

# **Exceptional Dispatch Report**

Table 1: September 2022

**CAISO Market Analysis and Forecasting** 

November 15, 2022

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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 15<sup>th</sup> of each month and one originally issued on the 30<sup>th</sup> of each month. Both Table 1 and Table 2 reports will be issued on the 15<sup>th</sup> of each month due to the availability of necessary data. This report provides data on the frequency and reasons for Exceptional Dispatches issued in September 2022.

### 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.<sup>1</sup> A pre-day-ahead commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the day-ahead market. A post-day-ahead market commitment is an exceptional dispatch instruction that commits a resource at or above its physical minimum operating level in the real-time market. A real-time exceptional dispatch instruction is a dispatch of a resource at or above its physical minimum operating point. 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.<sup>2</sup>

The following reason for exceptional dispatch instructions in September 2022 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

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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).

<sup>&</sup>lt;sup>2</sup> 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

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 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 September 2022, which are self explanatory.

The data in Table 1 is based on a template specified in the September 2009 order. 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 434 exceptional dispatches in September 2022, as compared to 287 exceptional dispatches in August 2022. There were two exceptional dispatches issued as pre-day-ahead commitments. Each of these pre-day-ahead commitments were also issued as real-time exceptional

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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.

dispatches. Exceptional dispatches issued for the following reasons accounted for approximately 50 percent of the total exceptional dispatches during the reporting period: market disruption, planned transmission outages, reliability assessment and voltage support. Exceptional dispatches with the reason "Reliability Assessment" were due to Real Time Contingency Analysis, Voltage Stability Analysis, and operating procedure number 7110. Reliability Assessment is the reason as explained in the operator procedure 2330C<sup>4</sup> 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.

<sup>1) &</sup>lt;sup>4</sup> The operator procedure 2330C - <a href="http://www.caiso.com/Documents/2330C.pdf">http://www.caiso.com/Documents/2330C.pdf</a>

**Table 1: Exceptional Dispatches in September 2022** 

#### California Independent System Operator Corporation Exceptional Dispatch Report November 15, 2022

## Chart 1: Table of Exceptional Dispatches for Period 01/September/2022 – 30/September/2022

	Mar ket						Co mm				
Num ber	Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	INC_ DEC	Hou rs	Begin Time	End Time
1	RT	Bridging Schedules	SCE	Big Creek-Ventura	9/1/2022	50	No	INC	13	0:00	13:00
2	RT	Bridging Schedules	SCE	LA Basin	9/20/2022	10	Yes	INC	1	23:00	0:00
3	RT	Bridging Schedules	SCE	LA Basin	9/30/2022	20	Yes	INC	1	23:00	0:00
4	RT	Conditions beyond the control of the CAISO	SCE	LA Basin	9/10/2022	400	No	DEC	7	10:20	17:00
5	RT	Fast Start Unit Management	PGAE	Fresno	9/6/2022	100	No	DEC	4	13:05	17:00
6	RT	Fast Start Unit Management	PGAE	Sierra	9/7/2022	20	No	DEC	13	11:00	0:00
7	RT	Fast Start Unit Management	PGAE	Sierra	9/7/2022	20	No	INC	1	10:45	11:00
8	RT	Fast Start Unit Management	PGAE	NA	9/1/2022	50	No	DEC	9	11:30	20:30
9	RT	Fast Start Unit Management	PGAE	NA	9/6/2022	307	No	DEC	3	13:10	15:30
10	RT	Fast Start Unit Management	PGAE	NA	9/7/2022	307	No	DEC	16	6:30	22:00
11	RT	Fast Start Unit Management	PGAE	NA	9/7/2022	307	No	INC	11	8:00	19:00
12	RT	Fast Start Unit Management	SCE	LA Basin	9/6/2022	151	No	INC	2	10:40	12:00
13	RT	Fast Start Unit Management	SCE	LA Basin	9/7/2022	0	No	INC	1	17:35	18:00
14	RT	Fast Start Unit Management	SCE	LA Basin	9/9/2022	20 - 50	No	DEC	7	14:45	21:00
15	RT	Fast Start Unit Management	SCE	LA Basin	9/20/2022	0	No	INC	3	6:00	8:20
16	RT	Gas Limitations	SDGE	San Diego-IV	9/1/2022	160	No	DEC	1	14:00	14:45
17	RT	Gas Limitations	SDGE	San Diego-IV	9/1/2022	160	No	INC	1	13:35	14:00
18	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	9/1/2022	20	No	DEC	11	11:45	22:00
19	RT	Incomplete or Inaccurate Transmission	PGAE	Sierra	9/4/2022	20	Yes	DEC	5	18:05	23:00
20	RT	Incomplete or Inaccurate Transmission	PGAE	Stockton	9/9/2022	30 - 45	No	DEC	6	14:25	20:00

	Mar ket						Co mm				
Num ber	Typ	Reason	Locatio	Local Reliability Area	Trade Date	MW	itm	INC_ DEC	Hou rs	Begin Time	End Time
21	RT	Incomplete or Inaccurate Transmission	PGAE	Stockton	9/9/2022	30 - 55	No	INC	7	15:00	22:00
22	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/2/2022	37	No	DEC	5	15:00	20:00
23	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/2/2022	37	No	INC	3	12:40	15:00
24	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/4/2022	37 - 39	No	DEC	7	15:00	22:00
25	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/4/2022	37 - 39	No	INC	14	10:30	0:00
26	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/9/2022	200	No	DEC	1	12:00	13:00
27	RT	Incomplete or Inaccurate Transmission	SDGE	San Diego-IV	9/9/2022	200	No	INC	1	11:45	12:00
28	RT	Intertie Emergency Assistance	Intertie	NA	9/6/2022	24 - 43	No	DEC	4	17:00	21:00
29	RT	Intertie Emergency Assistance	Intertie	NA	9/7/2022	75	No	INC	5	16:00	21:00
30	RT	Intertie Emergency Assistance	Intertie	NA	9/8/2022	0.01	No	DEC	1	14:25	15:00
31	RT	Intertie Emergency Assistance	Intertie	NA	9/8/2022	185	No	INC	1	14:10	14:45
32	RT	Load Forecast Uncertainty	Intertie	NA	9/1/2022	25	No	INC	1	18:30	19:00
33	RT	Load Forecast Uncertainty	Intertie	NA	9/6/2022	91 - 317	No	INC	5	16:00	21:00
34	RT	Load Forecast Uncertainty	Intertie	NA	9/7/2022	14	No	DEC	1	17:00	18:00
35	RT	Load Forecast Uncertainty	Intertie	NA	9/7/2022	50 - 363	No	INC	3	18:00	21:00
36	RT	Load Forecast Uncertainty	Intertie	NA	9/8/2022	21 - 576	No	INC	5	16:00	21:00
37	RT	Load Forecast Uncertainty	Intertie	NA	9/9/2022	28 - 338	No	INC	4	16:00	20:00
38	RT	Load Forecast Uncertainty	PGAE	Bay Area	9/1/2022	585	No	INC	3	18:00	21:00
39	RT	Load Forecast Uncertainty	PGAE	Bay Area	9/6/2022	816	No	DEC	1	19:00	20:00
40	RT	Load Forecast Uncertainty	PGAE	Bay Area	9/6/2022	816	No	INC	4	18:20	22:00
41	RT	Load Forecast Uncertainty	PGAE	Fresno	9/6/2022	386	No	INC	1	18:30	19:05
42	RT	Load Forecast Uncertainty	PGAE	Fresno	9/8/2022	49 - 50	No	DEC	5	16:05	21:00
43	RT	Load Forecast Uncertainty	PGAE	NA	9/1/2022	641	No	INC	3	18:00	21:00
44	RT	Load Forecast Uncertainty	PGAE	NA	9/6/2022	388	No	DEC	2	20:00	22:00
45	RT	Load Forecast Uncertainty	PGAE	NA	9/6/2022	388 - 400	No	INC	2	18:40	20:00
46	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/1/2022	100	No	DEC	13	11:00	0:00
47	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/1/2022	74 - 100	No	INC	18	2:30	20:30
48	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/3/2022	100	No	INC	3	21:00	0:00
49	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/5/2022	50	No	DEC	2	22:00	0:00

	Mar						Со				
Num	ket Typ		Locatio	Local Reliability			mm itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
50	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/5/2022	50	No	INC	7	6:00	13:00
51	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/8/2022	3	No	DEC	10	12:45	22:00
52	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/9/2022	741 - 750	No	INC	6	14:00	19:45
53	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/11/2022	50	No	INC	13	11:00	0:00
54	RT	Load Forecast Uncertainty	SCE	Big Creek-Ventura	9/26/2022	405	No	DEC	6	16:00	22:00
55	RT	Load Forecast Uncertainty	SCE	LA Basin	9/2/2022	10	No	INC	6	0:00	6:00
56	RT	Load Forecast Uncertainty	SCE	LA Basin	9/3/2022	10	No	INC	1	23:00	0:00
57	RT	Load Forecast Uncertainty	SCE	LA Basin	9/4/2022	133	No	DEC	12	12:00	0:00
58	RT	Load Forecast Uncertainty	SCE	LA Basin	9/4/2022	10 - 133	Yes	INC	18	6:35	0:00
59	RT	Load Forecast Uncertainty	SCE	LA Basin	9/5/2022	242	No	DEC	4	19:05	23:00
60	RT	Load Forecast Uncertainty	SCE	LA Basin	9/7/2022	10	Yes	INC	1	23:00	0:00
61	RT	Load Forecast Uncertainty	SCE	LA Basin	9/8/2022	70	No	INC	8	16:55	0:00
62	RT	Load Forecast Uncertainty	SCE	LA Basin	9/9/2022	172 - 480	No	INC	7	14:00	21:00
63	RT	Load Forecast Uncertainty	SCE	LA Basin	9/25/2022	10	No	INC	21	3:00	0:00
64	RT	Load Forecast Uncertainty	SCE	LA Basin	9/26/2022	10-20	Yes	INC	1	23:00	0:00
65	RT	Load Forecast Uncertainty	SCE	LA Basin	9/27/2022	70 - 130	No	INC	23	1:00	0:00
66	RT	Load Forecast Uncertainty	SCE	LA Basin	9/28/2022	70	No	INC	1	0:00	1:00
67	RT	Load Forecast Uncertainty	SCE	NA	9/1/2022	410	No	DEC	2	19:00	21:00
68	RT	Load Forecast Uncertainty	SCE	NA	9/1/2022	410	No	INC	1	18:00	19:00
69	RT	Load Forecast Uncertainty	SDGE	San Diego-IV	9/1/2022	20 - 565	No	INC	4	17:30	21:30
70	RT	Market Disruption	PGAE	Bay Area	9/1/2022	0	No	INC	1	0:20	1:00
71	RT	Market Disruption	PGAE	Fresno	9/1/2022	83 - 400	No	INC	1	0:20	1:15
72	RT	Market Disruption	PGAE	Fresno	9/29/2022	384	No	INC	1	20:00	20:15
73	RT	Market Disruption	SCE	Big Creek-Ventura	9/1/2022	650	No	INC	1	0:25	1:00
74	RT	Market Disruption	SCE	NA	9/1/2022	200	No	INC	1	0:25	1:00
75	RT	Other Reliability Requirement	PGAE	Bay Area	9/5/2022	64 - 296	No	DEC	11	10:20	21:00
76	RT	Other Reliability Requirement	PGAE	Bay Area	9/5/2022	296 - 510	No	INC	5	16:20	21:00
77	RT	Other Reliability Requirement	PGAE	Bay Area	9/6/2022	-914	No	DEC	13	8:15	21:00
78	RT	Other Reliability Requirement	PGAE	Bay Area	9/6/2022	296 - 814	No	INC	5	15:00	20:00

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
79	RT	Other Reliability Requirement	PGAE	Bay Area	9/7/2022	0 - 64	No	DEC	9	7:15	16:00
80	RT	Other Reliability Requirement	PGAE	Bay Area	9/7/2022	0	No	INC	3	13:40	16:30
81	RT	Other Reliability Requirement	PGAE	Fresno	9/7/2022	0 - 44	No	DEC	6	15:00	21:00
82	RT	Other Reliability Requirement	PGAE	Fresno	9/7/2022	44	No	INC	1	14:45	15:00
83	RT	Other Reliability Requirement	PGAE	Fresno	9/20/2022	200	No	INC	1	2:15	2:30
84	RT	Other Reliability Requirement	PGAE	NA	9/5/2022	60	No	INC	4	17:55	21:00
						2.6495 -			_		
85	RT	Other Reliability Requirement	PGAE	NA	9/5/2022	29.36	No	INC	5	18:30	23:20
86	RT	Other Reliability Requirement	PGAE	NA	9/6/2022	-60	No	DEC	1	16:35	17:00
87	RT	Other Reliability Requirement	PGAE	NA	9/6/2022	60 - 259	No	INC	8	14:00	22:00
88	RT	Other Reliability Requirement	PGAE	NA	9/6/2022	0.6 - 29.3	No	INC	5	17:00	21:55
89	RT	Other Reliability Requirement	PGAE	NA	9/7/2022	-110	No	DEC	9	12:00	21:00
90	RT	Other Reliability Requirement	PGAE	NA	9/7/2022	0 - 50	No	INC	8	13:05	21:00
91	RT	Other Reliability Requirement	PGAE	NA	9/7/2022	1.9295 - 29.59	No	INC	5	18:15	23:05
92	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/5/2022	741	No	DEC	4	17:00	23.03
93	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/5/2022	741 - 750	No	INC	6	15:00	21:00
94	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/6/2022	53.9 - 741	No	DEC	6	15:00	21:00
95	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/6/2022	741 - 750	No	INC	7	14:00	21:00
96	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/7/2022	53.9 - 741	No	DEC	5	16:00	21:00
97	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/7/2022	0 - 750	No	INC	7	14:00	21:00
98	RT	Other Reliability Requirement	SCE	Big Creek-Ventura	9/8/2022	741 - 750	No	INC	6	15:00	21:00
99	RT	Other Reliability Requirement	SCE	LA Basin	9/2/2022	96.6 - 674.7	No	INC	6	15:00	21:00
100	RT	Other Reliability Requirement	SCE	LA Basin	9/3/2022	96.6 - 674.7	Yes	INC	6	15:00	21:00
101	RT	Other Reliability Requirement	SCE	LA Basin	9/4/2022	96.6 - 674.7	Yes	INC	6	15:00	21:00
102	RT	Other Reliability Requirement	SCE	LA Basin	9/5/2022	96.6 - 674.7	No	INC	6	15:00	21:00
102	111	Other Reliability Requirement	JOL	LA Dasiii	3/3/2022	96.65 -	INO	1110	-	13.00	21.00
103	RT	Other Reliability Requirement	SCE	LA Basin	9/6/2022	674.7	No	INC	6	15:00	21:00
104	RT	Other Reliability Requirement	SCE	LA Basin	9/7/2022	33	No	DEC	6	15:45	21:00

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Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	é	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
105	RT	Other Reliability Requirement	SCE	LA Basin	9/7/2022	0 - 674.7	Yes	INC	7	14:10	21:00
106	RT	Other Reliability Requirement	SCE	LA Basin	9/8/2022	-10	No	DEC	1	12:30	13:00
107	RT	Other Reliability Requirement	SCE	LA Basin	9/8/2022	480	No	INC	6	15:00	21:00
108	RT	Other Reliability Requirement	SCE	LA Basin	9/9/2022	20	No	DEC	6	15:00	20:45
109	RT	Other Reliability Requirement	SCE	LA Basin	9/9/2022	20	No	INC	3	13:35	16:00
110	RT	Other Reliability Requirement	SCE	NA	9/1/2022	-100	No	DEC	1	17:20	18:00
111	RT	Other Reliability Requirement	SCE	NA	9/2/2022	250	No	INC	6	15:00	21:00
112	RT	Other Reliability Requirement	SCE	NA	9/3/2022	250	No	INC	5	15:00	19:30
113	RT	Other Reliability Requirement	SCE	NA	9/4/2022	250	No	INC	5	15:00	19:15
114	RT	Other Reliability Requirement	SCE	NA	9/5/2022	250	No	INC	6	15:00	21:00
						0.26 -					
115	RT	Other Reliability Requirement	SCE	NA	9/5/2022	158.41	No	INC	5	18:30	23:20
116	RT	Other Reliability Requirement	SCE	NA	9/6/2022	-10	No	DEC	2	16:40	17:45
117	RT	Other Reliability Requirement	SCE	NA	9/6/2022	250	No	INC	6	15:00	21:00
						0.28 -			_		
118	RT	Other Reliability Requirement	SCE	NA	9/6/2022	158.42	No	INC	5	17:00	21:55
119	RT	Other Reliability Requirement	SCE	NA	9/7/2022	-50	No	DEC	5	12:15	16:30
120	RT	Other Reliability Requirement	SCE	NA	9/7/2022	0 - 250	No	INC	8	13:45	21:00
404	БТ	Ott. D. P. L. H. D	005	<b>N</b> 10	0/7/0000	0.29 -		11.10	_	40.45	00.05
121	RT	Other Reliability Requirement	SCE	NA	9/7/2022	157.76	No	INC	5	18:15	23:05
122	RT	Other Reliability Requirement	SCE	NA	9/8/2022	-39.6	No	DEC	1	11:15	11:45
123	RT	Other Reliability Requirement	SCE	NA	9/9/2022	0	No	INC	1	12:30	13:00
124	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/2/2022	37.2	No	INC	6	15:00	21:00
125	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/3/2022	37.2	No	INC	6	15:00	21:00
126	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/4/2022	37.2	No	INC	6	15:00	21:00
127	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/5/2022	37.2	Yes	INC	6	15:00	21:00
128	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/6/2022	37.2	No	INC	6	15:00	21:00
129	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/7/2022	0 - 37.2	No	INC	8	13:50	21:00
130	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/8/2022	0	No	INC	1	13:45	14:15

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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
131	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/9/2022	25	No	DEC	7	14:50	21:00
132	RT	Other Reliability Requirement	SDGE	San Diego-IV	9/9/2022	0	No	INC	1	12:15	13:00
133	RT	Planned Transmission Outage	PGAE	Humboldt	9/1/2022	30 - 42	No	DEC	24	0:00	0:00
134	RT	Planned Transmission Outage	PGAE	Humboldt	9/1/2022	42	No	INC	1	3:00	4:00
135	RT	Planned Transmission Outage	PGAE	Humboldt	9/2/2022	30	No	DEC	12	11:00	23:00
136	RT	Planned Transmission Outage	PGAE	Humboldt	9/2/2022	30	No	INC	24	0:00	0:00
137	RT	Planned Transmission Outage	PGAE	Humboldt	9/3/2022	30	No	DEC	13	11:00	0:00
138	RT	Planned Transmission Outage	PGAE	Humboldt	9/3/2022	30	No	INC	11	0:00	11:00
139	RT	Planned Transmission Outage	PGAE	Humboldt	9/4/2022	30	No	DEC	24	0:00	0:00
140	RT	Planned Transmission Outage	PGAE	Humboldt	9/4/2022	30	No	INC	6	6:00	12:00
141	RT	Planned Transmission Outage	PGAE	Humboldt	9/5/2022	15 - 30	No	DEC	24	0:00	0:00
142	RT	Planned Transmission Outage	PGAE	Humboldt	9/5/2022	15 - 30	No	INC	23	1:00	0:00
143	RT	Planned Transmission Outage	PGAE	Humboldt	9/6/2022	15 - 30	No	DEC	24	0:00	0:00
144	RT	Planned Transmission Outage	PGAE	Humboldt	9/7/2022	15 - 30	No	DEC	24	0:00	0:00
145	RT	Planned Transmission Outage	PGAE	Humboldt	9/7/2022	15 - 30	No	INC	24	0:00	0:00
146	RT	Planned Transmission Outage	PGAE	Humboldt	9/8/2022	15 - 30	No	DEC	24	0:00	0:00
147	RT	Planned Transmission Outage	PGAE	Humboldt	9/9/2022	15 - 30	No	DEC	22	0:00	22:00
148	RT	Planned Transmission Outage	PGAE	Humboldt	9/9/2022	15 - 30	No	INC	24	0:00	0:00
149	RT	Planned Transmission Outage	PGAE	Humboldt	9/10/2022	15 - 30	No	DEC	8	16:00	0:00
150	RT	Planned Transmission Outage	PGAE	Humboldt	9/10/2022	15 - 30	No	INC	17	0:00	17:00
151	RT	Planned Transmission Outage	PGAE	Humboldt	9/11/2022	15 - 30	No	DEC	24	0:00	0:00
152	RT	Planned Transmission Outage	PGAE	Humboldt	9/11/2022	15 - 30	No	INC	24	0:00	0:00
153	RT	Planned Transmission Outage	PGAE	Humboldt	9/12/2022	15 - 30	No	DEC	24	0:00	0:00
154	RT	Planned Transmission Outage	PGAE	Humboldt	9/12/2022	15 - 30	No	INC	15	1:00	16:00
155	RT	Planned Transmission Outage	PGAE	Humboldt	9/13/2022	30	No	DEC	1	0:00	1:00
156	RT	Planned Transmission Outage	PGAE	Humboldt	9/13/2022	15 - 30	No	INC	24	0:00	0:00
157	RT	Planned Transmission Outage	PGAE	Humboldt	9/14/2022	30	No	INC	24	0:00	0:00
158	RT	Planned Transmission Outage	PGAE	Humboldt	9/15/2022	30 - 45	No	INC	24	0:00	0:00
159	RT	Planned Transmission Outage	PGAE	Humboldt	9/16/2022	30	No	INC	24	0:00	0:00

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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
160	RT	Planned Transmission Outage	PGAE	Humboldt	9/17/2022	30	No	INC	24	0:00	0:00
161	RT	Planned Transmission Outage	PGAE	Humboldt	9/18/2022	30	No	INC	24	0:00	0:00
162	RT	Planned Transmission Outage	PGAE	Humboldt	9/19/2022	15	No	DEC	4	20:15	0:00
163	RT	Planned Transmission Outage	PGAE	Humboldt	9/19/2022	30	No	INC	21	0:00	20:15
164	RT	Planned Transmission Outage	PGAE	Humboldt	9/20/2022	15	No	DEC	2	0:00	2:00
165	RT	Planned Transmission Outage	PGAE	Humboldt	9/22/2022	15	No	DEC	17	7:15	0:00
166	RT	Planned Transmission Outage	PGAE	Humboldt	9/23/2022	15 - 30	No	DEC	24	0:00	0:00
167	RT	Planned Transmission Outage	PGAE	Humboldt	9/23/2022	30	No	INC	9	7:20	16:00
168	RT	Planned Transmission Outage	PGAE	Humboldt	9/24/2022	15	No	DEC	24	0:00	0:00
169	RT	Planned Transmission Outage	PGAE	Humboldt	9/25/2022	15	No	DEC	24	0:00	0:00
170	RT	Planned Transmission Outage	PGAE	Humboldt	9/26/2022	15 - 30	No	DEC	24	0:00	0:00
171	RT	Planned Transmission Outage	PGAE	Humboldt	9/26/2022	30	No	INC	6	7:15	13:00
172	RT	Planned Transmission Outage	PGAE	Humboldt	9/27/2022	15 - 56	No	DEC	24	0:00	0:00
173	RT	Planned Transmission Outage	PGAE	Humboldt	9/28/2022	30	No	DEC	10	13:00	23:00
174	RT	Planned Transmission Outage	PGAE	Humboldt	9/28/2022	15 - 45	No	INC	24	0:00	0:00
175	RT	Planned Transmission Outage	PGAE	Humboldt	9/29/2022	30 - 45	No	INC	24	0:00	0:00
176	RT	Planned Transmission Outage	PGAE	Humboldt	9/30/2022	15 - 45	No	INC	24	0:00	0:00
177	RT	Planned Transmission Outage	PGAE	NCNB	9/15/2022	10 - 70	No	DEC	1	12:05	13:00
178	RT	Planned Transmission Outage	PGAE	NCNB	9/16/2022	70	No	DEC	1	10:35	11:30
179	RT	Planned Transmission Outage	PGAE	NCNB	9/22/2022	64	No	DEC	2	5:00	6:30
180	RT	Planned Transmission Outage	PGAE	Sierra	9/6/2022	42 - 45	No	DEC	9	13:00	22:00
181	RT	Planned Transmission Outage	PGAE	Sierra	9/6/2022	20 - 47	No	INC	17	7:20	0:00
182	RT	Planned Transmission Outage	PGAE	Sierra	9/7/2022	47	No	DEC	2	0:00	2:00
183	RT	Planned Transmission Outage	PGAE	Sierra	9/8/2022	42	No	DEC	11	12:00	23:00
184	RT	Planned Transmission Outage	PGAE	Sierra	9/8/2022	42	No	INC	1	11:55	12:00
185	RT	Planned Transmission Outage	PGAE	Sierra	9/10/2022	42	No	INC	8	15:00	23:00
186	RT	Planned Transmission Outage	PGAE	Sierra	9/25/2022	20	No	INC	2	21:10	23:00
187	RT	Planned Transmission Outage	PGAE	Sierra	9/26/2022	20	No	DEC	1	16:30	17:00
188	RT	Planned Transmission Outage	PGAE	Sierra	9/26/2022	4 - 42	No	INC	6	15:00	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
189	RT	Planned Transmission Outage	PGAE	Sierra	9/28/2022	20	No	DEC	4	18:40	22:00
190	RT	Planned Transmission Outage	PGAE	Sierra	9/28/2022	20	No	INC	4	18:55	22:00
191	RT	Planned Transmission Outage	PGAE	Stockton	9/10/2022	30	No	DEC	3	15:30	18:30
192	RT	Planned Transmission Outage	PGAE	Stockton	9/15/2022	65 - 89	No	INC	7	17:00	0:00
193	RT	Planned Transmission Outage	PGAE	Stockton	9/16/2022	89	No	DEC	4	18:00	22:00
194	RT	Planned Transmission Outage	PGAE	Stockton	9/16/2022	65 - 89	No	INC	18	0:00	18:00
195	RT	Planned Transmission Outage	PGAE	Stockton	9/17/2022	88.8	No	DEC	4	18:00	22:00
196	RT	Planned Transmission Outage	PGAE	Stockton	9/17/2022	88.8	No	INC	18	0:00	18:00
197	RT	Planned Transmission Outage	PGAE	Stockton	9/21/2022	89	No	INC	17	7:00	0:00
198	RT	Planned Transmission Outage	PGAE	Stockton	9/22/2022	89	No	INC	24	0:00	0:00
199	RT	Planned Transmission Outage	PGAE	Stockton	9/25/2022	240	No	INC	1	23:55	0:00
200	RT	Planned Transmission Outage	PGAE	Stockton	9/26/2022	89	No	DEC	1	7:45	8:00
201	RT	Planned Transmission Outage	PGAE	Stockton	9/26/2022	89 - 240	No	INC	9	0:00	9:00
202	RT	Planned Transmission Outage	PGAE	Stockton	9/27/2022	89	No	INC	1	7:15	8:00
203	RT	Planned Transmission Outage	PGAE	Stockton	9/28/2022	15	No	DEC	11	9:00	20:00
204	RT	Planned Transmission Outage	PGAE	Stockton	9/28/2022	89	No	INC	2	22:45	0:00
205	RT	Planned Transmission Outage	PGAE	Stockton	9/29/2022	89	No	DEC	1	22:40	23:00
206	RT	Planned Transmission Outage	PGAE	Stockton	9/29/2022	89	No	INC	24	0:00	0:00
207	RT	Planned Transmission Outage	PGAE	Stockton	9/30/2022	50	No	INC	2	22:40	0:00
208	RT	Planned Transmission Outage	PGAE	NA	9/28/2022	15	No	DEC	2	10:00	12:00
209	RT	Planned Transmission Outage	PGAE	NA	9/28/2022	15	No	INC	11	9:00	20:00
210	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/13/2022	-18	No	DEC	9	10:20	18:30
211	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/13/2022	-18	No	INC	5	11:00	16:00
212	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/14/2022	-3	No	DEC	4	15:00	18:15
213	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/14/2022	-45	No	INC	7	10:20	17:00
214	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/23/2022	6	No	DEC	2	16:55	18:00
215	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/23/2022	6	No	INC	2	18:00	19:30
216	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/24/2022	-2	No	DEC	4	14:00	17:30
217	RT	Planned Transmission Outage	SDGE	San Diego-IV	9/24/2022	-2	No	INC	3	11:40	14:00

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Num ber	Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	INC_ DEC	Hou rs	Begin Time	End Time
218	RT	Pump Management	PGAE	Fresno	9/17/2022	-325	No	DEC	3	13:55	16:30
219	RT	Ramping Capacity	PGAE	Bay Area	9/9/2022	138	No	DEC	7	14:00	21:00
220	RT	Ramping Capacity	PGAE	Bay Area	9/9/2022	138	No	INC	1	13:45	14:00
221	RT	Ramping Capacity	PGAE	Fresno	9/6/2022	100	No	DEC	1	12:45	13:05
222	RT	Ramping Capacity	PGAE	Sierra	9/22/2022	20	No	INC	3	18:35	21:00
223	RT	Ramping Capacity	PGAE	Sierra	9/23/2022	20	No	DEC	2	18:00	20:00
224	RT	Ramping Capacity	PGAE	Sierra	9/23/2022	20	No	INC	6	17:45	23:00
225	RT	Ramping Capacity	PGAE	NA	9/9/2022	49	No	DEC	6	15:30	21:00
226	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/1/2022	401	No	DEC	4	17:00	21:00
227	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/1/2022	401	No	INC	2	15:00	17:00
228	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/2/2022	401	No	DEC	2	18:00	20:00
229	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/2/2022	401	No	INC	3	15:00	18:00
230	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/3/2022	70 - 401	No	DEC	4	17:45	21:00
231	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/3/2022	401	No	INC	6	15:00	21:00
232	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/4/2022	401	No	INC	3	18:30	21:00
233	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/5/2022	401	No	DEC	1	21:00	22:00
234	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/5/2022	401	No	INC	2	13:00	15:00
235	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/6/2022	401	No	DEC	1	21:00	22:00
236	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/6/2022	401	No	INC	2	12:00	14:00
237	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/7/2022	401	No	DEC	1	21:00	22:00
238	RT	Ramping Capacity	SCE	Big Creek-Ventura	9/7/2022	401	No	INC	2	12:00	14:00
239	RT	Ramping Capacity	SCE	LA Basin	9/1/2022	190 - 194	No	DEC	6	15:00	21:00
240	RT	Ramping Capacity	SCE	LA Basin	9/2/2022	190 - 194	No	DEC	5	15:00	20:00
241	RT	Ramping Capacity	SCE	LA Basin	9/4/2022	240	No	INC	4	17:00	21:00
242	RT	Ramping Capacity	SCE	LA Basin	9/5/2022	65 - 241	No	DEC	9	13:00	22:00
243	RT	Ramping Capacity	SCE	LA Basin	9/6/2022	65 - 241	No	DEC	10	12:00	22:00
244	RT	Ramping Capacity	SCE	LA Basin	9/6/2022	65 - 190	No	INC	1	12:00	13:00
245	RT	Ramping Capacity	SCE	LA Basin	9/7/2022	65 - 240	No	DEC	10	12:00	22:00
246	RT	Ramping Capacity	SCE	LA Basin	9/7/2022	65 - 194	No	INC	2	12:00	14:00

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Num	ket Typ		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
247	RT	Ramping Capacity	SCE	LA Basin	9/9/2022	49	No	DEC	6	15:30	21:00
248	RT	Ramping Capacity	SCE	LA Basin	9/11/2022	194	No	INC	6	16:00	22:00
249	RT	Reliability Assessment	Intertie	NA	9/8/2022	17	No	INC	1	18:00	19:00
250	RT	Reliability Assessment	Intertie	NA	9/9/2022	20 - 40	No	INC	3	17:00	20:00
251	RT	Reliability Assessment	PGAE	Bay Area	9/5/2022	50	No	INC	4	18:00	21:30
252	RT	Reliability Assessment	PGAE	Bay Area	9/6/2022	150	No	DEC	2	13:00	15:00
253	RT	Reliability Assessment	PGAE	Bay Area	9/7/2022	95	No	DEC	3	19:05	22:00
254	RT	Reliability Assessment	PGAE	Fresno	9/5/2022	20	No	DEC	2	20:30	22:00
255	RT	Reliability Assessment	PGAE	Fresno	9/6/2022	0 - 83	No	DEC	10	13:00	23:00
256	RT	Reliability Assessment	PGAE	Fresno	9/6/2022	83	No	INC	2	12:45	14:00
257	RT	Reliability Assessment	PGAE	Fresno	9/15/2022	108	No	DEC	1	6:00	7:00
258	RT	Reliability Assessment	PGAE	Fresno	9/15/2022	108	No	INC	1	5:40	6:00
259	RT	Reliability Assessment	PGAE	Humboldt	9/1/2022	15	No	DEC	24	0:00	0:00
260	RT	Reliability Assessment	PGAE	Humboldt	9/2/2022	15	No	DEC	10	13:00	23:00
261	RT	Reliability Assessment	PGAE	Humboldt	9/2/2022	15	No	INC	24	0:00	0:00
262	RT	Reliability Assessment	PGAE	Humboldt	9/3/2022	15	No	DEC	14	9:00	23:00
263	RT	Reliability Assessment	PGAE	Humboldt	9/3/2022	15	No	INC	24	0:00	0:00
264	RT	Reliability Assessment	PGAE	Humboldt	9/4/2022	15	No	DEC	24	0:00	0:00
265	RT	Reliability Assessment	PGAE	Humboldt	9/5/2022	15	No	INC	3	0:00	2:45
266	RT	Reliability Assessment	PGAE	Humboldt	9/20/2022	15	No	DEC	17	5:30	21:45
267	RT	Reliability Assessment	PGAE	Humboldt	9/20/2022	15	No	INC	15	7:20	21:45
268	RT	Reliability Assessment	PGAE	Humboldt	9/21/2022	15	No	INC	16	6:45	22:00
269	RT	Reliability Assessment	PGAE	Kern	9/16/2022	32	No	INC	21	3:50	0:00
270	RT	Reliability Assessment	PGAE	Kern	9/17/2022	32	Yes	INC	24	0:00	0:00
271	RT	Reliability Assessment	PGAE	Kern	9/18/2022	32	No	INC	24	0:00	0:00
272	RT	Reliability Assessment	PGAE	Kern	9/19/2022	32	No	INC	16	0:00	16:00
273	RT	Reliability Assessment	PGAE	Kern	9/29/2022	32	No	INC	4	20:05	0:00
274	RT	Reliability Assessment	PGAE	Kern	9/30/2022	32	No	INC	1	0:00	0:05
275	RT	Reliability Assessment	PGAE	NCNB	9/5/2022	59 - 65	No	DEC	4	19:20	23:00

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Nium	ket		Lacatio	Local Daliability			itm	INC	Han	Dogin	End
Num ber	Typ e	Reason	Locatio	Local Reliability Area	Trade Date	MW	ent	DEC_	Hou rs	Begin Time	Time
276	RT	Reliability Assessment	PGAE	NCNB	9/6/2022	10 - 75	No	DEC	13	10:50	23:00
277	RT	Reliability Assessment	PGAE	NCNB	9/16/2022	60 - 65	No	DEC	1	10:05	11:00
278	RT	Reliability Assessment	PGAE	NCNB	9/22/2022	50 - 67	No	DEC	9	5:00	13:30
279	RT	Reliability Assessment	PGAE	NCNB	9/23/2022	45 - 56	No	DEC	7	13:15	20:00
280	RT	Reliability Assessment	PGAE	Sierra	9/1/2022	21 - 43	No	DEC	1	19:10	20:00
281	RT	Reliability Assessment	PGAE	Sierra	9/3/2022	20 - 100	Yes	DEC	6	16:00	22:00
282	RT	Reliability Assessment	PGAE	Sierra	9/3/2022	42	Yes	INC	8	14:50	22:00
283	RT	Reliability Assessment	PGAE	Sierra	9/5/2022	23 - 26	No	INC	2	16:25	18:00
284	RT	Reliability Assessment	PGAE	Sierra	9/6/2022	53	No	DEC	2	18:05	20:00
285	RT	Reliability Assessment	PGAE	Sierra	9/6/2022	53	No	INC	2	20:00	22:00
286	RT	Reliability Assessment	PGAE	Sierra	9/7/2022	42	Yes	DEC	10	13:00	23:00
287	RT	Reliability Assessment	PGAE	Sierra	9/7/2022	42	Yes	INC	15	9:30	0:00
288	RT	Reliability Assessment	PGAE	Sierra	9/8/2022	45	No	DEC	11	11:45	22:00
289	RT	Reliability Assessment	PGAE	Sierra	9/8/2022	33 - 49	No	INC	7	14:40	21:00
290	RT	Reliability Assessment	PGAE	Sierra	9/9/2022	20 - 40	No	DEC	11	10:00	21:00
291	RT	Reliability Assessment	PGAE	Sierra	9/9/2022	20 - 40	No	INC	20	2:10	22:00
292	RT	Reliability Assessment	PGAE	Sierra	9/10/2022	20 - 100	No	DEC	9	15:45	0:00
293	RT	Reliability Assessment	PGAE	Sierra	9/10/2022	30 - 100	No	INC	4	20:30	0:00
294	RT	Reliability Assessment	PGAE	Sierra	9/11/2022	20 - 100	No	DEC	23	0:00	23:00
295	RT	Reliability Assessment	PGAE	Sierra	9/11/2022	42 - 100	No	INC	17	1:00	18:00
296	RT	Reliability Assessment	PGAE	Sierra	9/12/2022	20 - 35	No	INC	2	16:05	18:00
297	RT	Reliability Assessment	PGAE	Sierra	9/13/2022	20	No	INC	16	8:30	0:00
298	RT	Reliability Assessment	PGAE	Sierra	9/14/2022	25	No	DEC	1	21:45	22:00
299	RT	Reliability Assessment	PGAE	Sierra	9/14/2022	20 - 25	No	INC	23	0:00	22:30
300	RT	Reliability Assessment	PGAE	Sierra	9/20/2022	42	No	INC	2	20:00	21:45
301	RT	Reliability Assessment	PGAE	Sierra	9/25/2022	10 - 30	No	INC	5	17:35	22:00
302	RT	Reliability Assessment	PGAE	Sierra	9/27/2022	20	No	DEC	9	14:00	23:00
303	RT	Reliability Assessment	PGAE	Sierra	9/27/2022	20 - 42	No	INC	16	8:00	0:00
304	RT	Reliability Assessment	PGAE	Sierra	9/28/2022	42	No	INC	7	15:10	22:00

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Num ber	Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	INC_ DEC	Hou rs	Begin Time	End Time
305	RT	Reliability Assessment	PGAE	Sierra	9/29/2022	20 - 47	No	DEC	5	17:00	22:00
306	RT	Reliability Assessment	PGAE	Sierra	9/29/2022	20 - 47	Yes	INC	8	14:30	22:00
307	RT	Reliability Assessment	PGAE	Sierra	9/30/2022	20	No	INC	2	18:10	20:00
308	RT	Reliability Assessment	PGAE	Stockton	9/2/2022	30 - 40	No	INC	4	18:10	22:00
309	RT	Reliability Assessment	PGAE	Stockton	9/4/2022	10 - 45	No	DEC	4	16:25	20:00
310	RT	Reliability Assessment	PGAE	Stockton	9/4/2022	45	No	INC	3	20:00	23:00
311	RT	Reliability Assessment	PGAE	Stockton	9/5/2022	30	No	DEC	1	17:15	18:00
312	RT	Reliability Assessment	PGAE	Stockton	9/5/2022	20 - 35	No	INC	2	14:35	16:00
313	RT	Reliability Assessment	PGAE	Stockton	9/6/2022	15 - 30	No	DEC	8	12:00	20:00
314	RT	Reliability Assessment	PGAE	Stockton	9/6/2022	30	No	INC	10	12:40	22:00
315	RT	Reliability Assessment	PGAE	Stockton	9/7/2022	20	No	DEC	9	13:20	22:00
316	RT	Reliability Assessment	PGAE	Stockton	9/8/2022	20 - 36	No	DEC	7	14:35	21:00
317	RT	Reliability Assessment	PGAE	Stockton	9/8/2022	36 - 40	No	INC	4	20:00	23:30
318	RT	Reliability Assessment	PGAE	Stockton	9/9/2022	20	No	INC	2	20:50	22:00
319	RT	Reliability Assessment	PGAE	Stockton	9/10/2022	30	No	DEC	7	15:35	22:00
320	RT	Reliability Assessment	PGAE	Stockton	9/16/2022	75	No	DEC	1	7:50	8:00
321	RT	Reliability Assessment	PGAE	Stockton	9/16/2022	75 - 85	No	INC	4	8:00	12:00
322	RT	Reliability Assessment	PGAE	Stockton	9/20/2022	89	No	INC	2	22:10	0:00
323	RT	Reliability Assessment	PGAE	NA	9/3/2022	41	No	DEC	2	18:15	20:00
324	RT	Reliability Assessment	PGAE	NA	9/4/2022	33 - 110	No	DEC	3	21:20	0:00
325	RT	Reliability Assessment	PGAE	NA	9/5/2022	28	No	DEC	11	13:00	0:00
326	RT	Reliability Assessment	PGAE	NA	9/5/2022	28	No	INC	2	18:00	20:00
327	RT	Reliability Assessment	PGAE	NA	9/6/2022	100 - 195	No	DEC	3	15:30	18:30
328	RT	Reliability Assessment	PGAE	NA	9/6/2022	110	No	INC	1	7:40	7:45
329	RT	Reliability Assessment	PGAE	NA	9/8/2022	30	No	DEC	2	22:10	23:30
330	RT	Reliability Assessment	PGAE	NA	9/9/2022	10	No	DEC	5	17:25	22:00
331	RT	Reliability Assessment	PGAE	NA	9/16/2022	35	No	DEC	4	13:00	17:00
332	RT	Reliability Assessment	PGAE	NA	9/16/2022	35	No	INC	1	17:00	17:30
333	RT	Reliability Assessment	SCE	Big Creek-Ventura	9/1/2022	462 - 600	No	DEC	8	14:15	22:00

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Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
334	RT	Reliability Assessment	SCE	Big Creek-Ventura	9/8/2022	401 - 460	No	DEC	11	11:20	22:00
335	RT	Reliability Assessment	SCE	LA Basin	9/7/2022	0	No	INC	1	7:35	8:00
336	RT	Reliability Assessment	SCE	LA Basin	9/8/2022	190 - 240	No	DEC	7	15:00	22:00
337	RT	Reliability Assessment	SCE	LA Basin	9/8/2022	100 - 240	No	INC	5	17:45	22:25
338	RT	Reliability Assessment	SCE	NA	9/7/2022	480	No	DEC	6	17:30	23:00
339	RT	Reliability Assessment	SCE	NA	9/24/2022	470	No	DEC	5	17:55	22:00
340	RT	Reliability Assessment	SCE	NA	9/28/2022	435	No	INC	8	16:00	0:00
341	RT	Reliability Assessment	SDGE	San Diego-IV	9/1/2022	40	No	DEC	1	21:40	22:00
342	RT	Reliability Assessment	SDGE	San Diego-IV	9/1/2022	21 - 40	No	INC	24	0:30	0:00
343	RT	Reliability Assessment	SDGE	San Diego-IV	9/3/2022	18.2 - 44	No	DEC	6	17:00	23:00
344	RT	Reliability Assessment	SDGE	San Diego-IV	9/3/2022	18.2 - 44	No	INC	9	15:40	0:00
345	RT	Reliability Assessment	SDGE	San Diego-IV	9/4/2022	20 - 25	No	DEC	3	18:45	21:00
346	RT	Reliability Assessment	SDGE	San Diego-IV	9/4/2022	20 - 25	No	INC	24	0:00	0:00
347	RT	Reliability Assessment	SDGE	San Diego-IV	9/6/2022	24.87	No	DEC	10	12:00	22:00
348	RT	Reliability Assessment	SDGE	San Diego-IV	9/7/2022	21	No	INC	1	9:55	10:15
349	RT	Reliability Assessment	SDGE	San Diego-IV	9/8/2022	24.87 - 44	No	DEC	11	11:55	22:00
350	RT	Reliability Assessment	SDGE	San Diego-IV	9/8/2022	21 - 51	No	INC	11	11:45	22:00
351	RT	Reliability Assessment	SDGE	San Diego-IV	9/9/2022	20 - 25	No	DEC	11	11:55	22:00
352	RT	Reliability Assessment	SDGE	San Diego-IV	9/11/2022	24.87	No	DEC	4	15:00	19:00
353	RT	Reliability Assessment	SDGE	San Diego-IV	9/11/2022	24.87	No	INC	8	13:55	21:00
354	RT	Reliability Assessment	SDGE	San Diego-IV	9/13/2022	25	No	INC	2	19:10	21:00
355	RT	Reliability Assessment	SDGE	San Diego-IV	9/19/2022	18.2	No	INC	4	16:40	20:00
356	RT	Reliability Assessment	SDGE	San Diego-IV	9/27/2022	25	No	INC	1	12:45	13:00
357	RT	Reverse Commitment Instruction	SCE	Big Creek-Ventura	9/7/2022	0	No	INC	1	15:05	15:15
358	RT	Reverse Commitment Instruction	SCE	LA Basin	9/7/2022	0	No	DEC	6	18:45	0:00
359	RT	Reverse Commitment Instruction	SCE	LA Basin	9/8/2022	0	No	INC	11	0:00	10:50
360	RT	Software Limitation	PGAE	Bay Area	9/7/2022	0	No	INC	1	16:00	16:30
361	RT	Software Limitation	PGAE	Bay Area	9/8/2022	0	No	DEC	1	15:00	16:00
362	RT	Software Limitation	PGAE	Bay Area	9/8/2022	0	No	INC	3	13:40	16:00

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Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
363	RT	Software Limitation	PGAE	Bay Area	9/9/2022	0	No	DEC	1	15:00	16:00
364	RT	Software Limitation	PGAE	Bay Area	9/9/2022	0	No	INC	4	12:10	16:00
365	RT	Software Limitation	PGAE	Fresno	9/6/2022	14 - 35	No	INC	1	17:25	18:00
366	RT	Software Limitation	PGAE	Fresno	9/7/2022	-50	No	DEC	5	12:10	16:30
367	RT	Software Limitation	PGAE	Fresno	9/7/2022	14 - 99.92	No	INC	1	18:55	19:25
368	RT	Software Limitation	PGAE	Fresno	9/8/2022	0	No	INC	3	13:50	16:00
369	RT	Software Limitation	PGAE	Fresno	9/9/2022	0	No	DEC	2	14:00	16:00
370	RT	Software Limitation	PGAE	Fresno	9/9/2022	0	No	INC	5	11:50	16:00
371	RT	Software Limitation	PGAE	Sierra	9/9/2022	0	No	DEC	1	12:05	13:00
372	RT	Software Limitation	PGAE	Sierra	9/9/2022	0	No	INC	3	13:00	16:00
373	RT	Software Limitation	PGAE	NA	9/6/2022	-60	No	DEC	1	17:05	17:30
374	RT	Software Limitation	PGAE	NA	9/7/2022	-60	No	DEC	1	12:35	12:40
375	RT	Software Limitation	PGAE	NA	9/7/2022	0	No	INC	1	16:00	16:30
376	RT	Software Limitation	PGAE	NA	9/9/2022	-60	No	DEC	7	9:25	16:00
377	RT	Software Limitation	PGAE	NA	9/9/2022	0	No	INC	4	12:25	16:00
378	RT	Software Limitation	SCE	Big Creek-Ventura	9/6/2022	-100	No	DEC	1	16:40	17:30
379	RT	Software Limitation	SCE	Big Creek-Ventura	9/6/2022	38.77	No	INC	1	17:25	18:00
380	RT	Software Limitation	SCE	Big Creek-Ventura	9/7/2022	0 - 38.77	No	INC	4	16:00	19:25
381	RT	Software Limitation	SCE	Big Creek-Ventura	9/8/2022	0	No	INC	3	13:50	16:00
382	RT	Software Limitation	SCE	Big Creek-Ventura	9/9/2022	0	No	DEC	2	14:00	16:00
383	RT	Software Limitation	SCE	Big Creek-Ventura	9/9/2022	0	No	INC	4	12:00	16:00
384	RT	Software Limitation	SCE	LA Basin	9/1/2022	16	No	INC	1	15:20	16:00
385	RT	Software Limitation	SCE	LA Basin	9/6/2022	5 - 48.29	No	INC	1	17:25	18:00
386	RT	Software Limitation	SCE	LA Basin	9/7/2022	0 - 38.85	No	INC	4	16:00	19:25
387	RT	Software Limitation	SCE	LA Basin	9/8/2022	-45	No	DEC	10	12:35	22:00
388	RT	Software Limitation	SCE	LA Basin	9/8/2022	20	No	INC	6	16:30	22:00
389	RT	Software Limitation	SCE	LA Basin	9/9/2022	0	No	DEC	2	14:00	16:00
390	RT	Software Limitation	SCE	LA Basin	9/9/2022	0	No	INC	5	11:55	16:00
391	RT	Software Limitation	SCE	LA Basin	9/20/2022	5 - 90.58	No	INC	1	2:15	3:10

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Num	Тур		Locatio	Local Reliability			itm	INC	Hou	Begin	End
ber	e	Reason	n	Area	Trade Date	MW	ent	DEC	rs	Time	Time
392	RT	Software Limitation	SCE	San Diego-IV	9/8/2022	-5.5	No	DEC	6	10:30	16:00
393	RT	Software Limitation	SCE	San Diego-IV	9/9/2022	0	No	INC	5	11:55	16:00
394	RT	Software Limitation	SCE	NA	9/1/2022	-140	No	DEC	4	14:25	18:00
395	RT	Software Limitation	SCE	NA	9/6/2022	-10	No	DEC	1	17:05	17:30
396	RT	Software Limitation	SCE	NA	9/7/2022	0	No	DEC	1	16:05	16:30
397	RT	Software Limitation	SCE	NA	9/7/2022	0	No	INC	3	14:15	16:30
398	RT	Software Limitation	SCE	NA	9/8/2022	-85	No	DEC	5	11:30	16:00
399	RT	Software Limitation	SCE	NA	9/8/2022	0	No	INC	3	13:35	16:00
400	RT	Software Limitation	SCE	NA	9/9/2022	-230	No	DEC	6	10:40	16:00
401	RT	Software Limitation	SCE	NA	9/9/2022	-50	No	INC	5	11:35	16:00
402	RT	Software Limitation	SDGE	San Diego-IV	9/1/2022	-250	No	DEC	2	15:10	17:00
403	RT	Software Limitation	SDGE	San Diego-IV	9/1/2022	37	No	INC	1	12:00	13:00
404	RT	Software Limitation	SDGE	San Diego-IV	9/2/2022	-54	No	DEC	4	14:10	17:30
405	RT	Software Limitation	SDGE	San Diego-IV	9/4/2022	-95	No	DEC	2	15:00	17:00
406	RT	Software Limitation	SDGE	San Diego-IV	9/7/2022	-5	No	DEC	4	12:05	16:00
407	RT	Software Limitation	SDGE	San Diego-IV	9/7/2022	0	No	INC	1	16:00	16:30
408	RT	Software Limitation	SDGE	San Diego-IV	9/8/2022	-49.5	No	DEC	5	11:40	16:00
409	RT	Software Limitation	SDGE	San Diego-IV	9/8/2022	0	No	INC	3	13:45	16:00
410	RT	Software Limitation	SDGE	San Diego-IV	9/9/2022	-54	No	DEC	7	9:15	16:00
411	RT	Software Limitation	SDGE	San Diego-IV	9/9/2022	0	No	INC	5	11:55	16:00
412	RT	Software Limitation	SDGE	San Diego-IV	9/10/2022	410 - 485	No	DEC	5	14:10	18:30
413	RT	Software Limitation	SDGE	San Diego-IV	9/10/2022	485	No	INC	4	10:05	14:00
414	RT	Unit Testing	Intertie	NA	9/21/2022	5	No	INC	1	19:30	20:10
415	RT	Unit Testing	PGAE	Stockton	9/9/2022	285	No	INC	3	10:00	13:00
416	RT	Unit Testing	SCE	NA	9/10/2022	32.13	No	INC	1	8:35	9:15
417	RT	Unit Testing	SCE	NA	9/14/2022	1	No	INC	1	14:55	15:55
418	RT	Voltage Support	PGAE	Fresno	9/2/2022	49	No	DEC	4	18:10	22:00
419	RT	Voltage Support	PGAE	Fresno	9/2/2022	49	No	INC	1	22:00	23:00
420	RT	Voltage Support	PGAE	Fresno	9/3/2022	0	No	INC	9	6:55	15:15

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Num ber	Typ e	Reason	Locatio n	Local Reliability Area	Trade Date	MW	itm ent	INC_ DEC	Hou rs	Begin Time	End Time
421	RT	Voltage Support	PGAE	Fresno	9/6/2022	83	No	DEC	5	17:00	22:00
422	RT	Voltage Support	PGAE	Fresno	9/6/2022	83	No	INC	7	14:30	21:00
423	RT	Voltage Support	PGAE	Fresno	9/25/2022	-340	No	DEC	6	3:30	9:00
424	RT	Voltage Support	PGAE	Fresno	9/25/2022	-340	No	INC	1	9:00	10:00
425	RT	Voltage Support	PGAE	Sierra	9/15/2022	20	No	DEC	3	18:00	21:00
426	RT	Voltage Support	PGAE	Sierra	9/15/2022	20	No	INC	23	1:15	0:00
427	RT	Voltage Support	PGAE	Sierra	9/16/2022	20	No	INC	6	0:00	6:00
428	RT	Voltage Support	PGAE	Sierra	9/17/2022	20	No	INC	14	10:50	0:00
429	RT	Voltage Support	PGAE	Sierra	9/18/2022	20	No	INC	24	0:00	0:00
430	RT	Voltage Support	PGAE	Sierra	9/19/2022	20	Yes	INC	6	0:00	6:00
431	RT	Voltage Support	PGAE	Sierra	9/20/2022	20	No	INC	7	0:00	7:00
432	RT	Voltage Support	PGAE	Sierra	9/23/2022	100	No	INC	1	13:00	14:00
433	RT	Voltage Support	PGAE	Sierra	9/25/2022	20	No	INC	7	3:30	10:00
434	RT	Voltage Support	PGAE	Sierra	9/26/2022	20	No	INC	6	1:10	7:00

## **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