

Exceptional Dispatch Report

Table 1: June 2021

CAISO Market Analysis and Forecasting

August 16, 2021

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Introduction

This report is filed pursuant to FERC's September 2, 2009, and May 4, 2010, orders in Docket No. ER08-1178. These orders require two monthly Exceptional Dispatch reports—one issued on the 15th of each month and one originally issued on the 30th of each month. Both Table 1 and Table 2 reports will be issued on the 15th of each month due to the availability of necessary data. This report provides data on the frequency and reasons for Exceptional Dispatches issued in June 2021.

The Nature of Exceptional Dispatch

The CAISO can issue exceptional dispatch instructions for a resource as a preday-ahead unit commitment, which may also include 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 June 2021 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

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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-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 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. Interconnection Reliability Operating Limits (IROL) are system operating limits that are established to prevent instability, uncontrolled separation or cascading as described in operating procedure 3100. System Operating Limit (SOL) are the facility ratings, system voltage limits, transient stability limits, and voltage stability limits that are used in the operating horizon – any of which can be the most restrictive limit at any point in time, pre – or post – contingency. Control Point (CP) are imposed to protect the area transmission network against N – 1 contingencies. There were a few other reasons used to explain exceptional dispatch instructions in June 2021, 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 322 exceptional dispatches in June 2021, as compared to 272 exceptional dispatches in May 2021. Exceptional dispatches issued for the following reasons accounted for approximately 64 percent of the

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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.

total exceptional dispatches during the reporting period: planned transmission outages, reliability assement, and load forecast uncertainty. Exceptional dispatches with the reason "Reliability Assessment" were due to Real Time Contingency Analysis, Voltage Stability Analysis, and operating procedure number 7110 (along with 7230, 7320, 7410, 7430, 7450 and 7910). Reliability Assessment is the reason as explained in the operator procedure 2330C⁴ that encompasses Control Point (CP), Interconnection Reliability Operating Limit (IROL), System Operating Limit (SOL) and congestion related EDs. This reason is used to mitigate reliability issues identified through the real – time assessment tools such as Real Time Contingency Analysis (RTCA), Voltage Stability Analysis (VSA), Dynamic Stability Analysis (DSA) and/or Operating Procedure (OP) or offline study.

^{1) &}lt;sup>4</sup> The operator procedure 2330C - http://www.caiso.com/Documents/2330C.pdf

Table 1: Exceptional Dispatches in June 2021

California Independent System Operator Corporation Exceptional Dispatch Report August 16, 2021

Chart 1: Table of Exceptional Dispatches for Period 01/June/2021 - 30/June/2021

	Mar ket						Co				
Num	Тур		Locatio	Local Reliability			mm itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
				Big Creek-							
1	RT	Bridging Schedules	SCE	Ventura	6/27/2021	50	No	INC	15	0:00	15:00
				Big Creek-							
2	RT	Bridging Schedules	SCE	Ventura	6/28/2021	100	No	INC	14	0:00	14:00
3	RT	Bridging Schedules	SCE	LA Basin	6/15/2021	10 - 20	No	INC	1	23:00	0:00
4	RT	Bridging Schedules	SCE	LA Basin	6/16/2021	10 - 20	Yes	INC	1	23:00	0:00
5	RT	Bridging Schedules	SCE	LA Basin	6/17/2021	10	No	INC	4	0:00	4:00
6	RT	Bridging Schedules	SCE	LA Basin	6/18/2021	10 - 20	Yes	INC	2	22:00	0:00
7	RT	Bridging Schedules	SCE	LA Basin	6/19/2021	10 - 20	Yes	INC	2	22:00	0:00
8	RT	Bridging Schedules	SCE	LA Basin	6/20/2021	10 - 20	Yes	INC	2	22:00	0:00
9	RT	Bridging Schedules	SCE	LA Basin	6/26/2021	10	Yes	INC	1	23:00	0:00
10	RT	Bridging Schedules	SCE	LA Basin	6/27/2021	10 - 20	Yes	INC	24	0:00	0:00
11	RT	Bridging Schedules	SCE	LA Basin	6/28/2021	10 - 70	No	INC	24	0:00	0:00
				Big Creek-							
12	RT	Conditions beyond the control of the CAISO	PGAE	Ventura	6/18/2021	62	No	INC	14	0:00	14:00
13	RT	Conditions beyond the control of the CAISO	PGAE	Fresno	6/7/2021	-301	No	DEC	1	13:00	13:15
14	RT	Conditions beyond the control of the CAISO	PGAE	Fresno	6/17/2021	83	No	DEC	1	23:45	0:00
15	RT	Conditions beyond the control of the CAISO	PGAE	NA	6/17/2021	200	No	DEC	1	23:50	0:00
16	RT	Conditions beyond the control of the CAISO	PGAE	NA	6/18/2021	65	No	INC	16	0:00	16:00
				Big Creek-							
17	RT	Conditions beyond the control of the CAISO	SCE	Ventura	6/14/2021	250	No	INC	1	10:00	11:00

Num	Mar ket Typ		Locatio	Local Reliability			Co mm itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
18	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	6/18/2021	98	No	INC	10	0:00	10:00
19	RT	Incomplete or Inaccurate Transmission	PGAE	Fresno	6/5/2021	30	No	INC	2	15:35	17:15
						160 -					
20	RT	Incomplete or Inaccurate Transmission	PGAE	Fresno	6/22/2021	200	No	DEC	2	20:35	22:00
			5015	_	0/00/0004	160 -				24.00	
21	RT	Incomplete or Inaccurate Transmission	PGAE	Fresno	6/22/2021	200	No	INC	2	21:00	23:00
22	RT	Incomplete or Inaccurate Transmission	PGAE	Humboldt	6/14/2021	42	No	DEC	4	18:50	22:00
23	RT	Incomplete or Inaccurate Transmission	PGAE	Kern	6/5/2021	32	No	INC	6	17:45	23:00
24	RT	Incomplete or Inaccurate Transmission	PGAE	NA	6/28/2021	10	No	DEC	1	17:00	17:15
25	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	6/29/2021	44	No	INC	5	17:55	22:00
					- 4 - 4	140 -					
26	RT	Load Forecast Uncertainty	PGAE	Bay Area	6/1/2021	288	No	INC	7	17:00	0:00
27	RT	Load Forecast Uncertainty	PGAE	Bay Area	6/2/2021	140	No	DEC	3	0:00	2:30
28	RT	Load Forecast Uncertainty	PGAE	Bay Area	6/14/2021	370	No	DEC	2	9:40	11:00
29	RT	Load Forecast Uncertainty	PGAE	Bay Area	6/17/2021	46 - 95	No	DEC	4	18:00	22:00
				Big Creek-					_		
30	RT	Load Forecast Uncertainty	PGAE	Ventura	6/15/2021	62	Yes	INC	2	16:00	18:00
31	RT	Load Forecast Uncertainty	PGAE	NA	6/15/2021	50	No	INC	2	17:00	19:00
32	RT	Load Forecast Uncertainty	PGAE	NA	6/28/2021	62	No	DEC	7	17:05	0:00
33	RT	Load Forecast Uncertainty	PGAE	NA	6/29/2021	62	No	INC	24	0:00	0:00
				Big Creek-							
34	RT	Load Forecast Uncertainty	SCE	Ventura	6/13/2021	50	No	INC	14	10:00	0:00
25		Land Farancet Unandainte	005	Big Creek-	0/4/4/0004	50 400	NI-	INIC	0.4	0.00	0.00
35	RT	Load Forecast Uncertainty	SCE	Ventura Big Creek-	6/14/2021	50 - 100	No	INC	24	0:00	0:00
36	RT	Load Forecast Uncertainty	SCE	Ventura	6/15/2021	50 - 100	No	INC	18	0:00	18:00
30	17.1	Load Forecast Officertainty	JUL	Big Creek-	0/13/2021	30 - 100	INU	IIIC	10	0.00	10.00
37	RT	Load Forecast Uncertainty	SCE	Ventura	6/26/2021	50	No	INC	21	3:00	0:00
<u> </u>				Big Creek-	3,23,2321		- 110			0.00	0.00
38	RT	Load Forecast Uncertainty	SCE	Ventura	6/27/2021	100	No	INC	15	9:00	0:00

	Mar						Со				
Num	ket		Locatio	Lead Daliability			mm	INC	Ha	Dogin	End
ber	Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	DEC_	Hou rs	Begin Time	End Time
DCI		Nouse in the second sec		Big Creek-	Trade Date	10100	CIIC	DEG	13	Tillic	11110
39	RT	Load Forecast Uncertainty	SCE	Ventura	6/30/2021	50	No	INC	24	0:00	0:00
40	RT	Load Forecast Uncertainty	SCE	LA Basin	6/1/2021	10 - 70	No	INC	24	0:00	0:00
41	RT	Load Forecast Uncertainty	SCE	LA Basin	6/2/2021	10 - 70	No	INC	24	0:00	0:00
42	RT	Load Forecast Uncertainty	SCE	LA Basin	6/12/2021	10	No	INC	23	1:00	0:00
43	RT	Load Forecast Uncertainty	SCE	LA Basin	6/13/2021	10 - 20	No	INC	24	0:00	0:00
44	RT	Load Forecast Uncertainty	SCE	LA Basin	6/14/2021	10 - 70	Yes	INC	24	0:00	0:00
45	RT	Load Forecast Uncertainty	SCE	LA Basin	6/15/2021	20	No	DEC	3	12:00	15:00
46	RT	Load Forecast Uncertainty	SCE	LA Basin	6/15/2021	20	No	INC	12	0:00	12:00
47	RT	Load Forecast Uncertainty	SCE	LA Basin	6/16/2021	130	No	INC	5	19:30	0:00
48	RT	Load Forecast Uncertainty	SCE	LA Basin	6/17/2021	130	No	INC	14	0:00	14:00
49	RT	Load Forecast Uncertainty	SCE	LA Basin	6/18/2021	130	No	INC	14	0:00	14:00
50	RT	Load Forecast Uncertainty	SCE	LA Basin	6/21/2021	10	No	INC	1	23:00	0:00
51	RT	Load Forecast Uncertainty	SCE	LA Basin	6/22/2021	10 - 20	No	INC	1	23:00	0:00
52	RT	Load Forecast Uncertainty	SCE	LA Basin	6/23/2021	10 - 20	Yes	INC	24	0:00	0:00
53	RT	Load Forecast Uncertainty	SCE	LA Basin	6/24/2021	10 - 20	Yes	INC	16	8:00	0:00
54	RT	Load Forecast Uncertainty	SCE	LA Basin	6/25/2021	10 - 20	Yes	INC	15	9:00	0:00
55	RT	Load Forecast Uncertainty	SCE	LA Basin	6/27/2021	70 - 130	No	INC	14	10:00	0:00
						155 -					
56	RT	Load Forecast Uncertainty	SCE	LA Basin	6/28/2021	167	No	INC	5	16:20	21:00
57	RT	Load Forecast Uncertainty	SCE	LA Basin	6/29/2021	20 - 150	No	INC	10	14:55	0:00
58	RT	Load Forecast Uncertainty	SCE	LA Basin	6/30/2021	10 - 70	Yes	INC	24	0:00	0:00
59	RT	Load Forecast Uncertainty	SDGE	San Diego-IV	6/15/2021	24	No	DEC	6	16:40	22:00
60	RT	Load Forecast Uncertainty	SDGE	San Diego-IV	6/15/2021	24	No	INC	1	20:00	21:00
61	RT	Market Disruption	PGAE	Fresno	6/21/2021	83	No	DEC	3	17:00	20:00
62	RT	Market Disruption	PGAE	Fresno	6/21/2021	83 - 400	No	INC	3	15:15	18:05
63	RT	Market Disruption	PGAE	NA	6/21/2021	200	No	DEC	1	17:35	18:20
64	RT	Market Disruption	PGAE	NA	6/23/2021	50	No	DEC	1	13:55	14:20

	Mar						Со				
Num	ket		Locatio	Lead Daliability			mm itm	INC	Hou	Booin	End
ber	Typ e	Reason	n	Local Reliability Area	Trade Date	MW	ent	DEC_	rs	Begin Time	Time
DCI		Reason	••	Alou	Trade Date	47.8 -	Cit	DLO	13	111110	Time
65	RT	Market Disruption	SCE	LA Basin	6/21/2021	348	No	DEC	4	16:20	20:00
		•				48.04 -					
66	RT	Market Disruption	SCE	LA Basin	6/21/2021	321	No	INC	7	15:20	22:00
67	RT	Market Disruption	SDGE	San Diego-IV	6/21/2021	50 - 550	No	INC	4	15:25	18:40
68	RT	Other Reliability Requirement	PGAE	Bay Area	6/4/2021	231	No	INC	2	3:00	5:00
69	RT	Other Reliability Requirement	PGAE	Fresno	6/4/2021	83	No	INC	4	2:05	5:30
70	RT	Other Reliability Requirement	PGAE	Fresno	6/5/2021	83	No	INC	1	1:30	2:00
71	RT	Other Reliability Requirement	PGAE	Stockton	6/4/2021	88.8	No	INC	5	3:00	8:00
				Big Creek-							
72	RT	Other Reliability Requirement	SCE	Ventura	6/5/2021	440	No	DEC	1	1:20	2:00
73	RT	Other Reliability Requirement	SCE	LA Basin	6/1/2021	190	No	INC	5	17:00	22:00
74	RT	Other Reliability Requirement	SCE	LA Basin	6/27/2021	70	No	INC	3	7:15	10:00
75	RT	Planned Transmission Outage	PGAE	Bay Area	6/12/2021	142	No	DEC	1	10:00	11:00
76	RT	Planned Transmission Outage	PGAE	Bay Area	6/12/2021	142	No	INC	5	5:45	10:00
77	RT	Planned Transmission Outage	PGAE	Fresno	6/5/2021	10 - 30	No	DEC	10	9:45	19:00
78	RT	Planned Transmission Outage	PGAE	Fresno	6/5/2021	0 - 30	No	INC	12	8:00	20:00
79	RT	Planned Transmission Outage	PGAE	Fresno	6/21/2021	200	No	INC	2	13:50	15:00
80	RT	Planned Transmission Outage	PGAE	Humboldt	6/1/2021	30	No	DEC	1	0:00	0:45
81	RT	Planned Transmission Outage	PGAE	Humboldt	6/2/2021	15	No	INC	2	22:10	0:00
82	RT	Planned Transmission Outage	PGAE	Humboldt	6/8/2021	15	No	DEC	3	5:45	8:40
83	RT	Planned Transmission Outage	PGAE	Humboldt	6/8/2021	30	No	INC	16	8:40	0:00
84	RT	Planned Transmission Outage	PGAE	Humboldt	6/9/2021	30	No	INC	17	0:00	16:15
85	RT	Planned Transmission Outage	PGAE	Humboldt	6/10/2021	14	No	DEC	1	21:30	22:30
86	RT	Planned Transmission Outage	PGAE	Humboldt	6/11/2021	42	No	INC	18	6:45	0:00
87	RT	Planned Transmission Outage	PGAE	Humboldt	6/12/2021	42	No	INC	6	0:00	5:15
88	RT	Planned Transmission Outage	PGAE	Humboldt	6/13/2021	28	No	DEC	6	17:00	23:00
89	RT	Planned Transmission Outage	PGAE	Humboldt	6/13/2021	28	No	INC	18	6:45	0:00
90	RT	Planned Transmission Outage	PGAE	Humboldt	6/14/2021	30	No	DEC	12	12:00	0:00

	Mar ket						Co mm				
Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
91	RT	Planned Transmission Outage	PGAE	Humboldt	6/14/2021	28 - 30	No	INC	12	0:00	12:00
92	RT	Planned Transmission Outage	PGAE	Humboldt	6/15/2021	30 - 42	No	DEC	24	0:00	0:00
93	RT	Planned Transmission Outage	PGAE	Humboldt	6/16/2021	30	No	DEC	24	0:00	0:00
94	RT	Planned Transmission Outage	PGAE	Humboldt	6/17/2021	30	No	DEC	24	0:00	0:00
95	RT	Planned Transmission Outage	PGAE	Humboldt	6/18/2021	14 - 42	No	DEC	6	2:30	8:10
96	RT	Planned Transmission Outage	PGAE	Humboldt	6/18/2021	15	No	INC	1	8:00	8:05
97	RT	Planned Transmission Outage	PGAE	Humboldt	6/21/2021	15 - 45	No	DEC	18	6:10	0:00
98	RT	Planned Transmission Outage	PGAE	Humboldt	6/21/2021	15 - 45	No	INC	18	6:00	0:00
99	RT	Planned Transmission Outage	PGAE	Humboldt	6/22/2021	30 - 45	No	DEC	8	15:00	23:00
100	RT	Planned Transmission Outage	PGAE	Humboldt	6/22/2021	15 - 45	No	INC	24	0:00	0:00
101	RT	Planned Transmission Outage	PGAE	Humboldt	6/23/2021	15	No	DEC	5	2:00	6:35
102	RT	Planned Transmission Outage	PGAE	Humboldt	6/23/2021	30 - 45	No	INC	24	0:00	0:00
103	RT	Planned Transmission Outage	PGAE	Humboldt	6/24/2021	30	No	DEC	22	0:00	22:00
104	RT	Planned Transmission Outage	PGAE	Humboldt	6/24/2021	15 - 45	No	INC	24	0:00	0:00
105	RT	Planned Transmission Outage	PGAE	Humboldt	6/25/2021	30	No	DEC	8	15:00	23:00
106	RT	Planned Transmission Outage	PGAE	Humboldt	6/25/2021	30 - 45	No	INC	24	0:00	0:00
107	RT	Planned Transmission Outage	PGAE	Humboldt	6/26/2021	15 - 48	No	DEC	22	0:45	22:00
108	RT	Planned Transmission Outage	PGAE	Humboldt	6/26/2021	30 - 48	No	INC	24	0:00	0:00
109	RT	Planned Transmission Outage	PGAE	Humboldt	6/27/2021	30	No	DEC	22	2:45	0:00
110	RT	Planned Transmission Outage	PGAE	Humboldt	6/27/2021	30 - 45	No	INC	24	0:00	0:00
111	RT	Planned Transmission Outage	PGAE	Humboldt	6/28/2021	15 - 45	No	DEC	24	0:00	0:00
112	RT	Planned Transmission Outage	PGAE	Humboldt	6/28/2021	30 - 60	No	INC	24	0:00	0:00
113	RT	Planned Transmission Outage	PGAE	Humboldt	6/29/2021	15 - 60	No	DEC	23	0:00	23:00
114	RT	Planned Transmission Outage	PGAE	Humboldt	6/29/2021	30 - 60	No	INC	24	0:00	0:00
115	RT	Planned Transmission Outage	PGAE	Humboldt	6/30/2021	30 - 60	No	DEC	5	17:00	22:00
116	RT	Planned Transmission Outage	PGAE	Humboldt	6/30/2021	30 - 60	No	INC	24	0:00	0:00
117	RT	Planned Transmission Outage	PGAE	Kern	6/26/2021	32	No	INC	9	14:30	22:45
118	RT	Planned Transmission Outage	PGAE	Sierra	6/5/2021	20	No	DEC	3	19:00	22:00
119	RT	Planned Transmission Outage	PGAE	Sierra	6/5/2021	20	No	INC	7	17:00	0:00

	Mar ket						Co mm				
Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
120	RT	Planned Transmission Outage	PGAE	Sierra	6/6/2021	20	No	INC	2	0:00	1:45
121	RT	Planned Transmission Outage	PGAE	Sierra	6/12/2021	8 - 47	No	INC	11	12:00	22:30
122	RT	Planned Transmission Outage	PGAE	Sierra	6/13/2021	20	No	INC	3	21:50	0:00
123	RT	Planned Transmission Outage	PGAE	Sierra	6/14/2021	20	No	INC	8	0:00	8:00
124	RT	Planned Transmission Outage	PGAE	Sierra	6/15/2021	47	No	DEC	1	20:00	20:45
125	RT	Planned Transmission Outage	PGAE	Sierra	6/16/2021	0	No	DEC	2	19:40	20:45
126	RT	Planned Transmission Outage	PGAE	Sierra	6/18/2021	42	No	INC	2	16:00	18:00
127	RT	Planned Transmission Outage	PGAE	Sierra	6/19/2021	42	No	DEC	2	18:00	20:00
128	RT	Planned Transmission Outage	PGAE	Sierra	6/19/2021	42	No	INC	7	16:30	23:00
129	RT	Planned Transmission Outage	PGAE	Sierra	6/20/2021	20 - 40	No	DEC	5	17:30	22:00
130	RT	Planned Transmission Outage	PGAE	Sierra	6/20/2021	20 - 42	No	INC	10	14:00	0:00
131	RT	Planned Transmission Outage	PGAE	Sierra	6/21/2021	20	No	DEC	5	16:00	21:00
132	RT	Planned Transmission Outage	PGAE	Sierra	6/21/2021	15 - 47	Yes	INC	24	0:00	0:00
133	RT	Planned Transmission Outage	PGAE	Sierra	6/22/2021	42	No	INC	2	0:00	2:00
134	RT	Planned Transmission Outage	PGAE	Sierra	6/23/2021	30	No	INC	4	0:40	4:00
135	RT	Planned Transmission Outage	PGAE	Sierra	6/25/2021	42	No	INC	2	22:00	0:00
136	RT	Planned Transmission Outage	PGAE	Sierra	6/26/2021	45 - 47	No	DEC	5	17:00	22:00
137	RT	Planned Transmission Outage	PGAE	Sierra	6/26/2021	10 - 49	No	INC	24	0:00	0:00
138	RT	Planned Transmission Outage	PGAE	Sierra	6/27/2021	10 - 25	No	DEC	2	19:00	21:00
139	RT	Planned Transmission Outage	PGAE	Sierra	6/27/2021	10 - 49	Yes	INC	23	0:00	23:00
140	RT	Planned Transmission Outage	PGAE	Sierra	6/28/2021	40	No	DEC	7	15:00	22:00
141	RT	Planned Transmission Outage	PGAE	Sierra	6/28/2021	40	No	INC	15	8:50	23:00
				Big Creek-							
142	RT	Planned Transmission Outage	SCE	Ventura	6/21/2021	248	No	INC	7	11:40	18:00
143	RT	Planned Transmission Outage	SDGE	San Diego-IV	6/3/2021	350	No	DEC	2	15:00	16:45
		Discount Transcription On the co	0005	0 - 10' 10'	0/0/0004	350 -		INIO		7.50	45.00
144	RT	Planned Transmission Outage	SDGE	San Diego-IV	6/3/2021	400	No	INC	8	7:50	15:00
145	RT	Planned Transmission Outage	SDGE	San Diego-IV	6/24/2021	395	No	DEC	2	12:15	13:30
146	RT	Ramping Capacity	PGAE	Fresno	6/18/2021	83	No	INC	3	15:00	18:00

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Num	Тур		Locatio	Local Reliability			mm itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
147	RT	Ramping Capacity	PGAE	Humboldt	6/9/2021	30	No	INC	7	9:15	16:15
148	RT	Ramping Capacity	PGAE	Humboldt	6/10/2021	45	No	INC	2	0:00	2:00
149	RT	Ramping Capacity	PGAE	Kern	6/1/2021	32	No	DEC	4	16:40	20:00
150	RT	Ramping Capacity	PGAE	Sierra	6/1/2021	40	No	DEC	8	14:00	22:00
151	RT	Ramping Capacity	PGAE	Sierra	6/1/2021	40	No	INC	9	13:30	22:30
152	RT	Ramping Capacity	PGAE	Sierra	6/2/2021	40	No	INC	14	0:00	14:00
153	RT	Ramping Capacity	PGAE	Sierra	6/6/2021	20	No	DEC	2	19:00	21:00
154	RT	Ramping Capacity	PGAE	Sierra	6/6/2021	20	No	INC	8	16:30	23:45
155	RT	Ramping Capacity	SCE	Big Creek- Ventura	6/15/2021	400	No	INC	5	16:00	21:00
		The state of the s		Big Creek-		400 -					
156	RT	Ramping Capacity	SCE	Ventura	6/16/2021	607	No	DEC	5	16:00	21:00
				Big Creek-							
157	RT	Ramping Capacity	SCE	Ventura	6/16/2021	607	No	INC	1	15:05	16:00
158	RT	Pamping Conneity	SCE	Big Creek- Ventura	6/17/2021	400.1 - 700	No	DEC	6	16:00	22:00
136	KI	Ramping Capacity	SCE	Big Creek-	6/17/2021	700	No	DEC	6	16.00	22.00
159	RT	Ramping Capacity	SCE	Ventura	6/17/2021	400.1	No	INC	2	14:00	16:00
				Big Creek-							
160	RT	Ramping Capacity	SCE	Ventura	6/18/2021	400.1	No	INC	7	14:00	21:00
				Big Creek-	- / /						
161	RT	Ramping Capacity	SCE	Ventura	6/28/2021	401	No	DEC	4	17:00	21:00
162	RT	Ramping Capacity	SCE	Big Creek- Ventura	6/28/2021	401	No	INC	4	17:00	21:00
				Big Creek-					_		
163	RT	Ramping Capacity	SCE	Ventura	6/29/2021	401	No	INC	8	14:05	22:00
164	RT	Ramping Capacity	SCE	Big Creek- Ventura	6/30/2021	401	No	INC	6	17:00	23:00
104	KI	Namping Capacity	SUE	ventura	0/30/2021	190 -	INU	INC	U	17.00	23.00
165	RT	Ramping Capacity	SCE	LA Basin	6/15/2021	240	No	DEC	5	16:00	21:00
166	RT	Ramping Capacity	SCE	LA Basin	6/16/2021	65 - 240	No	DEC	5	16:00	21:00

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Num	Тур	_	Locatio	Local Reliability			itm	INC_	Hou	Begin	End
ber	е	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
107	рт	Domning Consoits	COF	I A Daoin	0/47/0004	151 -	Nia	DEC		44.00	22.00
167	RT	Ramping Capacity	SCE	LA Basin	6/17/2021	241	No	DEC	8	14:00	22:00
168	RT	Ramping Capacity	SCE	LA Basin	6/17/2021	241	No	INC	7	14:00	21:00
169	RT	Ramping Capacity	SCE	LA Basin	6/18/2021	240 - 327	No	INC	7	14:00	21:00
170	RT	Ramping Capacity Ramping Capacity	SCE	LA Basin	6/23/2021	190	No	INC	5	16:00	21:00
170	KI	Ramping Capacity	SCE	LA Dasin	0/23/2021	194 -	INO	INC	5	16.00	21.00
171	RT	Ramping Capacity	SCE	LA Basin	6/28/2021	240	No	DEC	5	17:00	22:00
172	RT	Ramping Capacity	SCE	LA Basin	6/28/2021	240	No	INC	5	17:00	22:00
173	RT	Ramping Capacity	SCE	LA Basin	6/29/2021	195	No	DEC	6	15:00	21:00
173	111	Trainping Capacity	JOL	LA Dasiii	0/23/2021	195 -	140	DLC	-	13.00	21.00
174	RT	Ramping Capacity	SCE	LA Basin	6/29/2021	241	No	INC	8	14:05	22:00
		. , , , ,				190 -					
175	RT	Ramping Capacity	SCE	LA Basin	6/30/2021	240	No	INC	5	17:00	22:00
176	RT	Reliability Assessment	PGAE	Bay Area	6/17/2021	134	No	DEC	3	19:00	22:00
177	RT	Reliability Assessment	PGAE	Bay Area	6/17/2021	134	No	INC	2	17:25	19:00
178	RT	Reliability Assessment	PGAE	Fresno	6/1/2021	30	No	INC	1	23:05	0:00
179	RT	Reliability Assessment	PGAE	Fresno	6/2/2021	30	No	INC	2	0:00	2:00
180	RT	Reliability Assessment	PGAE	Fresno	6/4/2021	5.6 - 20	No	INC	3	21:20	0:00
181	RT	Reliability Assessment	PGAE	Fresno	6/5/2021	25	No	INC	7	1:30	7:45
182	RT	Reliability Assessment	PGAE	Fresno	6/6/2021	20	No	DEC	1	17:00	18:00
183	RT	Reliability Assessment	PGAE	Fresno	6/6/2021	20 - 30	No	INC	5	13:10	18:00
184	RT	Reliability Assessment	PGAE	Fresno	6/18/2021	50 - 60	No	DEC	3	18:10	21:00
185	RT	Reliability Assessment	PGAE	Fresno	6/18/2021	200	No	INC	1	22:20	23:00
186	RT	Reliability Assessment	PGAE	Fresno	6/19/2021	50	No	DEC	5	17:00	22:00
187	RT	Reliability Assessment	PGAE	Fresno	6/19/2021	41 - 50	No	INC	17	0:30	17:00
188	RT	Reliability Assessment	PGAE	Fresno	6/27/2021	5.6	No	DEC	2	18:15	20:00
189	RT	Reliability Assessment	PGAE	Fresno	6/30/2021	370	No	INC	1	20:15	21:15
190	RT	Reliability Assessment	PGAE	Humboldt	6/1/2021	15 - 30	No	DEC	24	0:25	0:00
191	RT	Reliability Assessment	PGAE	Humboldt	6/1/2021	30	No	INC	6	6:05	12:00

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ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
192	RT	Reliability Assessment	PGAE	Humboldt	6/2/2021	30	No	DEC	23	0:00	23:00
193	RT	Reliability Assessment	PGAE	Humboldt	6/2/2021	30	No	INC	23	1:00	0:00
194	RT	Reliability Assessment	PGAE	Humboldt	6/3/2021	15 - 30	No	DEC	12	12:00	0:00
195	RT	Reliability Assessment	PGAE	Humboldt	6/3/2021	30	No	INC	24	0:00	0:00
196	RT	Reliability Assessment	PGAE	Humboldt	6/4/2021	15	No	DEC	22	0:00	22:00
197	RT	Reliability Assessment	PGAE	Humboldt	6/4/2021	15 - 30	No	INC	24	0:00	0:00
198	RT	Reliability Assessment	PGAE	Humboldt	6/5/2021	30	No	INC	24	0:00	0:00
199	RT	Reliability Assessment	PGAE	Humboldt	6/6/2021	15 - 30	No	INC	24	0:00	0:00
200	RT	Reliability Assessment	PGAE	Humboldt	6/7/2021	15 - 30	No	INC	24	0:00	0:00
201	RT	Reliability Assessment	PGAE	Humboldt	6/8/2021	15	No	DEC	6	0:00	6:00
202	RT	Reliability Assessment	PGAE	Humboldt	6/8/2021	15	No	INC	24	0:00	0:00
203	RT	Reliability Assessment	PGAE	Humboldt	6/9/2021	15 - 45	No	DEC	17	5:00	22:00
204	RT	Reliability Assessment	PGAE	Humboldt	6/9/2021	15 - 45	No	INC	24	0:00	0:00
205	RT	Reliability Assessment	PGAE	Humboldt	6/10/2021	42 - 45	No	INC	24	0:00	0:00
206	RT	Reliability Assessment	PGAE	Humboldt	6/11/2021	14 - 28	No	INC	7	0:00	7:00
207	RT	Reliability Assessment	PGAE	Humboldt	6/12/2021	15	No	DEC	8	16:30	0:00
208	RT	Reliability Assessment	PGAE	Humboldt	6/13/2021	15	No	INC	7	0:00	6:45
209	RT	Reliability Assessment	PGAE	Humboldt	6/14/2021	28	No	DEC	11	13:00	0:00
210	RT	Reliability Assessment	PGAE	Humboldt	6/14/2021	28	No	INC	12	1:30	13:00
211	RT	Reliability Assessment	PGAE	Humboldt	6/15/2021	28	No	DEC	2	0:00	2:00
212	RT	Reliability Assessment	PGAE	Humboldt	6/18/2021	15 - 30	No	DEC	16	8:00	0:00
213	RT	Reliability Assessment	PGAE	Humboldt	6/19/2021	15	No	DEC	24	0:00	0:00
214	RT	Reliability Assessment	PGAE	Humboldt	6/19/2021	15	No	INC	2	0:00	1:45
215	RT	Reliability Assessment	PGAE	Humboldt	6/20/2021	15	No	DEC	24	0:00	0:00
216	RT	Reliability Assessment	PGAE	Humboldt	6/21/2021	15	No	DEC	6	0:00	6:00
217	RT	Reliability Assessment	PGAE	Kern	6/3/2021	32	No	INC	8	15:30	23:00
218	RT	Reliability Assessment	PGAE	Kern	6/4/2021	32	No	INC	6	18:15	0:00
219	RT	Reliability Assessment	PGAE	Kern	6/22/2021	32	Yes	INC	4	17:30	21:30
220	RT	Reliability Assessment	PGAE	Kern	6/23/2021	32	No	INC	7	15:05	22:00

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ber	е	Reason	n	Area	Trade Date	MW	ent	DEC_	rs	Time	Time
221	RT	Reliability Assessment	PGAE	Kern	6/30/2021	32	No	INC	5	17:10	22:00
222	RT	Reliability Assessment	PGAE	NA	6/18/2021	2	No	DEC	5	14:50	19:00
223	RT	Reliability Assessment	PGAE	NA	6/28/2021	10 - 32	No	DEC	3	16:45	19:00
224	RT	Reliability Assessment	PGAE	NA	6/28/2021	10 - 32	No	INC	3	16:50	19:00
225	RT	Reliability Assessment	PGAE	NCNB	6/1/2021	60 - 70	No	DEC	9	15:10	0:00
226	RT	Reliability Assessment	PGAE	NCNB	6/1/2021	60	No	INC	2	22:00	0:00
227	RT	Reliability Assessment	PGAE	Sierra	6/1/2021	0 - 35	No	DEC	6	16:00	22:00
228	RT	Reliability Assessment	PGAE	Sierra	6/1/2021	13 - 42	No	INC	24	0:00	0:00
229	RT	Reliability Assessment	PGAE	Sierra	6/2/2021	20 - 40	No	DEC	4	18:00	22:00
230	RT	Reliability Assessment	PGAE	Sierra	6/2/2021	20 - 42	Yes	INC	18	0:00	18:00
231	RT	Reliability Assessment	PGAE	Sierra	6/3/2021	5 - 47	No	DEC	4	18:00	22:00
232	RT	Reliability Assessment	PGAE	Sierra	6/3/2021	5 - 47	No	INC	9	15:45	0:00
233	RT	Reliability Assessment	PGAE	Sierra	6/4/2021	7 - 45	No	DEC	4	18:00	22:00
234	RT	Reliability Assessment	PGAE	Sierra	6/4/2021	7 - 45	No	INC	12	12:55	0:00
235	RT	Reliability Assessment	PGAE	Sierra	6/16/2021	40	No	INC	1	23:50	0:00
236	RT	Reliability Assessment	PGAE	Sierra	6/17/2021	20 - 45.6	No	DEC	8	14:00	22:00
237	RT	Reliability Assessment	PGAE	Sierra	6/17/2021	20 - 48	No	INC	22	0:00	22:00
238	RT	Reliability Assessment	PGAE	Sierra	6/18/2021	31 - 53	No	DEC	8	15:00	23:00
239	RT	Reliability Assessment	PGAE	Sierra	6/18/2021	18 - 53	No	INC	10	14:20	0:00
240	RT	Reliability Assessment	PGAE	Sierra	6/19/2021	18 - 53	No	INC	21	0:00	21:00
241	RT	Reliability Assessment	PGAE	Sierra	6/20/2021	20	No	INC	1	0:05	1:00
242	RT	Reliability Assessment	PGAE	Sierra	6/22/2021	20 - 42	No	INC	15	9:00	0:00
243	RT	Reliability Assessment	PGAE	Sierra	6/23/2021	20	No	DEC	3	18:25	21:00
244	RT	Reliability Assessment	PGAE	Sierra	6/23/2021	20 - 42	No	INC	18	6:30	0:00
245	RT	Reliability Assessment	PGAE	Sierra	6/24/2021	20 - 42	No	INC	24	0:00	23:45
246	RT	Reliability Assessment	PGAE	Sierra	6/25/2021	20	No	DEC	2	19:00	21:00
247	RT	Reliability Assessment	PGAE	Sierra	6/25/2021	20 - 40	No	INC	15	8:00	23:00
248	RT	Reliability Assessment	PGAE	Sierra	6/26/2021	47	No	DEC	3	18:55	21:00
249	RT	Reliability Assessment	PGAE	Sierra	6/26/2021	47	No	INC	3	21:00	0:00

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ber	e i yp	Reason	n	Area	Trade Date	MW	ent	DEC_	rs	Time	Time
250	RT	Reliability Assessment	PGAE	Sierra	6/27/2021	20	No	DEC	6	16:00	22:00
251	RT	Reliability Assessment	PGAE	Sierra	6/27/2021	20 - 47	No	INC	16	0:00	16:00
252	RT	Reliability Assessment	PGAE	Sierra	6/28/2021	20	No	DEC	3	19:15	22:00
253	RT	Reliability Assessment	PGAE	Sierra	6/29/2021	20	No	DEC	7	15:00	22:00
254	RT	Reliability Assessment	PGAE	Sierra	6/29/2021	20	No	INC	9	14:25	23:00
255	RT	Reliability Assessment	PGAE	Sierra	6/30/2021	20	No	DEC	5	17:55	22:00
256	RT	Reliability Assessment	PGAE	Sierra	6/30/2021	20 - 40	No	INC	7	17:45	0:00
257	RT	Reliability Assessment	PGAE	Stockton	6/5/2021	43	No	DEC	3	5:15	8:00
258	RT	Reliability Assessment	PGAE	Stockton	6/6/2021	42	No	DEC	21	1:50	22:00
259	RT	Reliability Assessment	PGAE	Stockton	6/7/2021	42	No	DEC	20	2:55	22:00
260	RT	Reliability Assessment	PGAE	Stockton	6/12/2021	40 - 42	No	DEC	19	3:15	22:00
261	RT	Reliability Assessment	PGAE	Stockton	6/13/2021	42	No	DEC	18	4:50	22:00
262	RT	Reliability Assessment	PGAE	Stockton	6/19/2021	236	No	DEC	3	19:05	22:00
263	RT	Reliability Assessment	PGAE	Stockton	6/26/2021	20 - 88.8	No	INC	10	14:00	23:15
264	RT	Reliability Assessment	PGAE	Stockton	6/27/2021	35 - 88.8	No	INC	9	14:00	23:00
265	RT	Reliability Assessment	PGAE	Stockton	6/28/2021	40	No	INC	5	17:50	22:00
266	RT	Reliability Assessment	PGAE	Stockton	6/29/2021	40 - 50	No	INC	6	16:45	22:00
267	RT	Reliability Assessment	PGAE	Stockton	6/30/2021	15 - 50	No	INC	7	17:50	0:00
268	RT	Reliability Assessment	SCE	Fresno	6/10/2021	20	No	DEC	11	8:20	19:00
269	RT	Reliability Assessment	SCE	Fresno	6/10/2021	20	No	INC	11	9:00	20:00
270	RT	Reliability Assessment	SCE	NA	6/11/2021	30	No	DEC	8	11:00	19:00
271	RT	Reliability Assessment	SCE	NA	6/11/2021	30	No	INC	3	19:00	22:00
272	RT	Reliability Assessment	SCE	NA	6/15/2021	0	No	DEC	1	13:40	14:15
273	RT	Reliability Assessment	SCE	NA	6/15/2021	0	No	INC	1	13:50	13:55
274	RT	Reliability Assessment	SDGE	San Diego-IV	6/21/2021	0	No	INC	1	16:35	17:35
275	RT	Software Limitation	PGAE	Bay Area	6/15/2021	0	No	INC	3	10:15	13:00
276	RT	Software Limitation	PGAE	Sierra	6/25/2021	0	No	INC	4	8:10	12:00
277	RT	Software Limitation	SCE	Big Creek- Ventura	6/4/2021	140	No	INC	2	10:45	12:00

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ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
				Big Creek-							
278	RT	Software Limitation	SCE	Ventura	6/19/2021	0	No	INC	11	13:45	0:00
				Big Creek-							
279	RT	Software Limitation	SCE	Ventura	6/27/2021	400	No	INC	6	16:20	22:00
280	RT	Software Limitation	SCE	LA Basin	6/24/2021	5	No	INC	1	15:20	16:15
281	RT	Software Limitation	SCE	LA Basin	6/25/2021	0	No	INC	2	1:45	3:00
282	RT	Software Limitation	SCE	LA Basin	6/27/2021	65 - 240	No	INC	5	16:25	21:00
283	RT	Unit Testing	PGAE	Bay Area	6/3/2021	299	No	INC	1	19:00	20:00
284	RT	Unit Testing	PGAE	Fresno	6/18/2021	38.61	No	INC	1	20:40	21:10
				Big Creek-							
285	RT	Unit Testing	SCE	Ventura	6/26/2021	2.68	No	INC	1	18:10	18:50
286	RT	Unit Testing	SCE	LA Basin	6/3/2021	178	No	INC	1	18:30	19:30
287	RT	Unit Testing	SCE	LA Basin	6/14/2021	210	No	INC	2	22:15	0:00
						42.71 -					
288	RT	Unit Testing	SCE	NA	6/1/2021	130.19	No	INC	13	6:00	19:00
					- /- /	43.26 -					
289	RT	Unit Testing	SCE	NA	6/2/2021	130	No	INC	13	5:00	18:00
000	БТ	Heit Teetiese	005	NIA	0/0/0004	49.21 -	NI-	INIC	40	0.00	40.00
290	RT	Unit Testing	SCE	NA	6/3/2021	140 49.21 -	No	INC	13	6:00	19:00
291	RT	Unit Testing	SCE	NA	6/4/2021	140	No	INC	12	6:00	18:00
231	111	Onit resting	JOL	IVA	0/4/2021	49.21 -	140	1110	12	0.00	10.00
292	RT	Unit Testing	SCE	NA	6/5/2021	140	No	INC	13	6:00	19:00
					0,0,202.	49.21 -				0.00	
293	RT	Unit Testing	SCE	NA	6/6/2021	140	No	INC	13	6:00	19:00
		-				43.26 -					
294	RT	Unit Testing	SCE	NA	6/7/2021	140	No	INC	13	6:00	19:00
						34.35 -					
295	RT	Unit Testing	SCE	NA	6/8/2021	104.72	No	INC	13	6:00	19:00
296	RT	Unit Testing	SCE	NA	6/9/2021	50 - 150	No	INC	9	10:30	19:00

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ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
						49.21 -					
297	RT	Unit Testing	SCE	NA	6/10/2021	150	No	INC	13	6:00	19:00
298	RT	Unit Testing	SCE	NA	6/11/2021	0 - 150	No	INC	13	6:00	19:00
299	RT	Unit Testing	SCE	NA	6/12/2021	53 - 150	No	INC	14	5:20	19:00
						49.21 -					
300	RT	Unit Testing	SCE	NA	6/13/2021	150	No	INC	13	6:00	19:00
004	БТ	11.25	005	N. A	0/4.4/0004	49.21 -		13.10	40	0.00	40.00
301	RT	Unit Testing	SCE	NA	6/14/2021	150 49.21 -	No	INC	13	6:00	19:00
302	RT	Unit Testing	SCE	NA	6/15/2021	49.21 - 150	No	INC	13	6:00	19:00
302	18.1	Office resulting	JOL	INA	0/13/2021	49.21 -	INO	INC	13	0.00	19.00
303	RT	Unit Testing	SCE	NA	6/16/2021	150	No	INC	13	6:00	19:00
					5, 10, 20	49.21 -				0.00	
304	RT	Unit Testing	SCE	NA	6/17/2021	150	No	INC	13	5:00	18:00
305	RT	Unit Testing	SCE	NA	6/18/2021	49 - 150	No	INC	13	5:00	18:00
306	RT	Unit Testing	SCE	NA	6/24/2021	150	No	INC	10	8:20	18:00
307	RT	Unit Testing	SDGE	San Diego-IV	6/18/2021	105.37	No	INC	1	21:25	21:55
308	RT	Unit Testing	SDGE	San Diego-IV	6/25/2021	31	No	INC	2	10:45	12:45
309	RT	Voltage Support	PGAE	NA	6/6/2021	0.05	No	INC	17	7:00	0:00
310	RT	Voltage Support	PGAE	NA	6/7/2021	0.05	No	INC	24	0:00	0:00
311	RT	Voltage Support	PGAE	NA	6/8/2021	0.05	No	INC	24	0:00	0:00
312	RT	Voltage Support	PGAE	NA	6/9/2021	0.05	No	INC	18	0:00	17:30
313	RT	Voltage Support	PGAE	Sierra	6/8/2021	20	No	DEC	1	19:00	20:00
314	RT	Voltage Support	PGAE	Sierra	6/8/2021	20	No	INC	7	12:05	19:00
315	RT	Voltage Support	PGAE	Sierra	6/11/2021	20	No	INC	7	17:55	0:00
316	RT	Voltage Support	PGAE	Sierra	6/12/2021	20	No	INC	24	0:00	0:00
317	RT	Voltage Support	PGAE	Sierra	6/13/2021	20	No	INC	8	0:00	8:00
318	RT	Voltage Support	PGAE	Sierra	6/16/2021	20	No	DEC	2	14:00	16:00
319	RT	Voltage Support	PGAE	Sierra	6/16/2021	20	No	INC	6	8:40	14:00
320	RT	Voltage Support	PGAE	Sierra	6/21/2021	20	No	DEC	3	19:10	22:00

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Num	Тур		Locatio	Local Reliability			itm	INC_	Hou	Begin	End
ber	е	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
321	e RT	Reason Voltage Support	n PGAE	Area Sierra	Trade Date 6/25/2021	MW 20 - 40	ent No	INC	rs 2	22:35	Time 0:00

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	Α	SCE	LA BASIN	05:00	10:00	50	7630
01-Jul-09	DA	В	SCE	LA BASIN	08:00	20:00	30	7630
01-Jul-09	DA	С	SCE	LA BASIN	09:00	23:00	20	7630

This data is summarized as shown in Table 3, which is the prescribed format specified in the FERC order on September 02, 2009. This summary classifies the data by reason, resource location, local reliability area, and trade date. The MW column in Table 3 is the range of MW; in this case the minimum instruction MW is 20 MW for resource C which occurs from hours ending 21 through 23. The maximum instruction occurs in hour ending 10. In this hour resource A is committed at 50 MW, resource B is committed at 30 MW and resource C is committed at 20 MW. This adds up to 100 MW. 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	Α	PG&E	Humboldt	06:00	11:00	30	0	Yes	INC	30	7110
01-Jul-09	RT	В	PG&E	Humboldt	07:00	09:00	40	20	No	INC	20	7110
01-Jul-09	RT	С	PG&E	Humboldt	12:00	15:00	50	50	No	INC	0	7110
01-Jul-09	RT	С	PG&E	Humboldt	16:00	20:00	50	40	No	INC	10	7110

This data is summarized as shown in Table 5 and is classified by reason, resource location, local reliability area, and trade date. The MW column in Table 5 is the range of MW; in this case the minimum instruction MW is 0 MW for resource C which occurs from hours ending 13 through 15. The maximum instruction occurs in hours ending 8 & 9, as during these two hours both resources A and B have an ED MW of 30MW and 20MW, respectively. This adds up to 50 MW. 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	Α	PG&E	Fresno	15:00	20:00	20	0	Yes	INC	20	7430
01-Jul-09	RT	В	PG&E	Fresno	07:00	09:00	40	60	No	DEC	20	7430
01-Jul-09	RT	С	PG&E	Fresno	10:00	14:00	40	50	No	DEC	10	7430

This data is summarized according to FERC convention as shown in Table 7. This summary classifies the data by reason, resource location, local reliability area, and trade date. Please note that inc and dec are broken out separately. The inc entry is self-explanatory and similar to the previous example. Regarding the dec entry the MW column is the range of MW; in this case the minimum dec instruction is 10 MW (actually -10MW as it is a dec) for resource C which occurs from hours ending 10 through 14. The maximum instruction occurs from hours ending 7 through 9, when resource B was issued a dec instruction of 20 MW. 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