27-Jun-12	15	4	$34.12	Yes	31.42	(2.70)
695	27-Jun-12	15	5	$34.12	Yes	31.42	(2.70)
696	27-Jun-12	15	6	$34.12	Yes	31.42	(2.70)
697	27-Jun-12	15	7	$34.38	Yes	31.42	(2.96)
698	27-Jun-12	15	8	$30.30	Yes	31.42	1.12
699	27-Jun-12	15	9	$29.18	Yes	31.42	2.24
700	27-Jun-12	15	10	$30.32	Yes	31.42	1.10
701	27-Jun-12	15	11	$30.06	Yes	31.42	1.36
702	27-Jun-12	15	12	$31.82	Yes	31.42	(0.40)
703	27-Jun-12	16	1	$27.28	Yes	1,000.00	972.72
704	27-Jun-12	16	2	$28.71	Yes	1,000.00	971.29
705	27-Jun-12	16	3	$28.88	Yes	1,000.00	971.12
706	27-Jun-12	16	4	$29.88	Yes	1,000.00	970.12
707	27-Jun-12	16	5	$30.86	Yes	1,000.00	969.14
708	27-Jun-12	16	6	$30.41	Yes	1,000.00	969.59
709	27-Jun-12	16	7	$35.28	Yes	1,000.00	964.72
710	27-Jun-12	16	8	$35.27	Yes	1,000.00	964.73
711	27-Jun-12	16	9	$32.79	Yes	1,000.00	967.21
712	27-Jun-12	16	10	$35.24	Yes	1,000.00	964.76
713	27-Jun-12	16	11	$36.67	Yes	1,000.00	963.33
714	27-Jun-12	16	12	$32.35	Yes	1,000.00	967.65
715	27-Jun-12	17	1	$30.55	Yes	1,000.00	969.45
716	27-Jun-12	17	2	$30.17	Yes	1,000.00	969.83
717	27-Jun-12	17	3	$30.55	Yes	1,000.00	969.45
718	27-Jun-12	17	4	$30.38	Yes	1,000.00	969.62
719	27-Jun-12	17	5	$31.86	Yes	1,000.00	968.14

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
720	27-Jun-12	17	6	$30.38	Yes	1,000.00	969.62
721	27-Jun-12	17	7	$31.87	Yes	1,000.00	968.13
722	27-Jun-12	17	8	$31.13	Yes	1,000.00	968.87
723	27-Jun-12	17	9	$1,025.20	Yes	1,000.00	(25.20)
724	27-Jun-12	17	10	$76.50	Yes	1,000.00	923.50
725	27-Jun-12	17	11	$54.26	Yes	1,000.00	945.74
726	27-Jun-12	17	12	$35.35	Yes	1,000.00	964.65
727	27-Jun-12	18	1	$38.44	Yes	1,000.00	961.56
728	27-Jun-12	18	2	$30.42	Yes	1,000.00	969.58
729	27-Jun-12	18	3	$30.17	Yes	1,000.00	969.83
730	27-Jun-12	18	4	$35.35	Yes	1,000.00	964.65
731	27-Jun-12	18	5	$35.35	Yes	1,000.00	964.65
732	27-Jun-12	18	6	$26.91	Yes	1,000.00	973.09
733	27-Jun-12	18	7	$25.54	Yes	1,000.00	974.46
734	27-Jun-12	18	8	$24.91	Yes	1,000.00	975.09
735	27-Jun-12	18	9	$26.91	Yes	1,000.00	973.09
736	27-Jun-12	18	10	$26.72	Yes	1,000.00	973.28
737	27-Jun-12	18	11	$26.72	Yes	1,000.00	973.28
738	27-Jun-12	18	12	$26.82	Yes	1,000.00	973.18
739	28-Jun-12	15	11	$37.36	Yes	57.88	20.53
740	28-Jun-12	15	12	$35.16	Yes	57.88	22.72
741	28-Jun-12	16	1	$27.15	Yes	77.44	50.29
742	28-Jun-12	16	2	$25.30	Yes	77.44	52.13
743	28-Jun-12	16	3	$25.30	Yes	77.44	52.13
744	28-Jun-12	16	4	$27.96	Yes	77.44	49.47
745	28-Jun-12	16	5	$31.03	Yes	77.44	46.41
746	28-Jun-12	16	6	$31.03	Yes	77.44	46.41
747	28-Jun-12	16	7	$32.02	Yes	77.44	45.42
748	28-Jun-12	16	8	$30.91	Yes	77.44	46.53
749	28-Jun-12	16	9	$31.82	Yes	77.44	45.62
750	28-Jun-12	16	10	$35.05	Yes	77.44	42.38
751	28-Jun-12	16	11	$30.92	Yes	77.44	46.52
752	28-Jun-12	16	12	$28.12	Yes	77.44	49.32
753	28-Jun-12	17	1	$27.71	Yes	1,000.00	972.29
754	28-Jun-12	17	2	$27.70	Yes	1,000.00	972.30
755	28-Jun-12	17	3	$27.70	Yes	1,000.00	972.30
756	28-Jun-12	17	4	$28.72	Yes	1,000.00	971.28
757	28-Jun-12	17	5	$27.52	Yes	1,000.00	972.48

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
758	28-Jun-12	17	6	$28.95	Yes	1,000.00	971.05
759	28-Jun-12	17	7	$27.64	Yes	1,000.00	972.36
760	28-Jun-12	17	8	$31.74	Yes	1,000.00	968.26
761	28-Jun-12	17	9	$31.74	Yes	1,000.00	968.26
762	28-Jun-12	17	10	$32.25	Yes	1,000.00	967.75
763	28-Jun-12	17	11	$28.58	Yes	1,000.00	971.42
764	28-Jun-12	17	12	$27.44	Yes	1,000.00	972.56
765	28-Jun-12	18	1	$29.05	Yes	1,000.00	970.95
766	28-Jun-12	18	2	$30.67	Yes	1,000.00	969.33
767	28-Jun-12	18	3	$36.20	Yes	1,000.00	963.80
768	28-Jun-12	18	4	$33.03	Yes	1,000.00	966.97
769	28-Jun-12	18	5	$32.55	Yes	1,000.00	967.45
770	28-Jun-12	18	6	$36.13	Yes	1,000.00	963.87
771	28-Jun-12	18	7	$35.03	Yes	1,000.00	964.97
772	28-Jun-12	18	8	$32.94	Yes	1,000.00	967.06
773	28-Jun-12	18	9	$36.32	Yes	1,000.00	963.68
774	28-Jun-12	18	10	$37.48	Yes	1,000.00	962.52
775	28-Jun-12	18	11	$39.22	Yes	1,000.00	960.78
776	28-Jun-12	18	12	$37.48	Yes	1,000.00	962.52

Appendix C: Exceptional Dispatch Bid Mitigation Analysis

In June 2012, 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 June. With exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches were $ 404,631. Without the exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches would be $ 4,050,167. The cost saving from the exceptional dispatch bid mitigation was $ 3,645,536.

Table 10: Bid Mitigation Analysis for June

Type	Number of Resources	Costs without Bid Mitigation	Costs with Bid Mitigation	Cost Saving
NONTMOD	11	$3,905,540.18	$258,494.68	$3,647,045.51
TMODEL5	3	$130,789.52	$130,780.32	$9.20
TMODEL7	4	$13,837.37	$15,356.46	($1,519.09)
		$4,050,167.07	$404,631.45	$3,645,535.61

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 28th day of September 2012.

/s/ Susan L. Montana

Susan L. Montana