

August 15, 2012

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

#### Re: California Independent System Operator Corporation Docket Nos. ER08-1178-\_\_\_, and EL08-88-\_\_\_ June 2012 Exceptional Dispatch Report (Chart 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 June 2012.

Respectfully submitted,

#### By: /s/ Sidney M. Davies

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# **Exceptional Dispatch Report**

# Table 1: June 2012

ISO Market Analysis and Development

August 15, 2012

CAISO 250 Outcropping Way Folsom, California 95630 (916) 351-4400

# TABLE OF CONTENTS

Introduction	3
The Nature of Exceptional Dispatch	3
Appendix A: Explanation by Example	
Example 1: Exceptional Dispatch Instructions Prior to DAM	16
Example 2: Incremental Exceptional Dispatch Instructions in RTM	17
Example 3: Decremental Exceptional Dispatch Instructions in RTM	19

# LIST OF TABLES AND FIGURES

Table 1: Exceptional Dispatches in June 2012	6
Table 2: Instructions Prior to Day-Ahead Market	
Table 3: FERC Summary of Instructions Prior to DAM	17
Table 4: Incremental Exceptional Dispatch Instructions in RTM	17
Table 5: FERC Summary of ED Instructions in RTM	
Table 6: Decremental Exceptional Dispatch Instructions in RTM	
Table 7: FERC Summary of Decremental ED Instructions in RTM	

# 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 June 2012.

# The Nature of Exceptional Dispatch

The ISO can issue exceptional dispatch instructions for a resource as a pre-dayahead 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 ISO 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: <u>http://www.caiso.com/thegrid/operations/opsdoc/index.html</u>

In June 2012, the ISO issued exceptional dispatches for the following local area generation requirement: (1) 7810, San Diego area generation requirements; and (2) 7630, SCE area generation requirements. Exceptional dispatch instructions were also issued for the following transmission management requirements: (1) 6110, COI master operating procedure; (2) 6510, Southern California import transmission (SCIT) nomogram; (3) 7110, transmission facilities in Humboldt area; (4) 7230, transmission facilities in Palermo Rio-Oso area; (5) 7320, transmission facilities in Bay Area; (6) 7410, transmission facilities in Tesla/Bellota Area; (7) 7430, transmission facilities in Fresno area; (8) 7510, South of Magunden Nomogram Operations; (9) 7820, transmission facilities in San Diego and Imperial Valley area; (10) 8710, Hoodoo Wash-N.Gila 500 kV line flow mitigation; and (11) other transmission outages in PG&E, SCE and SDG&E area.

The following additional reasons for exceptional dispatch instructions in June 2012 were not related to specific generation or transmission operating procedures: (1) Software Limitation, when an exceptional dispatch instruction was used to bridge schedules across days for resources with a minimum down time of 24 hours, as the ISO software does not handle multi day commitment. For instance, a resource has a day-ahead schedule from 0600 till 2300, and then is shut down in 2400. If this resource had a minimum down time of 24 hours and it is required the following day, then the ISO issues an exceptional dispatch to commit this resource in 2400 so that it can be dispatched economically in the following day. Software limitation reason was also used for exceptional dispatches to manually issue shut down instructions to a resource because of a temporary Automatic Dispatch System ("ADS") failure, or similar issues; and (2) Ramp Rate, when exceptional dispatch instructions were issued to dispatch a resource above its physical minimum to a level where the resource has significantly higher ramp rate capability. For example, a resource could have a ramp rate of 2 MW/min at its physical minimum of 100 MW, but a significantly higher ramp rate of 10 MW/min at 250 MW. The operators could issue an exceptional dispatch for this resource to be dispatched to 250 MW, so that the resource could respond to the anticipated steep load ramp or to a potential contingency. There were a few other reasons used to explain exceptional dispatch instructions in June, which are self explanatory.

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")

<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.

service area; (3) the Local Reliability Area ("LRA") where applicable; (4) the market in which the exceptional dispatch occurred (day-ahead vs. real-time); and (5) the date of the exceptional dispatch. For each classification the following information is provided: (1) Megawatts (MW); (2) Commitment (3) Inc or Dec (4) Hours; (5) Begin Time; 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 249 exceptional dispatches in June 2012, decreasing by 134 as compared to the July 13, 2012 report for May 2012. Exceptional dispatches issued for the following reasons accounted for approximately 33 percent of the total exceptional dispatches during the reporting period: Ramp Rate, Transmission Outage PG&E, Software Limitation, Load Forecast Uncertainty, Contingency, and 7430.

#### Table 1: Exceptional Dispatches in June 2012

#### California Independent System Operator Corporation Exceptional Dispatch Report August 15, 2012

#### Chart 1: Table of Exceptional Dispatches for Period 01/June/2012 – 30/June/2012

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
1	DA	Unit Testing	SCE	Big Creek- Ventura	20-Jun-12	50	Yes	N/A	13	11:00	23:00
2	RT	6110	PG&E	Sierra	17-Jun-12	20-80	No	DEC	7	15:15	23.00
3	RT	6110	PG&E	Sierra	17-Jun-12	0	No	INC	1	15:40	15:59
		0110	FGal	Big Creek-	TT-Juli-12	0	INU	INC	1	15.40	15.59
4	RT	6510	SCE	Ventura	1-Jun-12	20- 40	Yes	INC	17	7:00	23:59
5	RT	6510	SCE	LA Basin	1-Jun-12	25- 295	Yes	INC	24	0:00	23:59
6	RT	6510	SCE	LA Basin	22-Jun-12	160	No	INC	13	8:00	20:59
7	RT	6510	SCE	LA Basin	27-Jun-12	45	Yes	INC	16	8:00	23:59
8	RT	6510	SDG&E	San Diego	27-Jun-12	20	Yes	INC	24	0:00	23:59
9	RT	7110	PG&E	Humboldt	1-Jun-12	45	No	INC	1	22:07	22:56
10	RT	7110	PG&E	Humboldt	4-Jun-12	29- 58	No	INC	9	8:20	16:59
11	RT	7110	PG&E	Humboldt	20-Jun-12	32	No	INC	8	13:58	20:09
12	RT	7230	PG&E	Bay Area	8-Jun-12	20	Yes	INC	10	10:25	19:59
13	RT	7230	PG&E	N/A	16-Jun-12	40	No	DEC	5	16:32	20:59
14	RT	7230	PG&E	N/A	17-Jun-12	40	No	DEC	1	14:00	14:59
15	RT	7230	PG&E	Sierra	1-Jun-12	40	Yes	INC	7	17:00	23:59
16	RT	7230	PG&E	Sierra	7-Jun-12	26	Yes	DEC	2	11:45	12:59
17	RT	7230	PG&E	Sierra	13-Jun-12	24- 36	No	DEC	6	15:18	20:59
18	RT	7230	PG&E	Sierra	14-Jun-12	16- 27	No	DEC	5	16:26	20:59
19	RT	7230	PG&E	Sierra	16-Jun-12	8-13	No	INC	4	16:18	19:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
						100-					
20	RT	7230	PG&E	Sierra	17-Jun-12	200	No	DEC	2	14:05	15:59
21	RT	7230	SDG&E	N/A	13-Jun-12	525	No	INC	4	17:00	20:59
22	RT	7320	PG&E	Bay Area	1-Jun-12	20	Yes	INC	2	21:55	22:47
23	RT	7320	PG&E	Bay Area	2-Jun-12	20- 46	Yes	INC	9	14:05	22:59
24	RT	7320	PG&E	Bay Area	6-Jun-12	20	No	INC	3	20:58	22:14
25	RT	7320	PG&E	Bay Area	8-Jun-12	20	Yes	INC	12	10:10	21:59
26	RT	7320	PG&E	Bay Area	10-Jun-12	20	Yes	INC	8	15:50	22:59
27	RT	7320	PG&E	Sierra	1-Jun-12	20	Yes	INC	6	18:50	23:17
28	RT	7410	PG&E	Bay Area	8-Jun-12	20	Yes	INC	3	21:05	23:29
29	RT	7410	PG&E	Stockton	3-Jun-12	4	No	DEC	8	14:55	21:59
30	RT	7410	PG&E	Stockton	3-Jun-12	37	No	INC	8	14:55	21:59
31	RT	7410	PG&E	Stockton	17-Jun-12	46	No	INC	7	15:00	21:59
32	RT	7430	PG&E	Fresno	1-Jun-12	5	No	DEC	13	11:25	23:59
33	RT	7430	PG&E	Fresno	3-Jun-12	0	No	INC	2	16:10	17:09
34	RT	7430	PG&E	Fresno	6-Jun-12	20	Yes	INC	18	6:50	23:59
35	RT	7430	PG&E	Fresno	8-Jun-12	48- 94	Yes	INC	6	16:25	21:59
36	RT	7430	PG&E	Fresno	9-Jun-12	5	No	DEC	7	14:50	20:59
37	RT	7430	PG&E	Fresno	9-Jun-12	15	No	INC	7	14:50	20:59
38	RT	7430	PG&E	Fresno	15-Jun-12	13- 56	Yes	INC	3	19:10	21:59
39	RT	7430	PG&E	Fresno	16-Jun-12	37- 45	Yes	INC	8	14:30	21:59
40	RT	7430	PG&E	Fresno	17-Jun-12	3- 49	Yes	DEC	7	15:25	21:59
41	RT	7430	PG&E	Fresno	17-Jun-12	66	Yes	INC	7	15:45	21:59
42	RT	7430	PG&E	Fresno	18-Jun-12	70	Yes	INC	15	6:30	20:59
43	RT	7430	PG&E	Fresno	19-Jun-12	15	Yes	INC	2	22:30	23:59
44	RT	7430	PG&E	Fresno	20-Jun-12	65	Yes	INC	1	0:00	0:59
45	RT	7430	PG&E	Fresno	21-Jun-12	10	No	DEC	2	15:40	16:59
46	RT	7430	PG&E	Fresno	21-Jun-12	77	Yes	INC	21	0:35	20:59
47	RT	7430	PG&E	Fresno	24-Jun-12	65	Yes	INC	2	1:52	2:12

Num	Market			Local Reliability			Commit			Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
				Big Creek-		105-					
48	RT	7510	SCE	Ventura	25-Jun-12	136	No	DEC	6	13:07	18:59
10	D.T.	7540	0.05	Big Creek-		00 404		550	_		40.50
49	RT	7510	SCE	Ventura Dia Creek	26-Jun-12	80- 131	No	DEC	5	14:40	18:59
50	RT	7630	SCE	Big Creek- Ventura	12-Jun-12	20- 40	Yes	INC	24	0:00	23:59
51	RT	7630	SDG&E	N/A	12-Jun-12	30	No	DEC	2	16:50	17:59
52	RT	7810	SDG&E	San Diego	1-Jun-12	20	Yes	INC	24	0:00	23:59
53	RT	7810	SDG&E	San Diego	7-Jun-12	20	Yes	INC	3	21:00	23:59
54	RT	7810	SDG&E	San Diego	8-Jun-12	20	Yes	INC	24	0:00	23:59
55	RT	7810	SDG&E	San Diego	14-Jun-12	68	No	INC	8	0:42	7:59
56	RT	7820	SDG&E	N/A	1-Jun-12	20- 173	Yes	DEC	7	13:40	19:59
			02042		i dan iz	270-	100	220		10110	10.00
57	RT	7820	SDG&E	N/A	1-Jun-12	450	No	INC	13	10:00	22:59
58	RT	7820	SDG&E	N/A	3-Jun-12	575	No	INC	8	14:40	21:59
						113-					
59	RT	7820	SDG&E	N/A	12-Jun-12	121	Yes	DEC	4	13:30	16:59
00	БТ	7000	00005	N1/0	40.1.40	400-	NL.		•	40.00	00.50
60	RT	7820	SDG&E	N/A	12-Jun-12	550	No	INC	8	13:30	20:59
61	RT	7820	SDG&E	N/A	13-Jun-12	525	No	INC	2	16:18	17:35
62	RT	7820	SDG&E	N/A	16-Jun-12	5-81	Yes	DEC	5	15:55	19:59
63	RT	7820	SDG&E	N/A	16-Jun-12	7-8	Yes	INC	2	18:10	19:59
64	RT	8710		N/A	29-Jun-12	10	No	DEC	2	13:10	14:59
65	RT	8710	SCE	LA Basin	28-Jun-12	235	No	INC	4	14:50	17:59
66	RT	8710	SDG&E	San Diego	28-Jun-12	80	Yes	INC	8	16:35	23:59
67	RT	8710	SDG&E	San Diego	29-Jun-12	20- 40	Yes	INC	24	0:00	23:59
68	RT	Bridging Schedules	PG&E	Bay Area	11-Jun-12	45	Yes	INC	4	20:00	23:59
69	RT	Bridging Schedules	PG&E	Fresno	16-Jun-12	0	Yes	INC	2	0:24	1:29
70	RT	Bridging Schedules	PG&E	N/A	4-Jun-12	185	No	INC	1	23:00	23:59
71	RT	Bridging Schedules	PG&E	N/A	5-Jun-12	185	No	INC	1	1:00	1:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	End Time
72	RT	Bridging Schedules	PG&E	N/A	14-Jun-12	52	No	INC	2	22:00	23:59
73	RT	Bridging Schedules	PG&E	N/A	17-Jun-12	52	No	INC	9	15:55	23:59
74	RT	Bridging Schedules	SCE	Big Creek- Ventura	17-Jun-12	20	Yes	INC	5	19:00	23:59
75	RT	Bridging Schedules	SCE	LA Basin	11-Jun-12	40	Yes	INC	1	23:00	23:59
76	RT	Bridging Schedules	SCE	N/A	4-Jun-12	162- 335	No	DEC	5	3:45	7:59
77	RT	Bridging Schedules	SCE	N/A	4-Jun-12	0	No	INC	5	3:45	7:59
78	RT	Bridging Schedules	SDG&E	San Diego	11-Jun-12	20	No	INC	3	21:00	23:59
79	RT	Bridging Schedules	SDG&E	San Diego	18-Jun-12	20- 40	Yes	INC	24	0:00	23:59
80	RT	COI Mitigation	SDG&E	San Diego	16-Jun-12	20- 68	No	INC	13	2:00	14:59
81	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	26-Jun-12	350- 445	No	INC	6	15:15	20:59
82	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	27-Jun-12	63- 208	No	DEC	6	16:00	21:59
83	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	28-Jun-12	75-90	No	DEC	4	16:25	19:59
84	RT	Conditions beyond control of the CAISO BA	PG&E	N/A	28-Jun-12	420	No	INC	1	16:10	16:25
85	RT	Contingency	PG&E	Bay Area	15-Jun-12	25	No	INC	1	23:14	23:58
86	RT	Contingency	PG&E	Bay Area	16-Jun-12	25	No	INC	1	0:00	0:25
87	RT	Contingency	PG&E	Fresno	14-Jun-12	83	No	INC	1	20:12	20:59
88	RT	Contingency	PG&E	Fresno	15-Jun-12	326- 960	Yes	INC	1	23:08	23:59
89	RT	Contingency	PG&E	Fresno	16-Jun-12	428	Yes	INC	23	0:00	22:29
90	RT	Contingency	PG&E	Fresno	28-Jun-12	166	Yes	INC	3	8:44	10:04
91	RT	Contingency	PG&E	Stockton	15-Jun-12	25	No	INC	1	23:14	23:58
92	RT	Contingency	PG&E	Stockton	16-Jun-12	25	No	INC	1	0:00	0:09
93	RT	Contingency	SCE	Big Creek- Ventura	15-Jun-12	183	No	INC	1	23:12	23:59
94	RT	Contingency	SCE	Big Creek-	16-Jun-12	184	Yes	INC	3	0:00	2:14

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
				Ventura							
95	RT	Contingency	SCE	LA Basin	15-Jun-12	136- 155	Yes	INC	1	23:12	23:59
95 96	RT	Contingency	SCE	LA Basin	16-Jun-12	155	Yes	INC	3	0:00	23.59
90 97	RT	Contingency	SDG&E	N/A	16-Jun-12	5	No	DEC	3 1	19:10	2.44 19:14
97	RT	Contingency	SDG&E	San Diego	15-Jun-12	62-69	No	INC	1	23:30	23:59
98	RT	Contingency	SDG&E	San Diego	16-Jun-12	69	No	INC	1	0:00	0:04
99	КІ	Contingency	SDG&E	Sall Diego	10-Jun-12	420-	INU	INC	1	0.00	0.04
100	RT	Contingency	SDG&E	San Diego	27-Jun-12	470	No	INC	6	10:55	15:59
101	RT	Dispatch Modification	PG&E	Fresno	8-Jun-12	317	No	DEC	2	0:45	1:59
102	RT	Dispatch Modification	SCE	LA Basin	18-Jun-12	0	Yes	INC	5	19:15	23:59
103	RT	Dispatchability	SCE	Big Creek- Ventura	16-Jun-12	100	Yes	INC	8	14:50	21:59
104	RT	Fire	SDG&E	N/A	20-Jun-12	350	No	INC	1	15:00	15:59
105	RT	Generation Outage	PG&E	Bay Area	15-Jun-12	45	Yes	INC	13	11:00	23:59
106	RT	Generation Outage	PG&E	Bay Area	17-Jun-12	45	Yes	INC	24	0:00	23:59
107	RT	Generation Outage	PG&E	N/A	19-Jun-12	52	No	INC	2	22:00	23:59
108	RT	Generation Outage	PG&E	N/A	20-Jun-12	52	No	INC	24	0:00	23:59
109	RT	Generation Outage	SCE	LA Basin	20-Jun-12	25	Yes	INC	14	10:00	23:59
110	RT	Generation Outage	SDG&E	San Diego	15-Jun-12	20	No	INC	22	2:00	23:59
111	RT	Generation Outage	SDG&E	San Diego	19-Jun-12	20	No	INC	8	0:43	7:59
112	RT	Load Forecast Uncertainty	PG&E	Bay Area	12-Jun-12	45	Yes	INC	24	0:00	23:59
113	RT	Load Forecast Uncertainty	PG&E	Bay Area	18-Jun-12	45	Yes	INC	24	0:00	23:59
114	RT	Load Forecast Uncertainty	PG&E	N/A	18-Jun-12	52	No	INC	24	0:00	23:59
115	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	11-Jun-12	40	Yes	INC	13	11:00	23:59
116	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	13-Jun-12	40	Yes	INC	12	10:00	21:59
117	RT	Load Forecast Uncertainty	SCE	Big Creek- Ventura	14-Jun-12	20	No	INC	4	14:40	17:59

Num	Market			Local Reliability			Commit			Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC DEC	Hours	Time	Time
				Big Creek-							
118	RT	Load Forecast Uncertainty	SCE	Ventura	16-Jun-12	20- 40	Yes	INC	11	13:00	23:59
				Big Creek-							
119	RT	Load Forecast Uncertainty	SCE	Ventura	18-Jun-12	20	Yes	INC	24	0:00	23:59
120	RT	Load Forecast Uncertainty	SCE	LA Basin	9-Jun-12	160	No	INC	24	0:00	23:59
121	RT	Load Forecast Uncertainty	SCE	LA Basin	11-Jun-12	20- 70	Yes	INC	20	4:00	23:59
122	RT	Load Forecast Uncertainty	SCE	LA Basin	12-Jun-12	25- 50	Yes	INC	24	0:00	23:59
123	RT	Load Forecast Uncertainty	SCE	LA Basin	13-Jun-12	20- 40	Yes	INC	24	0:00	23:59
124	RT	Load Forecast Uncertainty	SCE	LA Basin	18-Jun-12	25- 50	Yes	INC	19	5:00	23:59
125	RT	Load Forecast Uncertainty	SCE	LA Basin	21-Jun-12	25	Yes	INC	24	0:00	23:59
100			005			150-		550			
126	RT	Load Forecast Uncertainty	SCE	N/A	12-Jun-12	190	Yes	DEC	14	10:00	23:59
127	RT	Load Forecast Uncertainty	SCE	N/A	12-Jun-12	40	Yes	INC	14	10:00	23:59
128	RT	Load Forecast Uncertainty	SDG&E	San Diego	17-Jun-12	20- 40	Yes	INC	24	0:00	23:59
129	RT	Load Forecast Uncertainty	SDG&E	San Diego	20-Jun-12	20	No	INC	24	0:00	23:59
130	RT	MSG Plant Startup	PG&E	N/A	8-Jun-12	50	No	INC	1	20:15	20:59
131	RT	MSG Plant Startup	SCE	LA Basin	10-Jun-12	160	No	INC	3	14:10	16:59
132	RT	Over Generation	PG&E	Fresno	18-Jun-12	1	No	DEC	3	3:11	5:29
133	RT	Over Generation	PG&E	Fresno	18-Jun-12	0	No	INC	1	3:13	3:59
134	RT	Over Generation	PG&E	N/A	18-Jun-12	50	No	DEC	3	3:11	5:29
135	RT	Path 15	PG&E	Fresno	1-Jun-12	154	Yes	DEC	1	16:18	16:59
136	RT	Pump Management	PG&E	Fresno	23-Jun-12	305	No	DEC	1	7:25	7:59
137	RT	Ramp Rate	SCE	LA Basin	1-Jun-12	220	No	INC	3	14:53	16:59
						264-					
138	RT	Ramp Rate	SCE	LA Basin	3-Jun-12	360	No	INC	4	18:10	21:29
139	RT	Ramp Rate	SCE	LA Basin	11-Jun-12	142	Yes	INC	7	15:00	21:59
140	RT	Ramp Rate	SCE	LA Basin	12-Jun-12	142	Yes	INC	7	15:00	21:59
141	RT	Ramp Rate	SCE	LA Basin	13-Jun-12	190	Yes	INC	11	10:00	20:59
142	RT	Ramp Rate	SCE	LA Basin	14-Jun-12	170	No	INC	2	19:05	20:29
143	RT	Ramp Rate	SCE	LA Basin	18-Jun-12	71- 142	Yes	INC	6	15:05	20:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC DEC	Hours	Begin Time	End Time
144	RT	Ramp Rate	SCE	LA Basin	19-Jun-12	170	No		3	12:35	14:59
145	RT	Ramp Rate	SCE	LA Basin	27-Jun-12	70-240	Yes	INC	10	12:50	21:59
146	RT	Ramp Rate	SDG&E	San Diego	8-Jun-12	68	No	INC	16	6:15	21:29
147	RT	Ramp Rate	SDG&E	San Diego	10-Jun-12	68	No	INC	15	7:50	21:59
148	RT	Ramp Rate	SDG&E	San Diego	13-Jun-12	68	No	INC	12	10:05	21:59
149	RT	Ramp Rate	SDG&E	San Diego	14-Jun-12	68	No	INC	9	12:00	20:59
150	RT	Ramp Rate	SDG&E	San Diego	15-Jun-12	63	No	INC	14	7:05	20:59
151	RT	Ramp Rate	SDG&E	San Diego	18-Jun-12	68	No	INC	9	12:10	20:59
152	RT	Ramp Rate	SDG&E	San Diego	19-Jun-12	68	No	INC	17	7:10	23:59
153	RT	Ramp Rate	SDG&E	San Diego	20-Jun-12	68	No	INC	14	8:35	21:59
154	RT	Ramp Rate	SDG&E	San Diego	29-Jun-12	68	No	INC	11	10:20	20:59
155	RT	Revenue Meter Testing	PG&E	Bay Area	7-Jun-12	761	No	INC	3	11:00	13:59
156	RT	Risk Predictor	PG&E	N/A	25-Jun-12	327	Yes	INC	12	12:00	23:59
157	RT	SP26 Capacity	SDG&E	San Diego	6-Jun-12	20	No	INC	10	14:43	23:59
158	RT	SP26 Capacity	SDG&E	San Diego	7-Jun-12	20	No	INC	24	0:00	23:59
159	RT	SP26 Capacity	SDG&E	San Diego	25-Jun-12	20	Yes	INC	16	8:00	23:59
160	RT	Software Issue	PG&E	Fresno	8-Jun-12	317	No	DEC	1	1:05	1:59
161	RT	Software Limitation	Intertie	CAISO Import	5-Jun-12	0	No	INC	1	23:30	23:59
162	RT	Software Limitation	Intertie	N/A	18-Jun-12	300- 333	No	INC	1	0:37	0:46
163	RT	Software Limitation	PG&E	Bay Area	3-Jun-12	45- 140	No	DEC	15	9:00	23:59
164	RT	Software Limitation	PG&E	Bay Area	6-Jun-12	380	No	INC	2	12:05	13:59
165	RT	Software Limitation	PG&E	Bay Area	16-Jun-12	180	Yes	DEC	6	1:00	6:59
166	RT	Software Limitation	PG&E	Bay Area	16-Jun-12	45	Yes	INC	24	0:00	23:59
167	RT	Software Limitation	PG&E	Bay Area	18-Jun-12	657	No	INC	1	0:43	0:48
168	RT	Software Limitation	PG&E	Bay Area	28-Jun-12	0	Yes	INC	2	12:10	13:09
169	RT	Software Limitation	PG&E	Fresno	2-Jun-12	317	No	INC	3	0:20	2:14
170	RT	Software Limitation	PG&E	Fresno	3-Jun-12	0	No	INC	2	13:50	14:49

Num	Market			Local Reliability			Commit			Begin	End
ber	Туре	Reason	Location	Area	Trade Date	MW	ment	INC_DEC	Hours	Time	Time
171	RT	Software Limitation	PG&E	Fresno	11-Jun-12	0	No	INC	16	8:00	23:39
172	RT	Software Limitation	PG&E	Fresno	12-Jun-12	0	No	INC	2	9:20	10:34
173	RT	Software Limitation	PG&E	Fresno	15-Jun-12	0	Yes	INC	2	22:25	23:24
174	RT	Software Limitation	PG&E	Fresno	20-Jun-12	317	Yes	DEC	2	0:00	1:59
175	RT	Software Limitation	PG&E	Fresno	23-Jun-12	305	No	DEC	2	0:50	1:59
176	RT	Software Limitation	PG&E	Fresno	24-Jun-12	305	No	DEC	2	0:35	1:29
177	RT	Software Limitation	PG&E	Fresno	29-Jun-12	305	No	DEC	1	1:15	1:59
178	RT	Software Limitation	PG&E	N/A	16-Jun-12	0	No	INC	2	1:47	2:59
179	RT	Software Limitation	PG&E	N/A	18-Jun-12	79	No	INC	1	0:39	0:46
180	RT	Software Limitation	SCE	Big Creek- Ventura	4-Jun-12	0	Yes	INC	2	12:35	13:04
100				Big Creek-	4-5011-12	0	163	INC	2	12.00	13.04
181	RT	Software Limitation	SCE	Ventura	11-Jun-12	100	Yes	INC	6	9:45	14:54
182	RT	Software Limitation	SCE	LA Basin	1-Jun-12	0	Yes	INC	2	20:20	21:29
						310-					
183	RT	Software Limitation	SCE	LA Basin	10-Jun-12	620	No	INC	10	14:05	23:59
184	RT	Software Limitation	SCE	LA Basin	18-Jun-12	10- 945	No	INC	10	0:41	9:59
185	RT	Software Limitation	SCE	LA Basin	19-Jun-12	0	No	INC	5	0:00	4:29
186	RT	Software Limitation	SCE	LA Basin	20-Jun-12	0	Yes	INC	2	19:30	20:29
187	RT	Software Limitation	SCE	LA Basin	27-Jun-12	0	Yes	INC	2	21:25	22:24
188	RT	Software Limitation	SCE	LA Basin	28-Jun-12	0	Yes	INC	6	18:45	23:14
189	RT	Software Limitation	SDG&E	San Diego	21-Jun-12	291	No	INC	3	14:00	16:59
190	RT	Software Limitation	SDG&E	San Diego	28-Jun-12	0	No	INC	2	20:58	21:59
191	RT	Stranded A/S or RUC	SCE	LA Basin	1-Jun-12	18	No	DEC	3	15:10	17:59
192	RT	Stranded A/S or RUC	SCE	LA Basin	1-Jun-12	90- 170	No	INC	4	14:53	17:59
193	RT	Stranded A/S or RUC	SCE	LA Basin	14-Jun-12	170	No	INC	9	11:55	19:59
194	RT	System Energy	Intertie	N/A	4-Jun-12	300	Yes	INC	1	9:00	9:59
195	RT	System Energy	Intertie	N/A	8-Jun-12	524	No	DEC	1	4:00	4:59
196	RT	System Energy	Intertie	N/A	10-Jun-12	324	No	DEC	1	3:00	3:59

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
197	RT	System Energy	Intertie	N/A	10-Jun-12	100	Yes	INC	1	3:00	3:59
198	RT	System Energy	Intertie	N/A	11-Jun-12	230	No	DEC	1	3:00	3:59
199	RT	System Energy	Intertie	N/A	11-Jun-12	270	No	INC	1	3:00	3:59
200	RT	System Energy	Intertie	N/A	25-Jun-12	25- 300	Yes	INC	15	6:00	20:59
201	RT	System Energy	PG&E	Fresno	28-Jun-12	95	Yes	INC	3	15:08	17:59
202	RT	System Reliability	PG&E	Bay Area	9-Jun-12	253	No	INC	6	16:15	21:59
203	RT	Transmission Outage PG&E	PG&E	Bay Area	2-Jun-12	46	Yes	INC	2	13:34	14:14
204	RT	Transmission Outage PG&E	PG&E	Bay Area	3-Jun-12	45	Yes	INC	2	19:28	20:59
205	RT	Transmission Outage PG&E	PG&E	Bay Area	28-Jun-12	19- 37	No	INC	4	19:00	22:59
206	RT	Transmission Outage PG&E	PG&E	Bay Area	30-Jun-12	20	Yes	INC	12	11:03	22:59
207	RT	Transmission Outage PG&E	PG&E	Humboldt	6-Jun-12	29-73	No	INC	17	7:35	23:59
208	RT	Transmission Outage PG&E	PG&E	Humboldt	7-Jun-12	44- 45	No	INC	5	19:16	23:49
209	RT	Transmission Outage PG&E	PG&E	Humboldt	8-Jun-12	29	No	INC	1	0:00	0:59
210	RT	Transmission Outage PG&E	PG&E	Humboldt	18-Jun-12	29- 58	No	INC	15	6:44	20:59
211	RT	Transmission Outage PG&E	PG&E	Humboldt	23-Jun-12	33	No	INC	3	21:13	23:42
212	RT	Transmission Outage PG&E	PG&E	Humboldt	30-Jun-12	32	No	INC	4	19:33	22:37
213	RT	Transmission Outage PG&E	PG&E	N/A	7-Jun-12	52-1134	No	INC	6	18:00	23:59
214	RT	Transmission Outage PG&E	PG&E	N/A	8-Jun-12	52- 102	No	INC	24	0:00	23:59
215	RT	Transmission Outage PG&E	PG&E	N/A	13-Jun-12	10- 48	No	DEC	15	8:10	22:59
216	RT	Transmission Outage PG&E	PG&E	N/A	13-Jun-12	0	No	INC	4	18:10	21:59
217	RT	Transmission Outage PG&E	PG&E	N/A	14-Jun-12	6-31	No	DEC	24	0:00	23:59
218	RT	Transmission Outage PG&E	PG&E	N/A	14-Jun-12	3-8	No	INC	11	11:30	21:59
219	RT	Transmission Outage PG&E	PG&E	N/A	15-Jun-12	9-62	No	DEC	18	0:00	17:59
220	RT	Transmission Outage PG&E	PG&E	N/A	15-Jun-12	0	No	INC	2	0:25	1:59
221	RT	Transmission Outage PG&E	PG&E	N/A	22-Jun-12	47	No	INC	2	20:22	21:34
222	RT	Transmission Outage PG&E	PG&E	NCNB	11-Jun-12	10- 53	No	DEC	12	6:54	17:59
223	RT	Transmission Outage PG&E	PG&E	NCNB	27-Jun-12	1- 55	No	DEC	7	9:07	15:59
224	RT	Transmission Outage PG&E	PG&E	NCNB	27-Jun-12	1	No	INC	7	9:25	15:59
225	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-12	12- 19	No	DEC	9	13:47	21:24

Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
226	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-12	86	No	INC_DEC	4	18:50	21:24
220	RT	Transmission Outage PG&E	PG&E	Sierra	2-Jun-12	20	Yes	INC	8	0:25	7:59
228	RT	Transmission Outage PG&E	PG&E	Sierra	7-Jun-12	18-43	No	DEC	6	9:05	14:59
220			TOQL	Olena	7-Jun-12	120-	NU	DLC	0	3.00	14.55
229	RT	Transmission Outage PG&E	PG&E	Sierra	18-Jun-12	240	No	DEC	3	12:10	14:59
230	RT	Transmission Outage PG&E	PG&E	Sierra	25-Jun-12	20	No	DEC	3	19:41	21:59
231	RT	Transmission Outage PG&E	PG&E	Stockton	1-Jun-12	2-55	No	DEC	9	13:35	21:09
232	RT	Transmission Outage PG&E	PG&E	Stockton	1-Jun-12	10- 69	No	INC	9	13:15	21:09
233	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	4-Jun-12	120	Yes	INC	4	7:55	10:59
234	RT	Transmission Outage SDG&E	SDG&E	N/A	18-Jun-12	310	No	INC	2	14:55	15:59
235	RT	Transmission Outage SDG&E	SDG&E	N/A	19-Jun-12	30- 69	Yes	DEC	2	11:00	12:59
236	RT	Transmission Outage SDG&E	SDG&E	N/A	19-Jun-12	50- 100	Yes	INC	3	11:00	13:59
237	RT	Transmission Outage SDG&E	SDG&E	San Diego	1-Jun-12	0	Yes	INC	3	15:25	17:59
238	RT	Transmission Outage SDG&E	SDG&E	San Diego	7-Jun-12	0	Yes	INC	3	15:25	17:04
239	RT	Transmission Outage SDG&E	SDG&E	San Diego	18-Jun-12	36	Yes	DEC	2	14:52	15:59
240	RT	Transmission Outage SDG&E	SDG&E	San Diego	18-Jun-12	946- 997	Yes	INC	2	14:44	15:59
241	RT	Transmission Outage SDG&E	SDG&E	San Diego	19-Jun-12	180	No	INC	4	10:50	13:59
242	RT	Transmission Outage SDG&E	SDG&E	San Diego	27-Jun-12	21	No	INC	3	12:15	14:59
243	RT	Transmission Outage SDG&E	SDG&E	San Diego	28-Jun-12	0	Yes	INC	6	14:20	19:59
244	RT	Unit Testing	PG&E	N/A	26-Jun-12	100- 310	No	INC	18	6:35	23:59
245	RT	Unit Testing	PG&E	N/A	27-Jun-12	50-290	Yes	INC	14	10:40	23:59
246	RT	Unit Testing	PG&E	N/A	28-Jun-12	50-240	Yes	INC	24	0:00	23:59
247	RT	Unit Testing	SCE	Big Creek- Ventura	11-Jun-12	100- 741	Yes	INC	18	6:00	23:59
248	RT	Unit Testing	SCE	Big Creek- Ventura	20-Jun-12	50- 775	Yes	INC	12	11:00	22:59
249	RT	Unit Testing	SDG&E	San Diego	14-Jun-12	575	No	INC	2	14:53	15:22

## 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 day-ahead market are commitments to minimum load. In this case the dispatch levels are all at minimum load.

Date	Market	Resource	Location	Local Reliability	Begin	End Time	Dispatch	Reason
				Area (LRA)	Time		Level (MW)	
01-Jul-09	DA	A	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

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

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. Thus the MW column shows the minimum and maximum of the overlaps of all the exceptional dispatch instructions. The Commitment column shows whether a resource was committed between the begin time and end time. Commitments are broken out separately from energy dispatches. In the day-ahead, however the exceptional dispatches are nearly always just commitments, as in this example. The Begin Time column shows hour ending 5 as this was the hour ending for first dispatch of the day, and the End Time column shows hour ending 23, as this was the hour with last dispatch. It is also possible that there might 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 and end time can include null hours with no dispatch.

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.

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	А	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

## Table 4: Incremental Exceptional Dispatch Instructions in RTM

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.

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

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

## **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.

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	А	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

### Table 6: Decremental Exceptional Dispatch Instructions in RTM

This data is summarized according to FERC convention as shown in Table 7. This summary classifies the data by reason, resource location, local reliability area, and trade date. Please note that 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

Number	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

## 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 15<sup>th</sup> day of August, 2012.

<u>Isl Anna Pascuyzo</u>

Anna Pascuzzo