



California Independent
System Operator Corporation

May 28, 2010

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

**Re: California Independent System Operator Corporation
Docket Nos. ER08-1178-____, and EL08-88-____
February 2010 Exceptional Dispatch Report (Chart 2 data)**

Dear Secretary Bose:

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

The attached report provides Chart 2 data for the month of February 2010. The attached Chart 2 report also includes the price impact analysis for the month January 2010 required by Paragraph 44 of the September 2 order as well as the degree of mitigation analysis required by ISO tariff section 34.9.4 for the month of February 2010.

Respectfully submitted,

/s/ Sidney M. Davies

Sidney M. Davies
Assistant General Counsel
California Independent System
Operator Corporation
151 Blue Ravine Road
Folsom, CA 95630
Tel: (916) 351-4400



Exceptional Dispatch Report

Table 2: February 2010

TABLE OF CONTENTS

Introduction	3
The Nature of Exceptional Dispatch.....	3
Appendix A: Explanation by Example	11
Example 1: Exceptional Dispatch Instructions Prior to DAM	11
Example 2: Incremental Exceptional Dispatch Instructions in RTM.....	12
Example 3: Decremental Exceptional Dispatch Instructions in RTM.....	14
Appendix B: Price Impact Analysis	15
Appendix C: Exceptional Dispatch Bid Mitigation Analysis	25

LIST OF TABLES AND FIGURES

Table 1: Exceptional Dispatches in February 2010.....	7
Table 2: Instructions Prior to Day-Ahead Market	11
Table 3: FERC Summary of Instructions Prior to DAM	11
Table 4: Incremental Exceptional Dispatch Instructions in RTM	12
Table 5: FERC Summary of ED Instructions in RTM	13
Table 6: Decremental Exceptional Dispatch Instructions in RTM	14
Table 7: FERC Summary of Decremental ED Instructions in RTM.....	14
Table 8: Price Impact Analysis Information for Pricing Node A in PG&E LAP	16
Table 9: Price Impact Analysis Information for Pricing Node B in SDG&E LAP ..	17
Table 10: Bid Mitigation Analysis for February.....	25

Introduction

This report is filed pursuant to FERCs 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 February 2010.

In addition, this report contains a price impact analysis as prescribed by FERC in its September 2 order. The price impact analysis for the month of February is presented in Appendix B. This report also includes the degree of mitigation analysis for February 2010 required by section 34.9.4 of the ISO tariff. As it has previously explained, the ISO indicated that it would start including the degree of mitigation analysis beginning with the month of August 2009 when the more limited Exceptional Dispatch bid mitigation took effect. This analysis will compare those Exceptional Dispatches subject to bid mitigation (i.e. Exceptional Dispatches to address noncompetitive constraints and Delta Dispatch), and determine the cost difference between the Exceptional Dispatch bid mitigation settlement rules and what the settlement amount would have been had the Exceptional Dispatches not been subject to bid mitigation. The Exceptional Dispatch bid mitigation analysis for February is presented in Appendix C.

The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-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 dispatch instruction. The ISO issues exceptional dispatch instructions primarily to manage transmission constraints that are not modeled in the market software. In addition to constraints, the ISO also issues exceptional dispatch instructions relating to reliability requirements and, on occasion, software failures. Reliability requirements are calculated for both local area and the system wide needs, and are classified into various requirements including local generation, transmission management, 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 associate a reason for each exceptional dispatch instruction.

In February 2010, the ISO issued exceptional dispatches for the following transmission management requirements: (1) T-138, transmission facilities in Humboldt area; (2) T-151, North Geysers Area 115 kV Lines; and (3) other transmission outages in PG&E, SCE and SDG&E area.

In Table 1, the reason codes starting with “G” refer to an ISO operation procedure for generation requirements and the reason codes starting with “T” refer to an ISO operating procedure for transmission facilities. Most of the generation procedures are internal to the ISO and not available publicly on the ISO website; however, all of the transmission procedures are available on the CAISO website.¹

The following additional reasons for exceptional dispatch instructions in February 2010 were not related to specific generation or transmission operating procedures: (1) Intertie Emergency Assistance, when CAISO was providing assistance to its neighboring control area; (2) 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 (3) Market Disruption, when the exceptional dispatch instructions were issued due to HASP failures. There were a few other reasons used to explain exceptional dispatch instructions in February, which are self explanatory.

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order.² This table contains all the information published in the Table 1 of the first report for February. In addition, it contains volume (MWh) and cost information. Each entry in Table 1 is a summary of exceptional dispatches classified by (1) the reason for the exceptional dispatch; (2) the location of the resource by Participating Transmission Owner (PTO) service area; (3) the Local Reliability Area (LRA) where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification the following information is

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>

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.

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:

- MW column shows the range of exceptional dispatch instruction in MW for the classification.
- 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 shows the total imbalance energy costs for the classification. This cost contains the portion of exceptional dispatch instruction that was settled as optimal energy by virtue of its bid price being less than the LMP in that specific settlement interval.
- The ED Volume MWh (MWh INC/DEC) 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 shows that portion of decremental exceptional dispatch instruction which is settled at the resource specific LMP. Both these charge codes are portion of the real-time Instructed imbalance energy charge code (6470).⁴

³ For further details please refer to sections 11.8 of the ISO tariff for further details regarding the Bid Cost Recovery process.

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

- The CC6482 shows the real-time excess cost for the classification.⁵
- The CC6488 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 code pertain to real-time exceptional dispatch MWH quantities. The classification of data is further explained by way of example in Attachment A.

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 February 2010

**California Independent System Operator Corporation
Exceptional Dispatch Report
May 28, 2010**

Chart 2: Table of Exceptional Dispatches for Period 01/February/2010 - 28/ February/2010

Num ber	Mark et Type	Reason	Location	Local Reliability Area	Trade Date	MW	Comm itment	INC_ DEC	Hou rs	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	SP26 Capacity	SCE	LA Basin	1-Feb-10	20	Yes	N/A	5	19:00	23:00	100.00	\$12,330	\$40,012	\$0	\$0	\$0	\$0	\$0	\$0	\$53,096	
2	DA	Transmission Outage SCE	SCE	Big Creek- Ventura	9-Feb-10	20	Yes	N/A	24	0:00	23:00	480.00	\$90,622	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,578	
3	DA	Transmission Outage SCE	SCE	Big Creek- Ventura	11-Feb-10	20	Yes	N/A	7	10:00	16:00	140.00	\$26,431	\$18,414	\$0	\$0	\$0	\$0	\$0	\$0	\$37,616	
4	DA	Transmission Outage SCE	SCE	LA Basin	2-Feb-10	20	Yes	N/A	4	20:00	23:00	80.00	\$9,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,579	
5	DA	Transmission Outage SCE	SCE	LA Basin	3-Feb-10	20	Yes	N/A	24	0:00	23:00	440.00	\$50,776	\$85,960	\$0	\$0	\$0	\$0	\$0	\$0	\$241,566	
6	DA	Transmission Outage SCE	SCE	LA Basin	4-Feb-10	20	Yes	N/A	5	19:00	23:00	100.00	\$11,540	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,827	
7	DA	Transmission Outage SCE	SCE	LA Basin	5-Feb-10	20	Yes	N/A	6	0:00	5:00	120.00	\$13,848	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,511	
8	DA	Transmission Outage SCE	SCE	LA Basin	8-Feb-10	20	Yes	N/A	5	19:00	23:00	100.00	\$11,540	\$42,980	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,526
9	DA	Transmission Outage SCE	SCE	LA Basin	10-Feb-10	20	Yes	N/A	24	0:00	23:00	480.00	\$55,392	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,495	
10	DA	Transmission Outage SCE	SCE	LA Basin	11-Feb-10	20	Yes	N/A	24	0:00	23:00	440.00	\$50,776	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$131,532	
11	DA	Transmission Outage SCE	SCE	LA Basin	26-Feb-10	20	Yes	N/A	8	8:00	15:00	160.00	\$34,687	\$24,051	\$0	\$0	\$0	\$0	\$0	\$0	\$107,251	
12	DA	Transmission Outage SDG&E	SDG&E	San Diego	10-Feb-10	20	Yes	N/A	18	6:00	23:00	360.00	\$39,942	\$15,342	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,832
13	DA	Transmission Outage SDG&E	SDG&E	San Diego	11-Feb-10	20	Yes	N/A	24	0:00	23:00	480.00	\$51,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,527
14	DA	Transmission Outage SDG&E	SDG&E	San Diego	12-Feb-10	20	Yes	N/A	18	0:00	17:00	360.00	\$38,126	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,841
15	DA	Transmission Outage SDG&E	SDG&E	San Diego	15-Feb-10	20	Yes	N/A	16	5:00	20:00	320.00	\$33,775	\$12,680	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$36,720
16	DA	Transmission Outage SDG&E	SDG&E	San Diego	18-Feb-10	20	Yes	N/A	16	5:00	20:00	320.00	\$34,696	\$10,008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$34,563
17	RT	Intertie Emergency Assistance	N/A	N/A	9-Feb-10	60	No	INC	1	17:40	17:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
18	RT	Intertie Emergency Assistance	N/A	N/A	20-Feb-10	110	No	INC	2	2:53	3:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
19	RT	Market Disruption	N/A	N/A	4-Feb-10	500	Yes	INC	1	17:00	17:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
20	RT	Market Disruption	N/A	N/A	6-Feb-10	450	Yes	INC	1	6:00	6:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
21	RT	Market Disruption	N/A	N/A	17-Feb-10	109	Yes	INC	1	7:00	7:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
22	RT	Market Disruption	N/A	N/A	26-Feb-10	83	Yes	INC	1	11:00	11:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0	
23	RT	SCE Imports	SCE	LA Basin	1-Feb-10	20	Yes	INC	14	5:00	18:59	487.28	\$34,524	\$0	(\$32,139)	0.00	\$0	\$0	\$0	\$0	\$0	
24	RT	SCE Imports	SCE	LA Basin	16-Feb-10	42- 108	No	DEC	6	7:00	12:59	(19.06)	\$0	\$0	\$3,944	0.00	\$0	\$0	\$0	\$0	\$0	
25	RT	SCE Imports	SCE	LA Basin	16-Feb-10	45	No	INC	6	7:00	12:59	170.98	\$0	\$0	(\$38,443)	89.42	(\$3,887)	\$0	\$0	(\$625)	\$0	
26	RT	SP26 Capacity	SCE	LA Basin	27-Feb-10	160	Yes	INC	11	13:00	23:59	2955.63	\$89,639	\$60,411	(\$110,26	0.00	\$0	\$0	\$0	\$0	\$0	

Department of Market Services – California ISO

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)						
27	RT	Software Issue	N/A	N/A	24-Feb-10	37	Yes	INC	1	23:00	23:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
28	RT	Software Issue	N/A	N/A	25-Feb-10	0	No	INC	2	0:05	1:04	(5.56)	\$0	\$0	\$180	0.00	\$0	\$0	\$0	\$0	\$0
29	RT	Software Limitation	N/A	N/A	14-Feb-10	0	No	INC	2	12:07	13:01	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
30	RT	Software Limitation	PG&E	Bay Area	14-Feb-10	0	Yes	INC	2	13:00	14:44	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
31	RT	Software Limitation	PG&E	Fresno	11-Feb-10	0	Yes	INC	2	20:40	21:39	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
32	RT	Software Limitation	PG&E	Fresno	14-Feb-10	308	No	INC	3	5:41	7:14	468.83	\$0	\$0	(\$48,832)	345.21	(\$44,608)	\$0	\$0	\$0	\$0
33	RT	Software Limitation	PG&E	Fresno	15-Feb-10	0	No	INC	4	4:00	7:59	12.83	\$0	\$0	\$406	0.00	\$0	\$0	\$0	\$0	\$0
34	RT	Software Limitation	PG&E	Fresno	28-Feb-10	0	No	INC	2	8:55	9:54	(128.33)	\$0	\$0	\$4,526	0.00	\$0	\$0	\$0	\$0	\$0
35	RT	Software Limitation	PG&E	Humboldt	1-Feb-10	15	Yes	DEC	1	13:10	13:39	(7.50)	\$0	\$0	\$239	(2.50)	\$0	\$0	\$0	\$0	\$0
36	RT	Software Limitation	PG&E	Humboldt	3-Feb-10	15	Yes	DEC	2	10:40	11:09	(7.50)	\$0	\$0	\$226	(2.50)	\$0	\$0	\$0	\$0	\$0
37	RT	Software Limitation	PG&E	Humboldt	5-Feb-10	0	Yes	INC	1	22:05	22:44	(0.21)	\$331	\$0	\$19	0.00	\$0	\$0	\$0	\$0	\$0
38	RT	Software Limitation	PG&E	Humboldt	6-Feb-10	15	No	DEC	1	0:20	0:49	(7.50)	\$0	\$0	\$215	(7.50)	\$0	\$215	\$0	\$0	\$0
39	RT	Software Limitation	PG&E	Humboldt	7-Feb-10	15	No	DEC	1	23:30	23:59	(7.50)	\$0	\$0	\$197	(2.50)	\$0	\$0	\$0	\$0	\$0
40	RT	Software Limitation	PG&E	Humboldt	26-Feb-10	0	No	INC	2	12:55	13:59	0.26	\$0	\$0	(\$12)	0.00	\$0	\$0	\$0	\$0	\$0
41	RT	Software Limitation	PG&E	N/A	14-Feb-10	0	Yes	INC	6	12:07	17:59	0.31	\$0	\$0	(\$15)	0.00	\$0	\$0	\$0	\$0	\$0
42	RT	Software Limitation	PG&E	N/A	21-Feb-10	0	Yes	INC	8	0:00	7:59	1.47	\$2,106	\$0	(\$58)	0.00	\$0	\$0	\$0	\$0	\$0
43	RT	Software Limitation	PG&E	N/A	27-Feb-10	0	Yes	INC	4	15:42	18:14	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
44	RT	Software Limitation	PG&E	N/A	28-Feb-10	258	Yes	DEC	3	0:20	2:59	(149.55)	\$0	\$0	\$4,309	0.00	\$0	\$0	\$0	\$0	\$0
45	RT	Software Limitation	SCE	Big Creek-Ventura	8-Feb-10	20	Yes	INC	7	17:00	23:59	164.16	\$26,431	\$0	(\$9,231)	0.00	\$0	\$0	\$0	\$0	\$0
46	RT	Software Limitation	SCE	Big Creek-Ventura	13-Feb-10	10	Yes	INC	4	12:20	15:29	27.20	\$2,930	\$902	(\$1,056)	0.00	\$0	\$0	\$0	\$0	\$0
47	RT	Software Limitation	SCE	LA Basin	1-Feb-10	0	Yes	INC	4	17:30	20:09	0.00	\$0	\$675	\$0	0.00	\$0	\$0	\$0	\$0	\$0
48	RT	Software Limitation	SCE	LA Basin	3-Feb-10	0	Yes	INC	1	19:15	19:44	1.25	\$459	\$172	(\$52)	0.00	\$0	\$0	\$0	\$0	\$0
49	RT	Software Limitation	SCE	LA Basin	4-Feb-10	0	Yes	INC	2	21:30	22:29	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
50	RT	Software Limitation	SCE	LA Basin	5-Feb-10	0	Yes	INC	2	20:45	21:44	1.67	\$788	\$11	(\$75)	0.00	\$0	\$0	\$0	\$0	\$0
51	RT	Software Limitation	SCE	LA Basin	8-Feb-10	20	Yes	INC	1	23:00	23:59	18.33	\$4,840	\$0	(\$772)	0.00	\$0	\$0	\$0	\$0	\$0
52	RT	Software Limitation	SCE	LA Basin	10-Feb-10	20	Yes	INC	3	21:00	23:59	130.46	\$14,520	\$0	(\$7,178)	0.00	\$0	\$0	\$0	\$0	\$0
53	RT	Software Limitation	SCE	LA Basin	11-Feb-10	20	Yes	INC	14	10:00	23:59	255.18	\$35,292	\$0	(\$11,467)	0.00	\$0	\$0	\$0	\$0	\$0
54	RT	Software Limitation	SCE	LA Basin	12-Feb-10	0	Yes	INC	1	19:00	19:29	0.00	\$0	\$378	\$0	0.00	\$0	\$0	\$0	\$0	\$0
55	RT	Software Limitation	SCE	LA Basin	13-Feb-10	0	Yes	INC	2	18:35	19:04	1.67	\$459	\$378	(\$84)	0.00	\$0	\$0	\$0	\$0	\$0
56	RT	Software Limitation	SCE	LA Basin	14-Feb-10	0	Yes	INC	1	19:25	19:54	1.96	\$459	\$405	(\$102)	0.00	\$0	\$0	\$0	\$0	\$0
57	RT	Software Limitation	SCE	LA Basin	15-Feb-10	0	Yes	INC	3	20:15	22:44	5.57	\$459	\$189	(\$426)	0.00	\$0	\$0	\$0	\$0	\$0
58	RT	Software Limitation	SCE	LA Basin	16-Feb-10	0	Yes	INC	9	15:00	23:44	13.41	\$459	\$282	(\$1,020)	0.00	\$0	\$0	\$0	\$0	\$0
59	RT	Software Limitation	SCE	LA Basin	20-Feb-10	0	Yes	INC	1	0:05	0:29	0.83	\$390	\$0	(\$38)	0.00	\$0	\$0	\$0	\$0	\$0
60	RT	Software Limitation	SCE	LA Basin	25-Feb-10	0	Yes	INC	2	22:20	23:49	0.83	\$0	\$810	(\$25)	0.00	\$0	\$0	\$0	\$0	\$0

Department of Market Services – California ISO

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
61	RT	Software Limitation	SCE	LA Basin	27-Feb-10	0	Yes	INC	13	8:36	20:09	2.56	\$172	\$13	(\$97)	0.00	\$0	\$0	\$0	\$0	\$0
62	RT	Software Limitation	SDG&E	San Diego	14-Feb-10	20	No	DEC	2	12:46	13:02	3.44	\$0	\$0	(\$355)	(2.62)	\$0	\$0	\$0	\$0	\$0
63	RT	Software Limitation	SDG&E	San Diego	14-Feb-10	16-68	No	INC	2	12:46	13:02	25.71	\$0	\$0	(\$1,400)	0.00	\$0	\$0	\$0	\$0	\$0
64	RT	Software Limitation	SDG&E	San Diego	18-Feb-10	20	Yes	INC	16	8:35	23:59	487.55	\$6,506	\$0	(\$19,208)	404.81	(\$15,749)	\$0	\$0	(\$7,696)	\$0
65	RT	Software Limitation	SDG&E	San Diego	19-Feb-10	0	Yes	INC	1	18:05	18:29	0.83	\$349	\$0	(\$40)	0.00	\$0	\$0	\$0	\$0	\$0
66	RT	Software Limitation	SDG&E	San Diego	23-Feb-10	45	Yes	INC	2	10:52	11:15	18.99	\$439	\$43	(\$904)	0.00	\$0	\$0	\$0	\$0	\$0
67	RT	Software Limitation	SDG&E	San Diego	25-Feb-10	0	Yes	INC	24	0:22	23:59	(1.33)	\$505	\$51	\$54	0.00	\$0	\$0	\$0	\$0	\$0
68	RT	Software Limitation	SDG&E	San Diego	26-Feb-10	0	No	INC	1	0:00	0:04	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
69	RT	Software issue	PG&E	Fresno	25-Feb-10	308	Yes	DEC	3	3:40	5:29	(205.33)	\$0	\$0	\$6,956	0.00	\$0	\$0	\$0	\$0	\$0
70	RT	Software issue	PG&E	Fresno	25-Feb-10	0	Yes	INC	2	2:20	3:29	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
71	RT	Software issue	PG&E	N/A	25-Feb-10	133	Yes	DEC	2	13:30	14:14	(24.17)	\$0	\$0	\$955	0.00	\$0	\$0	\$0	\$0	\$0
72	RT	System Energy	N/A	N/A	6-Feb-10	275	Yes	INC	1	12:00	12:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
73	RT	System Energy	N/A	N/A	25-Feb-10	50	Yes	INC	1	3:00	3:59	0.00	\$0	\$0	\$0	0.00	\$0	\$0	\$0	\$0	\$0
74	RT	System Energy	PG&E	Fresno	23-Feb-10	83	Yes	INC	1	12:00	12:19	27.67	\$0	\$0	(\$2,168)	0.00	\$0	\$0	\$0	\$0	\$0
75	RT	System Energy	PG&E	Sierra	23-Feb-10	101	No	INC	1	12:00	12:19	25.06	\$0	\$0	(\$1,974)	17.99	(\$1,299)	\$0	(\$555)	\$0	\$0
76	RT	T-138	PG&E	Humboldt	1-Feb-10	5- 20	Yes	DEC	19	5:55	23:09	(103.09)	\$0	\$0	\$4,849	(2.50)	\$0	\$108	\$0	(\$108)	\$0
77	RT	T-138	PG&E	Humboldt	1-Feb-10	15	Yes	INC	24	0:00	23:59	23.07	\$5,952	\$59	(\$1,094)	7.99	(\$397)	\$0	\$0	(\$1,334)	\$0
78	RT	T-138	PG&E	Humboldt	2-Feb-10	5- 20	Yes	DEC	18	5:40	22:59	(114.48)	\$0	\$0	\$5,403	(2.50)	\$0	\$117	\$0	(\$117)	\$0
79	RT	T-138	PG&E	Humboldt	2-Feb-10	5	Yes	INC	23	0:00	22:24	3.91	\$1,653	\$0	(\$136)	0.00	\$0	\$0	\$0	\$0	\$0
80	RT	T-138	PG&E	Humboldt	3-Feb-10	5- 20	Yes	DEC	19	5:32	23:29	(134.48)	\$0	\$0	\$6,139	0.00	\$0	\$0	\$0	\$0	\$0
81	RT	T-138	PG&E	Humboldt	3-Feb-10	0	Yes	INC	17	6:35	22:49	(1.15)	\$0	\$0	\$53	0.00	\$0	\$0	\$0	\$0	\$0
82	RT	T-138	PG&E	Humboldt	4-Feb-10	5	Yes	DEC	13	5:35	17:39	(36.04)	\$0	\$0	\$1,553	0.00	\$0	\$0	\$0	\$0	\$0
83	RT	T-138	PG&E	Humboldt	4-Feb-10	15	Yes	INC	19	5:35	23:29	17.19	\$3,307	\$0	(\$826)	7.01	(\$391)	\$0	\$0	(\$1,147)	\$0
84	RT	T-138	PG&E	Humboldt	5-Feb-10	5- 10	Yes	DEC	19	5:20	23:54	(155.83)	\$0	\$0	\$7,506	0.00	\$0	\$0	\$0	\$0	\$0
85	RT	T-138	PG&E	Humboldt	6-Feb-10	5- 10	Yes	DEC	6	17:05	22:19	(12.66)	\$0	\$0	\$514	0.00	\$0	\$0	\$0	\$0	\$0
86	RT	T-138	PG&E	Humboldt	6-Feb-10	10	Yes	INC	6	18:10	23:59	10.57	\$3,968	\$0	(\$477)	1.55	(\$79)	\$0	\$0	(\$254)	\$0
87	RT	T-138	PG&E	Humboldt	7-Feb-10	5- 15	Yes	DEC	7	17:45	23:19	(39.27)	\$0	\$0	\$1,692	0.00	\$0	\$0	\$0	\$0	\$0
88	RT	T-138	PG&E	Humboldt	7-Feb-10	5	Yes	INC	22	0:00	21:44	3.33	\$1,653	\$0	(\$133)	0.00	\$0	\$0	\$0	\$0	\$0
89	RT	T-138	PG&E	Humboldt	8-Feb-10	5- 10	Yes	DEC	9	6:30	14:03	(67.66)	\$0	\$0	\$3,890	0.00	\$0	\$0	\$0	\$0	\$0
90	RT	T-138	PG&E	Humboldt	23-Feb-10	10	No	INC	4	18:23	21:24	4.17	\$0	\$0	(\$245)	3.65	(\$220)	\$0	\$0	(\$38)	\$0
91	RT	T-138	PG&E	Humboldt	26-Feb-10	5	No	INC	2	9:50	10:34	2.92	\$0	\$0	(\$128)	2.66	(\$116)	\$0	\$0	(\$38)	\$0
92	RT	T-151	PG&E	NCNB	25-Feb-10	30-121	No	DEC	6	6:00	11:44	(849.79)	\$0	\$0	\$11,320	(791.92)	\$0	\$10,530	\$0	(\$10,175)	\$0
93	RT	T-151	PG&E	NCNB	25-Feb-10	0	No	INC	1	11:20	11:44	(1.46)	\$0	\$0	\$56	0.00	\$0	\$0	\$0	\$0	\$0
94	RT	Transmission Outage PG&E	PG&E	Bay Area	23-Feb-10	17-66	No	DEC	6	18:45	23:59	(111.74)	\$0	\$0	\$5,220	(120.98)	\$0	\$5,557	\$0	(\$4,861)	\$0
95	RT	Transmission Outage PG&E	PG&E	Bay Area	23-Feb-10	110	No	INC	5	18:40	22:59	581.69	\$0	\$0	(\$28,220)	301.70	(\$14,820)	\$0	\$0	\$0	\$0

Department of Market Services – California ISO

Num ber	Mark et Type	Reason	Location	Local Reliability Area	Trade Date	MW	Comm itment	INC_ DEC	Hou rs	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	RT	Transmission Outage PG&E	PG&E	Bay Area	24-Feb-10	13-34	No	DEC	23	1:00	23:59	(236.54)	\$0	\$0	\$7,044	(133.08)	\$0	\$3,873	\$0	(\$2,938)	\$0
97	RT	Transmission Outage PG&E	PG&E	Bay Area	24-Feb-10	110-227	Yes	INC	23	1:00	23:59	713.61	\$0	\$0	(\$21,943)	0.00	\$0	\$0	\$0	\$0	\$0
98	RT	Transmission Outage PG&E	PG&E	Humboldt	10-Feb-10	6- 11	No	DEC	2	22:15	23:54	(14.36)	\$0	\$0	\$601	(13.28)	\$0	\$555	\$0	(\$513)	\$0
99	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	6-Feb-10	45-65	Yes	INC	1	12:07	12:54	50.01	\$0	\$0	(\$2,445)	31.35	(\$1,410)	\$0	\$0	(\$272)	\$0
100	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	13-Feb-10	95-217	No	DEC	3	18:15	20:59	(362.87)	\$0	\$0	\$18,072	(422.95)	\$0	\$20,855	\$0	(\$4,834)	\$0
101	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	22-Feb-10	180	No	INC	1	20:05	20:59	10.11	\$0	\$0	(\$765)	0.00	\$0	\$0	\$0	\$0	\$0
102	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	26-Feb-10	313-352	No	DEC	2	18:03	19:14	(322.13)	\$0	\$0	\$15,219	(316.17)	\$0	\$14,998	\$0	(\$867)	\$0
103	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	26-Feb-10	0	No	INC	1	19:15	19:59	(1.67)	\$0	\$0	\$58	0.00	\$0	\$0	\$0	\$0	\$0
104	RT	Transmission Outage SCE	SCE	Big Creek-Ventura	28-Feb-10	40	No	DEC	3	17:53	19:59	(122.92)	\$0	\$0	\$4,852	(119.17)	\$0	\$4,733	\$0	(\$1,287)	\$0
105	RT	Transmission Outage SCE	SCE	LA Basin	1-Feb-10	20	Yes	INC	2	22:00	23:59	47.53	\$9,680	\$0	(\$2,229)	0.00	\$0	\$0	\$0	\$0	\$0
106	RT	Transmission Outage SCE	SCE	LA Basin	2-Feb-10	20	Yes	INC	2	22:00	23:59	44.02	\$9,680	\$0	(\$1,921)	0.00	\$0	\$0	\$0	\$0	\$0
107	RT	Transmission Outage SCE	SCE	LA Basin	3-Feb-10	20	Yes	INC	2	22:00	23:59	39.84	\$9,680	\$0	(\$1,689)	0.00	\$0	\$0	\$0	\$0	\$0
108	RT	Transmission Outage SCE	SCE	LA Basin	4-Feb-10	20	Yes	INC	3	21:00	23:59	64.21	\$14,520	\$0	(\$3,341)	0.00	\$0	\$0	\$0	\$0	\$0
109	RT	Transmission Outage SDG&E	SDG&E	San Diego	18-Feb-10	43	Yes	INC	11	7:25	17:59	443.78	\$0	\$0	(\$17,273)	443.68	(\$17,269)	\$0	\$0	(\$8,367)	\$0
110	RT	Unit Testing	PG&E	Fresno	26-Feb-10	308	No	DEC	2	2:00	3:29	(462.00)	\$0	\$0	\$10,726	0.00	\$0	\$0	\$0	\$0	\$0
111	RT	Unit Testing	SCE	LA Basin	4-Feb-10	49	No	INC	5	9:06	13:12	26.08	\$0	\$0	(\$1,248)	6.11	(\$385)	\$0	\$0	\$0	\$0
112	RT	Unit Testing	SCE	LA Basin	17-Feb-10	12	Yes	INC	1	9:00	9:18	1.56	\$0	\$0	(\$61)	0.00	(\$0)	\$0	\$0	\$0	\$0
113	RT	Unit Testing	SCE	LA Basin	24-Feb-10	6	No	INC	1	7:30	7:37	0.96	\$0	\$0	(\$43)	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 G-206. 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 costs⁷. 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	G-219	300	\$5000	\$0	0
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	G-219	390	\$6000	\$500	\$4000
01-Jul-09	DA	C	SCE	LA BASIN	09:00	23:00	20	G-219.	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 shows hour ending 5 as this was the hour ending for first dispatch of the day, and the end time shows hour ending 23, as this was the hour with 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 resource 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	G-219	SCE	LA Basin	1-Jul-09	20-100	Yes	N/A	19	05:00	23:00	990	\$11,400	\$1,500	\$5000

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 T-138. 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 T-138. 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.

The 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 Day-Ahead market there is 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	T-138	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	T-138	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	T-138	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	T-138	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 shows the time of the first dispatch of the day. This is a time not a range. Similarly the End Time 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	T-138	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 T-129. 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.

The 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. The 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 it is 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	T-129	120	\$ 120	\$ 100	\$ -	0	\$ -	\$ -	\$ -	\$ -
1-Jul-09	RT	B	PG&E	Fresno	7:00	9:00	40	60	No	DEC	20	T-129	(60)	\$ -	\$ -	\$ 600	-60	\$ -	\$ 600	\$ -	\$2,400
1-Jul-09	RT	C	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	T-129	(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	T-129	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00	120	\$ 120	\$ 100	\$ -	0	\$ -	\$ -	\$ -	\$ -
2	RT	T-129	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 and Electric (PG&E) LAP and San Diego Gas & Electric (SDG&E) LAP. These two pricing nodes had the maximum amount of exceptional dispatch volume (MWh) in their respective LAP. Point A is in PG&E LAP and point B is in SDG&E 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 PG&E area. This table shows all the five minute intervals in which the resource at PNode A was issued an exceptional dispatch instruction. Out of the 8064 five-minute intervals in February, this resource was issued exceptional dispatch instructions in 70 five-minute intervals. It was not eligible to set the LMP in all 70 five-minute intervals. Therefore, the exceptional dispatch instructions for this unit had no price impact in February. Note that 70 five minute intervals are less than 1 percent of the total 8064 five minute intervals.

Table 9 shows the price impact analysis information for node B, which is located in the SDG&E area. This table shows all the five minute intervals in which the resource at PNode B was issued an exceptional dispatch instruction. Out of the 8064 five minute intervals, this resource was issued an exceptional dispatch instruction in 317 five minute intervals. This resource was eligible to set the LMP in 312 intervals. The resource calculated LMP was larger than the market LMP in all 312 intervals, and in the 312 intervals the average increase in five minute LMP was \$19.42/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 \$19.42/MWh. The 312 five minute intervals account for approximately 3.9 percent of the total 8064 five minute intervals.

Table 8: Price Impact Analysis Information for Pricing Node A in PG&E LAP

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
1	11-Feb-10	21	9	\$43.83	No	\$74.31	\$30.48
2	11-Feb-10	21	10	\$40.29	No	\$74.31	\$34.02
3	11-Feb-10	21	11	\$40.29	No	\$74.31	\$34.02
4	11-Feb-10	21	12	\$40.29	No	\$74.31	\$34.02
5	11-Feb-10	22	1	\$60.37	No	\$74.31	\$13.94
6	11-Feb-10	22	2	\$60.37	No	\$74.31	\$13.94
7	11-Feb-10	22	3	\$60.37	No	\$74.31	\$13.94
8	11-Feb-10	22	4	\$59.03	No	\$74.31	\$15.28
9	11-Feb-10	22	5	\$59.03	No	\$74.31	\$15.28
10	11-Feb-10	22	6	\$53.98	No	\$74.31	\$20.33
11	11-Feb-10	22	7	\$44.35	No	\$74.31	\$29.96
12	11-Feb-10	22	8	\$41.51	No	\$74.31	\$32.80
13	14-Feb-10	6	9	\$36.90	No	\$79.31	\$42.41
14	14-Feb-10	6	10	\$0.68	No	\$79.31	\$78.63
15	14-Feb-10	6	11	\$34.97	No	\$79.31	\$44.34
16	14-Feb-10	6	12	\$36.04	No	\$79.31	\$43.27
17	14-Feb-10	7	1	\$35.69	No	\$79.31	\$43.62
18	14-Feb-10	7	2	\$36.42	No	\$79.31	\$42.89
19	14-Feb-10	7	3	\$36.42	No	\$79.31	\$42.89
20	14-Feb-10	7	4	\$36.50	No	\$79.31	\$42.81
21	14-Feb-10	7	5	\$36.73	No	\$79.31	\$42.58
22	14-Feb-10	7	6	\$36.73	No	\$79.31	\$42.58
23	14-Feb-10	7	7	\$37.53	No	\$79.31	\$41.78
24	14-Feb-10	7	8	\$37.78	No	\$79.31	\$41.53
25	14-Feb-10	7	9	\$37.30	No	\$79.31	\$42.01
26	14-Feb-10	7	10	\$37.15	No	\$79.31	\$42.16
27	14-Feb-10	7	11	\$36.93	No	\$79.31	\$42.38
28	14-Feb-10	7	12	\$36.94	No	\$79.31	\$42.37
29	14-Feb-10	8	1	\$32.25	No	\$79.31	\$47.06
30	14-Feb-10	8	2	\$35.70	No	\$79.31	\$43.61
31	14-Feb-10	8	3	\$36.32	No	\$79.31	\$42.99
32	15-Feb-10	6	1	\$36.83	No	\$74.31	\$37.48
33	15-Feb-10	6	2	\$37.48	No	\$74.31	\$36.83
34	15-Feb-10	6	3	\$37.51	No	\$74.31	\$36.80
35	15-Feb-10	6	4	\$36.64	No	\$74.31	\$37.67
36	15-Feb-10	6	5	\$37.06	No	\$74.31	\$37.25
37	15-Feb-10	6	6	\$37.70	No	\$74.31	\$36.61
38	15-Feb-10	6	7	\$38.03	No	\$74.31	\$36.28
39	15-Feb-10	6	8	\$37.95	No	\$74.31	\$36.36
40	15-Feb-10	6	9	\$38.62	No	\$74.31	\$35.69
41	15-Feb-10	6	10	\$39.25	No	\$74.31	\$35.06
42	15-Feb-10	6	11	\$39.25	No	\$74.31	\$35.06
43	15-Feb-10	6	12	\$39.25	No	\$74.31	\$35.06

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
44	15-Feb-10	7	1	\$37.69	No	\$74.31	\$36.62
45	15-Feb-10	7	2	\$37.69	No	\$74.31	\$36.62
46	15-Feb-10	7	3	\$38.24	No	\$74.31	\$36.07
47	15-Feb-10	7	4	\$41.20	No	\$74.31	\$33.11
48	15-Feb-10	7	5	\$40.80	No	\$74.31	\$33.51
49	15-Feb-10	7	6	\$41.20	No	\$74.31	\$33.11
50	15-Feb-10	7	7	\$41.35	No	\$74.31	\$32.96
51	15-Feb-10	7	8	\$39.34	No	\$74.31	\$34.97
52	15-Feb-10	7	9	\$39.37	No	\$74.31	\$34.94
53	15-Feb-10	7	10	\$41.15	No	\$74.31	\$33.16
54	15-Feb-10	7	11	\$41.15	No	\$74.31	\$33.16
55	15-Feb-10	7	12	\$41.15	No	\$74.31	\$33.16
56	15-Feb-10	8	1	\$35.04	No	\$74.31	\$39.27
57	15-Feb-10	8	2	\$36.68	No	\$74.31	\$37.63
58	15-Feb-10	8	3	\$37.53	No	\$74.31	\$36.78
59	15-Feb-10	8	4	\$37.70	No	\$74.31	\$36.61
60	15-Feb-10	8	5	\$38.02	No	\$74.31	\$36.29
61	15-Feb-10	8	6	\$37.52	No	\$74.31	\$36.79
62	15-Feb-10	8	7	\$38.63	No	\$74.31	\$35.68
63	15-Feb-10	8	8	\$39.11	No	\$74.31	\$35.20
64	15-Feb-10	8	9	\$38.67	No	\$74.31	\$35.64
65	15-Feb-10	8	10	\$41.22	No	\$74.31	\$33.09
66	15-Feb-10	8	11	\$38.24	No	\$74.31	\$36.07
67	15-Feb-10	8	12	\$39.69	No	\$74.31	\$34.62
68	25-Feb-10	6	4	\$33.75	No	\$80.55	\$46.80
69	25-Feb-10	6	5	\$33.75	No	\$80.55	\$46.80
70	25-Feb-10	6	6	\$34.64	No	\$80.55	\$45.91

Table 9: Price Impact Analysis Information for Pricing Node B in SDG&E LAP

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
1	18-Feb-10	8	6	\$39.36	Yes	\$58.43	\$19.07
2	18-Feb-10	8	7	\$38.92	Yes	\$58.43	\$19.51
3	18-Feb-10	8	8	\$39.32	Yes	\$58.43	\$19.11
4	18-Feb-10	8	9	\$40.47	Yes	\$58.43	\$17.96
5	18-Feb-10	8	10	\$40.65	Yes	\$58.43	\$17.78
6	18-Feb-10	8	11	\$42.13	Yes	\$58.43	\$16.30
7	18-Feb-10	8	12	\$40.65	Yes	\$58.43	\$17.78
8	18-Feb-10	9	1	\$36.56	Yes	\$58.43	\$21.87
9	18-Feb-10	9	2	\$37.43	Yes	\$58.43	\$21.00
10	18-Feb-10	9	3	\$38.16	Yes	\$58.43	\$20.27

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
11	18-Feb-10	9	4	\$37.58	Yes	\$58.43	\$20.85
12	18-Feb-10	9	5	\$39.04	Yes	\$58.43	\$19.39
13	18-Feb-10	9	6	\$39.04	Yes	\$58.43	\$19.39
14	18-Feb-10	9	7	\$40.25	Yes	\$58.43	\$18.18
15	18-Feb-10	9	8	\$40.39	Yes	\$58.43	\$18.04
16	18-Feb-10	9	8	\$40.39	Yes	\$58.14	\$17.75
17	18-Feb-10	9	9	\$40.66	Yes	\$58.43	\$17.77
18	18-Feb-10	9	9	\$40.66	Yes	\$58.14	\$17.48
19	18-Feb-10	9	10	\$41.36	Yes	\$58.43	\$17.07
20	18-Feb-10	9	10	\$41.36	Yes	\$58.14	\$16.78
21	18-Feb-10	9	11	\$41.36	Yes	\$58.43	\$17.07
22	18-Feb-10	9	11	\$41.36	Yes	\$58.14	\$16.78
23	18-Feb-10	9	12	\$41.36	Yes	\$58.43	\$17.07
24	18-Feb-10	9	12	\$41.36	Yes	\$58.14	\$16.78
25	18-Feb-10	10	1	\$40.87	Yes	\$58.14	\$17.27
26	18-Feb-10	10	1	\$40.87	Yes	\$58.43	\$17.56
27	18-Feb-10	10	2	\$40.62	Yes	\$58.14	\$17.52
28	18-Feb-10	10	2	\$40.62	Yes	\$58.43	\$17.81
29	18-Feb-10	10	3	\$40.40	Yes	\$58.14	\$17.74
30	18-Feb-10	10	3	\$40.40	Yes	\$58.43	\$18.03
31	18-Feb-10	10	4	\$40.87	Yes	\$58.14	\$17.27
32	18-Feb-10	10	4	\$40.87	Yes	\$58.43	\$17.56
33	18-Feb-10	10	5	\$40.87	Yes	\$58.14	\$17.27
34	18-Feb-10	10	5	\$40.87	Yes	\$58.43	\$17.56
35	18-Feb-10	10	6	\$40.87	Yes	\$58.14	\$17.27
36	18-Feb-10	10	6	\$40.87	Yes	\$58.43	\$17.56
37	18-Feb-10	10	7	\$40.91	Yes	\$58.14	\$17.23
38	18-Feb-10	10	7	\$40.91	Yes	\$58.43	\$17.52
39	18-Feb-10	10	8	\$40.91	Yes	\$58.14	\$17.23
40	18-Feb-10	10	8	\$40.91	Yes	\$58.43	\$17.52
41	18-Feb-10	10	9	\$41.58	Yes	\$58.14	\$16.56
42	18-Feb-10	10	9	\$41.58	Yes	\$58.43	\$16.85
43	18-Feb-10	10	10	\$40.90	Yes	\$58.14	\$17.24
44	18-Feb-10	10	10	\$40.90	Yes	\$58.43	\$17.53
45	18-Feb-10	10	11	\$41.62	Yes	\$58.14	\$16.52
46	18-Feb-10	10	11	\$41.62	Yes	\$58.43	\$16.81
47	18-Feb-10	10	12	\$41.62	Yes	\$58.14	\$16.52
48	18-Feb-10	10	12	\$41.62	Yes	\$58.43	\$16.81
49	18-Feb-10	11	1	\$39.67	Yes	\$58.43	\$18.76
50	18-Feb-10	11	1	\$39.67	Yes	\$58.14	\$18.47
51	18-Feb-10	11	2	\$39.64	Yes	\$58.14	\$18.50
52	18-Feb-10	11	2	\$39.64	Yes	\$58.43	\$18.79
53	18-Feb-10	11	3	\$39.64	Yes	\$58.43	\$18.79
54	18-Feb-10	11	3	\$39.64	Yes	\$58.14	\$18.50
55	18-Feb-10	11	4	\$39.60	Yes	\$58.43	\$18.83

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
56	18-Feb-10	11	4	\$39.60	Yes	\$58.14	\$18.54
57	18-Feb-10	11	5	\$39.77	Yes	\$58.43	\$18.66
58	18-Feb-10	11	5	\$39.77	Yes	\$58.14	\$18.37
59	18-Feb-10	11	6	\$39.77	Yes	\$58.43	\$18.66
60	18-Feb-10	11	6	\$39.77	Yes	\$58.14	\$18.37
61	18-Feb-10	11	7	\$39.79	Yes	\$58.14	\$18.35
62	18-Feb-10	11	7	\$39.79	Yes	\$58.43	\$18.64
63	18-Feb-10	11	8	\$39.79	Yes	\$58.14	\$18.35
64	18-Feb-10	11	8	\$39.79	Yes	\$58.43	\$18.64
65	18-Feb-10	11	9	\$40.40	Yes	\$58.14	\$17.74
66	18-Feb-10	11	9	\$40.40	Yes	\$58.43	\$18.03
67	18-Feb-10	11	10	\$40.96	Yes	\$58.14	\$17.18
68	18-Feb-10	11	10	\$40.96	Yes	\$58.43	\$17.47
69	18-Feb-10	11	11	\$40.96	Yes	\$58.14	\$17.18
70	18-Feb-10	11	11	\$40.96	Yes	\$58.43	\$17.47
71	18-Feb-10	11	12	\$40.38	Yes	\$58.14	\$17.76
72	18-Feb-10	11	12	\$40.38	Yes	\$58.43	\$18.05
73	18-Feb-10	12	1	\$41.11	Yes	\$58.14	\$17.03
74	18-Feb-10	12	1	\$41.11	Yes	\$58.43	\$17.32
75	18-Feb-10	12	2	\$41.11	Yes	\$58.14	\$17.03
76	18-Feb-10	12	2	\$41.11	Yes	\$58.43	\$17.32
77	18-Feb-10	12	3	\$41.11	Yes	\$58.14	\$17.03
78	18-Feb-10	12	3	\$41.11	Yes	\$58.43	\$17.32
79	18-Feb-10	12	4	\$41.00	Yes	\$58.14	\$17.14
80	18-Feb-10	12	4	\$41.00	Yes	\$58.43	\$17.43
81	18-Feb-10	12	5	\$41.00	Yes	\$58.14	\$17.14
82	18-Feb-10	12	5	\$41.00	Yes	\$58.43	\$17.43
83	18-Feb-10	12	6	\$41.00	Yes	\$58.14	\$17.14
84	18-Feb-10	12	6	\$41.00	Yes	\$58.43	\$17.43
85	18-Feb-10	12	7	\$40.40	Yes	\$58.14	\$17.74
86	18-Feb-10	12	7	\$40.40	Yes	\$58.43	\$18.03
87	18-Feb-10	12	8	\$40.96	Yes	\$58.14	\$17.18
88	18-Feb-10	12	8	\$40.96	Yes	\$58.43	\$17.47
89	18-Feb-10	12	9	\$41.02	Yes	\$58.14	\$17.12
90	18-Feb-10	12	9	\$41.02	Yes	\$58.43	\$17.41
91	18-Feb-10	12	10	\$40.39	Yes	\$58.14	\$17.75
92	18-Feb-10	12	10	\$40.39	Yes	\$58.43	\$18.04
93	18-Feb-10	12	11	\$40.39	Yes	\$58.14	\$17.75
94	18-Feb-10	12	11	\$40.39	Yes	\$58.43	\$18.04
95	18-Feb-10	12	12	\$39.79	Yes	\$58.14	\$18.35
96	18-Feb-10	12	12	\$39.79	Yes	\$58.43	\$18.64
97	18-Feb-10	13	1	\$38.71	Yes	\$58.14	\$19.43
98	18-Feb-10	13	1	\$38.71	Yes	\$58.43	\$19.72
99	18-Feb-10	13	2	\$38.38	Yes	\$58.14	\$19.76
100	18-Feb-10	13	2	\$38.38	Yes	\$58.43	\$20.05

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
101	18-Feb-10	13	3	\$38.38	Yes	\$58.14	\$19.76
102	18-Feb-10	13	3	\$38.38	Yes	\$58.43	\$20.05
103	18-Feb-10	13	4	\$39.42	Yes	\$58.14	\$18.72
104	18-Feb-10	13	4	\$39.42	Yes	\$58.43	\$19.01
105	18-Feb-10	13	5	\$39.42	Yes	\$58.14	\$18.72
106	18-Feb-10	13	5	\$39.42	Yes	\$58.43	\$19.01
107	18-Feb-10	13	6	\$39.42	Yes	\$58.14	\$18.72
108	18-Feb-10	13	6	\$39.42	Yes	\$58.43	\$19.01
109	18-Feb-10	13	7	\$38.71	Yes	\$58.14	\$19.43
110	18-Feb-10	13	7	\$38.71	Yes	\$58.43	\$19.72
111	18-Feb-10	13	8	\$39.42	Yes	\$58.14	\$18.72
112	18-Feb-10	13	8	\$39.42	Yes	\$58.43	\$19.01
113	18-Feb-10	13	9	\$39.42	Yes	\$58.14	\$18.72
114	18-Feb-10	13	9	\$39.42	Yes	\$58.43	\$19.01
115	18-Feb-10	13	10	\$38.69	Yes	\$58.14	\$19.45
116	18-Feb-10	13	10	\$38.69	Yes	\$58.43	\$19.74
117	18-Feb-10	13	11	\$39.07	Yes	\$58.14	\$19.07
118	18-Feb-10	13	11	\$39.07	Yes	\$58.43	\$19.36
119	18-Feb-10	13	12	\$38.38	Yes	\$58.14	\$19.76
120	18-Feb-10	13	12	\$38.38	Yes	\$58.43	\$20.05
121	18-Feb-10	14	1	\$39.74	Yes	\$58.43	\$18.69
122	18-Feb-10	14	1	\$39.74	Yes	\$58.14	\$18.40
123	18-Feb-10	14	2	\$37.90	Yes	\$58.43	\$20.53
124	18-Feb-10	14	2	\$37.90	Yes	\$58.14	\$20.24
125	18-Feb-10	14	3	\$37.92	Yes	\$58.43	\$20.51
126	18-Feb-10	14	3	\$37.92	Yes	\$58.14	\$20.22
127	18-Feb-10	14	4	\$37.79	Yes	\$58.43	\$20.64
128	18-Feb-10	14	4	\$37.79	Yes	\$58.14	\$20.35
129	18-Feb-10	14	5	\$37.89	Yes	\$58.43	\$20.54
130	18-Feb-10	14	5	\$37.89	Yes	\$58.14	\$20.25
131	18-Feb-10	14	6	\$37.89	Yes	\$58.43	\$20.54
132	18-Feb-10	14	6	\$37.89	Yes	\$58.14	\$20.25
133	18-Feb-10	14	7	\$37.84	Yes	\$58.43	\$20.59
134	18-Feb-10	14	7	\$37.84	Yes	\$58.14	\$20.30
135	18-Feb-10	14	8	\$37.84	Yes	\$58.43	\$20.59
136	18-Feb-10	14	8	\$37.84	Yes	\$58.14	\$20.30
137	18-Feb-10	14	9	\$37.84	Yes	\$58.43	\$20.59
138	18-Feb-10	14	9	\$37.84	Yes	\$58.14	\$20.30
139	18-Feb-10	14	10	\$37.78	Yes	\$58.43	\$20.65
140	18-Feb-10	14	10	\$37.78	Yes	\$58.14	\$20.36
141	18-Feb-10	14	11	\$37.78	Yes	\$58.43	\$20.65
142	18-Feb-10	14	11	\$37.78	Yes	\$58.14	\$20.36
143	18-Feb-10	14	12	\$37.58	Yes	\$58.43	\$20.85
144	18-Feb-10	14	12	\$37.58	Yes	\$58.14	\$20.56
145	18-Feb-10	15	1	\$37.84	Yes	\$58.14	\$20.30

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
146	18-Feb-10	15	1	\$37.84	Yes	\$58.43	\$20.59
147	18-Feb-10	15	2	\$37.84	Yes	\$58.43	\$20.59
148	18-Feb-10	15	2	\$37.84	Yes	\$58.14	\$20.30
149	18-Feb-10	15	3	\$37.84	Yes	\$58.14	\$20.30
150	18-Feb-10	15	3	\$37.84	Yes	\$58.43	\$20.59
151	18-Feb-10	15	4	\$38.15	Yes	\$58.14	\$19.99
152	18-Feb-10	15	4	\$38.15	Yes	\$58.43	\$20.28
153	18-Feb-10	15	5	\$38.15	Yes	\$58.14	\$19.99
154	18-Feb-10	15	5	\$38.15	Yes	\$58.43	\$20.28
155	18-Feb-10	15	6	\$38.08	Yes	\$58.14	\$20.06
156	18-Feb-10	15	6	\$38.08	Yes	\$58.43	\$20.35
157	18-Feb-10	15	7	\$37.78	Yes	\$58.14	\$20.36
158	18-Feb-10	15	7	\$37.78	Yes	\$58.43	\$20.65
159	18-Feb-10	15	8	\$37.80	Yes	\$58.14	\$20.34
160	18-Feb-10	15	8	\$37.80	Yes	\$58.43	\$20.63
161	18-Feb-10	15	9	\$37.80	Yes	\$58.14	\$20.34
162	18-Feb-10	15	9	\$37.80	Yes	\$58.43	\$20.63
163	18-Feb-10	15	10	\$37.54	Yes	\$58.43	\$20.89
164	18-Feb-10	15	10	\$37.54	Yes	\$58.14	\$20.60
165	18-Feb-10	15	11	\$37.54	Yes	\$58.14	\$20.60
166	18-Feb-10	15	11	\$37.54	Yes	\$58.43	\$20.89
167	18-Feb-10	15	12	\$37.54	Yes	\$58.14	\$20.60
168	18-Feb-10	15	12	\$37.54	Yes	\$58.43	\$20.89
169	18-Feb-10	16	1	\$37.54	Yes	\$58.14	\$20.60
170	18-Feb-10	16	1	\$37.54	Yes	\$58.43	\$20.89
171	18-Feb-10	16	2	\$37.44	Yes	\$58.14	\$20.70
172	18-Feb-10	16	2	\$37.44	Yes	\$58.43	\$20.99
173	18-Feb-10	16	3	\$37.44	Yes	\$58.14	\$20.70
174	18-Feb-10	16	3	\$37.44	Yes	\$58.43	\$20.99
175	18-Feb-10	16	4	\$37.42	Yes	\$58.14	\$20.72
176	18-Feb-10	16	4	\$37.42	Yes	\$58.43	\$21.01
177	18-Feb-10	16	5	\$37.37	Yes	\$58.14	\$20.77
178	18-Feb-10	16	5	\$37.37	Yes	\$58.43	\$21.06
179	18-Feb-10	16	6	\$38.26	Yes	\$58.14	\$19.88
180	18-Feb-10	16	6	\$38.26	Yes	\$58.43	\$20.17
181	18-Feb-10	16	7	\$37.21	Yes	\$58.14	\$20.93
182	18-Feb-10	16	7	\$37.21	Yes	\$58.43	\$21.22
183	18-Feb-10	16	8	\$37.21	Yes	\$58.14	\$20.93
184	18-Feb-10	16	8	\$37.21	Yes	\$58.43	\$21.22
185	18-Feb-10	16	9	\$37.21	Yes	\$58.14	\$20.93
186	18-Feb-10	16	9	\$37.21	Yes	\$58.43	\$21.22
187	18-Feb-10	16	10	\$37.19	Yes	\$58.14	\$20.95
188	18-Feb-10	16	10	\$37.19	Yes	\$58.43	\$21.24
189	18-Feb-10	16	11	\$36.77	Yes	\$58.14	\$21.37
190	18-Feb-10	16	11	\$36.77	Yes	\$58.43	\$21.66

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
191	18-Feb-10	16	12	\$37.19	Yes	\$58.14	\$20.95
192	18-Feb-10	16	12	\$37.19	Yes	\$58.43	\$21.24
193	18-Feb-10	17	1	\$36.59	Yes	\$58.14	\$21.55
194	18-Feb-10	17	1	\$36.59	Yes	\$58.43	\$21.84
195	18-Feb-10	17	2	\$36.59	Yes	\$58.14	\$21.55
196	18-Feb-10	17	2	\$36.59	Yes	\$58.43	\$21.84
197	18-Feb-10	17	3	\$36.59	Yes	\$58.14	\$21.55
198	18-Feb-10	17	3	\$36.59	Yes	\$58.43	\$21.84
199	18-Feb-10	17	4	\$36.61	Yes	\$58.14	\$21.53
200	18-Feb-10	17	4	\$36.61	Yes	\$58.43	\$21.82
201	18-Feb-10	17	5	\$36.70	Yes	\$58.14	\$21.44
202	18-Feb-10	17	5	\$36.70	Yes	\$58.43	\$21.73
203	18-Feb-10	17	6	\$36.73	Yes	\$58.14	\$21.41
204	18-Feb-10	17	6	\$36.73	Yes	\$58.43	\$21.70
205	18-Feb-10	17	7	\$37.32	Yes	\$58.14	\$20.82
206	18-Feb-10	17	7	\$37.32	Yes	\$58.43	\$21.11
207	18-Feb-10	17	8	\$37.23	Yes	\$58.14	\$20.91
208	18-Feb-10	17	8	\$37.23	Yes	\$58.43	\$21.20
209	18-Feb-10	17	9	\$37.45	Yes	\$58.14	\$20.69
210	18-Feb-10	17	9	\$37.45	Yes	\$58.43	\$20.98
211	18-Feb-10	17	10	\$37.43	Yes	\$58.14	\$20.71
212	18-Feb-10	17	10	\$37.43	Yes	\$58.43	\$21.00
213	18-Feb-10	17	11	\$37.43	Yes	\$58.14	\$20.71
214	18-Feb-10	17	11	\$37.43	Yes	\$58.43	\$21.00
215	18-Feb-10	17	12	\$37.48	Yes	\$58.14	\$20.66
216	18-Feb-10	17	12	\$37.48	Yes	\$58.43	\$20.95
217	18-Feb-10	18	1	\$33.63	Yes	\$58.14	\$24.51
218	18-Feb-10	18	1	\$33.63	Yes	\$58.43	\$24.80
219	18-Feb-10	18	2	\$35.10	Yes	\$58.14	\$23.04
220	18-Feb-10	18	2	\$35.10	Yes	\$58.43	\$23.33
221	18-Feb-10	18	3	\$35.83	Yes	\$58.14	\$22.31
222	18-Feb-10	18	3	\$35.83	Yes	\$58.43	\$22.60
223	18-Feb-10	18	4	\$35.97	Yes	\$58.14	\$22.17
224	18-Feb-10	18	4	\$35.97	Yes	\$58.43	\$22.46
225	18-Feb-10	18	5	\$36.11	Yes	\$58.14	\$22.03
226	18-Feb-10	18	5	\$36.11	Yes	\$58.43	\$22.32
227	18-Feb-10	18	6	\$37.46	Yes	\$58.14	\$20.68
228	18-Feb-10	18	6	\$37.46	Yes	\$58.43	\$20.97
229	18-Feb-10	18	7	\$38.07	Yes	\$58.14	\$20.07
230	18-Feb-10	18	7	\$38.07	Yes	\$58.43	\$20.36
231	18-Feb-10	18	8	\$38.77	Yes	\$58.14	\$19.37
232	18-Feb-10	18	8	\$38.77	Yes	\$58.43	\$19.66
233	18-Feb-10	18	9	\$40.10	Yes	\$58.14	\$18.04
234	18-Feb-10	18	9	\$40.10	Yes	\$58.43	\$18.33
235	18-Feb-10	18	10	\$42.69	Yes	\$58.14	\$15.45

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
236	18-Feb-10	18	10	\$42.69	Yes	\$58.43	\$15.74
237	18-Feb-10	18	11	\$42.69	Yes	\$58.14	\$15.45
238	18-Feb-10	18	11	\$42.69	Yes	\$58.43	\$15.74
239	18-Feb-10	18	12	\$43.77	Yes	\$58.14	\$14.37
240	18-Feb-10	18	12	\$43.77	Yes	\$58.43	\$14.66
241	18-Feb-10	19	1	\$44.13	Yes	\$58.14	\$14.01
242	18-Feb-10	19	2	\$43.17	Yes	\$58.14	\$14.97
243	18-Feb-10	19	3	\$43.17	Yes	\$58.14	\$14.97
244	18-Feb-10	19	4	\$43.10	Yes	\$58.14	\$15.04
245	18-Feb-10	19	5	\$41.62	Yes	\$58.14	\$16.52
246	18-Feb-10	19	6	\$43.10	Yes	\$58.14	\$15.04
247	18-Feb-10	19	7	\$41.52	Yes	\$58.14	\$16.62
248	18-Feb-10	19	8	\$41.67	Yes	\$58.14	\$16.47
249	18-Feb-10	19	9	\$41.52	Yes	\$58.14	\$16.62
250	18-Feb-10	19	10	\$41.36	Yes	\$58.14	\$16.78
251	18-Feb-10	19	11	\$41.36	Yes	\$58.14	\$16.78
252	18-Feb-10	19	12	\$41.36	Yes	\$58.14	\$16.78
253	18-Feb-10	20	1	\$42.48	Yes	\$58.14	\$15.66
254	18-Feb-10	20	2	\$42.87	Yes	\$58.14	\$15.27
255	18-Feb-10	20	3	\$43.04	Yes	\$58.14	\$15.10
256	18-Feb-10	20	4	\$42.72	Yes	\$58.14	\$15.42
257	18-Feb-10	20	5	\$41.57	Yes	\$58.14	\$16.57
258	18-Feb-10	20	6	\$41.29	Yes	\$58.14	\$16.85
259	18-Feb-10	20	7	\$40.58	Yes	\$58.14	\$17.56
260	18-Feb-10	20	8	\$40.48	Yes	\$58.14	\$17.66
261	18-Feb-10	20	9	\$40.48	Yes	\$58.14	\$17.66
262	18-Feb-10	20	10	\$40.37	Yes	\$58.14	\$17.77
263	18-Feb-10	20	11	\$40.42	Yes	\$58.14	\$17.72
264	18-Feb-10	20	12	\$40.28	Yes	\$58.14	\$17.86
265	18-Feb-10	21	1	\$40.22	Yes	\$58.14	\$17.92
266	18-Feb-10	21	2	\$41.99	Yes	\$58.14	\$16.15
267	18-Feb-10	21	3	\$41.99	Yes	\$58.14	\$16.15
268	18-Feb-10	21	4	\$40.93	Yes	\$58.14	\$17.21
269	18-Feb-10	21	5	\$40.15	Yes	\$58.14	\$17.99
270	18-Feb-10	21	6	\$40.03	Yes	\$58.14	\$18.11
271	18-Feb-10	21	7	\$38.92	Yes	\$58.14	\$19.22
272	18-Feb-10	21	8	\$38.61	Yes	\$58.14	\$19.53
273	18-Feb-10	21	9	\$38.61	Yes	\$58.14	\$19.53
274	18-Feb-10	21	10	\$38.11	Yes	\$58.14	\$20.03
275	18-Feb-10	21	11	\$37.62	Yes	\$58.14	\$20.52
276	18-Feb-10	21	12	\$36.60	Yes	\$58.14	\$21.54
277	18-Feb-10	22	1	\$39.30	Yes	\$58.14	\$18.84
278	18-Feb-10	22	2	\$38.14	Yes	\$58.14	\$20.00
279	18-Feb-10	22	3	\$37.63	Yes	\$58.14	\$20.51
280	18-Feb-10	22	4	\$37.20	Yes	\$58.14	\$20.94

Department of Market Services – California ISO

Number	Trade Date	Trade Hour	Interval	Market LMP	Eligible Flag	Calculated LMP	Change in LMP
281	18-Feb-10	22	5	\$37.22	Yes	\$58.14	\$20.92
282	18-Feb-10	22	6	\$37.22	Yes	\$58.14	\$20.92
283	18-Feb-10	22	7	\$36.29	Yes	\$58.14	\$21.85
284	18-Feb-10	22	8	\$36.29	Yes	\$58.14	\$21.85
285	18-Feb-10	22	9	\$36.29	Yes	\$58.14	\$21.85
286	18-Feb-10	22	10	\$35.02	Yes	\$58.14	\$23.12
287	18-Feb-10	22	11	\$34.50	Yes	\$58.14	\$23.64
288	18-Feb-10	22	12	\$30.15	Yes	\$58.14	\$27.99
289	18-Feb-10	23	1	\$45.53	Yes	\$58.14	\$12.61
290	18-Feb-10	23	2	\$43.20	Yes	\$58.14	\$14.94
291	18-Feb-10	23	3	\$33.94	Yes	\$58.14	\$24.20
292	18-Feb-10	23	4	\$36.85	Yes	\$58.14	\$21.29
293	18-Feb-10	23	5	\$37.87	Yes	\$58.14	\$20.27
294	18-Feb-10	23	6	\$37.87	Yes	\$58.14	\$20.27
295	18-Feb-10	23	7	\$37.28	Yes	\$58.14	\$20.86
296	18-Feb-10	23	8	\$36.70	Yes	\$58.14	\$21.44
297	18-Feb-10	23	9	\$35.49	Yes	\$58.14	\$22.65
298	18-Feb-10	23	10	\$34.92	Yes	\$58.14	\$23.22
299	18-Feb-10	23	11	\$33.53	Yes	\$58.14	\$24.61
300	18-Feb-10	23	12	\$28.47	Yes	\$58.14	\$29.67
301	18-Feb-10	24	1	\$40.92	Yes	\$58.99	\$18.07
302	18-Feb-10	24	2	\$42.35	Yes	\$58.99	\$16.64
303	18-Feb-10	24	3	\$34.60	Yes	\$58.99	\$24.39
304	18-Feb-10	24	4	\$34.74	Yes	\$58.99	\$24.25
305	18-Feb-10	24	5	\$37.27	Yes	\$58.99	\$21.72
306	18-Feb-10	24	6	\$36.46	Yes	\$58.99	\$22.53
307	18-Feb-10	24	7	\$34.79	Yes	\$58.99	\$24.20
308	18-Feb-10	24	8	\$34.98	Yes	\$58.99	\$24.01
309	18-Feb-10	24	9	\$34.67	Yes	\$58.99	\$24.32
310	18-Feb-10	24	10	\$34.55	Yes	\$58.99	\$24.44
311	18-Feb-10	24	11	\$34.55	Yes	\$58.99	\$24.44
312	18-Feb-10	24	12	\$31.86	Yes	\$58.99	\$27.13
313	19-Feb-10	19	2	\$46.16	No	\$57.66	\$11.50
314	19-Feb-10	19	3	\$43.07	No	\$57.66	\$14.59
315	19-Feb-10	19	4	\$43.08	No	\$57.66	\$14.58
316	19-Feb-10	19	5	\$39.41	No	\$57.66	\$18.25
317	19-Feb-10	19	6	\$40.26	No	\$57.66	\$17.40

Appendix C: Exceptional Dispatch Bid Mitigation Analysis

In February 2010, the ISO applied the exceptional dispatch bid mitigation to the exceptional dispatches that are noncompetitive TMODELS⁸ and Delta Dispatch. Table 10 shows the costs by instruction type in February. With exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches were \$14,821. Without the exceptional dispatch bid mitigation, the costs for these types of exceptional dispatches would be \$14,907. The cost saving from the exceptional dispatch bid mitigation was \$86.

Table 10: Bid Mitigation Analysis for February

Type	Number of Resources	Costs without Bid Mitigation	Costs with Bid Mitigation	Cost Saving
TMODEL5	1	\$14,907	\$14,821	\$86
Total	1	\$14,907	\$14,821	\$86

⁸ The non-competitive “TMODEL” exceptional dispatches include: TMODEL4 (if more than one participating transmission owner is affected), TMODEL5 (if only PG&E is affected), TMODEL6 (if only SCE is affected) and TMODEL 7 (if only SDG&E is affected).

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 May, 2010.

Anna Pascuzzo

Anna Pascuzzo