
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**
Senator Steven Bradford, Chair
2023 - 2024 Regular

Bill No: SB 664 **Hearing Date:** 4/24/2023
Author: Stern
Version: 2/16/2023 Introduced
Urgency: No **Fiscal:** Yes
Consultant: Nidia Bautista

SUBJECT: Energy: renewable energy resources and zero-carbon resources

DIGEST: This bill proposes (1) to require the California Energy Commission (CEC) to include extreme weather events in its demand forecast, (2) require the Department of Water Resources (DWR) to procure only zero-carbon and renewable energy resources, and (3) requires specified extreme weather scenarios to be included in the SB 100 Joint Agency Report.

ANALYSIS:

Existing law:

- 1) Requires the State Energy Resources Conservation and Development Commission (California Energy Commission (CEC)), on a biennial basis, to adopt an integrated energy policy report containing an overview of major trends and issues facing the state. Existing law requires the report to include an assessment and forecast of system reliability and the need for resource additions, efficiency, and conservation that considers all aspects of energy industries and markets that are essential for the state economy, general welfare, public health and safety, energy diversity, and protection of the environment. (Public Resources Code §25302)
- 2) Created the Strategic Reliability Reserve Fund, a continuously appropriated fund, for purposes of adding resources to the electrical grid to ensure electrical grid reliability and support the clean energy transition. Existing law authorizes the CEC to approve a contract, grant, or loan entered into for those purposes. (Public Resources Code §25793)
- 3) States the state policy that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customer by December 31, 2035, 95 percent by December 31, 2040, and 100 percent by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035. (Public Utilities Code §454.53(a))

- 4) Requires the California Public Utilities Commission (CPUC), the CEC, and the California Air Resources Board (CARB), on a four-year basis, to issue a joint report to the Legislature that includes, among other things, alternative scenarios in which that state policy can be achieved and the estimated costs and benefits of each scenario. (Public Utilities Code §454.53(d)(2))

This bill:

- 1) Requires the CEC to ensure that the demand forecasts in the integrated energy policy report account for multiday extreme and atypical weather events and include, at a minimum, one-in-10-year, one-in-20-year, and one-in-40-year peak demand forecasts.
- 2) Requires a contracted resource for which a contract, grant, or loan is entered into on or after January 1, 2024, to be an eligible renewable energy resource or a zero-carbon resource.
- 3) Requires that the alternative scenarios include scenarios achieving zero or near zero greenhouse gas emissions in the electricity sector in the 2035–45 timeframe and the estimated greenhouse gas emissions reductions for each scenario.

Background

Last year's state budget included programs and funding to support electric grid reliability needs during extreme events when demand for electricity is high and supply may be limited, as has been experienced in recent years.

Strategic Reliability Reserve (SRR). The budget trailer bill adopted last year, AB 205 (Committee on Budget, Chapter 61, Statutes of 2022), established the SRR to be administered by the DWR to support electrical grid reliability. The program authorizes DWR to contract for, purchase, finance or otherwise secure electrical generation to create additional capacity available during extreme energy grid events. Specifically, DWR may use the SRR for new energy storage systems, new emergency and temporary generators, generation facilities using clean, zero-emission fuel technology generation, and the extension of operations at existing facilities planned for retirement.

The statute requires DWR to prepare a plan for its actions to invest in electric reliability for the CEC to consider and approve. DWR is also required to consult with the CEC, CPUC and the California Independent System Operator (CAISO) or

other applicable balancing authorities, and CARB when carrying out the duties of SRR. The budget trailer also authorized the CEC to permit the siting of facilities by DWR in implementing SRR programs, and establish an expedited review of applications. Additionally, the CEC is required in reviewing permitting requests to determine optimal location for resources based on electric reliability, reducing public safety power shutoffs, decreasing the use of high-emission resources and minimizing air pollution. DWR is required to submit a report to the Joint Legislative Budget Committee starting on January 31, 2023, and in specified intervals, on expenditures related the program, along with quarterly reports to the CEC.

Distributed Electricity Backup Assets Program. AB 205 also established the Distributed Electricity Backup Assets Program to be administered by the CEC to incentivize cleaner and more efficient distributed energy assets that would serve as on-call emergency supply or load reduction for the state's electrical grid during extreme events. Funding shall be used to support: (1) efficiency upgrades to existing power generators, and (2) deployment of new zero- or low-emission technologies, including but not limited to fuel cells or energy storage, at new or existing facilities. The CEC is required to establish program guidelines that include a loading order. This program requires resources funded to be available to respond during an extreme event to support grid reliability.

Demand Side Grid Support. Last year's budget also appropriated \$200 million to the CEC to provide payments for demand response actions to reduce grid stresses during net peak periods.

Clean Energy Reliability Investment Plan (CERIP). SB 846 (Dodd, Chapter 239, Statutes of 2022) established the CERIP is plan, developed in consultation with the CPUC and CARB, provides justification and recommendations for clean energy investments that accelerate the deployment of clean energy resources, support demand response, assist ratepayers, and increase energy reliability. CERIP funding is allocated over several years.

Comments

Is a bill needed? This bill is perhaps best characterized as frustration with recent efforts to continue to rely on fossil-fuel based resources to provide reliability for the electric grid and a desire to advance clean energy resources. However, the proposals in this bill may be premature given the recent legislative actions to establish the various programs to address emergency electric grid situations including as part of AB 205, as well as, the CEC's current efforts to refine their demand forecasts, and the recent adoption of interim targets towards the SB 100

clean energy goals by SB 1020 (Laird, Chapter 361, Statutes of 2022). As noted by the opposition, the policies adopted in AB 205, only less than a year ago, are intended to help ensure reliability. DWR's recent quarterly presentation to the CEC also acknowledged that they are also trying to be mindful about their impact on the Resources Adequacy market which is currently a tight market with higher prices. DWR also shared they are actively investigating clean resources for 2024, but the market prices, ability to deploy, and ensure reliability will likely inform ultimate contracting decisions. Given the recent experiences with electric grid emergency events, the Legislature may wish to continue to actively monitor implementation of the various programs before requiring new direction. *In this regard, the author and committee may wish to amend this bill to strike Sections 2 and Sections 3 from this bill. Additionally, the author and committee may wish to delete the specific references to one-in-X year events from Section 1 of this bill related to the CEC's demand forecast.*

Prior/Related Legislation

AB 205 (Committee on Budget, Chapter 61, Statutes of 2022) established the SRR.

SB 846 (Dodd, Chapter 239, Statutes of 2022) among its provisions required the development of the CERIP.

SB 1020 (Laird, Chapter 361, Statutes of 2022) established interim targets to reach SB 100 clean energy goals and required state agencies to purchase 100 percent zero carbon electricity by 2035 to serve their load, including obligations on State Water Project.

SB 423 (Stern, Chapter 243, Statutes of 2021) required the CEC to submit to the Legislature an assessment by December 31, 2023, of firm zero-carbon resources that support a clean, reliable, and resilient electrical grid and will help achieve the existing statutory goal of ensuring renewable energy and zero-carbon resources supply 100 percent of all retail sales of electricity to California customers by December 31, 2045.

SB 100 (De León, Chapter 312, Statutes of 2018) established the 100 Percent Clean Energy Act of 2017 which increases the RPS requirement from 50 percent by 2030 to 60 percent, and created the policy of planning to meet all of the state's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by December 31, 2045, for a total of 100 percent clean energy

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

SUPPORT:

Clean Power Campaign, Sponsor
Elders Climate Action, NorCal Chapter
Elders Climate Action, SoCal Chapter
Fervo Energy
Form Energy

OPPOSITION:

California Municipal Utilities Association, unless amended
San Diego Gas & Electric Company, unless amended

ARGUMENTS IN SUPPORT: According to the author:

Our grid is under stress, especially as the impacts of climate change hit sooner than expected. And while California is strongly committed to accelerating clean energy deployment, it has yet to tackle plans for achieving a truly zero carbon, reliable electricity grid. To get there, we need to start by planning for our new climate-impacted weather and grid conditions, and evaluating how to develop a reliable electricity sector without ongoing reliance on fossil fuels. Going forward, the state should also align its investments through the Strategic Reliability Reserve with the state's priorities around zero carbon energy. These are straight-forward, common sense steps to help put the state on a path to a truly clean, reliable electricity grid.

ARGUMENTS IN OPPOSITION: The California Municipal Utilities Association and San Diego Gas & Electric oppose this bill's proposal to require only zero-carbon and renewable energy resources for the programs funded established under AB 205. Both entities note the need to address electric grid reliability with emergency resources, which today are primarily fossil fuel assets given the variability of renewable resources. They note the maintaining reliability is a complex task and it would be short-sighted to eliminate resources that can perform during an emergency.

-- END --