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I. PURPOSE

In Senate Bill 100 (De León, Chapter 312, Statutes of 2018), the State of California committed to a 100 percent carbon free electricity supply, and the California Energy Commission (CEC) is taking the lead on supporting the realization of this goal. Recent California legislation, including Assembly Bill 3232 (Friedman, Chapter 373, Statutes of 2018) and Senate Bill 49 (Skinner, Chapter 697, Statutes of 2019), emphasize the need for increased demand flexibility to offset a rapidly increasing penetration of renewable supply resources. This order institutes a load management rulemaking proceeding to consider tariffs, technologies, and other measures that are consistent with this goal, and to revise the existing regulations to promote a demand flexible electricity market.

The CEC institutes this proceeding pursuant to Public Resources Code sections 25210, 25213, 25216, 25216.5(c)-(d), 25216(d)-(e), 25224, 25402(a)-(b), 25402(c), 25403, and 25403.5, and 20 California Code of Regulations sections 1220 - 1225. All subsequent section references are to the Public Resources Code unless otherwise noted.

II. AUTHORITY

This action is proposed under the authority of Public Resources Code section 25403.5, which directs the CEC as follows:

a) The commission shall... adopt standards by regulation for a program of electrical load management for each utility service area. In adopting the standards, the commission shall consider, but need not be limited to, the following load management techniques:

   (1) Adjustments in rate structure to encourage use of electrical energy at off-peak hours or to encourage control of daily electrical load. Compliance with those
adjustments in rate structure shall be subject to the approval of the Public Utilities Commission in a proceeding to change rates or service.

(2) End use storage systems which store energy during off-peak periods for use during peak periods.

(3) Mechanical and automatic devices and systems for the control of daily and seasonal peak loads.

Through the Public Resources Code, the Legislature has given the CEC the authority to:

- set energy standards for buildings (sections 25402(a)-(b), 25402.1 - 25402.5);
- establish and enforce efficiency and demand flexibility standards for new appliances (sections 25402(c), 25402(f));
- establish and enforce load management standards for utilities (section 25403.5);
- recommend consideration by the California Public Utilities Commission (CPUC) and publicly-owned electric utilities of rates and other price-related practices (sections 25216.5(c), 25403, and 25403.5); and
- fund a wide variety of energy efficiency and research & development programs (e.g., sections 25410–25449.4, 25601–25602, 25620–25620.9, 25630–25650).

III. HISTORY

Shortly after its creation in 1974, the CEC adopted some of the first demand flexibility programs in the country through its load management standards authority. The standards (California Code of Regulations Title 20 sections 1621-1625) established peak load control programs for residential air conditioners, water heaters, and pool pumps. The standards also required marginal cost pricing of electricity. In response, the CPUC approved and implemented the first time-of-use rates.

Two decades later, the California electricity crisis roiled electricity markets and bankrupted one of the largest utilities in the state. In response, California Senate Bill 1976 (Torlakson, Chapter 850, Statutes of 2002) called for increased demand flexibility through a closer relationship between wholesale and retail electricity prices, stating, “Californians can significantly increase the reliability of the electricity system and reduce the level of wholesale electricity prices by reducing electricity usage at peak times through a variety of measures designed to reduce electricity consumption during those periods. Dynamic pricing, including real-time pricing, provides incentives to reduce electricity consumption in precisely those hours when supplies are tight and provides lower prices when wholesale prices are low. Real-time pricing integrates information technology into the energy business, and creates new markets for communications, microelectronic controls, and information.”

SB 1976 required the CEC, in consultation with the CPUC, to report to the legislature and the governor on the feasibility of real-time pricing tariffs. The resulting joint-agency report recommended the deployment of the advanced metering systems that would
enable real-time pricing, the completion of small and large customer pricing pilots, and ongoing collaboration and customer education activities.¹

In an effort to provide urgently needed demand response during the crisis, and also to jumpstart the implementation of advanced metering infrastructure, the CEC implemented emergency programs that provided over 1,000 California businesses with metering and control systems that enabled 50 megawatts of demand response. At the same time, the CEC directed the installation of 23,000 advanced interval meters for customers with loads above 200 kilowatts — customers whose loads comprised 30 percent of California's peak electricity demand. Since then, the CPUC has approved advanced meters for every customer in the investor-owned utility (IOU) service territories, and the largest publicly-owned utilities have followed suit.

The statewide installation of advanced metering systems is now complete, and California customers have been reliably providing load shifting and demand response for years, as a result of the original load management standards created in the early 1980s. Since that time, technologies and markets have evolved dramatically, and an update to these standards is warranted.

IV. SCOPE OF THIS PROCEEDING

The CEC hereby institutes a rulemaking proceeding to consider amendments to the load management regulations authorized under Public Resources Code Section 25403.5. This rulemaking will amend the existing load management standards to increase flexible demand resources, through rates, storage, automation, and other cost-effective measures.

The CEC will work with stakeholders and the public to consider how we might, among other things: (a) structure a tariff with electricity prices that change frequently enough to help offset the variability in a 100% renewable grid, and (b) support the tools that enable automated response to prices and/or system conditions.

On October 21, 2019, the CEC opened Docket 19-OIR-01 to begin the Load Management Rulemaking. The CEC is interested in hearing the views of all parties and the public on the feasibility, impacts, and costs associated with demand flexibility options. The CEC recognizes the importance of ongoing activities at the CPUC, California Independent System Operator (CAISO), and utilities. The CEC will coordinate and consult with these entities.

V. PUBLIC PARTICIPATION

The CEC encourages public participation in this proceeding. Any person present at any workshop or hearing will have a reasonable opportunity to make oral comments on the subject matter. Petitions to intervene are not necessary. The CEC anticipates holding a public workshop in January 2020 and will issue a notice stating the scheduled time and

¹ The Feasibility of Implementing Dynamic Pricing in California, CEC 400-03-020F, October 2003.
place of the workshop. Subsequent workshops and hearings may be held to gather additional data and information.

The executive director, in conjunction with the public adviser, will ensure that this order and any notices of hearings and workshops are distributed to all interested persons and that drafts of the regulations are made available sufficiently in advance of workshops, interim hearings, and final adoption by the CEC to allow timely participation.

Noemi Gallardo, the CEC's Public Advisor, is available to facilitate the participation of any person in this proceeding and may be reached by telephone at (800) 822-6228 or via e-mail at publicadvisor@energy.ca.gov. Questions about the content of the proceeding should be addressed to Karen Herter at (916) 654-4604 or karen.herter@energy.ca.gov.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the CEC held on November 13, 2019.

AYE: Scott, Douglas, McAllister, Monahan
NAY: None
ABSENT: Hochschild
ABSTAIN: None

Cody Goldfrate
Secretariat