

Senate Bill No. 541

Passed the Senate September 13, 2025

Secretary of the Senate

Passed the Assembly September 12, 2025

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day
of _____, 2025, at _____ o'clock ____M.

Private Secretary of the Governor

CHAPTER _____

An act to amend Section 25302.7 of the Public Resources Code, relating to electricity.

LEGISLATIVE COUNSEL'S DIGEST

SB 541, Becker. Electricity: load shifting.

Existing law requires the State Energy Resources Conservation and Development Commission (Energy Commission), in consultation with the specified entities, to adopt a biennial integrated energy policy report containing certain information in a specified format. Existing law requires the Energy Commission, in consultation with the Public Utilities Commission and the Independent System Operator, to adopt a goal for load shifting to reduce net peak electrical demand and adjust this target in each biennial integrated energy policy report thereafter.

This bill would require the Energy Commission, in consultation with specified entities, to analyze the cost-effectiveness of specific load flexibility programs and other types of load-shifting interventions and identify both the approximate amount of load shifting and the cost-effectiveness of each type of load-shifting intervention in the next update to the biennial integrated energy policy report after January 1, 2027, as provided. The bill would require the Energy Commission, as part of each integrated energy policy report, to estimate each retail supplier's load-shifting potential, giving consideration to certain factors, as specified. The bill would require the Energy Commission, on or before July 1, 2028, and biennially thereafter, to analyze and publish the amount of load shifting that each retail supplier achieved in the prior calendar year.

The people of the State of California do enact as follows:

SECTION 1. (a) The Legislature finds and declares all of the following:

(1) To ensure reliability, the electrical grid must be sized to handle the highest anticipated loads over a multiyear period. As a

result, new investment in the electrical grid is often driven by the need to support those peak loads.

(2) Outside of peak load hours, the electrical grid has significant available capacity. According to the Independent System Operator’s (CAISO) “2023 Annual Report on Market Issues & Performance,” average system load was only about 46 percent of the peak system load during 2019–23.

(3) According to a 2025 report from Duke University’s Nicholas Institute for Energy, Environment & Sustainability entitled “Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems,” the CAISO grid could support an additional 5,900 megawatts of load, approximately 10 percent of the system’s highest ever load, outside of the 1 percent of hours with the highest load annually.

(4) The State Energy Resources Conservation and Development Commission (Energy Commission), in its SB 846 Load-Shift Goal Commission Report (2023), estimated that the state could achieve 7,000 megawatts of load shifting by 2030.

(5) Many sources of potential load flexibility already exist, including customer-sited energy storage and the ability to adjust the timing of smart thermostats and water heaters, electric vehicle charging, and pumping loads.

(6) Using that load flexibility to reduce peak load could be a cost-saving opportunity that can reward consumers who provide that load flexibility and can reduce rates for the benefit of all utility customers. An April 2024 study by The Brattle Group entitled “California’s Virtual Power Potential: How Five Consumer Technologies Could Improve the State’s Energy Affordability” found that load flexibility could save California consumers five hundred fifty million dollars (\$550,000,000) per year by 2035 in reduced costs for traditional generation facilities.

(7) Fleets of distributed resources that are operated automatically to provide load flexibility can often be built and interconnected to the electrical grid more quickly than large-scale infrastructure projects.

(8) Load flexibility can also reduce peak loads in a way that increases the available capacity to serve new customers on the distribution grid, which can accelerate energization of new housing, electric vehicle charging loads, data centers, and other sources of economic growth, provided the distribution utility can control the

timing of the load flexibility in order to serve distribution grid needs and can rely on the load flexibility when forecasting future needs during its distribution planning process.

(9) However, today there are few effective programs or incentives to encourage the load flexibility, which may be developed primarily to address systemwide needs, to be sited and controlled so that local distribution grid benefits, such as reducing local distribution grid peaks and increasing the use of existing distribution assets, can also be realized as cobenefits.

(10) Creating a strategy to encourage load flexibility to be sited and controlled to support flexibility at the distribution level could enable cost-effective ways to accelerate support for new customers while getting the most value out of electrical grid assets that ratepayers have already paid for and minimizing the total new investment required to support anticipated long-term electricity demand growth.

(b) It is the intent of the Legislature to support efforts by the Energy Commission, the Public Utilities Commission, load-serving entities, and local publicly owned electric utilities to leverage cost-effective load flexibility to serve growing electricity demand in the most affordable way possible that benefits both participating and nonparticipating customers, and to apply lessons learned from past efforts at these entities, rather than recreating past programs with unclear ratepayer, participant, and electrical grid benefits.

SEC. 2. Section 25302.7 of the Public Resources Code is amended to read:

25302.7. (a) (1) By June 1, 2023, the commission, in consultation with the Public Utilities Commission and the Independent System Operator, shall adopt a goal for load shifting to reduce net peak electrical demand and shall adjust this target in each biennial integrated energy policy report prepared pursuant to Section 25302 thereafter. In developing this target, the commission shall consider the findings of the 2020 Lawrence Berkeley National Laboratory report on the Shift Resource through 2030 and other relevant research. The commission, in consultation with the Public Utilities Commission, the Independent System Operator, and other California balancing authorities, shall recommend policies to increase demand response and load shifting that do not increase greenhouse gas emissions or increase electricity rates.

(2) In the next update to the biennial integrated energy policy report prepared pursuant to Section 25302 after January 1, 2027, the commission, in consultation with the Public Utilities Commission, the Independent System Operator, and other California balancing authorities, shall analyze the cost-effectiveness of specific load flexibility programs and other types of load-shifting interventions and identify both the approximate amount of load shifting each type of load-shifting intervention identified in the report published pursuant to paragraph (1) contributes to the overall 2030 load-shift goal and the cost-effectiveness of each type of load-shifting intervention and the cost-effectiveness of the specific programs evaluated.

(b) (1) As part of each integrated energy policy report adopted pursuant to Section 25302, the commission shall estimate each retail supplier's load-shifting potential, giving consideration to the relative share of statewide load of each retail supplier, the limitations in each retail supplier's service territory to adopting load-shifting strategies, the cost-effectiveness of load-shifting resources and programs, and other relevant factors, as determined by the commission.

(2) In estimating the load-shifting potential pursuant to paragraph (1), the commission shall exclude the load shifting expected to be met by emergency programs, including the Demand Side Grid Support Program (Article 3 (commencing with Section 25792) of Chapter 8.9) and the Emergency Load Reduction Program established by the Public Utilities Commission in Decision 21-03-056 (March 25, 2021), Decision Directing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to Take Actions to Prepare for Potential Extreme Weather in the Summers of 2021 and 2022.

(c) (1) On or before July 1, 2028, and biennially thereafter, the commission shall analyze and publish, on its internet website, the amount of load shifting that each retail supplier achieved in the prior calendar year.

(2) In support of the analysis pursuant to paragraph (1), the commission shall establish standards for estimating the amount of load shifting for each type of load flexibility effort that retail suppliers undertake. These standards shall be periodically updated as the commission learns more about the impact of load-shifting strategies.

(d) (1) This section does not impose a binding obligation or otherwise mandate the procurement of load-shifting technologies by retail suppliers.

(2) This section is not intended to abridge or otherwise supplant the authority of the governing boards of community choice aggregators or local publicly owned electric utilities to set rates, establish programs, and create goals.

(e) For purposes of this section, all of the following definitions apply:

(1) “California balancing authority” has the same meaning as defined in Section 399.12 of the Public Utilities Code.

(2) “Community choice aggregator” has the same meaning as defined in Section 331.1 of the Public Utilities Code.

(3) “Electric service provider” has the same meaning as defined in Section 218.3 of the Public Utilities Code.

(4) “Electrical corporation” has the same meaning as defined in Section 218 of the Public Utilities Code.

(5) (A) “Load shifting” means a reduction in aggregate demand that benefits the electrical grid, including by reducing the need for peak generation capacity and investments in transmission or distribution infrastructure.

(B) “Load shifting” may include either of the following:

(i) Load-modifying resources, including the use of time-varying rates to induce load flexibility and the use of demand flexibility resources, distribution-connected renewable generation and energy storage resources, or other programs to alter a retail supplier’s load forecast.

(ii) Supply-side load flexibility resources, including resources that provide resource adequacy and other demand response resources.

(C) “Load shifting” does not include the use of backup generators powered by fossil fuels, or any other generation resources that are not renewable or zero-carbon generation resources, to reduce electrical grid demand.

(6) “Local publicly owned electric utility” has the same meaning as defined in Section 224.3 of the Public Utilities Code.

(7) “Retail supplier” means an electrical corporation, community choice aggregator, electric service provider, or local publicly owned electric utility. “Retail supplier” does not include an electrical corporation with 60,000 or fewer customer accounts in the state

or a retail supplier with an annual electrical demand of less than 1,000 gigawatthours.

Approved _____, 2025

Governor