



Exceptional Dispatch Report

Table 1: July 2018

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Introduction

This report is filed pursuant to FERC's September 2, 2009 and July 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 July 2018.

The Nature of Exceptional Dispatch

The CAISO 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.¹ 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. A real-time exceptional dispatch above the resource day-ahead award is an incremental exceptional dispatch instruction and an exceptional dispatch below the day-ahead award is a decremental dispatch instruction.

The CAISO issues exceptional dispatch instructions to maintain the reliability of the grid when the market software cannot do so. Whenever the CAISO issues an exceptional dispatch instruction, the operator logs the dispatch and the associated reason.

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 non-modeled constraints or requirements and intertie emergency assistance. All of the transmission procedures are available on the CAISO website.²

The following reason for exceptional dispatch instructions in July 2018 was not related to generation or transmission operating procedures: 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 CAISO 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

¹ The CAISO can issue exceptional dispatch instructions subject to authority of the CAISO Tariff Section 34.11 and in accordance with CAISO Operating Procedure 2330 (formerly M-402).

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

day, then the CAISO issues an exceptional dispatch to commit this resource in 2400 so 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. There were a few other reasons used to explain exceptional dispatch instructions in July 2018, which are self explanatory.

The data in Table 1 is based on a template specified in the September 2009 order.³ 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 (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 column specifies if there was an incremental dispatch or a decremental dispatch from the IFM schedule. 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 there were 348 exceptional dispatches in July 2018, as compared to 152 exceptional dispatches in June 2018. Exceptional dispatches issued for the following reasons accounted for approximately 64 percent of the total exceptional dispatches during the reporting period: planned transmission outages, software limitations, load forecast uncertainty, and operating procedure number 7110 (along with 6410, 7240, 7430, 7630, and 7820). Many of the exceptional dispatches with the reason “Other Reliability Requirement” were due to Real Time Contingency Analysis.

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.

Table 1: Exceptional Dispatches in July 2018

**California Independent System Operator Corporation
Exceptional Dispatch Report
September 17, 2018**

Chart 1: Table of Exceptional Dispatches for Period 01/July/2018 - 31/July/2018

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
1	RT	Bridging Schedules	SCE	Big Creek-Ventura	7/6/2018	100	No	INC	2	22:00	23:59
2	RT	Bridging Schedules	SCE	Big Creek-Ventura	7/7/2018	100	No	INC	15	0:00	14:59
3	RT	Bridging Schedules	SCE	Big Creek-Ventura	7/23/2018	150	No	INC	2	22:00	23:59
4	RT	Bridging Schedules	SCE	LA Basin	7/4/2018	10- 30	Yes	INC	2	22:00	23:59
5	RT	Contingency Dispatch	Intertie	N/A	7/15/2018	7	Yes	INC	1	6:00	6:59
6	RT	Contingency Dispatch	SCE	Big Creek-Ventura	7/15/2018	47	No	INC	1	6:05	6:49
7	RT	Contingency Dispatch	SCE	LA Basin	7/15/2018	140	No	INC	1	6:05	6:49
8	RT	Contingency Dispatch	SCE	LA Basin	7/18/2018	420-800	No	DEC	1	15:58	16:19
9	RT	Contingency Dispatch	SDG&E	San Diego-IV	7/15/2018	150-168	No	INC	1	6:05	6:49
10	RT	Fast Start Unit Management	PG&E	Bay Area	7/20/2018	0	No	INC	2	3:15	4:19
11	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/8/2018	0	No	INC	1	1:15	2:14
12	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/14/2018	0	No	DEC	1	18:25	19:19
13	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/17/2018	0	No	DEC	1	21:45	22:44

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
14	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/20/2018	0	No	INC	1	1:45	2:44
15	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/25/2018	0	No	DEC	1	2:15	3:14
16	RT	Fast Start Unit Management	SCE	Big Creek-Ventura	7/26/2018	0	No	DEC	1	1:40	2:39
17	RT	Fast Start Unit Management	SCE	LA Basin	7/7/2018	0	No	INC	1	2:30	3:29
18	RT	Fast Start Unit Management	SCE	LA Basin	7/17/2018	0	No	DEC	1	22:00	22:24
19	RT	Fast Start Unit Management	SCE	LA Basin	7/17/2018	0	No	INC	1	22:45	23:44
20	RT	Fast Start Unit Management	SDG&E	San Diego-IV	7/15/2018	0	No	INC	8	5:20	12:29
21	RT	Incomplete or Inaccurate Transmission	PG&E	Kern	7/24/2018	37	No	DEC	2	20:35	21:59
22	RT	Incomplete or Inaccurate Transmission	PG&E	N/A	7/20/2018	30	Yes	DEC	5	17:00	21:59
23	RT	Incomplete or Inaccurate Transmission	PG&E	N/A	7/20/2018	30	Yes	INC	5	17:00	21:59
24	RT	Incomplete or Inaccurate Transmission	PG&E	Stockton	7/11/2018	16	No	DEC	2	10:20	11:59
25	RT	Incomplete or Inaccurate Transmission	SCE	Big Creek-Ventura	7/14/2018	47- 94	No	INC	8	10:44	17:44
26	RT	Incomplete or Inaccurate Transmission	SDG&E	San Diego-IV	7/14/2018	25- 35	No	INC	9	12:46	20:59
27	RT	Load Forecast Uncertainty	PG&E	Bay Area	7/18/2018	240-480	No	INC	1	15:37	16:27
28	RT	Load Forecast Uncertainty	PG&E	Bay Area	7/24/2018	120-258	No	DEC	11	11:10	21:59
29	RT	Load Forecast Uncertainty	PG&E	Bay Area	7/25/2018	46	No	DEC	6	16:55	21:59
30	RT	Load Forecast Uncertainty	PG&E	Bay Area	7/25/2018	47	No	INC	1	16:50	16:54
31	RT	Load Forecast Uncertainty	PG&E	Bay Area	7/26/2018	120-384	No	DEC	16	6:10	21:59
32	RT	Load Forecast Uncertainty	PG&E	Fresno	7/18/2018	83	No	INC	1	15:37	15:54
33	RT	Load Forecast Uncertainty	PG&E	Fresno	7/24/2018	35	No	INC	4	6:45	9:59
34	RT	Load Forecast Uncertainty	PG&E	Fresno	7/30/2018	83- 166	Yes	INC	7	13:50	19:59
35	RT	Load Forecast Uncertainty	PG&E	N/A	7/14/2018	47	No	DEC	1	16:15	17:14
36	RT	Load Forecast Uncertainty	PG&E	N/A	7/18/2018	6	No	DEC	1	17:00	17:02

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
37	RT	Load Forecast Uncertainty	PG&E	N/A	7/24/2018	47	No	DEC	14	7:30	20:59
38	RT	Load Forecast Uncertainty	PG&E	N/A	7/25/2018	20	No	DEC	16	6:40	21:59
39	RT	Load Forecast Uncertainty	PG&E	N/A	7/25/2018	20	No	INC	16	6:40	21:59
40	RT	Load Forecast Uncertainty	PG&E	N/A	7/26/2018	47- 67	No	DEC	14	9:10	22:29
41	RT	Load Forecast Uncertainty	PG&E	N/A	7/27/2018	47	No	DEC	6	15:55	20:59
42	RT	Load Forecast Uncertainty	PG&E	N/A	7/31/2018	47	No	DEC	15	5:55	19:59
43	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/5/2018	50	No	INC	6	18:00	23:59
44	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/6/2018	50	No	INC	18	0:00	17:59
45	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/7/2018	50	No	INC	2	22:00	23:59
46	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/8/2018	50- 150	No	INC	24	0:00	23:59
47	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/9/2018	100- 820	No	INC	24	0:00	23:59
48	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/10/2018	100- 820	No	INC	24	0:00	23:59
49	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/18/2018	33	No	INC	1	15:37	15:54
50	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/19/2018	401	No	INC	8	13:00	20:59
51	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/20/2018	50- 820	No	INC	24	0:00	23:59
52	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/21/2018	50- 820	No	INC	24	0:00	23:59
53	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/22/2018	50- 1640	No	INC	24	0:00	23:59
54	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/24/2018	401	No	DEC	10	13:00	22:29
55	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/24/2018	100- 1203	No	INC	23	0:00	22:29

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
56	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/25/2018	100	No	INC	1	23:00	23:59
57	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/26/2018	401	No	DEC	9	12:00	20:59
58	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/26/2018	50- 401	No	INC	12	12:00	23:59
59	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/27/2018	50- 802	No	INC	24	0:00	23:59
60	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/28/2018	50	No	INC	24	0:00	23:59
61	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/29/2018	50- 802	No	INC	24	0:00	23:59
62	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	7/30/2018	50	No	INC	5	0:00	4:59
63	RT	Load Forecast Uncertainty	SCE	LA Basin	7/4/2018	10	Yes	INC	2	22:00	23:59
64	RT	Load Forecast Uncertainty	SCE	LA Basin	7/5/2018	10- 140	Yes	INC	24	0:00	23:59
65	RT	Load Forecast Uncertainty	SCE	LA Basin	7/6/2018	130- 320	Yes	INC	24	0:00	23:59
66	RT	Load Forecast Uncertainty	SCE	LA Basin	7/7/2018	320	Yes	INC	24	0:00	23:59
67	RT	Load Forecast Uncertainty	SCE	LA Basin	7/8/2018	70- 90	No	INC	24	0:00	23:59
68	RT	Load Forecast Uncertainty	SCE	LA Basin	7/9/2018	90- 760	No	INC	24	0:00	23:59
69	RT	Load Forecast Uncertainty	SCE	LA Basin	7/10/2018	699	No	INC	7	15:00	21:59
70	RT	Load Forecast Uncertainty	SCE	LA Basin	7/11/2018	250- 634	No	DEC	6	15:00	20:59
71	RT	Load Forecast Uncertainty	SCE	LA Basin	7/11/2018	70- 634	Yes	INC	9	15:00	23:59
72	RT	Load Forecast Uncertainty	SCE	LA Basin	7/12/2018	190- 384	No	DEC	8	14:00	21:59
73	RT	Load Forecast Uncertainty	SCE	LA Basin	7/12/2018	240- 1054	Yes	INC	24	0:00	23:59
74	RT	Load Forecast Uncertainty	SCE	LA Basin	7/13/2018	210	No	DEC	8	14:15	21:59
75	RT	Load Forecast Uncertainty	SCE	LA Basin	7/13/2018	70- 694	No	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
76	RT	Load Forecast Uncertainty	SCE	LA Basin	7/14/2018	90- 894	No	INC	24	0:00	23:59
77	RT	Load Forecast Uncertainty	SCE	LA Basin	7/15/2018	90- 160	Yes	INC	24	0:00	23:59
78	RT	Load Forecast Uncertainty	SCE	LA Basin	7/16/2018	20- 160	No	INC	24	0:00	23:59
79	RT	Load Forecast Uncertainty	SCE	LA Basin	7/18/2018	130	No	INC	1	15:37	15:54
80	RT	Load Forecast Uncertainty	SCE	LA Basin	7/19/2018	241-913	No	DEC	9	13:00	21:59
81	RT	Load Forecast Uncertainty	SCE	LA Basin	7/19/2018	80- 194	Yes	INC	11	13:00	23:59
82	RT	Load Forecast Uncertainty	SCE	LA Basin	7/20/2018	250-440	No	DEC	7	15:00	21:59
83	RT	Load Forecast Uncertainty	SCE	LA Basin	7/20/2018	210-1430	Yes	INC	24	0:00	23:59
84	RT	Load Forecast Uncertainty	SCE	LA Basin	7/21/2018	210-1516	No	INC	24	0:00	23:59
85	RT	Load Forecast Uncertainty	SCE	LA Basin	7/22/2018	280-1790	Yes	INC	24	0:00	23:59
86	RT	Load Forecast Uncertainty	SCE	LA Basin	7/23/2018	140-230	Yes	INC	24	0:00	23:59
87	RT	Load Forecast Uncertainty	SCE	LA Basin	7/24/2018	502-1566	No	DEC	13	9:25	21:59
88	RT	Load Forecast Uncertainty	SCE	LA Basin	7/24/2018	70-2091	Yes	INC	24	0:00	23:59
89	RT	Load Forecast Uncertainty	SCE	LA Basin	7/25/2018	152	No	DEC	6	16:45	21:59
90	RT	Load Forecast Uncertainty	SCE	LA Basin	7/25/2018	10	Yes	INC	2	22:00	23:59
91	RT	Load Forecast Uncertainty	SCE	LA Basin	7/26/2018	147-669	No	DEC	14	8:55	22:29
92	RT	Load Forecast Uncertainty	SCE	LA Basin	7/26/2018	200-1494	Yes	INC	24	0:00	23:59
93	RT	Load Forecast Uncertainty	SCE	LA Basin	7/27/2018	241	No	DEC	10	12:25	21:29
94	RT	Load Forecast Uncertainty	SCE	LA Basin	7/27/2018	40-1608	No	INC	24	0:00	23:59
95	RT	Load Forecast Uncertainty	SCE	LA Basin	7/28/2018	40	No	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
96	RT	Load Forecast Uncertainty	SCE	LA Basin	7/29/2018	20- 996	No	INC	24	0:00	23:59
97	RT	Load Forecast Uncertainty	SCE	LA Basin	7/30/2018	450-700	No	DEC	5	15:00	19:59
98	RT	Load Forecast Uncertainty	SCE	LA Basin	7/30/2018	10- 680	No	INC	15	9:00	23:59
99	RT	Load Forecast Uncertainty	SCE	LA Basin	7/31/2018	400	No	DEC	6	15:00	20:59
100	RT	Load Forecast Uncertainty	SCE	LA Basin	7/31/2018	10- 910	Yes	INC	9	15:00	23:59
101	RT	Load Forecast Uncertainty	SCE	LA Basin	8/1/2018	10	No	INC	24	0:00	23:59
102	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/6/2018	29	No	DEC	4	18:20	21:29
103	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/6/2018	29	No	INC	4	18:20	21:29
104	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/8/2018	20	No	INC	24	0:00	23:59
105	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/9/2018	68	No	INC	7	15:00	21:59
106	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/10/2018	63- 131	No	INC	7	15:00	21:59
107	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/12/2018	20- 136	No	INC	14	10:00	23:59
108	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/13/2018	68	No	DEC	7	15:15	21:59
109	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/13/2018	63- 131	No	INC	7	15:15	21:59
110	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/14/2018	20- 126	No	INC	16	6:00	21:59
111	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/15/2018	20	No	INC	18	6:00	23:59
112	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/16/2018	20	No	INC	24	0:00	23:59
113	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/17/2018	20	No	INC	1	0:00	0:44
114	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/18/2018	30	No	INC	1	15:37	16:27
115	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/20/2018	68	No	DEC	7	15:00	21:59
116	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/20/2018	20- 131	No	INC	18	4:00	21:59
117	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/22/2018	65	No	INC	13	9:30	21:59
118	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/23/2018	40	Yes	INC	12	6:00	17:59
119	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/24/2018	68- 131	No	DEC	11	12:00	22:29
120	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/24/2018	20- 262	Yes	INC	17	7:00	23:59
121	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/25/2018	20- 420	Yes	INC	17	7:00	23:59
122	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/26/2018	131-155	No	DEC	9	13:10	21:29

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
123	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/26/2018	20- 420	Yes	INC	17	7:00	23:59
124	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/27/2018	68	No	DEC	9	12:20	20:59
125	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/27/2018	20- 262	No	INC	17	7:00	23:59
126	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/28/2018	20- 83	No	INC	22	2:00	23:54
127	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/29/2018	20	No	INC	22	2:00	23:59
128	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/30/2018	70	No	DEC	5	15:00	19:59
129	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/30/2018	20- 70	Yes	INC	24	0:00	23:59
130	RT	Load Forecast Uncertainty	SDG&E	San Diego-IV	7/31/2018	20- 60	No	INC	23	1:00	23:59
131	RT	Load Pull	PG&E	N/A	7/14/2018	47	No	DEC	5	16:15	20:59
132	RT	Load Pull	SCE	Big Creek-Ventura	7/4/2018	400	No	INC	4	17:35	20:59
133	RT	Load Pull	SCE	Big Creek-Ventura	7/5/2018	800	No	INC	7	14:30	20:59
134	RT	Load Pull	SCE	Big Creek-Ventura	7/6/2018	400	No	DEC	6	15:00	20:59
135	RT	Load Pull	SCE	Big Creek-Ventura	7/6/2018	400-800	No	INC	6	15:00	20:59
136	RT	Load Pull	SCE	Big Creek-Ventura	7/7/2018	400	No	DEC	4	17:30	20:59
137	RT	Load Pull	SCE	Big Creek-Ventura	7/7/2018	400	No	INC	5	16:00	20:59
138	RT	Load Pull	SCE	Big Creek-Ventura	7/8/2018	400	No	INC	6	15:00	20:59
139	RT	Load Pull	SCE	Big Creek-Ventura	7/17/2018	401	No	INC	5	15:20	19:59
140	RT	Load Pull	SCE	Big Creek-Ventura	7/18/2018	400	No	DEC	6	14:00	19:59
141	RT	Load Pull	SCE	Big Creek-Ventura	7/18/2018	400	No	INC	6	14:00	19:59
142	RT	Load Pull	SCE	Big Creek-Ventura	7/23/2018	401-802	No	DEC	8	14:00	21:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
143	RT	Load Pull	SCE	Big Creek-Ventura	7/23/2018	401-802	No	INC	8	14:00	21:59
144	RT	Load Pull	SCE	Big Creek-Ventura	7/25/2018	802	No	DEC	9	13:00	21:59
145	RT	Load Pull	SCE	Big Creek-Ventura	7/25/2018	802	No	INC	9	13:00	21:59
146	RT	Load Pull	SCE	LA Basin	7/3/2018	384	No	INC	4	17:05	20:59
147	RT	Load Pull	SCE	LA Basin	7/4/2018	384	No	INC	4	17:40	20:59
148	RT	Load Pull	SCE	LA Basin	7/5/2018	65- 305	No	DEC	7	14:00	20:59
149	RT	Load Pull	SCE	LA Basin	7/5/2018	194-739	No	INC	7	14:00	20:59
150	RT	Load Pull	SCE	LA Basin	7/6/2018	240-480	No	DEC	7	14:30	20:59
151	RT	Load Pull	SCE	LA Basin	7/6/2018	240-720	No	INC	7	14:30	20:59
152	RT	Load Pull	SCE	LA Basin	7/7/2018	190	No	DEC	5	16:00	20:59
153	RT	Load Pull	SCE	LA Basin	7/7/2018	240-430	No	INC	5	16:00	20:59
154	RT	Load Pull	SCE	LA Basin	7/8/2018	384	No	DEC	8	13:00	20:59
155	RT	Load Pull	SCE	LA Basin	7/8/2018	384-864	No	INC	8	13:00	20:59
156	RT	Load Pull	SCE	LA Basin	7/14/2018	65	No	INC	5	16:10	20:59
157	RT	Load Pull	SCE	LA Basin	7/16/2018	384	No	DEC	9	11:15	19:59
158	RT	Load Pull	SCE	LA Basin	7/16/2018	305-689	No	INC	9	11:05	19:59
159	RT	Load Pull	SCE	LA Basin	7/17/2018	546	No	INC	5	15:00	19:59
160	RT	Load Pull	SCE	LA Basin	7/18/2018	240-241	No	DEC	7	13:20	19:59
161	RT	Load Pull	SCE	LA Basin	7/18/2018	370-610	No	INC	7	13:20	19:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
162	RT	Load Pull	SCE	LA Basin	7/23/2018	240-1479	No	DEC	12	11:00	22:29
163	RT	Load Pull	SCE	LA Basin	7/23/2018	65-1237	No	INC	12	11:00	22:29
164	RT	Load Pull	SCE	LA Basin	7/25/2018	241-1850	No	DEC	13	9:05	21:29
165	RT	Load Pull	SCE	LA Basin	7/25/2018	384-1107	No	INC	13	9:05	21:29
166	RT	Load Pull	SCE	LA Basin	7/26/2018	194-384	No	DEC	10	12:15	21:29
167	RT	Load Pull	SCE	LA Basin	7/26/2018	190-384	No	INC	10	12:15	21:29
168	RT	Load Pull	SDG&E	San Diego-IV	7/16/2018	68	No	INC	9	11:00	19:59
169	RT	Load Pull	SDG&E	San Diego-IV	7/23/2018	68- 131	No	DEC	12	11:00	22:29
170	RT	Load Pull	SDG&E	San Diego-IV	7/23/2018	63- 131	No	INC	12	11:00	22:29
171	RT	Market Disruption	PG&E	Fresno	7/7/2018	83- 166	No	INC	4	13:47	16:59
172	RT	Market Disruption	SCE	LA Basin	7/7/2018	990	No	DEC	1	13:44	14:24
173	RT	Operating Procedure Number and Constraint (6410)	SCE	Big Creek-Ventura	7/28/2018	401	No	INC	9	12:35	21:29
174	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/6/2018	384	No	DEC	9	12:45	20:59
175	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/6/2018	384	No	INC	9	12:45	20:59
176	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/7/2018	100-200	No	INC	6	15:45	20:59
177	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/11/2018	800	No	DEC	3	17:40	19:59
178	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/11/2018	490	No	INC	3	17:25	19:59
179	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/15/2018	502	No	INC	3	18:30	20:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
180	RT	Operating Procedure Number and Constraint (6410)	SCE	LA Basin	7/28/2018	482-612	No	INC	10	12:30	21:59
181	RT	Operating Procedure Number and Constraint (6410)	SDG&E	San Diego-IV	7/28/2018	68	No	INC	10	12:30	21:59
182	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/7/2018	45	No	INC	1	23:00	23:59
183	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/8/2018	15	No	DEC	7	0:00	6:59
184	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/8/2018	15	No	INC	3	21:38	23:59
185	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/9/2018	15- 32	No	DEC	18	6:45	23:59
186	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/9/2018	15- 32	No	INC	24	0:00	23:59
187	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/10/2018	32- 162	No	DEC	15	7:55	21:59
188	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/10/2018	32- 81	No	INC	22	0:00	21:59
189	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/11/2018	15- 30	No	DEC	16	8:15	23:59
190	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/11/2018	15- 30	No	INC	16	8:15	23:59
191	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/12/2018	30	No	DEC	8	0:00	7:59
192	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/12/2018	30	No	INC	8	0:00	7:59
193	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/13/2018	16- 32	No	DEC	2	22:45	23:59
194	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/13/2018	32	No	INC	2	22:45	23:59
195	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/14/2018	16	No	DEC	7	0:00	6:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
196	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/14/2018	15	No	INC	3	21:15	23:59
197	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/15/2018	80	No	DEC	3	19:25	21:59
198	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/18/2018	42	No	INC	3	21:15	23:59
199	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/19/2018	28	No	INC	1	0:00	0:14
200	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/20/2018	32	No	DEC	13	11:48	23:59
201	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/20/2018	32	No	INC	13	11:48	23:59
202	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/21/2018	130	No	DEC	7	13:40	19:59
203	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/24/2018	30- 80	No	DEC	15	9:25	23:59
204	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/25/2018	32- 48	No	DEC	5	0:00	4:44
205	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/25/2018	32- 64	No	INC	5	0:00	4:44
206	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/30/2018	16- 64	No	DEC	12	6:55	18:04
207	RT	Operating Procedure Number and Constraint (7110)	PG&E	Humboldt	7/30/2018	32- 64	No	INC	6	6:55	12:14
208	RT	Operating Procedure Number and Constraint (7240)	PG&E	Fresno	7/16/2018	70	No	DEC	4	20:20	23:59
209	RT	Operating Procedure Number and Constraint (7240)	PG&E	Fresno	7/16/2018	70	No	INC	4	20:20	23:59
210	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/14/2018	70	No	INC	3	21:50	23:59
211	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/15/2018	70	No	INC	4	3:25	6:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
212	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/18/2018	44- 119	No	INC	4	20:55	23:59
213	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/19/2018	75- 119	No	INC	2	0:00	1:14
214	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/24/2018	70	No	DEC	9	13:25	21:59
215	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/24/2018	70- 75	No	INC	21	1:40	21:59
216	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/25/2018	75	No	DEC	20	4:35	23:59
217	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/25/2018	75	No	INC	20	4:35	23:59
218	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/27/2018	70	No	DEC	5	19:15	23:59
219	RT	Operating Procedure Number and Constraint (7430)	PG&E	Fresno	7/27/2018	70	No	INC	5	19:15	23:59
220	RT	Operating Procedure Number and Constraint (7430)	PG&E	N/A	7/15/2018	280	No	DEC	9	13:15	21:59
221	RT	Operating Procedure Number and Constraint (7430)	PG&E	N/A	7/15/2018	280-630	No	INC	16	6:50	21:59
222	RT	Operating Procedure Number and Constraint (7450)	PG&E	Kern	7/19/2018	32	No	INC	7	17:17	23:59
223	RT	Operating Procedure Number and Constraint (7630)	SCE	LA Basin	7/9/2018	65	No	INC	12	10:40	21:59
224	RT	Operating Procedure Number and Constraint (7820)	SDG&E	San Diego-IV	7/8/2018	20	No	INC	8	2:00	9:59
225	RT	Operating Procedure Number and Constraint (7820)	SDG&E	San Diego-IV	7/24/2018	25- 45	No	DEC	10	12:45	21:59
226	RT	Operating Procedure Number and Constraint (7820)	SDG&E	San Diego-IV	7/24/2018	25- 45	No	INC	10	12:45	21:59
227	RT	Other Reliability Requirement	PG&E	Bay Area	7/24/2018	120	No	DEC	6	0:40	5:59
228	RT	Other Reliability Requirement	PG&E	Bay Area	7/26/2018	25	No	INC	6	2:15	7:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
229	RT	Other Reliability Requirement	PG&E	Fresno	7/11/2018	0	No	DEC	1	7:00	7:14
230	RT	Other Reliability Requirement	PG&E	Fresno	7/13/2018	83	Yes	INC	2	22:00	23:29
231	RT	Other Reliability Requirement	PG&E	Fresno	7/15/2018	30	No	DEC	3	12:15	14:29
232	RT	Other Reliability Requirement	PG&E	Fresno	7/24/2018	45	No	INC	1	9:25	9:29
233	RT	Other Reliability Requirement	PG&E	Humboldt	7/24/2018	45	No	DEC	21	1:40	21:59
234	RT	Other Reliability Requirement	PG&E	Humboldt	7/24/2018	45	No	INC	7	1:40	7:59
235	RT	Other Reliability Requirement	PG&E	Kern	7/13/2018	42	Yes	INC	8	5:00	12:29
236	RT	Other Reliability Requirement	PG&E	Kern	7/17/2018	32	Yes	INC	5	19:45	23:59
237	RT	Other Reliability Requirement	PG&E	Kern	7/19/2018	41- 81	Yes	INC	2	22:10	23:59
238	RT	Other Reliability Requirement	PG&E	Kern	7/20/2018	32	Yes	INC	8	16:30	23:59
239	RT	Other Reliability Requirement	PG&E	Kern	7/21/2018	32	Yes	INC	2	0:00	1:59
240	RT	Other Reliability Requirement	PG&E	N/A	7/10/2018	10- 111	No	DEC	5	14:10	18:44
241	RT	Other Reliability Requirement	PG&E	N/A	7/10/2018	0	No	INC	5	14:15	18:44
242	RT	Other Reliability Requirement	PG&E	N/A	7/11/2018	0	No	DEC	1	7:00	7:14
243	RT	Other Reliability Requirement	PG&E	N/A	7/15/2018	38	No	INC	9	10:10	18:59
244	RT	Other Reliability Requirement	PG&E	Sierra	7/11/2018	0	No	INC	1	7:00	7:14
245	RT	Other Reliability Requirement	PG&E	Stockton	7/27/2018	75	No	DEC	2	6:20	7:59
246	RT	Other Reliability Requirement	PG&E	Stockton	7/27/2018	75	No	INC	2	6:20	7:59
247	RT	Other Reliability Requirement	SCE	LA Basin	7/24/2018	400	No	INC	4	17:30	20:59
248	RT	Other Reliability Requirement	SDG&E	San Diego-IV	7/30/2018	25	No	DEC	7	11:40	17:59
249	RT	Other Reliability Requirement	SDG&E	San Diego-IV	7/30/2018	25	No	INC	7	11:40	17:59
250	RT	Planned Transmission Outage	PG&E	Bay Area	7/3/2018	175	No	INC	11	9:00	19:44
251	RT	Planned Transmission Outage	PG&E	Bay Area	7/26/2018	25	No	INC	1	2:10	2:14
252	RT	Planned Transmission Outage	PG&E	Fresno	7/10/2018	83	Yes	INC	1	23:00	23:59
253	RT	Planned Transmission Outage	PG&E	Fresno	7/11/2018	166	Yes	INC	1	0:00	0:44
254	RT	Planned Transmission Outage	PG&E	Fresno	7/24/2018	25- 50	No	DEC	5	9:35	13:44
255	RT	Planned Transmission Outage	PG&E	Humboldt	7/1/2018	32- 80	No	INC	20	4:05	23:59
256	RT	Planned Transmission Outage	PG&E	Humboldt	7/2/2018	14	No	DEC	3	0:45	2:59
257	RT	Planned Transmission Outage	PG&E	Humboldt	7/2/2018	14- 75	No	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
258	RT	Planned Transmission Outage	PG&E	Humboldt	7/3/2018	30- 75	No	INC	24	0:00	23:59
259	RT	Planned Transmission Outage	PG&E	Humboldt	7/4/2018	43- 86	No	INC	24	0:00	23:59
260	RT	Planned Transmission Outage	PG&E	Humboldt	7/10/2018	32	No	INC	1	8:35	8:59
261	RT	Planned Transmission Outage	PG&E	Humboldt	7/15/2018	128	No	DEC	3	15:40	18:14
262	RT	Planned Transmission Outage	PG&E	Humboldt	7/25/2018	64- 77	No	DEC	20	4:25	23:59
263	RT	Planned Transmission Outage	PG&E	Humboldt	7/25/2018	45- 64	No	INC	20	4:25	23:59
264	RT	Planned Transmission Outage	PG&E	Humboldt	7/26/2018	32- 90	No	DEC	24	0:00	23:59
265	RT	Planned Transmission Outage	PG&E	Humboldt	7/26/2018	45	No	INC	24	0:00	23:59
266	RT	Planned Transmission Outage	PG&E	Humboldt	7/27/2018	30- 135	No	DEC	24	0:00	23:59
267	RT	Planned Transmission Outage	PG&E	Humboldt	7/27/2018	45- 90	No	INC	21	0:00	20:59
268	RT	Planned Transmission Outage	PG&E	Humboldt	7/28/2018	64- 102	No	DEC	24	0:00	23:59
269	RT	Planned Transmission Outage	PG&E	Humboldt	7/28/2018	45	No	INC	24	0:05	23:59
270	RT	Planned Transmission Outage	PG&E	Humboldt	7/29/2018	45- 108	No	DEC	24	0:00	23:59
271	RT	Planned Transmission Outage	PG&E	Humboldt	7/29/2018	42- 74	No	INC	24	0:00	23:59
272	RT	Planned Transmission Outage	PG&E	Humboldt	7/30/2018	16- 80	No	DEC	24	0:00	23:59
273	RT	Planned Transmission Outage	PG&E	Humboldt	7/30/2018	48- 80	No	INC	24	0:00	23:59
274	RT	Planned Transmission Outage	PG&E	Humboldt	7/31/2018	30- 190	No	DEC	9	15:20	23:59
275	RT	Planned Transmission Outage	PG&E	Humboldt	7/31/2018	16- 80	No	INC	24	0:00	23:59
276	RT	Planned Transmission Outage	PG&E	Humboldt	8/1/2018	30- 94	No	INC	8	0:00	7:44
277	RT	Planned Transmission Outage	PG&E	Kern	7/13/2018	32	No	INC	5	17:55	21:59
278	RT	Planned Transmission Outage	PG&E	N/A	7/10/2018	24	No	INC	4	14:50	18:44
279	RT	Planned Transmission Outage	PG&E	NCNB	7/17/2018	183-203	No	DEC	9	4:55	12:59
280	RT	Planned Transmission Outage	PG&E	NCNB	7/18/2018	124-192	No	DEC	10	3:45	12:59
281	RT	Planned Transmission Outage	PG&E	NCNB	7/18/2018	62	No	INC	8	5:10	12:59
282	RT	Planned Transmission Outage	PG&E	NCNB	7/19/2018	120	No	DEC	8	4:00	11:44
283	RT	Planned Transmission Outage	PG&E	NCNB	7/19/2018	60	No	INC	8	4:00	11:44
284	RT	Planned Transmission Outage	PG&E	NCNB	7/20/2018	186	No	DEC	10	3:30	12:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
285	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/2/2018	20- 136	No	INC	17	5:00	21:59
286	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/5/2018	40	No	INC	2	10:25	12:24
287	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/8/2018	63	No	INC	2	22:20	23:59
288	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/9/2018	38- 63	Yes	INC	24	0:00	23:59
289	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/10/2018	38	No	INC	7	0:00	6:44
290	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/18/2018	63	No	INC	7	13:10	19:59
291	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/22/2018	20	No	INC	14	6:00	19:59
292	RT	Planned Transmission Outage	SDG&E	San Diego-IV	7/31/2018	18	No	INC	5	15:45	19:59
293	RT	Pump Management	PG&E	Fresno	7/29/2018	0	No	INC	1	2:00	2:14
294	RT	Pump Management	PG&E	Kern	7/29/2018	0	No	INC	1	1:55	2:24
295	RT	Software Limitation	PG&E	Bay Area	7/27/2018	644	No	DEC	1	23:00	23:59
296	RT	Software Limitation	PG&E	Fresno	7/18/2018	0	No	INC	1	19:05	20:04
297	RT	Software Limitation	PG&E	Humboldt	7/4/2018	48	No	INC	1	13:45	14:14
298	RT	Software Limitation	PG&E	N/A	7/5/2018	0	No	DEC	1	20:45	21:14
299	RT	Software Limitation	PG&E	N/A	7/5/2018	0	No	INC	1	20:45	21:14
300	RT	Software Limitation	SCE	Big Creek-Ventura	7/15/2018	0	No	INC	1	10:30	11:29
301	RT	Software Limitation	SCE	Big Creek-Ventura	7/22/2018	0	No	DEC	1	21:30	22:29
302	RT	Software Limitation	SCE	Big Creek-Ventura	7/23/2018	0	No	DEC	1	23:10	23:59
303	RT	Software Limitation	SCE	Big Creek-Ventura	7/24/2018	0	No	DEC	1	0:00	0:09
304	RT	Software Limitation	SCE	LA Basin	7/15/2018	0	No	INC	14	10:30	23:59
305	RT	Software Limitation	SCE	LA Basin	7/16/2018	0	No	INC	24	0:00	23:59
306	RT	Software Limitation	SCE	LA Basin	7/17/2018	0	No	INC	1	0:00	0:14
307	RT	Software Limitation	SCE	LA Basin	7/18/2018	0	No	DEC	4	20:30	23:59
308	RT	Software Limitation	SCE	LA Basin	7/18/2018	0	No	INC	4	20:30	23:59
309	RT	Software Limitation	SCE	LA Basin	7/19/2018	11	No	INC	15	0:15	14:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
310	RT	Software Limitation	SCE	LA Basin	7/23/2018	0	No	INC	1	23:05	23:59
311	RT	Software Limitation	SCE	LA Basin	7/24/2018	0	No	INC	1	0:00	0:04
312	RT	Software Limitation	SCE	N/A	7/19/2018	227	No	DEC	2	2:10	3:59
313	RT	Software Limitation	SDG&E	San Diego-IV	7/9/2018	0	No	INC	1	16:45	17:14
314	RT	Software Limitation	SDG&E	San Diego-IV	7/28/2018	0	No	INC	1	23:55	23:59
315	RT	Software Limitation	SDG&E	San Diego-IV	7/29/2018	0	No	INC	3	0:00	2:59
316	RT	Unit Testing	Intertie	N/A	7/4/2018	50	No	INC	1	22:17	22:59
317	RT	Unit Testing	Intertie	N/A	7/5/2018	50	Yes	INC	1	22:00	22:59
318	RT	Unit Testing	Intertie	N/A	7/12/2018	50	No	INC	1	11:10	11:59
319	RT	Unit Testing	Intertie	N/A	7/31/2018	1- 20	No	INC	24	0:00	23:59
320	RT	Unit Testing	Intertie	N/A	8/1/2018	1	No	INC	6	0:00	5:29
321	RT	Unit Testing	SCE	LA Basin	7/12/2018	22	No	INC	1	16:10	17:09
322	RT	Unit Testing	SDG&E	San Diego-IV	7/12/2018	47	No	INC	2	16:09	17:09
323	RT	Unplanned Outage	PG&E	Bay Area	7/17/2018	357	No	DEC	3	16:45	18:59
324	RT	Unplanned Outage	PG&E	Bay Area	7/17/2018	357	No	INC	3	16:45	18:59
325	RT	Unplanned Outage	PG&E	Humboldt	7/23/2018	15- 32	No	DEC	10	14:15	23:59
326	RT	Unplanned Outage	PG&E	Humboldt	7/23/2018	45	No	INC	1	23:00	23:59
327	RT	Unplanned Outage	PG&E	Humboldt	7/24/2018	15	No	DEC	8	0:00	7:59
328	RT	Unplanned Outage	PG&E	Humboldt	7/24/2018	45	No	INC	3	0:00	2:14
329	RT	Unplanned Outage	PG&E	NCNB	7/28/2018	146-176	No	DEC	2	22:40	23:59
330	RT	Unplanned Outage	PG&E	NCNB	7/29/2018	70- 156	No	DEC	21	0:00	20:59
331	RT	Unplanned Outage	SCE	Big Creek-Ventura	7/17/2018	50- 401	No	INC	11	13:00	23:59
332	RT	Unplanned Outage	SCE	Big Creek-Ventura	7/18/2018	50	No	DEC	24	0:00	23:59
333	RT	Unplanned Outage	SCE	Big Creek-Ventura	7/18/2018	50	No	INC	24	0:00	23:59
334	RT	Unplanned Outage	SCE	Big Creek-Ventura	7/19/2018	50	No	INC	24	0:00	23:59

Number	Market Type	Reason	Location	Local Reliability Area	Trade Date	MW	Commitment	INC_DEC	Hours	Begin Time	End Time
335	RT	Unplanned Outage	SCE	LA Basin	7/15/2018	30- 825	Yes	INC	18	6:20	23:59
336	RT	Unplanned Outage	SCE	LA Basin	7/16/2018	10- 30	No	DEC	18	0:00	17:59
337	RT	Unplanned Outage	SCE	LA Basin	7/16/2018	10- 90	Yes	INC	24	0:00	23:59
338	RT	Unplanned Outage	SCE	LA Basin	7/17/2018	110-382	Yes	INC	24	0:00	23:59
339	RT	Unplanned Outage	SCE	LA Basin	7/18/2018	150-170	Yes	INC	24	0:00	23:59
340	RT	Unplanned Outage	SCE	LA Basin	7/19/2018	30	Yes	INC	24	0:00	23:59
341	RT	Unplanned Outage	SDG&E	San Diego-IV	7/15/2018	68	No	INC	15	7:30	21:59
342	RT	Unplanned Outage	SDG&E	San Diego-IV	7/16/2018	20	Yes	INC	12	12:00	23:59
343	RT	Unplanned Outage	SDG&E	San Diego-IV	7/17/2018	20	No	INC	18	0:00	17:14
344	RT	Unplanned Outage	SDG&E	San Diego-IV	7/18/2018	40- 60	Yes	INC	24	0:00	23:59
345	RT	Unplanned Outage	SDG&E	San Diego-IV	7/19/2018	20	Yes	INC	24	0:00	23:59
346	RT	Voltage Support	PG&E	Humboldt	7/21/2018	14	No	DEC	1	23:30	23:59
347	RT	Voltage Support	PG&E	N/A	7/20/2018	125	No	INC	4	18:10	21:59
348	RT	Voltage Support	PG&E	Stockton	7/19/2018	23	No	INC	4	0:15	3:59

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 CAISO 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 CAISO 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. Here 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	7630
01-Jul-09	DA	B	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	C	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. 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 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 CAISO 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 had no day-ahead award in those hours. The CAISO 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	A	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	B	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	C	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	C	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. 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 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 CAISO 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 CAISO 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	7430
01-Jul-09	RT	B	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	C	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. 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