



Exceptional Dispatch Report

Table 1: June 2010

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Introduction

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

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 dispatch¹. 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 inertia emergency assistance. All reason codes starting with “G” refer to an ISO operation 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 website².

¹ The ISO can issue exceptional dispatch instruction subject to authority of the ISO Tariff Section 34.9 and in accordance with ISO Operating Procedure M-402.

² 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 June 2010, the ISO issued exceptional dispatches for the following local area generation requirement: (1) G-206, San Diego area generation requirements; and (2) G-219, SCE area generation requirements; Exceptional dispatch instructions were also issued for the following transmission management requirements: (1) T-129, transmission facilities in Fresno area; (2) T-138, transmission facilities in Humboldt area; (3) T-151, North Geysers Area 115 kV Lines; (4) T-154, Drum area; (5) T-163, South of Magunden nomograms; (6) T-169, Julian Hinds-Mirage 230 kV Line Overload Mitigation & Eagle Mountain Bank Emergency Mitigation; and (7) other transmission outages in PG&E, SCE and SDG&E area.

The following additional reasons for exceptional dispatch instructions in June 2010 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.); (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 June, which are self explanatory.

As mentioned earlier, the data shown in Table 1 is based on a template specified in the September 2009 order³. 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

³ 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 219 exceptional dispatches in June 2010, an increase of 6 exceptional dispatches compared with 213 such instances reported in the July 15, 2010 report. Real-time exceptional dispatches in June accounted for approximately 99 percent of all exceptional dispatches categorized by date and reason. Exceptional dispatches issued for the following reasons accounted for approximately 57 percent of the total exceptional dispatches during the reporting period: Software Limitation, System Energy, Transmission Outage in PG&E area, and T-129. In day-ahead market, there were a total of 3 exceptional dispatches issued for Transmission Outage SDG&E. In real-time market, approximately 57 percent of the exceptional dispatches were issued for Software Limitation, System Energy, Transmission Outage in PG&E area, and T-129.

Table 1: Exceptional Dispatches in June 2010

**California Independent System Operator Corporation
Exceptional Dispatch Report
August 16, 2010**

Chart 1: Table of Exceptional Dispatches for Period 01/June/2010 - 30/June/2010

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
1	DA	Transmission Outage SDG&E	SCE	Big Creek-Ventura	5-Jun-10	140	Yes	N/A	6	0:00	5:00
2	DA	Transmission Outage SDG&E	SCE	LA Basin	5-Jun-10	160	Yes	N/A	7	3:00	9:00
3	DA	Transmission Outage SDG&E	SDG&E	San Diego	5-Jun-10	200	Yes	N/A	8	1:00	8:00
4	RT	Contingency	PG&E	Fresno	11-Jun-10	540- 817	Yes	INC	3	9:51	11:59
5	RT	DC Circulation	N/A	N/A	29-Jun-10	100- 200	No	INC	5	11:10	15:19
6	RT	Fire	SCE	LA Basin	18-Jun-10	300	Yes	INC	5	17:20	21:59
7	RT	G-206	SDG&E	San Diego	5-Jun-10	57	No	INC	3	0:00	2:54
8	RT	G-206	SDG&E	San Diego	9-Jun-10	200	Yes	INC	6	3:00	8:59
9	RT	G-219	SCE	LA Basin	14-Jun-10	20	Yes	INC	16	8:00	23:59
10	RT	Generation Outage	PG&E	Fresno	18-Jun-10	0	No	INC	1	8:10	8:13
11	RT	Intertie Block	N/A	N/A	19-Jun-10	0	Yes	INC	1	1:00	1:59
12	RT	Intertie Block	N/A	N/A	25-Jun-10	0	Yes	INC	1	1:00	1:59
13	RT	Intertie Block	N/A	N/A	26-Jun-10	0	Yes	INC	1	1:00	1:59
14	RT	Intertie Emergency Assistance	N/A	N/A	4-Jun-10	60- 100	No	INC	2	15:46	16:59
15	RT	Intertie Emergency Assistance	N/A	N/A	5-Jun-10	140	No	INC	1	20:25	20:59
16	RT	Intertie Emergency Assistance	N/A	N/A	11-Jun-10	150	No	INC	1	11:00	11:59
17	RT	Intertie Emergency Assistance	N/A	N/A	13-Jun-10	70- 150	No	INC	2	13:14	14:59
18	RT	Intertie Emergency Assistance	N/A	N/A	23-Jun-10	130	No	INC	1	10:00	10:59
19	RT	Market Disruption	N/A	N/A	3-Jun-10	10- 335	Yes	INC	23	0:00	22:59
20	RT	Market Disruption	N/A	N/A	22-Jun-10	527	Yes	DEC	1	23:00	23:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
21	RT	Market Disruption	N/A	N/A	22-Jun-10	7	Yes	INC	1	23:00	23:59
22	RT	Market Disruption	N/A	N/A	28-Jun-10	378	No	DEC	1	3:00	3:59
23	RT	Market Disruption	N/A	N/A	28-Jun-10	50	Yes	INC	1	3:00	3:59
24	RT	Market Disruption	PG&E	Fresno	12-Jun-10	308	No	INC	1	2:03	2:54
25	RT	Market Disruption	PG&E	Stockton	30-Jun-10	6	No	DEC	2	12:56	13:21
26	RT	Over Generation	PG&E	Fresno	19-Jun-10	308	Yes	DEC	2	7:25	8:49
27	RT	Over Generation	PG&E	Fresno	19-Jun-10	0	Yes	INC	2	7:25	8:49
28	RT	Path 26 Capacity	SCE	LA Basin	22-Jun-10	160- 320	Yes	INC	20	4:00	23:59
29	RT	Path 66 Mitigation	N/A	N/A	13-Jun-10	0	Yes	INC	5	13:35	17:34
30	RT	Path 66 Mitigation	N/A	N/A	15-Jun-10	10- 37	Yes	DEC	6	12:00	17:59
31	RT	Path 66 Mitigation	N/A	N/A	15-Jun-10	50	Yes	INC	7	10:20	16:59
32	RT	Path 66 Mitigation	N/A	N/A	16-Jun-10	25	No	INC	9	8:20	16:59
33	RT	Path 66 Mitigation	N/A	N/A	17-Jun-10	25	Yes	INC	15	9:00	23:59
34	RT	Path 66 Mitigation	N/A	N/A	18-Jun-10	0	Yes	INC	15	7:30	21:59
35	RT	Path 66 Mitigation	N/A	N/A	19-Jun-10	25	No	INC	15	9:05	23:59
36	RT	Path 66 Mitigation	N/A	N/A	20-Jun-10	48	No	INC	3	0:00	2:29
37	RT	Path 66 Mitigation	N/A	N/A	21-Jun-10	0	No	INC	13	7:50	19:59
38	RT	Path 66 Mitigation	N/A	N/A	26-Jun-10	0	No	INC	12	11:20	22:59
39	RT	Path 66 Mitigation	N/A	N/A	27-Jun-10	0	No	INC	12	10:35	21:59
40	RT	Path 66 Mitigation	N/A	N/A	28-Jun-10	0	No	INC	1	23:10	23:59
41	RT	Path 66 Mitigation	PG&E	Fresno	10-Jun-10	166	Yes	INC	1	22:10	22:17
42	RT	Pump Management	PG&E	Fresno	9-Jun-10	0	No	INC	1	1:10	1:59
43	RT	Pump Management	PG&E	Fresno	20-Jun-10	308	No	INC	1	8:00	8:59
44	RT	Ramp Rate	SCE	Big Creek-Ventura	18-Jun-10	140	Yes	INC	18	6:00	23:59
45	RT	Ramp Rate	SCE	Big Creek-Ventura	28-Jun-10	250	Yes	INC	6	14:40	19:59
46	RT	Ramp Rate	SCE	LA Basin	6-Jun-10	66- 78	No	DEC	4	15:40	18:59
47	RT	Ramp Rate	SCE	LA Basin	7-Jun-10	170	No	INC	8	10:40	17:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
48	RT	Ramp Rate	SCE	LA Basin	8-Jun-10	23- 78	No	DEC	11	10:10	20:59
49	RT	Ramp Rate	SCE	LA Basin	8-Jun-10	19- 170	No	INC	11	10:10	20:59
50	RT	Ramp Rate	SCE	LA Basin	9-Jun-10	71- 170	No	INC	10	11:25	20:59
51	RT	Ramp Rate	SCE	LA Basin	17-Jun-10	160	Yes	INC	1	23:00	23:59
52	RT	Ramp Rate	SCE	LA Basin	18-Jun-10	234	Yes	INC	18	6:00	23:59
53	RT	Ramp Rate	SCE	LA Basin	19-Jun-10	160	Yes	INC	12	9:00	20:59
54	RT	SDG&E Capacity	SDG&E	San Diego	11-Jun-10	200	Yes	INC	9	0:00	8:59
55	RT	SDG&E Capacity	SDG&E	San Diego	12-Jun-10	200	Yes	INC	8	0:00	7:59
56	RT	SDG&E Capacity	SDG&E	San Diego	13-Jun-10	200	Yes	INC	8	0:00	7:59
57	RT	SDG&E Capacity	SDG&E	San Diego	14-Jun-10	200	Yes	INC	8	0:00	7:59
58	RT	SDG&E Capacity	SDG&E	San Diego	15-Jun-10	200	Yes	INC	8	0:00	7:59
59	RT	SP26 Capacity	SCE	LA Basin	1-Jun-10	25- 185	Yes	INC	24	0:00	23:59
60	RT	Software Limitation	N/A	N/A	17-Jun-10	703	No	DEC	1	1:00	1:59
61	RT	Software Limitation	N/A	N/A	17-Jun-10	528	Yes	INC	6	1:00	6:59
62	RT	Software Limitation	PG&E	Bay Area	12-Jun-10	19	Yes	INC	4	16:00	19:59
63	RT	Software Limitation	PG&E	Bay Area	21-Jun-10	0	Yes	INC	4	6:30	9:59
64	RT	Software Limitation	PG&E	Fresno	1-Jun-10	0	No	INC	24	0:00	23:59
65	RT	Software Limitation	PG&E	Fresno	2-Jun-10	0	No	INC	24	0:00	23:59
66	RT	Software Limitation	PG&E	Fresno	3-Jun-10	95	No	DEC	24	0:00	23:59
67	RT	Software Limitation	PG&E	Fresno	3-Jun-10	308	Yes	INC	24	0:00	23:59
68	RT	Software Limitation	PG&E	Fresno	4-Jun-10	0	No	INC	24	0:00	23:59
69	RT	Software Limitation	PG&E	Fresno	5-Jun-10	308	No	DEC	2	8:45	9:29
70	RT	Software Limitation	PG&E	Fresno	5-Jun-10	308	Yes	INC	5	8:45	12:49
71	RT	Software Limitation	PG&E	Fresno	6-Jun-10	0	No	INC	24	0:00	23:59
72	RT	Software Limitation	PG&E	Fresno	7-Jun-10	308	No	INC	24	0:00	23:59
73	RT	Software Limitation	PG&E	Fresno	8-Jun-10	0	No	INC	24	0:00	23:59
74	RT	Software Limitation	PG&E	Fresno	9-Jun-10	0	No	INC	24	0:00	23:59
75	RT	Software Limitation	PG&E	Fresno	10-Jun-10	308	No	DEC	2	5:45	6:19
76	RT	Software Limitation	PG&E	Fresno	10-Jun-10	0	Yes	INC	7	0:00	6:19

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
77	RT	Software Limitation	PG&E	Fresno	11-Jun-10	308	Yes	INC	24	0:00	23:59
78	RT	Software Limitation	PG&E	Fresno	12-Jun-10	924	Yes	INC	24	0:00	23:59
79	RT	Software Limitation	PG&E	Fresno	13-Jun-10	0	No	INC	24	0:00	23:59
80	RT	Software Limitation	PG&E	Fresno	14-Jun-10	0	Yes	DEC	2	7:08	8:04
81	RT	Software Limitation	PG&E	Fresno	14-Jun-10	0	No	INC	24	0:00	23:59
82	RT	Software Limitation	PG&E	Fresno	15-Jun-10	0	No	INC	24	0:00	23:59
83	RT	Software Limitation	PG&E	Fresno	16-Jun-10	83	Yes	DEC	1	23:48	23:59
84	RT	Software Limitation	PG&E	Fresno	16-Jun-10	0	Yes	INC	24	0:00	23:59
85	RT	Software Limitation	PG&E	Fresno	17-Jun-10	0	No	INC	24	0:00	23:59
86	RT	Software Limitation	PG&E	Fresno	18-Jun-10	0	No	INC	24	0:00	23:59
87	RT	Software Limitation	PG&E	Fresno	19-Jun-10	0	No	INC	24	0:00	23:59
88	RT	Software Limitation	PG&E	Fresno	20-Jun-10	616	No	INC	24	0:00	23:59
89	RT	Software Limitation	PG&E	Fresno	21-Jun-10	0	No	INC	24	0:00	23:59
90	RT	Software Limitation	PG&E	Fresno	22-Jun-10	0	No	INC	24	0:00	23:59
91	RT	Software Limitation	PG&E	Fresno	23-Jun-10	46	No	INC	19	5:00	23:59
92	RT	Software Limitation	PG&E	Fresno	24-Jun-10	0	No	INC	24	0:00	23:59
93	RT	Software Limitation	PG&E	Fresno	25-Jun-10	0	No	INC	24	0:00	23:59
94	RT	Software Limitation	PG&E	Fresno	26-Jun-10	0	No	INC	24	0:00	23:59
95	RT	Software Limitation	PG&E	Fresno	27-Jun-10	83	Yes	DEC	1	23:30	23:59
96	RT	Software Limitation	PG&E	Fresno	27-Jun-10	0	No	INC	24	0:00	23:59
97	RT	Software Limitation	PG&E	Fresno	28-Jun-10	94	Yes	DEC	16	0:00	15:09
98	RT	Software Limitation	PG&E	Fresno	28-Jun-10	0	Yes	INC	24	0:00	23:24
99	RT	Software Limitation	PG&E	Fresno	29-Jun-10	308	No	INC	24	0:00	23:59
100	RT	Software Limitation	PG&E	Fresno	30-Jun-10	0	No	INC	24	0:00	23:59
101	RT	Software Limitation	PG&E	N/A	2-Jun-10	0	No	INC	7	17:35	23:59
102	RT	Software Limitation	PG&E	N/A	4-Jun-10	0	Yes	INC	2	6:00	7:14
103	RT	Software Limitation	PG&E	N/A	10-Jun-10	0	Yes	INC	2	5:45	6:19
104	RT	Software Limitation	PG&E	N/A	11-Jun-10	0	Yes	INC	4	6:40	9:14
105	RT	Software Limitation	PG&E	N/A	16-Jun-10	0	Yes	INC	7	6:20	12:21

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
106	RT	Software Limitation	PG&E	N/A	18-Jun-10	0	Yes	INC	2	5:30	6:29
107	RT	Software Limitation	SCE	Big Creek-Ventura	5-Jun-10	0	No	INC	2	11:30	12:04
108	RT	Software Limitation	SCE	Big Creek-Ventura	11-Jun-10	0	No	INC	2	12:40	13:09
109	RT	Software Limitation	SCE	LA Basin	1-Jun-10	37	No	DEC	1	18:20	18:59
110	RT	Software Limitation	SCE	LA Basin	4-Jun-10	0	Yes	INC	3	8:00	10:49
111	RT	Software Limitation	SCE	LA Basin	5-Jun-10	20	Yes	INC	16	8:00	23:59
112	RT	Software Limitation	SCE	LA Basin	11-Jun-10	0	No	INC	9	5:20	13:29
113	RT	Software Limitation	SCE	LA Basin	14-Jun-10	91- 225	No	DEC	16	8:00	23:59
114	RT	Software Limitation	SCE	LA Basin	17-Jun-10	0	Yes	INC	6	1:15	6:14
115	RT	Software Limitation	SCE	LA Basin	18-Jun-10	0	Yes	INC	2	10:45	11:14
116	RT	Software Limitation	SCE	LA Basin	19-Jun-10	0	No	INC	5	0:00	4:04
117	RT	Software Limitation	SCE	LA Basin	21-Jun-10	0	Yes	INC	5	19:15	23:59
118	RT	Software Limitation	SCE	LA Basin	28-Jun-10	0	Yes	INC	3	18:00	20:59
119	RT	Software Limitation	SCE	LA Basin	29-Jun-10	20	Yes	INC	24	0:00	23:59
120	RT	Software Limitation	SCE	LA Basin	30-Jun-10	20	Yes	INC	24	0:00	23:59
121	RT	Software Limitation	SDG&E	N/A	7-Jun-10	8- 50	Yes	DEC	2	9:45	10:29
122	RT	Software Limitation	SDG&E	San Diego	5-Jun-10	0	Yes	INC	3	11:45	13:14
123	RT	Software Limitation	SDG&E	San Diego	11-Jun-10	0	Yes	INC	1	15:05	15:44
124	RT	Software Limitation	SDG&E	San Diego	13-Jun-10	30	Yes	INC	2	12:48	13:47
125	RT	System Energy	N/A	N/A	5-Jun-10	170	Yes	INC	1	16:00	16:59
126	RT	System Energy	N/A	N/A	10-Jun-10	20	No	DEC	1	14:00	14:59
127	RT	System Energy	N/A	N/A	10-Jun-10	50- 200	Yes	INC	8	7:00	14:59
128	RT	System Energy	N/A	N/A	11-Jun-10	40- 46	No	DEC	5	13:00	17:59
129	RT	System Energy	N/A	N/A	11-Jun-10	25	Yes	INC	1	12:00	12:59
130	RT	System Energy	N/A	N/A	12-Jun-10	39- 125	No	DEC	16	8:00	23:59
131	RT	System Energy	N/A	N/A	12-Jun-10	185	Yes	INC	1	8:00	8:59
132	RT	System Energy	N/A	N/A	27-Jun-10	40	No	DEC	1	22:00	22:59

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Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
133	RT	System Energy	N/A	N/A	27-Jun-10	10- 34	Yes	INC	5	18:00	22:59
134	RT	System Energy	PG&E	Fresno	4-Jun-10	83- 200	No	INC	2	16:20	17:19
135	RT	System Energy	PG&E	Fresno	6-Jun-10	308	Yes	DEC	2	7:15	8:29
136	RT	System Energy	PG&E	Fresno	13-Jun-10	83	Yes	INC	2	13:39	14:38
137	RT	System Energy	PG&E	Fresno	17-Jun-10	160	No	INC	1	0:35	0:59
138	RT	System Energy	SCE	Big Creek- Ventura	28-Jun-10	50	Yes	INC	13	11:00	23:59
139	RT	System Energy	SCE	LA Basin	10-Jun-10	45	No	INC	11	11:35	21:59
140	RT	System Energy	SCE	LA Basin	14-Jun-10	25	Yes	INC	17	7:00	23:59
141	RT	System Energy	SCE	LA Basin	15-Jun-10	25	Yes	INC	24	0:00	23:59
142	RT	System Energy	SCE	LA Basin	17-Jun-10	360	Yes	INC	2	0:37	1:09
143	RT	System Energy	SCE	LA Basin	28-Jun-10	30- 120	Yes	INC	18	6:00	23:59
144	RT	System Energy	SCE	LA Basin	29-Jun-10	10- 20	Yes	INC	17	5:00	21:59
145	RT	System Energy	SDG&E	San Diego	13-Jun-10	91	Yes	INC	2	20:51	21:59
146	RT	T-129	PG&E	Fresno	2-Jun-10	20	Yes	INC	1	23:55	23:59
147	RT	T-129	PG&E	Fresno	3-Jun-10	70	Yes	INC	1	0:00	0:59
148	RT	T-129	PG&E	Fresno	7-Jun-10	6	Yes	DEC	1	23:10	23:59
149	RT	T-129	PG&E	Fresno	8-Jun-10	8	Yes	DEC	21	1:00	21:59
150	RT	T-129	PG&E	Fresno	8-Jun-10	77- 79	Yes	INC	7	0:00	6:59
151	RT	T-129	PG&E	Fresno	9-Jun-10	7- 10	No	DEC	22	2:05	23:59
152	RT	T-129	PG&E	Fresno	9-Jun-10	35	No	INC	5	2:05	6:54
153	RT	T-129	PG&E	Fresno	10-Jun-10	7	No	DEC	24	0:00	23:59
154	RT	T-129	PG&E	Fresno	10-Jun-10	38	No	INC	24	0:00	23:59
155	RT	T-129	PG&E	Fresno	11-Jun-10	7	No	DEC	19	5:15	23:59
156	RT	T-129	PG&E	Fresno	12-Jun-10	0	No	INC	23	1:15	23:59
157	RT	T-129	PG&E	Fresno	13-Jun-10	308	No	INC	1	0:00	0:59
158	RT	T-129	PG&E	Fresno	15-Jun-10	308	Yes	INC	7	0:05	6:59
159	RT	T-129	PG&E	Fresno	18-Jun-10	0	No	DEC	4	20:22	23:59
160	RT	T-129	PG&E	Fresno	20-Jun-10	1	No	DEC	16	6:30	21:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
161	RT	T-129	PG&E	Fresno	21-Jun-10	0	No	INC	6	14:05	19:59
162	RT	T-129	PG&E	Fresno	27-Jun-10	616	Yes	INC	4	0:45	3:14
163	RT	T-129	PG&E	Fresno	28-Jun-10	308	Yes	INC	3	0:00	2:44
164	RT	T-129	PG&E	Fresno	29-Jun-10	308	Yes	INC	3	0:00	2:19
165	RT	T-138	PG&E	Fresno	5-Jun-10	0	No	INC	24	0:00	23:59
166	RT	T-138	PG&E	Humboldt	3-Jun-10	5- 10	No	DEC	2	21:00	22:59
167	RT	T-138	PG&E	Humboldt	3-Jun-10	5	No	INC	2	21:00	22:59
168	RT	T-138	PG&E	Humboldt	4-Jun-10	5	No	DEC	2	21:30	22:09
169	RT	T-138	PG&E	Humboldt	4-Jun-10	5- 20	No	INC	23	1:15	23:59
170	RT	T-138	PG&E	Humboldt	5-Jun-10	2- 17	No	DEC	6	18:35	23:59
171	RT	T-138	PG&E	Humboldt	5-Jun-10	15	No	INC	24	0:00	23:59
172	RT	T-138	PG&E	Humboldt	23-Jun-10	3- 10	No	INC	7	5:55	11:59
173	RT	T-138	PG&E	Humboldt	29-Jun-10	10- 15	No	INC	3	7:33	9:54
174	RT	T-151	PG&E	NCNB	10-Jun-10	8	No	DEC	3	17:15	19:59
175	RT	T-151	PG&E	NCNB	11-Jun-10	6- 26	No	DEC	9	11:25	19:49
176	RT	T-151	PG&E	NCNB	12-Jun-10	8	No	DEC	7	15:25	21:59
177	RT	T-151	PG&E	NCNB	13-Jun-10	10	No	DEC	6	13:24	18:14
178	RT	T-151	PG&E	NCNB	18-Jun-10	7- 27	No	DEC	10	12:15	21:59
179	RT	T-151	PG&E	NCNB	19-Jun-10	10- 11	No	DEC	6	15:55	20:59
180	RT	T-151	PG&E	NCNB	21-Jun-10	5	No	DEC	6	14:00	19:59
181	RT	T-154	PG&E	Sierra	2-Jun-10	13	Yes	DEC	2	15:30	16:29
182	RT	T-154	PG&E	Sierra	16-Jun-10	6- 26	Yes	DEC	5	15:10	19:09
183	RT	T-154	PG&E	Sierra	16-Jun-10	4	Yes	INC	4	16:25	19:09
184	RT	T-154	PG&E	Sierra	18-Jun-10	3- 10	Yes	DEC	3	14:35	16:59
185	RT	T-154	PG&E	Sierra	26-Jun-10	10	Yes	DEC	1	17:08	17:59
186	RT	T-154	PG&E	Sierra	27-Jun-10	10- 26	Yes	DEC	4	15:30	18:29
187	RT	T-163	SCE	Big Creek-Ventura	10-Jun-10	39- 100	No	DEC	13	2:45	14:09
188	RT	T-163	SCE	Big Creek-	10-Jun-10	1- 11	No	INC	14	2:45	15:59

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Num ber	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commit ment	INC_DEC	Hours	Begin Time	End Time
				Ventura							
189	RT	T-169	N/A	N/A	24-Jun-10	12	No	DEC	4	14:50	17:04
190	RT	T-169	N/A	N/A	24-Jun-10	3- 88	No	INC	8	14:03	21:59
191	RT	Transmission Mitigation	PG&E	N/A	21-Jun-10	38	Yes	INC	4	4:17	7:59
192	RT	Transmission Outage PG&E	PG&E	Bay Area	10-Jun-10	6	No	DEC	2	14:00	15:59
193	RT	Transmission Outage PG&E	PG&E	Bay Area	12-Jun-10	65- 110	Yes	INC	2	15:00	16:59
194	RT	Transmission Outage PG&E	PG&E	Bay Area	18-Jun-10	21- 96	No	INC	4	16:40	19:59
195	RT	Transmission Outage PG&E	PG&E	Fresno	10-Jun-10	160	Yes	INC	11	11:20	21:59
196	RT	Transmission Outage PG&E	PG&E	Humboldt	10-Jun-10	10- 20	No	INC	6	13:03	18:59
197	RT	Transmission Outage PG&E	PG&E	Humboldt	13-Jun-10	10- 20	No	INC	11	6:55	16:59
198	RT	Transmission Outage PG&E	PG&E	Humboldt	14-Jun-10	5- 15	No	DEC	6	7:25	12:59
199	RT	Transmission Outage PG&E	PG&E	Humboldt	14-Jun-10	5	No	INC	8	9:05	16:59
200	RT	Transmission Outage PG&E	PG&E	Humboldt	15-Jun-10	5	No	DEC	1	10:15	10:59
201	RT	Transmission Outage PG&E	PG&E	Humboldt	19-Jun-10	10- 15	No	DEC	3	21:14	23:59
202	RT	Transmission Outage PG&E	PG&E	Humboldt	21-Jun-10	2- 20	No	DEC	10	7:37	16:44
203	RT	Transmission Outage PG&E	PG&E	Humboldt	22-Jun-10	5- 15	No	DEC	2	7:46	8:29
204	RT	Transmission Outage PG&E	PG&E	Humboldt	22-Jun-10	0	No	INC	2	8:30	9:59
205	RT	Transmission Outage PG&E	PG&E	N/A	30-Jun-10	15	No	DEC	5	8:20	12:59
206	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-10	5- 80	No	DEC	19	0:30	18:29
207	RT	Transmission Outage PG&E	PG&E	Sierra	1-Jun-10	30	No	INC	10	0:00	9:04
208	RT	Transmission Outage PG&E	PG&E	Sierra	10-Jun-10	50	No	DEC	2	7:46	8:51
209	RT	Transmission Outage PG&E	PG&E	Stockton	9-Jun-10	5- 8	No	DEC	19	3:08	21:59
210	RT	Transmission Outage PG&E	PG&E	Stockton	9-Jun-10	48- 55	No	INC	19	3:08	21:59
211	RT	Transmission Outage SCE	SCE	Big Creek- Ventura	10-Jun-10	49- 51	No	INC	2	1:36	2:44
212	RT	Transmission Outage SCE	SCE	LA Basin	4-Jun-10	20	Yes	INC	1	19:45	19:49
213	RT	Transmission Outage SCE	SDG&E	San Diego	5-Jun-10	155- 290	Yes	INC	19	5:00	23:59
214	RT	Transmission Outage SDG&E	SDG&E	San Diego	5-Jun-10	57- 300	No	INC	6	2:55	7:59
215	RT	Transmission Outage SDG&E	SDG&E	San Diego	19-Jun-10	4- 60	No	INC	7	5:00	11:59

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Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
216	RT	Transmission Outage SDG&E	SDG&E	San Diego	25-Jun-10	18	Yes	INC	7	10:40	16:14
217	RT	Transmission Outage SDG&E	SDG&E	San Diego	30-Jun-10	200	Yes	INC	2	22:00	23:59
218	RT	Unit Testing	N/A	N/A	11-Jun-10	25- 49	No	INC	3	11:15	13:30
219	RT	Unit Testing	N/A	N/A	25-Jun-10	300	No	INC	2	12:15	13:14

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 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: 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	A	SCE	LA BASIN	05:00	10:00	50	G-219
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	G-219
01-Jul-09	DA	C	SCE	LA BASIN	09:00	23:00	20	G-219.

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.

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	G-219	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 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.

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	A	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	t-138
01-Jul-09	RT	B	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	t-138
01-Jul-09	RT	C	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	t-138
01-Jul-09	RT	C	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	t-138

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.

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	T-138	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 T-129. 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	A	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	t-129
01-Jul-09	RT	B	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	t-129
01-Jul-09	RT	C	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	t-129

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	T-129	PG&E	Fresno	1-Jul-09	20	Yes	INC	6	15:00	20:00
1	RT	T-129	PG&E	Fresno	1-Jul-09	10-20	Yes	DEC	8	07:00	14:00