

July 13, 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-\_ May 2012 Exceptional Dispatch Report (Chart 1 data)

Dear Secretary Bose:

Pursuant to the Commission's September 2, 2009 and May 4, 2010 orders in the above referenced dockets, the California Independent System Operator Corporation submits the attached report. The attached report provides details concerning Exceptional Dispatches the Commission directed to be included in "Chart 1" as set forth in Appendix A of the September 2 order, as modified by the ISO's September 14 motion for clarification, which the Commission granted in its May 4 order. The attached report provides Chart 1 data for the month of May 2012.

Respectfully submitted,

By: /s/ Sidney M. Davies

Nancy Saracino General Counsel Sidney M. Davies Assistant General Counsel California Independent System **Operator Corporation** 250 Outcropping Way Folsom, CA 95630 Tel: (916) 608-7144 Fax (916) 608-7222

sdavies@casio.com

#### **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 13<sup>th</sup> day of July 2012.

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



# **Exceptional Dispatch Report**

**Table 1: May 2012** 

ISO Market Analysis and Development

July 13, 2012

# TABLE OF CONTENTS

Introduction	3
The Nature of Exceptional Dispatch	
Appendix A: Explanation by Example	21
Example 1: Exceptional Dispatch Instructions Prior to DAM	
Example 2: Incremental Exceptional Dispatch Instructions in RTM	22
Example 3: Decremental Exceptional Dispatch Instructions in RTM	24
LIST OF TABLES AND FIGURES	•
Table 1: Exceptional Dispatches in May 2012	
Table 2: Instructions Prior to Day-Ahead Market	21
Table 3: FERC Summary of Instructions Prior to DAM	22
Table 4: Incremental Exceptional Dispatch Instructions in RTM	22
Table 5: FERC Summary of ED Instructions in RTM	23
Table 6: Decremental Exceptional Dispatch Instructions in RTM	24
Table 7: FERC Summary of Decremental ED Instructions in RTM	24

#### Introduction

This report is filed pursuant to FERC's September 2, 2009 and May 4, 2010 orders in ER08-1178. These orders require two monthly Exceptional Dispatch reports—one issued on the 15<sup>th</sup> of each month and one issued on the 30<sup>th</sup> of each month. This report provides data on the frequency and reasons for Exceptional Dispatches issued in May 2012.

## The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-day-ahead unit commitment, which may also include an indicative exceptional dispatch energy schedule, a post-day-ahead unit commitment, or a real-time exceptional dispatch<sup>1</sup>. A pre-day-ahead commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the day-ahead market. A post-day-ahead market commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the real-time market. A real-time exceptional dispatch instruction is a dispatch of a resource at or above its physical minimum operating point. For the purposes of this report, a real-time exceptional dispatch above the resource day-ahead award is considered an incremental exceptional dispatch instruction and an exceptional dispatch below the day-ahead award is considered a decremental dispatch instruction.

The ISO issues exceptional dispatch instructions primarily for constraints which are not enforced or not completely enforced in the market software. Whenever the ISO issues an exceptional dispatch instruction, such instructions are logged into the scheduling and logging system ("SLIC"), including the associated reason. These reasons are associated with the constraints that are not currently incorporated into the market application. In addition to model constraints, the ISO also issues exceptional dispatch instructions for software failures.

Many of the exceptional dispatches listed below in Table 1, were to satisfy either a local area or system reliability requirements, and are classified into local generation requirements, transmission management requirements, non-modeled transmission outages or other requirements, such as ramp requirements and intertie emergency assistance. All reason codes starting with "G" refer to an ISO operating procedure for generation requirements and 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 on the ISO website. All of the transmission procedures are available on the CAISO website<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> The ISO can issue exceptional dispatch instruction subject to authority of the ISO Tariff Section 34.9 and in accordance with ISO Operating Procedure 2330 (formerly M-402).

<sup>&</sup>lt;sup>2</sup> A list of all of the ISO's publicly available Operating Procedures are available at the following link: http://www.caiso.com/thegrid/operations/opsdoc/index.html

In May 2012, the ISO issued exceptional dispatches for the following local area generation requirement: (1) 7810, San Diego area generation requirements. Exceptional dispatch instructions were also issued for the following transmission management requirements: (1) 6510, Southern California import transmission (SCIT) nomogram; (2) 7110, transmission facilities in Humboldt area; (3) 7240, Drum Area/Summit Operations; (4) 7320, transmission facilities in Bay Area; (5) 7410, transmission facilities in Tesla/Bellota Area; (6) 7430, transmission facilities in Fresno area; (7) 7820, transmission facilities in San Diego and Imperial Valley area; and (8) other transmission outages in PG&E, SCE and SDG&E area.

The following additional reasons for exceptional dispatch instructions in May 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) Market Disruption, when the exceptional dispatch instructions were issued due to HASP failures; and (3) 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 May, which are self explanatory.

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order<sup>3</sup>. Each entry in Attachment A 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

<sup>&</sup>lt;sup>3</sup> The data in Table 1 is principally SLIC information supplemented with data from the Market Quality System (MQS). It is the most accurate currently available and it is worth noting that this data has been through the T+38B initial statement process wherein many unresolved issues are fixed. The CAISO believes that this data will correlate well with the settlements data that will be available when the CAISO files the Table 2 report for the reporting period.

(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; and (6) End Time.

The MW column shows the range of exceptional dispatch instructions 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, a decremental dispatch, or only a unit commitment. If the exceptional dispatch was only a unit commitment, the column shows NA for the classification. The Begin Time column shows the start of exceptional dispatch for the classification and the End Time column shows the end of exceptional dispatch for the classification. The column Hours is the difference between end time and begin time rounded up to the next hour. The data shown is further explained by way of example in Attachment A.

Table 1 indicates that there were a total of 383 exceptional dispatches in May 2012, increasing by 55 as compared to the June 15, 2012 report for April 2012. There were no exceptional dispatchs in the day-ahead market. Exceptional dispatches issued for the following reasons accounted for approximately 65 percent of the total exceptional dispatches during the reporting period: Transmission Outage SCE, Transmission Outage PG&E, Software Limitation, and 7430.

Table 1: Exceptional Dispatches in May 2012

### California Independent System Operator Corporation Exceptional Dispatch Report July13, 2012

# Chart 1: Table of Exceptional Dispatches for Period 01/May/2012 – 31/May2012

Num	Market			Local Reliability			Commit			Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC DEC	Hours	Time	Time
1	RT	6510	SCE	LA Basin	24-May-12	20	Yes	INC	24	0:00	23:59
2	RT	7110	PG&E	Humboldt	5-May-12	29	No	INC	2	22:38	23:45
3	RT	7110	PG&E	Humboldt	7-May-12	15- 45	No	INC	9	13:00	21:59
4	RT	7110	PG&E	Humboldt	8-May-12	29	No	INC	2	20:53	21:09
5	RT	7110	PG&E	Humboldt	9-May-12	32- 73	No	INC	5	18:00	22:59
6	RT	7110	PG&E	Humboldt	16-May-12	29	No	INC	2	16:50	17:10
7	RT	7110	PG&E	Humboldt	25-May-12	16	No	INC	4	13:40	16:59
8	RT	7110	PG&E	Humboldt	26-May-12	32	No	INC	3	20:50	22:04
9	RT	7110	PG&E	Humboldt	29-May-12	45- 58	No	INC	3	21:07	23:59
10	RT	7110	PG&E	Humboldt	30-May-12	4	No	DEC	4	20:35	23:59
11	RT	7110	PG&E	Humboldt	30-May-12	18- 74	No	INC	7	17:40	23:59
12	RT	7240	PG&E	Sierra	5-May-12	15	No	DEC	3	19:39	21:59
13	RT	7240	PG&E	Sierra	6-May-12	11- 21	No	DEC	7	15:10	21:59
14	RT	7240	PG&E	Sierra	7-May-12	9- 13	No	DEC	3	15:20	17:59
15	RT	7240	PG&E	Sierra	8-May-12	30	No	DEC	3	13:16	15:59
16	RT	7320	PG&E	Bay Area	17-May-12	19	No	INC	5	17:00	21:59
17	RT	7410	PG&E	Stockton	25-May-12	7	No	DEC	10	12:55	21:59
18	RT	7430	PG&E	Fresno	1-May-12	3- 39	Yes	DEC	18	6:00	23:59
19	RT	7430	PG&E	Fresno	1-May-12	20- 413	Yes	INC	24	0:00	23:59
20	RT	7430	PG&E	Fresno	2-May-12	9- 15	No	DEC	16	7:00	22:59
21	RT	7430	PG&E	Fresno	2-May-12	46- 400	Yes	INC	24	0:00	23:59

				Local							
Num	Market	Bassan	Location	Reliability	Trade Date	B/IVA/	Commit	INC DEC	Нашка	Begin	End
ber 22	<b>Type</b> RT	Reason 7430	Location PG&E	Area Fresno	3-May-12	<b>MW</b> 5	ment No	DEC_DEC_	Hours 12	<b>Time</b> 7:40	<b>Time</b> 18:59
23	RT	7430	PG&E	Fresno	3-May-12	344	Yes	INC	24	0:00	23:59
24	RT	7430	PG&E	Fresno	4-May-12	0- 8	No	DEC	22	0:00	21:59
25	RT	7430	PG&E	Fresno	4-May-12	350	Yes	INC	24	0:00	23:59
26	RT	7430	PG&E	Fresno	5-May-12	3- 10	No	DEC	24	0:00	23:59
27	RT	7430	PG&E	Fresno	5-May-12	14- 351	Yes	INC	24	0:00	23:59
28	RT	7430	PG&E	Fresno	6-May-12	3- 10	No	DEC	24	0:30	23:59
29	RT	7430	PG&E	Fresno	6-May-12	10- 150	Yes	INC	24	0:00	23:59
30	RT	7430	PG&E	Fresno	7-May-12	2- 10	No	DEC	23	1:00	23:59
31	RT	7430	PG&E	Fresno	7-May-12	1- 22	No	INC	24	0:00	23:59
32	RT	7430	PG&E	Fresno	8-May-12	1- 5	No	DEC	19	5:10	23:59
33	RT	7430	PG&E	Fresno	8-May-12	0- 18	No	INC	24	0:00	23:59
34	RT	7430	PG&E	Fresno	9-May-12	5	No	DEC	10	9:25	18:59
35	RT	7430	PG&E	Fresno	9-May-12	42	No	INC	6	18:25	23:59
36	RT	7430	PG&E	Fresno	10-May-12	2- 9	No	DEC	10	6:35	15:59
37	RT	7430	PG&E	Fresno	10-May-12	85	Yes	INC	19	5:25	23:59
38	RT	7430	PG&E	Fresno	11-May-12	2- 19	No	INC	24	0:00	23:59
39	RT	7430	PG&E	Fresno	12-May-12	47- 170	Yes	INC	13	10:05	22:59
40	RT	7430	PG&E	Fresno	13-May-12	1	Yes	DEC	11	12:05	22:59
41	RT	7430	PG&E	Fresno	13-May-12	42- 461	Yes	INC	16	8:56	23:59
42	RT	7430	PG&E	Fresno	14-May-12	3- 6	No	DEC	4	19:40	22:59
43	RT	7430	PG&E	Fresno	14-May-12	22- 150	Yes	INC	7	17:10	23:59
44	RT	7430	PG&E	Fresno	15-May-12	2	No	DEC	12	10:35	21:59
45	RT	7430	PG&E	Fresno	15-May-12	67- 230	Yes	INC	24	0:00	23:29
46	RT	7430	PG&E	Fresno	16-May-12	67- 300	Yes	INC	6	18:05	23:29
47	RT	7430	PG&E	Fresno	17-May-12	5	No	DEC	15	9:20	23:59
48	RT	7430	PG&E	Fresno	17-May-12	96- 313	Yes	INC	15	9:20	23:59
49	RT	7430	PG&E	Fresno	19-May-12	83	Yes	INC	3	14:27	16:59
50	RT	7430	PG&E	Fresno	20-May-12	28- 108	No	INC	2	22:18	23:59

Num	Market			Local Reliability			Commit	W0 D50		Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
51	RT	7430	PG&E	Fresno	21-May-12	46- 146	Yes	INC	9	15:15	23:59
52	RT	7430	PG&E	Fresno	22-May-12	46- 177	Yes	INC	24	0:00	23:29
53	RT	7430	PG&E	Fresno	23-May-12	83- 100	Yes	INC	5	18:13	22:59
54	RT	7430	PG&E	Fresno	24-May-12	17- 259	Yes	INC	8	16:30	23:58
55	RT	7430	PG&E	Fresno	25-May-12	5	No	DEC	11	11:25	21:59
56	RT	7430	PG&E	Fresno	25-May-12	46- 215	No	INC	23	0:00	22:59
57	RT	7430	PG&E	Fresno	26-May-12	46- 96	Yes	INC	5	18:55	22:59
58	RT	7430	PG&E	Fresno	27-May-12	5	Yes	DEC	10	12:45	21:59
59	RT	7430	PG&E	Fresno	27-May-12	83	Yes	INC	2	21:00	22:59
60	RT	7430	PG&E	Fresno	28-May-12	46- 96	Yes	INC	6	15:55	20:59
61	RT	7430	PG&E	Sierra	13-May-12	3	No	DEC	2	22:35	23:59
62	RT	7810	SDG&E	San Diego	31-May-12	20	Yes	INC	1	23:00	23:59
63	RT	7820	SDG&E	N/A	8-May-12	101- 179	Yes	DEC	6	14:10	19:59
64	RT	7820	SDG&E	N/A	8-May-12	200- 246	No	INC	5	15:35	19:59
65	RT	7820	SDG&E	N/A	9-May-12	25- 179	Yes	DEC	12	11:30	22:59
66	RT	7820	SDG&E	N/A	9-May-12	145- 510	Yes	INC	12	11:35	22:59
67	RT	7820	SDG&E	N/A	10-May-12	17- 179	Yes	DEC	13	9:05	21:59
68	RT	7820	SDG&E	N/A	10-May-12	145- 551	Yes	INC	16	6:30	21:59
69	RT	7820	SDG&E	N/A	11-May-12	51- 139	Yes	DEC	12	10:17	21:52
70	RT	7820	SDG&E	N/A	11-May-12	350- 575	Yes	INC	12	10:40	21:59
71	RT	7820	SDG&E	N/A	12-May-12	60- 178	Yes	DEC	10	14:35	23:59
72	RT	7820	SDG&E	N/A	12-May-12	310- 428	Yes	INC	9	15:45	23:59
73	RT	7820	SDG&E	N/A	13-May-12	30- 142	Yes	DEC	7	15:25	21:59
74	RT	7820	SDG&E	N/A	13-May-12	400-	Yes	INC	7	15:20	21:59

Num	Market			Local Reliability			Commit			Pogin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC DEC	Hours	Begin Time	Time
Dei	турс	Reason	Location	Alea	Trade Date	550	IIICIIL	INC_DEC	Hours	Tillic	Tillic
75	RT	7820	SDG&E	N/A	14-May-12	20- 179	Yes	DEC	16	8:50	23:59
- 70	1(1	7020	ODOGE	14// (	14 May 12	145-	100	BLO	10	0.00	20.00
76	RT	7820	SDG&E	N/A	14-May-12	560	Yes	INC	16	8:50	23:59
77	RT	7820	SDG&E	N/A	15-May-12	5- 120	Yes	DEC	5	9:50	13:59
					•	420-					
78	RT	7820	SDG&E	N/A	15-May-12	500	No	INC	5	9:40	13:59
79	RT	7820	SDG&E	N/A	16-May-12	73- 200	Yes	DEC	13	11:25	23:59
80	RT	7820	SDG&E	N/A	16-May-12	310	No	INC	13	11:25	23:59
81	RT	7820	SDG&E	N/A	17-May-12	38- 174	Yes	DEC	15	9:35	23:59
						145-					
82	RT	7820	SDG&E	N/A	17-May-12	275	Yes	INC	24	0:00	23:59
00	БТ	7000	00005	N1/A	40.14	240-		10.00	0.4	0.00	00.50
83	RT	7820	SDG&E	N/A	18-May-12	600	No	INC	24	0:00	23:59
84	RT	7820	SDG&E	N/A	20-May-12	48- 110	Yes	DEC	10	14:30	23:59
85	RT	7820	SDG&E	N/A	20 May 12	325- 550	Yes	INC	10	14:05	23:59
86	RT	7820	SDG&E SDG&E	N/A N/A	20-May-12	50- 178	Yes	DEC	6	16:00	23.59
00	KI	7620	SDG&E	IN/A	21-May-12	120-	res	DEC	0	16.00	21.59
87	RT	7820	SDG&E	N/A	21-May-12	320	Yes	INC	24	0:00	23:59
88	RT	7820	SDG&E	N/A	22-May-12	65- 178	Yes	DEC	10	14:40	23:59
- 00	IXI	7020	ODOGE	14//-3	ZZ-IVIQY-1Z	240-	103	DEG	10	17.70	20.00
89	RT	7820	SDG&E	N/A	22-May-12	357	Yes	INC	24	0:00	23:59
90	RT	7820	SDG&E	N/A	23-May-12	240	No	INC	24	0:00	23:59
91	RT	7820	SDG&E	N/A	24-May-12	240	No	INC	13	0:00	12:59
92	RT	7820	SDG&E	N/A	29-May-12	400	No	INC	7	15:45	21:59
						400-					
93	RT	7820	SDG&E	N/A	30-May-12	500	No	INC	6	16:25	21:29
94	RT	7820	SDG&E	N/A	31-May-12	55- 175	Yes	DEC	11	11:25	21:59
					•	310-					
95	RT	7820	SDG&E	N/A	31-May-12	550	No	INC	11	11:30	21:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	End Time
DCI	Турс	Readon	Location	Alcu	Trade Date	200-	IIIOIIC	INTO_DEG	Hours	111110	Time
96	RT	7820	SDG&E	San Diego	11-May-12	270	No	INC	2	20:40	21:59
					•	200-					
97	RT	7820	SDG&E	San Diego	31-May-12	250	No	INC	10	12:30	21:59
98	RT	COI Mitigation	Intertie	N/A	7-May-12	100	No	DEC	2	22:47	23:59
99	RT	COI Mitigation	Intertie	N/A	8-May-12	100	No	DEC	1	0:30	0:59
100	RT	COI Mitigation	Intertie	N/A	10-May-12	30- 31	No	DEC	4	1:05	4:59
101	RT	COI Mitigation	Intertie	N/A	11-May-12	30	No	DEC	1	2:00	2:59
102	RT	COI Mitigation	Intertie	N/A	20-May-12	18	No	DEC	1	0:05	0:59
103	RT	COI Mitigation	Intertie	N/A	25-May-12	17- 35	No	DEC	3	12:05	14:59
104	RT	COI Mitigation	PG&E	Fresno	29-May-12	0	No	INC	1	0:19	0:26
105	RT	Contingency	PG&E	Fresno	30-May-12	83	Yes	INC	2	12:39	13:59
						100-					
106	RT	Contingency	PG&E	N/A	30-May-12	192	No	INC	2	12:43	13:57
107	RT	Contingency	PG&E	Sierra	30-May-12	175	No	INC	1	12:40	12:59
400	БТ	O and the same and	005	Big Creek-	00 M 40	0.4		INIO		40.50	40.50
108	RT	Contingency	SCE	Ventura	30-May-12	64	Yes	INC	1	12:50	12:59
109	RT	Contingency	SCE	LA Basin	30-May-12	25	No	INC	1	16:05	16:14
110	RT	Contingency	SDG&E	San Diego	30-May-12	29	Yes	INC	1	12:50	12:59
111	RT	Fire	SDG&E	N/A	17-May-12	50	Yes	DEC	1	9:35	9:59
112	RT	Gas/Fuel Supply Limitations	PG&E	Bay Area	4-May-12	253	No	INC	24	0:00	23:59
113	RT	Gas/Fuel Supply Limitations	PG&E	N/A	3-May-12	50	Yes	INC	13	11:00	23:59
114	RT	Gas/Fuel Supply Limitations	PG&E	N/A	4-May-12	50	Yes	INC	24	0:00	23:59
115	RT	Gas/Fuel Supply Limitations	PG&E	N/A	5-May-12	50	Yes	INC	24	0:00	23:59
116	RT	Generation Outage	SCE	Big Creek- Ventura	21-May-12	20	Yes	INC	18	6:00	23:59
117	RT	Generation Outage	SCE	LA Basin	21-May-12	130	Yes	INC	17	4:00	20:59
- ' ' '	111	Intertie Emergency	- 552	E ( Baoiii		180-			.,	1.00	20.00
118	RT	Assistance	Intertie	N/A	18-May-12	408	No	INC	3	8:40	10:59
119	RT	Intertie Emergency	Intertie	N/A	23-May-12	100	No	INC	1	9:17	9:59

Num	Market			Local			Commit			Danin	End
ber	Type	Reason	Location	Reliability Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	Time
DCI	Турс	Assistance	Location	Alca	Trade Date	10100	IIICIIC	INO_DEO	Hours	Tillic	Time
120	RT	Load Forecast Error	PG&E	N/A	28-May-12	140	No	INC	6	18:00	23:59
121	RT	Load Forecast Uncertainty	PG&E	N/A	7-May-12	116	Yes	DEC	2	22:00	23:59
122	RT	Load Forecast Uncertainty	PG&E	N/A	7-May-12	50	Yes	INC	2	22:00	23:59
123	RT	Load Forecast Uncertainty	PG&E	N/A	8-May-12	50	Yes	INC	24	0:00	23:59
124	RT	Load Forecast Uncertainty	PG&E	N/A	9-May-12	50	Yes	INC	2	22:00	23:59
125	RT	Load Forecast Uncertainty	PG&E	N/A	10-May-12	50	Yes	INC	24	0:00	23:59
126	RT	Load Forecast Uncertainty	PG&E	N/A	31-May-12	50- 100	Yes	INC	15	9:00	23:59
				Big Creek-	•						
127	RT	Load Forecast Uncertainty	SCE	Ventura	20-May-12	20	Yes	INC	11	13:00	23:59
128	RT	Load Forecast Uncertainty	SCE	LA Basin	17-May-12	40	Yes	INC	10	14:39	23:59
129	RT	Load Forecast Uncertainty	SCE	LA Basin	31-May-12	25	Yes	INC	15	9:00	23:59
130	RT	Load Forecast Uncertainty	SCE	N/A	9-May-12	40	Yes	INC	1	23:00	23:59
131	RT	Load Forecast Uncertainty	SCE	N/A	10-May-12	40	Yes	INC	24	0:00	23:59
132	RT	Load Forecast Uncertainty	SCE	N/A	20-May-12	40	Yes	INC	10	14:00	23:59
133	RT	Load Forecast Uncertainty	SDG&E	San Diego	20-May-12	20	Yes	INC	10	14:00	23:59
134	RT	Load Forecast Uncertainty	SDG&E	San Diego	21-May-12	20	Yes	INC	6	0:00	5:59
135	RT	Los Banos North Mitigation	PG&E	N/A	31-May-12	54- 162	No	DEC	3	18:53	20:59
136	RT	Market Disruption	Intertie	N/A	22-May-12	50	Yes	INC	1	20:00	20:59
137	RT	Market Disruption	Intertie	N/A	27-May-12	80	No	DEC	1	4:00	4:59
138	RT	Market Disruption	Intertie	N/A	27-May-12	273	Yes	INC	1	4:00	4:59
139	RT	Over Generation	PG&E	N/A	13-May-12	480	No	DEC	2	11:20	12:07
140	RT	Over Generation	PG&E	N/A	13-May-12	0	No	INC	2	11:20	12:07
						400-					
141	RT	PG&E Import Limit	PG&E	Fresno	27-May-12	450	No	INC	5	2:15	6:59
142	RT	Path 15	PG&E	Bay Area	17-May-12	700	No	INC	1	13:31	13:33
143	RT	Path 15	PG&E	N/A	17-May-12	400	No	INC	1	13:31	13:33
144	RT	Path 15	PG&E	N/A	31-May-12	150- 400	Yes	INC	2	18:48	19:59

				Local							
Num	Market			Reliability			Commit			Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
145	RT	Path 15	SCE	LA Basin	18-May-12	40	Yes	INC	17	7:00	23:59
146	RT	Path 15	SCE	LA Basin	22-May-12	40	Yes	INC	24	0:00	23:59
147	RT	Path 15	SCE	LA Basin	23-May-12	40	Yes	INC	24	0:00	23:59
148	RT	Ramp Rate	SCE	LA Basin	19-May-12	126- 190	No	INC	15	7:40	21:59
149	RT	Ramp Rate	SCE	LA Basin	23-May-12	190	No	INC	6	15:20	20:59
150	RT	Ramp Rate	SDG&E	San Diego	10-May-12	63	No	INC	7	15:55	21:59
151	RT	Ramp Rate	SDG&E	San Diego	11-May-12	68	No	INC	15	5:55	19:59
152	RT	Ramp Rate	SDG&E	San Diego	13-May-12	64	No	INC	4	18:28	21:59
153	RT	SDG&E Import Limit	SDG&E	San Diego	25-May-12	40	No	INC	9	11:10	19:59
154	RT	SP26 Capacity	SCE	LA Basin	1-May-12	20	Yes	INC	17	7:00	23:59
155	RT	SP26 Capacity	SCE	LA Basin	25-May-12	20	No	INC	24	0:00	23:59
156	RT	Software Limitation	PG&E	Bay Area	2-May-12	0	No	INC	2	1:04	2:59
157	RT	Software Limitation	PG&E	Fresno	1-May-12	0	Yes	INC	2	21:30	22:29
158	RT	Software Limitation	PG&E	Fresno	2-May-12	0	Yes	INC	2	22:20	23:19
159	RT	Software Limitation	PG&E	Fresno	11-May-12	317	Yes	INC	1	0:00	0:59
160	RT	Software Limitation	PG&E	Fresno	12-May-12	0	Yes	INC	1	9:00	9:14
161	RT	Software Limitation	PG&E	Fresno	16-May-12	0	Yes	INC	3	1:15	3:44
162	RT	Software Limitation	PG&E	Fresno	22-May-12	400	Yes	INC	16	8:55	23:09
163	RT	Software Limitation	PG&E	Fresno	25-May-12	0	No	INC	1	9:29	9:44
164	RT	Software Limitation	PG&E	Fresno	26-May-12	317	No	DEC	2	13:45	14:29
165	RT	Software Limitation	PG&E	Fresno	27-May-12	0	Yes	INC	1	23:00	23:59
166	RT	Software Limitation	PG&E	Fresno	31-May-12	0	Yes	INC	1	12:00	12:59
167	RT	Software Limitation	PG&E	N/A	8-May-12	350	No	INC	5	13:55	17:59
168	RT	Software Limitation	PG&E	N/A	20-May-12	185	No	INC	3	13:25	15:14
169	RT	Software Limitation	PG&E	N/A	21-May-12	141	Yes	INC	2	4:40	5:59
170	RT	Software Limitation	PG&E	N/A	22-May-12	350	No	INC	2	22:37	23:09
171	RT	Software Limitation	SCE	Big Creek- Ventura	20-May-12	0	Yes	INC	1	20:00	20:44

				Local							
Num	Market	Dana.	Lacation	Reliability	Trada Data	B#NA/	Commit	INC DEC	Harma	Begin	End
ber	Туре	Reason	Location	Area Big Creek-	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
172	RT	Software Limitation	SCE	Ventura	30-May-12	0	Yes	INC	2	16:45	17:14
173	RT	Software Limitation	SCE	LA Basin	9-May-12	47	Yes	DEC	1	15:00	15:59
174	RT	Software Limitation	SCE	LA Basin	9-May-12	0	Yes	INC	2	22:25	23:44
175	RT	Software Limitation	SCE	LA Basin	11-May-12	0	Yes	INC	2	15:35	16:34
176	RT	Software Limitation	SCE	LA Basin	14-May-12	0	Yes	INC	2	17:25	18:24
177	RT	Software Limitation	SCE	LA Basin	16-May-12	0	Yes	INC	4	16:40	19:14
178	RT	Software Limitation	SCE	LA Basin	17-May-12	46	No	DEC	2	15:40	16:39
179	RT	Software Limitation	SCE	LA Basin	17-May-12	0	Yes	INC	4	15:40	18:19
180	RT	Software Limitation	SCE	LA Basin	20-May-12	0	Yes	INC	2	20:20	21:19
181	RT	Software Limitation	SCE	LA Basin	21-May-12	0	Yes	INC	2	20:40	21:44
						350-					
182	RT	Software Limitation	SCE	LA Basin	22-May-12	675	No	INC	4	20:10	23:59
183	RT	Software Limitation	SCE	LA Basin	23-May-12	650	No	INC	1	0:00	0:44
184	RT	Software Limitation	SCE	LA Basin	30-May-12	0	Yes	INC	2	22:45	23:44
185	RT	Software Limitation	SDG&E	N/A	10-May-12	490	No	INC	2	21:20	22:59
186	RT	Software Limitation	SDG&E	N/A	15-May-12	257	No	INC	3	0:00	2:29
187	RT	Software Limitation	SDG&E	N/A	30-May-12	505	No	INC	2	0:06	1:29
						290-					
188	RT	Software Limitation	SDG&E	San Diego	7-May-12	491	No	INC	12	10:30	21:59
189	RT	Software Limitation	SDG&E	San Diego	8-May-12	0	Yes	INC	5	13:10	17:59
190	RT	Software Limitation	SDG&E	San Diego	21-May-12	0	Yes	INC	2	22:05	23:59
191	RT	Software Limitation	SDG&E	San Diego	22-May-12	800	Yes	INC	24	0:00	23:08
192	RT	Software Limitation	SDG&E	San Diego	30-May-12	0	Yes	INC	2	14:35	15:34
193	RT	Software Limitation	SDG&E	San Diego	31-May-12	50- 197	No	DEC	4	4:35	7:59
194	RT	Software Limitation	SDG&E	San Diego	31-May-12	290	No	INC	1	8:15	8:59
195	RT	Stranded A/S or RUC	SCE	LA Basin	3-May-12	110	No	INC	2	19:40	20:59
196	RT	Stranded A/S or RUC	SCE	LA Basin	8-May-12	45	No	INC	4	16:45	19:59
197	RT	System Energy	Intertie	N/A	1-May-12	574	No	DEC	1	3:00	3:59

				Local							
Num	Market			Reliability		2004	Commit			Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
198	RT	System Energy	Intertie	N/A	13-May-12	386	No	DEC	1	0:00	0:59
199	RT	System Energy	Intertie	N/A	13-May-12	325	Yes	INC	1	0:00	0:59
200	RT	System Energy	Intertie	N/A	14-May-12	100	No	DEC	1	1:00	1:59
201	RT	System Energy	Intertie	N/A	20-May-12	100	Yes	INC	1	16:00	16:59
202	RT	Thermal Margin	PG&E	N/A	17-May-12	400- 405	No	INC	6	15:25	20:59
203	RT	Thermal Margin	SCE	Big Creek- Ventura	17-May-12	20- 40	Yes	INC	6	16:30	21:59
204	RT	Transmission Outage Other	PG&E	N/A	9-May-12	20	No	DEC	6	12:15	17:59
205	RT	Transmission Outage Other	PG&E	N/A	9-May-12	12	No	INC	6	12:15	17:59
206	RT	Transmission Outage Other	SCE	LA Basin	4-May-12	15	Yes	INC	14	8:05	21:59
207	RT	Transmission Outage Other	SCE	LA Basin	5-May-12	70	Yes	INC	16	3:00	18:59
208	RT	Transmission Outage PG&E	PG&E	Bay Area	13-May-12	60	No	DEC	1	20:00	20:59
209	RT	Transmission Outage PG&E	PG&E	Bay Area	15-May-12	20	Yes	INC	8	14:06	21:59
210	RT	Transmission Outage PG&E	PG&E	Bay Area	16-May-12	19	No	INC	2	11:14	12:09
211	RT	Transmission Outage PG&E	PG&E	Bay Area	18-May-12	19	No	INC	3	20:40	22:04
212	RT	Transmission Outage PG&E	PG&E	Bay Area	21-May-12	35	Yes	INC	6	17:45	22:59
213	RT	Transmission Outage PG&E	PG&E	Bay Area	22-May-12	20	Yes	INC	17	7:24	23:59
214	RT	Transmission Outage PG&E	PG&E	Bay Area	23-May-12	20	Yes	INC	14	8:00	21:59
215	RT	Transmission Outage PG&E	PG&E	Bay Area	29-May-12	20	Yes	INC	13	10:50	22:59
216	RT	Transmission Outage PG&E	PG&E	Fresno	13-May-12	4- 58	No	DEC	3	20:25	22:59
217	RT	Transmission Outage PG&E	PG&E	Fresno	13-May-12	450	No	INC	8	16:05	23:49
218	RT	Transmission Outage PG&E	PG&E	Humboldt	1-May-12	29- 58	No	INC	22	0:00	21:59
219	RT	Transmission Outage PG&E	PG&E	Humboldt	2-May-12	29- 58	No	INC	16	8:45	23:59
220	RT	Transmission Outage PG&E	PG&E	Humboldt	3-May-12	29- 61	No	INC	24	0:00	23:59
221	RT	Transmission Outage PG&E	PG&E	Humboldt	4-May-12	29	No	INC	5	7:20	11:59
222	RT	Transmission Outage PG&E	PG&E	Humboldt	16-May-12	29- 30	No	INC	11	12:03	22:59
223	RT	Transmission Outage PG&E	PG&E	Humboldt	17-May-12	29- 32	No	INC	4	13:55	16:59
224	RT	Transmission Outage PG&E	PG&E	N/A	4-May-12	20	No	DEC	2	15:15	16:59

				Local							
Num	Market	_		Reliability			Commit			Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
225	RT	Transmission Outage PG&E	PG&E	N/A	4-May-12	0	No	INC	2	16:30	17:59
226	RT	Transmission Outage PG&E	PG&E	N/A	7-May-12	20	No	DEC	2	9:24	10:59
227	RT	Transmission Outage PG&E	PG&E	N/A	7-May-12	2- 124	Yes	INC	5	6:34	10:59
228	RT	Transmission Outage PG&E	PG&E	N/A	8-May-12	30	No	DEC	3	14:04	16:00
229	RT	Transmission Outage PG&E	PG&E	N/A	8-May-12	10	No	INC	3	14:20	16:19
230	RT	Transmission Outage PG&E	PG&E	N/A	9-May-12	20	No	DEC	2	18:30	19:59
231	RT	Transmission Outage PG&E	PG&E	N/A	9-May-12	20	No	INC	2	18:30	19:59
232	RT	Transmission Outage PG&E	PG&E	N/A	10-May-12	5- 15	No	DEC	8	8:45	15:59
233	RT	Transmission Outage PG&E	PG&E	N/A	10-May-12	15	No	INC	9	15:10	23:59
234	RT	Transmission Outage PG&E	PG&E	N/A	11-May-12	5	No	DEC	2	22:22	23:13
235	RT	Transmission Outage PG&E	PG&E	N/A	11-May-12	5- 15	No	INC	24	0:00	23:59
236	RT	Transmission Outage PG&E	PG&E	N/A	12-May-12	5	No	INC	5	0:00	4:59
237	RT	Transmission Outage PG&E	PG&E	N/A	22-May-12	28	No	DEC	6	0:20	5:59
238	RT	Transmission Outage PG&E	PG&E	NCNB	2-May-12	16- 66	No	DEC	13	7:55	19:59
239	RT	Transmission Outage PG&E	PG&E	NCNB	20-May-12	19- 45	No	DEC	23	1:47	23:59
240	RT	Transmission Outage PG&E	PG&E	NCNB	21-May-12	6- 43	No	DEC	24	0:00	23:59
241	RT	Transmission Outage PG&E	PG&E	NCNB	21-May-12	1	No	INC	5	19:25	23:59
242	RT	Transmission Outage PG&E	PG&E	NCNB	22-May-12	18- 28	No	DEC	24	0:00	23:59
243	RT	Transmission Outage PG&E	PG&E	NCNB	22-May-12	0	No	INC	1	0:00	0:59
244	RT	Transmission Outage PG&E	PG&E	NCNB	23-May-12	27- 29	No	DEC	17	0:00	16:59
245	RT	Transmission Outage PG&E	PG&E	Sierra	3-May-12	0	Yes	INC	2	12:40	13:39
246	RT	Transmission Outage PG&E	PG&E	Sierra	7-May-12	8- 105	Yes	DEC	10	14:45	23:59
247	RT	Transmission Outage PG&E	PG&E	Sierra	7-May-12	3- 68	Yes	INC	9	7:04	15:59
248	RT	Transmission Outage PG&E	PG&E	Sierra	8-May-12	20- 97	No	DEC	17	0:00	16:59
249	RT	Transmission Outage PG&E	PG&E	Sierra	8-May-12	8	No	INC	14	10:45	23:59
250	RT	Transmission Outage PG&E	PG&E	Sierra	9-May-12	3- 47	No	DEC	17	0:10	16:59
251	RT	Transmission Outage PG&E	PG&E	Sierra	9-May-12	20	No	INC	24	0:00	23:59
252	RT	Transmission Outage PG&E	PG&E	Sierra	10-May-12	2- 48	No	DEC	24	0:10	23:59
253	RT	Transmission Outage PG&E	PG&E	Sierra	10-May-12	2- 7	No	INC	8	0:00	7:59

				Local							
Num	Market			Reliability		2004	Commit			Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
254	RT	Transmission Outage PG&E	PG&E	Sierra	11-May-12	2- 63	No	DEC	24	0:00	23:59
255	RT	Transmission Outage PG&E	PG&E	Sierra	11-May-12	12	No	INC	8	16:30	23:59
256	RT	Transmission Outage PG&E	PG&E	Sierra	12-May-12	7- 33	No	DEC	14	1:10	14:59
257	RT	Transmission Outage PG&E	PG&E	Sierra	13-May-12	3- 18	No	DEC	10	1:00	10:39
258	RT	Transmission Outage PG&E	PG&E	Sierra	13-May-12	7	No	INC	1	0:00	0:59
259	RT	Transmission Outage PG&E	PG&E	Sierra	14-May-12	13- 66	No	DEC	24	0:00	23:59
260	RT	Transmission Outage PG&E	PG&E	Sierra	15-May-12	23- 51	No	DEC	23	1:10	23:59
261	RT	Transmission Outage PG&E	PG&E	Sierra	16-May-12	6- 56	No	DEC	14	3:40	16:59
262	RT	Transmission Outage PG&E	PG&E	Sierra	16-May-12	0- 70	Yes	INC	18	6:35	23:59
263	RT	Transmission Outage PG&E	PG&E	Sierra	17-May-12	10- 36	No	DEC	20	4:10	23:59
264	RT	Transmission Outage PG&E	PG&E	Sierra	17-May-12	40	No	INC	24	0:00	23:59
265	RT	Transmission Outage PG&E	PG&E	Sierra	18-May-12	10- 71	No	DEC	24	0:00	23:59
266	RT	Transmission Outage PG&E	PG&E	Sierra	18-May-12	2- 48	No	INC	8	16:20	23:59
267	RT	Transmission Outage PG&E	PG&E	Sierra	19-May-12	10- 66	No	DEC	15	0:00	14:59
268	RT	Transmission Outage PG&E	PG&E	Sierra	19-May-12	15- 30	No	INC	1	23:05	23:59
269	RT	Transmission Outage PG&E	PG&E	Sierra	20-May-12	1- 46	No	DEC	11	1:10	11:59
270	RT	Transmission Outage PG&E	PG&E	Sierra	20-May-12	15	No	INC	13	0:00	12:59
271	RT	Transmission Outage PG&E	PG&E	Sierra	21-May-12	15- 16	No	DEC	20	1:30	20:59
272	RT	Transmission Outage PG&E	PG&E	Sierra	21-May-12	30- 46	No	INC	15	6:55	20:59
273	RT	Transmission Outage PG&E	PG&E	Sierra	22-May-12	10- 66	No	DEC	18	3:10	20:59
274	RT	Transmission Outage PG&E	PG&E	Sierra	22-May-12	20- 30	No	INC	8	16:00	23:59
275	RT	Transmission Outage PG&E	PG&E	Sierra	23-May-12	10- 36	No	DEC	24	0:20	23:59
276	RT	Transmission Outage PG&E	PG&E	Sierra	23-May-12	10	No	INC	24	0:00	23:59
277	RT	Transmission Outage PG&E	PG&E	Sierra	24-May-12	10- 40	No	DEC	20	0:00	19:59
278	RT	Transmission Outage PG&E	PG&E	Sierra	29-May-12	20	Yes	INC	9	14:35	22:59
279	RT	Transmission Outage PG&E	PG&E	Stockton	31-May-12	5- 50	No	DEC	6	17:00	22:59
280	RT	Transmission Outage PG&E	PG&E	Stockton	31-May-12	30- 70	No	INC	6	17:00	22:59
281	RT	Transmission Outage SCE	Intertie	N/A	15-May-12	14	No	DEC	1	13:05	13:59
282	RT	Transmission Outage SCE	SCE	LA Basin	1-May-12	3- 175	No	DEC	24	0:21	23:58

				Local							
Num	Market	B	1	Reliability	Tuesda Data	B.63.67	Commit	, NO DEO		Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
283	RT	Transmission Outage SCE	SCE	LA Basin	1-May-12	1- 71	No	INC	24	0:21	23:58
284	RT	Transmission Outage SCE	SCE	LA Basin	2-May-12	10- 201	No	DEC	24	0:00	23:58
285	RT	Transmission Outage SCE	SCE	LA Basin	2-May-12	176	No	INC	24	0:00	23:58
286	RT	Transmission Outage SCE	SCE	LA Basin	3-May-12	2- 232	No	DEC	24	0:00	23:58
287	RT	Transmission Outage SCE	SCE	LA Basin	3-May-12	4- 148	No	INC	24	0:00	23:58
288	RT	Transmission Outage SCE	SCE	LA Basin	4-May-12	22- 249	No	DEC	24	0:00	23:58
289	RT	Transmission Outage SCE	SCE	LA Basin	4-May-12	1- 104	No	INC	24	0:00	23:58
290	RT	Transmission Outage SCE	SCE	LA Basin	5-May-12	9- 249	No	DEC	24	0:00	23:58
291	RT	Transmission Outage SCE	SCE	LA Basin	5-May-12	2- 311	No	INC	24	0:00	23:58
292	RT	Transmission Outage SCE	SCE	LA Basin	6-May-12	12- 190	No	DEC	24	0:00	23:58
293	RT	Transmission Outage SCE	SCE	LA Basin	6-May-12	1- 306	No	INC	24	0:00	23:58
294	RT	Transmission Outage SCE	SCE	LA Basin	7-May-12	21- 249	No	DEC	24	0:00	23:58
295	RT	Transmission Outage SCE	SCE	LA Basin	7-May-12	3- 307	No	INC	24	0:00	23:58
296	RT	Transmission Outage SCE	SCE	LA Basin	8-May-12	13- 111	No	DEC	24	0:00	23:58
297	RT	Transmission Outage SCE	SCE	LA Basin	8-May-12	17- 321	No	INC	24	0:00	23:58
298	RT	Transmission Outage SCE	SCE	LA Basin	9-May-12	317	No	INC	24	0:00	23:58
299	RT	Transmission Outage SCE	SCE	LA Basin	10-May-12	0	No	INC	24	0:00	23:58
300	RT	Transmission Outage SCE	SCE	LA Basin	11-May-12	307	No	INC	24	0:00	23:58
301	RT	Transmission Outage SCE	SCE	LA Basin	12-May-12	321	No	INC	24	0:00	23:58
302	RT	Transmission Outage SCE	SCE	LA Basin	13-May-12	316	No	INC	24	0:00	23:58
303	RT	Transmission Outage SCE	SCE	LA Basin	14-May-12	12- 42	No	DEC	19	5:36	23:58
304	RT	Transmission Outage SCE	SCE	LA Basin	14-May-12	21- 378	No	INC	24	0:00	23:58
305	RT	Transmission Outage SCE	SCE	LA Basin	15-May-12	72	No	INC	24	0:00	23:58
306	RT	Transmission Outage SCE	SCE	LA Basin	16-May-12	291	No	INC	24	0:00	23:58
307	RT	Transmission Outage SCE	SCE	LA Basin	17-May-12	132	No	INC	24	0:00	23:58
308	RT	Transmission Outage SCE	SCE	LA Basin	18-May-12	54- 62	No	DEC	24	0:00	23:58
309	RT	Transmission Outage SCE	SCE	LA Basin	18-May-12	16	No	INC	6	10:15	15:37
310	RT	Transmission Outage SCE	SCE	LA Basin	19-May-12	19- 54	No	DEC	24	0:00	23:58
311	RT	Transmission Outage SCE	SCE	LA Basin	19-May-12	67- 310	No	INC	24	0:00	23:58

Num	Market			Local Reliability			Commit			Dogin	End
Num ber	Type	Reason	Location	Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	Time
312	RT	Transmission Outage SCE	SCE	LA Basin	20-May-12	306	No	INC	24	0:00	23:58
313	RT	Transmission Outage SCE	SCE	LA Basin	21-May-12	5	No	DEC	24	0:00	23:58
314	RT	Transmission Outage SCE	SCE	LA Basin	21-May-12	278	No	INC	24	0:00	23:58
315	RT	Transmission Outage SCE	SCE	LA Basin	22-May-12	5	No	DEC	24	0:00	23:58
316	RT	Transmission Outage SCE	SCE	LA Basin	22-May-12	0	No	INC	24	0:00	23:58
317	RT	Transmission Outage SCE	SCE	LA Basin	23-May-12	5	No	DEC	24	0:00	23:58
318	RT	Transmission Outage SCE	SCE	LA Basin	23-May-12	90	No	INC	24	0:00	23:58
319	RT	Transmission Outage SCE	SCE	LA Basin	24-May-12	5	No	DEC	24	0:00	23:58
320	RT	Transmission Outage SCE	SCE	LA Basin	24-May-12	207	No	INC	24	0:00	23:58
321	RT	Transmission Outage SCE	SCE	LA Basin	25-May-12	264	No	INC	24	0:00	23:58
322	RT	Transmission Outage SCE	SCE	LA Basin	26-May-12	0	No	INC	24	0:00	23:58
323	RT	Transmission Outage SCE	SCE	LA Basin	27-May-12	312	No	INC	24	0:00	23:58
324	RT	Transmission Outage SCE	SCE	LA Basin	28-May-12	5	No	DEC	24	0:00	23:58
325	RT	Transmission Outage SCE	SCE	LA Basin	28-May-12	283	No	INC	24	0:00	23:58
326	RT	Transmission Outage SCE	SCE	LA Basin	29-May-12	5	No	DEC	24	0:00	23:58
327	RT	Transmission Outage SCE	SCE	LA Basin	29-May-12	183	No	INC	24	0:00	23:58
328	RT	Transmission Outage SCE	SCE	LA Basin	30-May-12	1- 103	No	DEC	19	5:00	23:58
329	RT	Transmission Outage SCE	SCE	LA Basin	30-May-12	198	No	INC	24	0:00	23:58
330	RT	Transmission Outage SCE	SCE	LA Basin	31-May-12	34- 249	No	DEC	22	0:00	21:14
331	RT	Transmission Outage SCE	SCE	LA Basin	31-May-12	81- 321	No	INC	22	0:00	21:14
332	RT	Transmission Outage SCE	SCE	N/A	1-May-12	1- 16	No	DEC	24	0:21	23:58
333	RT	Transmission Outage SCE	SCE	N/A	1-May-12	68- 137	No	INC	24	0:21	23:58
334	RT	Transmission Outage SCE	SCE	N/A	2-May-12	1- 6	No	DEC	24	0:00	23:58
335	RT	Transmission Outage SCE	SCE	N/A	2-May-12	64- 104	No	INC	24	0:00	23:58
336	RT	Transmission Outage SCE	SCE	N/A	3-May-12	1- 6	No	DEC	24	0:00	23:58
337	RT	Transmission Outage SCE	SCE	N/A	3-May-12	64- 132	Yes	INC	24	0:00	23:58
338	RT	Transmission Outage SCE	SCE	N/A	4-May-12	1- 3	No	DEC	24	0:00	23:58
339	RT	Transmission Outage SCE	SCE	N/A	4-May-12	68- 100	No	INC	24	0:00	23:58
340	RT	Transmission Outage SCE	SCE	N/A	5-May-12	1- 3	No	DEC	24	0:00	23:58

				Local							
Num	Market	_		Reliability			Commit			Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
341	RT	Transmission Outage SCE	SCE	N/A	5-May-12	92- 165	Yes	INC	24	0:00	23:58
342	RT	Transmission Outage SCE	SCE	N/A	6-May-12	1- 3	No	DEC	24	0:00	23:58
						112-	.,				
343	RT	Transmission Outage SCE	SCE	N/A	6-May-12	316	Yes	INC	24	0:00	23:58
344	RT	Transmission Outage SCE	SCE	N/A	7-May-12	1- 3	No	DEC	24	0:00	23:58
345	RT	Transmission Outage SCE	SCE	N/A	7-May-12	68- 179	Yes	INC	24	0:00	23:58
346	RT	Transmission Outage SCE	SCE	N/A	8-May-12	1- 3	Yes	DEC	24	0:00	23:58
347	RT	Transmission Outage SCE	SCE	N/A	8-May-12	94- 144	Yes	INC	24	0:00	23:58
348	RT	Transmission Outage SCE	SCE	N/A	9-May-12	68- 178	Yes	INC	24	0:00	23:58
349	RT	Transmission Outage SCE	SCE	N/A	10-May-12	68- 105	No	INC	24	0:00	23:58
350	RT	Transmission Outage SCE	SCE	N/A	11-May-12	68- 132	No	INC	24	0:00	23:58
351	RT	Transmission Outage SCE	SCE	N/A	12-May-12	90- 179	Yes	INC	24	0:00	23:58
						105-					
352	RT	Transmission Outage SCE	SCE	N/A	13-May-12	178	Yes	INC	24	0:00	23:58
0.50	D.T.	T	0.05	N1/A	44.14	138-		11.10	0.4	0.00	00.50
353	RT	Transmission Outage SCE	SCE	N/A	14-May-12	239	Yes	INC	24	0:00	23:58
354	RT	Transmission Outage SCE	SCE	N/A	15-May-12	154- 163	No	INC	24	0:00	23:58
334	KI	Transmission Odlage SCE	SCE	IN/A	15-iviay-12	128-	INO	INC	24	0.00	23.30
355	RT	Transmission Outage SCE	SCE	N/A	16-May-12	172	Yes	INC	24	0:00	23:58
356	RT	Transmission Outage SCE	SCE	N/A	17-May-12	68- 157	No	INC	24	0:00	23:58
357	RT	Transmission Outage SCE	SCE	N/A	18-May-12	5- 11	No	DEC	24	0:00	23:58
358	RT	Transmission Outage SCE	SCE	N/A	18-May-12	68- 105	Yes	INC	24	0:00	23:58
359	RT	Transmission Outage SCE	SCE	N/A	19-May-12	4- 11	No	DEC	24	0:00	23:58
360	RT	Transmission Outage SCE	SCE	N/A	19-May-12	30- 110	Yes	INC	24	0:00	23:58
361	RT	Transmission Outage SCE	SCE	N/A	20-May-12	97- 176	No	INC	24	0:00	23:58
362	RT	Transmission Outage SCE	SCE	N/A	21-May-12	68- 180	Yes	INC	24	0:00	23:58
363	RT	Transmission Outage SCE	SCE	N/A	22-May-12	68- 74	Yes	INC	24	0:00	23:58
364	RT	Transmission Outage SCE	SCE	N/A	23-May-12	68- 74	No	INC	24	0:00	23:58
365	RT	Transmission Outage SCE	SCE	N/A	24-May-12	68- 135	No	INC	24	0:00	23:58

				Local							
Num	Market			Reliability			Commit			Begin	End
ber	Type	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
366	RT	Transmission Outage SCE	SCE	N/A	25-May-12	68- 123	No	INC	24	0:00	23:58
367	RT	Transmission Outage SCE	SCE	N/A	26-May-12	68	No	INC	24	0:00	23:58
368	RT	Transmission Outage SCE	SCE	N/A	27-May-12	90- 177	Yes	INC	24	0:00	23:58
369	RT	Transmission Outage SCE	SCE	N/A	28-May-12	68- 172	Yes	INC	24	0:00	23:58
370	RT	Transmission Outage SCE	SCE	N/A	29-May-12	68- 141	No	INC	24	0:00	23:58
371	RT	Transmission Outage SCE	SCE	N/A	30-May-12	0- 35	No	DEC	19	5:00	23:58
372	RT	Transmission Outage SCE	SCE	N/A	30-May-12	46- 111	No	INC	24	0:00	23:58
373	RT	Transmission Outage SCE	SCE	N/A	31-May-12	7- 53	No	DEC	22	0:00	21:14
374	RT	Transmission Outage SCE	SCE	N/A	31-May-12	90- 179	Yes	INC	22	0:00	21:14
375	RT	Transmission Outage SDG&E	SDG&E	San Diego	7-May-12	60- 190	No	DEC	4	12:45	15:59
376	RT	Transmission Outage SDG&E	SDG&E	San Diego	7-May-12	63- 135	No	INC	4	12:50	15:59
377	RT	Transmission Outage SDG&E	SDG&E	San Diego	23-May-12	1- 25	No	DEC	3	10:50	12:59
378	RT	Transmission Outage SDG&E	SDG&E	San Diego	23-May-12	15- 64	No	INC	3	10:35	12:59
						200-					
379	RT	Unit Testing	PG&E	Fresno	25-May-12	400	No	INC	6	10:05	15:59
380	RT	Unit Testing	PG&E	N/A	17-May-12	52- 700	No	INC	6	10:45	15:59
						126-					i l
381	RT	Unit Testing	SCE	LA Basin	21-May-12	133	No	INC	5	13:00	17:59
382	RT	Unit Testing	SCE	LA Basin	22-May-12	124	No	INC	12	6:00	17:59
383	RT	Voltage Support	PG&E	N/A	1-May-12	52	No	INC	10	0:00	9:59

# **Appendix A: Explanation by Example**

All examples listed below are based on fictitious data.

### **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 physical minimum (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 dayahead market are commitments to minimum load. In this case the dispatch levels are all at minimum load.

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

Date	Market	Resource	Location	Local Reliability Area (LRA)	Begin Time	End Time	Dispatch Level (MW)	Reason
01-Jul-09	DA	Α	SCE	LA BASIN	05:00	10:00	50	7630
01-Jul-09	DA	В	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	С	SCE	LA BASIN	09:00	23:00	20	7630

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. Commitments are broken out separately from energy dispatches. In the day-ahead, however the exceptional dispatches are nearly always just commitments, as in this example. The Begin Time column shows hour ending 5 as this was the hour ending for first dispatch of the day, and the End Time column shows hour ending 23, as this was the hour with last dispatch. It is also possible that there might 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.

**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
1	DA	7630	SCE	LA Basin	1-Jul-09	20- 100	Yes	N/A	19	05:00	23:00

#### **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 are shown in Table 4.

**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
01-Jul-09	RT	Α	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	В	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	С	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	С	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	7110

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.

**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
1	RT	7110	PG&E	Humboldt	1-Jul-09	0-50	Yes	INC	15	06:00	20:00

# **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.

**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
01-Jul-09	RT	Α	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430
01-Jul-09	RT	В	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	С	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430

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 inc and dec 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.

**Table 7: FERC Summary of Decremental ED Instructions in RTM** 

N	umber	Market Type	Reason	Location	Local Reliability Area (LRA)	Trade Date	MW	Commitment	INC/DEC	Hour	Begin Time	End Time
	1	RT	7430	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00
	1	RT	7430	PG&E	Fresno	1-Jul-09	10-20	Yes	DEC	8	07:00	14:00