 California ISO	Operating Procedure Attachment	Procedure No.	4510B
		Version No.	7.4
		Effective Date	5/16/24
Demand Response and UDC Interruptible Programs		Distribution Restriction: None	

Purpose

This procedure provides instructions on submitting demand response resource forecast and availability information for each operating day to the CAISO and the applicable area Grid Control Operations Centers.

These guidelines have been developed and agreed upon through a collaborative effort between the CAISO, the CPUC, and the Investor Owned Utilities (IOUs), with the objective to implement a process for effectively and timely communicating the megawatt amount of scheduled and forecast demand response resources under the current programs managed by PG&E, SCE¹ and SDG&E. Information provided includes both market integrated (supply resource) and non-integrated demand response programs.

Program Descriptions

CAISO Operating Procedure [4420 System Emergency](#) describes the roles and responsibilities during emergency operations and details how the CAISO calls on Demand Response programs (market integrated and non-integrated) and UDC's interruptible loads, per CAISO Operating Procedure 4420.

Day-Ahead Non-Emergency Programs


Day-Ahead utility demand response programs are initiated by the IOUs and are triggered based on various conditions such as the day-ahead forecasted temperature, day-ahead forecasted demand, and high price forecasts. These triggers may also include notification by the IOUs as prompted by CAISO issued Flex Alert and EEA Watch notices (Energy Emergency Alerts). Customers are typically notified the day prior to the event-day that the program will be triggered. Market integrated demand response supply resources submit economic bids into the day-ahead market, receive day-ahead market awards and respond to CAISO Automated Dispatch System (ADS) instructions in real-time.

Day-of Non-Emergency and Emergency DR Programs

Day-of price responsive demand response programs are initiated by the IOUs based on CAISO system conditions or other specific triggers such as forecasted load, expected heat rate indicator, forecasted high prices, forecasted or actual temperature, CAISO declared Energy Emergency Alerts (EEAs) or Transmission Emergencies are covered under the Emergency Programs, as described below.

¹ For SCE- UDC Interruptible Load includes their RDRR Resources.

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Under day-of price responsive demand response programs, customers are notified the same day the event will occur, and depending on the program, are given as much as 3 hours' notice to as little as 15 minutes notice to curtail load.

Non-Emergency market integrated demand response supply resources submit economic bids into the real-time market and respond to CAISO Automated Dispatch System (ADS) instructions in real-time.

Emergency market integrated demand response resources submit economic bids into the real-time market and receive CAISO dispatch instructions in accordance with Operating Procedure 4420 System Emergency.

Emergency Load Reduction Program

The Emergency Load Reduction Program (ELRP) is a 5-year pilot (2021 – 2025) administered by each of the three Investor Owned Utilities (PG&E, SCE and SDG&E). This pilot was ordered pursuant to a CPUC Decision in response to the grid challenges faced by the State of California in August and September of 2020. A key feature of the ELRP is that it is not CAISO market integrated.


In accordance with Operating Procedure 4420 System Emergency, the IOUs will notify CAISO Grid Operations Management and provide estimated total MW when activating ELRP.

Daily Reporting Instructions

The IOUs will report daily scheduled and available demand response program megawatt (MW) values to the CAISO in the day-ahead and day-of timeframes. Reporting may include both market integrated (supply resource) and non-integrated demand response program information.

Each day, each IOU will complete and submit via E-mail the Excel spreadsheet "Daily DR Reporting Template" by 08:00 hrs. (7 days a week) to IOU's area Grid Control Operations Centers as well as the following:

CAISO Managers, Real-Time Operations	ISOManagersRealTimeOperations@caiso.com
CAISO Market Operations	ISODAM@caiso.com
CPUC: Daniel Buch Aloke Gupta	Daniel.Buch@cpuc.ca.gov Aloke.Gupta@cpuc.ca.gov

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		Version No.	7.4
		Effective Date	5/16/24
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The spreadsheet includes the following for market integrated and non-integrated programs as applicable:

- MW values for Day-Ahead and Day-of non-emergency and emergency programs, which have been committed by the IOU and what remains available and uncommitted.
- Demand response MW committed by hour in the Day-Ahead, if applicable.
- Incremental Demand response MW amount that remains available by hour and by response time (and areas or regions, where applicable) to the CAISO, Day-of.

Once the spreadsheet is submitted:

- Additional Demand response commitments scheduled in the Day-Ahead by the IOU can be included in the “Scheduled Day-of” section on the spreadsheet the following day.
- Any additional commitments scheduled on the “Day-of” must be communicated to the area PTO and the CAISO by phone.

The spreadsheet can be found in CAISO Operating Procedure [4510F Reliability Demand Response Resource \(RDRR\) Daily Reporting Template](#).

Supporting Information


Operationally Affected Parties

Shared with the Public.

Version History

Version	Change	Date
6.1	Updates made due to RDRR Project no longer applicable and current changes in 4510.	6/16/15
6.2	Annual content update; removed contacts from list under Daily Reporting Instructions.	8/10/17
7.0	Periodic review: Added Supporting Information Section header, added Operationally Affected Parties Section and deleted Technical Review Section. Minor format and grammar updates.	3/20/20

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Version	Change	Date
7.1	Annual Review: Removed AWE references. Replaced ISO with CAISO throughout. Added footnote in Purpose section for SCE RDRR Resources. Included language regarding market integrated and non-integrated for clarity. Added ELRP program description and details. Updated CPUC contacts.	5/01/22
7.2	Annual Review: Updated procedure link, no content changes.	6/09/23
7.3	Daily Reporting Instructions section: Updated from CAISO Shift Managers to CAISO Managers, Real-Time Operations and updated mailbox.	11/09/23
7.4	Annual Review: No changes.	5/16/24

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