Office of Senate Floor Analyses
(916) 651-1520 Fax: (916) 327-4478

THIRD READING

Bill No: AB 44
Author: Schultz (D)
Amended: 9/2/25 in Senate
Vote: 21

SENATE ENERGY, U. & C. COMMITTEE: 15-1, 7/15/25
AYES: Becker, Ochoa Bogh, Allen, Archuleta, Arreguín, Caballero, Dahle, Gonzalez, Grove, Hurtado, Limón, McNerney, Rubio, Stern, Wahab
NOES: Strickland
NO VOTE RECORDED: Ashby

SENATE APPROPRIATIONS COMMITTEE: 7-0, 8/29/25
AYES: Caballero, Seyarto, Cabaldon, Dahle, Grayson, Richardson, Wahab

ASSEMBLY FLOOR: 69-0, 5/29/25 - See last page for vote

SUBJECT: Energy: electrical demand forecasts

SOURCE: Advanced Energy United

DIGEST: This bill requires the California Energy Commission (CEC) on or before December 1, 2026, and in consultation with load-serving entities (LSEs) and resource aggregators, to define and publicize methodologies for load modification protocols by which a LSE may reduce or modify its electrical demand forecast.

Senate Floor Amendments of 9/02/25 delete the proposed requirement in this bill to evaluate new and existing mechanisms that can support LSEs' opportunities to modify their resource adequacy obligations and related reporting by the CEC.

ANALYSIS:

Existing law:

1) Requires the State Energy Resources Conservation and Development Commission (known as the California Energy Commission (CEC)), at least every two years, to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. Authorizes the CEC to require the submission of demand forecasts from electrical utilities, among other entities, to perform its assessments and forecasts. (Public Resources Code (PRC) §25301)

2) Requires the CEC to adopt an integrated energy policy report (IEPR) every two years, which must contain an overview of major energy trends and issues facing the state, including, but not limited to, supply, demand, pricing, reliability, efficiency, and impacts on public health and safety, the economy, resources, and the environment. (PRC §25302)

3) Requires the CEC to adopt a goal for load shifting by June 1, 2023, to reduce net peak electrical demand, and requires biennial updates to the targets. Requires the CEC to make recommendations to increase load shifting that does not increase greenhouse gas (GHG) emissions or increase electric rates. (PRC §25302.7)

4) Defines "load-serving entities" as investor-owned utilities (IOUs), electric service providers (ESPs), and community choice aggregators (CCAs). (Public Utilities Code (PUC) §380 (k))

5) Requires the California Public Utilities Commission (CPUC) to work with the California Independent System Operator (CAISO) to establish resource adequacy (RA) requirements for LSEs. (PUC §380)

This bill:

1) Makes several findings and declarations concerning the need to provide electricity demand flexibility and the intent to implement appropriate transparency measures regarding the methodologies for load modification protocols.

2) Requires the CEC on or before December 1, 2026, and in consultation with LSEs and resource aggregators (generally third-party providers who combine supply/load from multiple distributed energy resources), to define and publicize methodologies for load modification protocols by which a LSE may reduce or modify its electrical demand forecast upon aggregated system operation of

behind-the-meter load modifying technologies and programmatic measures deemed to reliably reduce or modify the LSE's electrical demand.

Background

Load Modifiers, Demand Response, and Distributed Energy Resources (DER). In the context of electric service, "load," is anything that uses electricity. LSEs, therefore, are the entities that provide the electricity to meet the electrical demand created by load. DER is a catch-all term used for a variety of generation, storage, or load modifying resources that are usually connected to the utility distribution system. DERs include both generation technologies that reduce customer load when consumed on-site (e.g., customer-sited rooftop solar) and load modifying technologies that reduce customer load by actively shifting or reducing customer energy usage (e.g., demand response programs). In other words, DERs can affect either the supply or demand of energy, but are usually located behind the customer meter; and thus to the larger grid may be viewed solely as modifying customer load. Resource aggregators are generally third-party providers who combine supply/load from multiple distributed energy resources.

CEC IEPR (demand forecast). Alongside other planning guidance focusing on energy generation needs in both the mid- and long-term, the CEC conducts an energy demand forecast on all aspects of energy industry supply, production, transportation, delivery, distribution, demand, and pricing. The demand forecast the CEC adopts in its IEPR informs the generation planning processes at the CPUC, as the supply provided by the CPUC analysis (IRP and RA) must match the customer demand (IEPR) provided by the CEC. The CEC is responsible for producing both statewide and LSE-specific demand forecasts to inform both policy and grid operations. LSEs annually submit their own year ahead peak demand forecast to the CEC, including any relevant DER load modifiers that lower their peak demand. The CEC reviews LSE forecasts, compares them to their own forecasts, and makes adjustments to resolve discrepancies between the two. The load reductions from a LSE program are then incorporated into the CEC's final adjusted forecast.

Resource adequacy. The CPUC uses the CEC's forecasts to determine individual LSE RA obligations. The statute directs the CPUC, in consultation with the CAISO, to establish RA requirements for all LSEs, including electric IOUs, ESPs, and CCAs. The current RA program consists of system, local, and flexible requirements for each month of a compliance year. In October of each year, LSEs must demonstrate that they have procured 90% of their system RA obligations for the five summer months (May-September) of the following year, as well as 100%

of their local requirements, and 90% of their flexible requirements for each month of the coming compliance year. In recent years, the CPUC has adopted changes to the RA program, including increasing the planning reserve margin for all LSEs and implementing a slice-of-day framework that assesses the hourly use of resources. The CPUC also assesses penalties on the LSEs who fail to satisfy their RA obligations, including limiting the expansion of CCAs if they are deficient in their RA requirements.

CEC SB 846 Load-Shift Goal Report. In May 2023, the CEC issued the report required in SB 846 (Dodd, Chapter 239, Statutes of 2022) on establishing a load-shifting goal and informed by the 2020 Lawrence Berkeley National Laboratory report on the *Shift Resource through 2030*, and other relevant research, as required by the statute. The CEC developed a statewide load-shift goal for 2030 of 7,000 megawatts (MW), including 3,400-3,900 MW of incremental resources. The CEC cautions the statewide goal is based on economic potential, but notes that further analysis is needed to determine the cost-effectiveness of specific load flexibility resources and programs.

Load-modifiers and RA. LSEs have two venues to meet or adjust their RA requirements, utilizing either supply- or demand-side resources. The supply-side involves generation resources that are shown to the CPUC during the LSE's annual and monthly RA reports. The demand-side involves load modifying resources that are annually shown to the CEC as a reduction in the LSE's peak demand forecast, which the CEC then uses to adjust its final demand forecast of that LSE – and thus reducing that LSE's RA obligation. Both the CEC and the CPUC provide instructions to LSEs on how to include load modifiers in RA forecasts, including what types of modifications are eligible. These instructions are posted annually on the CPUC RA compliance website. To be eligible as a load modifier for purposes of the CPUC RA demand forecast, load modification must be daily, consistent, predictable and verifiable. Event-based load modifications are not eligible.

Comments

Need for this bill. The author states:

> Current processes at the California Energy Commission lack clear and standardized protocols for load-serving entities (LSEs) to reduce their forecasted electricity demand using demand-side resources like batteries and smart thermostats. As a result, many cost-effective demand flexibility solutions are excluded from resource adequacy (RA) planning and procurement, missing opportunities to reduce ratepayer costs and improve grid reliability. Existing

processes are opaque, inconsistent, and inaccessible to almost all distributed energy resource (DER) aggregators, which limits participation and effectiveness.

Seeking greater transparency on load modification methodologies. The supporters of this bill contend that additional transparency of the CEC's load modification protocols at the upstream will help increase opportunities for aggregators to work with LSEs to help reduce downstream RA requirements. While recent Senate Floor amendments remove language in the bill that explicitly mentioned LSEs hourly RA obligations, the author and supporters still intend that the load modification methodologies would affect electrical demand forecasts that would also affect RA obligations. They contend that the goals of this bill are twofold: (1) provide downward pressure in the state's wholesale capacity market, including RA market, by allowing behind-the-meter load-shaping technologies to help reduce individual LSEs' demand forecast, and lower their respective RA procurement requirements; and (2) align demand response and distributed energy technology deployment and operation to provide grid reliability and cost saving value. The supporters contend that the lack of information on the methodology for the load modifications is an important gap in information that if better understood can help catalyze greater deployment of aggregators to modify loads for LSEs in order to provide real value in RA requirement reductions. It is unclear whether the CEC (or CPUC) agree. The CEC does note it does not currently provide this type of information.

Related/Prior Legislation

AB 1117 (Schultz) of 2025, creates optional, dynamic electricity rates for electrical corporation customers. These rates would change based on real-time conditions of the electricity grid and market prices. The bill is pending in the Senate.

SB 541 (Becker) of 2025, requires a number of actions towards achieving a goal for electric load shifting, the concept of shifting or shedding electric load or demand away from times when electricity is expensive, polluting, and scarce. The bill is pending in the Assembly.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

According to the Senate Appropriations Committee: the CEC estimates one-time costs of $250,000 and ongoing costs of $433,000 annually (Energy Resources Program Account [ERPA]) to execute the required analysis and updated recommended protocols, among other things.

SUPPORT: (Verified 9/2/25)

Advanced Energy United (Source)
350 Bay Area Action
Ava Community Energy
California Energy Storage Alliance
California Solar & Storage Association
Mainspring Energy
Natural Resources Defense Council
NRG Energy
Renew Home
San Diego Community Power
Sierra Club California
Solar Energy Industries Association
Sunrun
The Clean Coalition
The Climate Center
The Climate Reality Project Bay Area Chapter
The Climate Reality Project Orange County Chapter
The Climate Reality Project, California State Coalition
The Climate Reality Project, Los Angeles Chapter
The Climate Reality Project, Riverside County Chapter
The Climate Reality Project, Sacramento Chapter
The Climate Reality Project, San Diego Chapter
The Climate Reality Project, San Fernando Valley CA Chapter
Union of Concerned Scientists

OPPOSITION: (Verified 9/2/25)

None received

ARGUMENTS IN SUPPORT: Advanced Energy United, the sponsor of this bill, states:

> Behind-the-meter energy technologies—such as batteries, smart thermostats, and flexible EV chargers—offer a key solution. When aggregated and dispatched during peak hours, these resources can reduce an LSE's demand forecast and associated RA procurement needs. In fact, because of California's planning reserve margin, 1 MW of demand reduction can reduce RA obligations by up to 1.17 MW, multiplying the savings potential. Yet despite this opportunity, participation in the CEC's existing load modification process

has been limited. While the CEC does allow LSEs to propose load forecast adjustments based on distributed energy resources, the current process lacks transparency and predictability. There are no publicly available criteria detailing how technologies are evaluated or what performance data is required, creating uncertainty for both LSEs and technology providers. This opacity, combined with long time lags between deployment and forecast modification, discourages uptake of load-modifying strategies that could reduce grid costs and bolster reliability. Further, the process is only accessible to LSEs—not aggregators or technology providers— making it difficult for providers to align product functionality with the needs of utilities or ratepayers.

ASSEMBLY FLOOR: 69-0, 5/29/25
AYES: Addis, Aguiar-Curry, Ahrens, Alanis, Arambula, Ávila Farías, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Calderon, Caloza, Carrillo, Castillo, Connolly, Davies, DeMaio, Dixon, Elhawary, Ellis, Flora, Fong, Gabriel, Gallagher, Garcia, Gipson, Mark González, Hadwick, Haney, Harabedian, Hart, Hoover, Irwin, Jackson, Kalra, Krell, Lackey, Lee, Lowenthal, Macedo, McKinnor, Muratsuchi, Ortega, Pacheco, Papan, Patel, Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Ransom, Celeste Rodriguez, Michelle Rodriguez, Rogers, Blanca Rubio, Sanchez, Schiavo, Schultz, Stefani, Ta, Valencia, Wallis, Wicks, Wilson, Zbur, Rivas
NO VOTE RECORDED: Alvarez, Bryan, Chen, Jeff Gonzalez, Nguyen, Sharp-Collins, Solache, Soria, Tangipa, Ward

Prepared by: Nidia Bautista / E., U. & C. / (916) 651-4107
9/3/25 18:31:18

****** END ******