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AB-2368 System reliability and outages. (2023-2024)

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Assembly Bill No. 2368

CHAPTER 713

An act to amend Sections 345, 349, 380, and 454.52 of the Public Utilities Code, relating to electricity.

[Approved by Governor September 27, 2024. Filed with Secretary of State September 27, 2024.]

LEGISLATIVE COUNSEL'S DIGEST

AB 2368, Petrie-Norris. System reliability and outages.

Existing law requires the Independent System Operator to ensure the efficient use and reliable operation of the transmission grid, as provided.

This bill would authorize the Independent System Operator to amend its tariff, as deemed necessary and subject to approval by the Federal Energy Regulatory Commission, to be consistent with the efficient use and reliable operation of the transmission grid.

Existing law requires the Independent System Operator to perform a review following a major outage that affects at least 10% of customers of the entity providing the local distribution service, as provided.

This bill would require the Independent System Operator, if it finds that the primary cause of the outage was the insufficiency of the available electricity supply, to post the finding and recommendations to prevent future shortfalls on its internet website and share the finding and recommendations with the Public Utilities Commission (PUC), the State Energy Resources Conservation and Development Commission, and the Legislature.

Existing law requires the PUC, in consultation with the Independent System Operator, to establish resource adequacy requirements for all load-serving entities and requires the PUC in establishing those requirements to ensure the reliability of electrical service in California. Existing law requires the PUC to determine and authorize the most efficient and equitable means of achieving certain objectives.

This bill would require that the resource adequacy program consider mitigation measures, if the commission determines they are needed, to reduce costs to ratepayers. The bill would require the PUC to determine and authorize the most efficient and equitable means of ensuring that the resource adequacy program can reasonably maintain a standard measure of reliability and use it for planning purposes.

Existing law requires the PUC to ensure that load-serving entities ensure system and local reliability and require sufficient, predictable resource procurement and development to avoid unplanned energy supply shortfalls, as provided.

This bill would require the PUC, as part of the integrated planning process, to assess short-term, midterm, and long-term reliability by conducting specified modeling. The bill would require the PUC to review the results, as specified.

Under the Public Utilities Act, a violation of an order, decision, rule, direction, demand, or requirement of the PUC is a crime.

Because a violation of a PUC action implementing certain provisions of this bill would be a crime, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

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

(1) Because Section 454.53 of the Public Utilities Code sets a goal of renewable energy and zero-carbon resources supplying 100 percent of retail sales of electricity to end-use customers by 2045, California is committed to rapidly decarbonizing the grid, promoting the growth of renewable energy resources, optimizing energy efficiency, and expanding the state's energy transmission infrastructure to meet its needs.

(2) The foundation of a decarbonized economy rests on a reliable electrical grid.

(3) Realizing this foundation depends on effective and coordinated planning and reliability frameworks that anticipate and address the electricity needs of the state both in the present and in the future.

(4) Climate change is putting increasing pressure on the state's electrical grid. It is imperative for state agencies to use the most comprehensive analytical methods to prepare for maintaining the electrical grid during extreme weather events.

(5) The effectiveness of the state's resource adequacy and integrated resource planning frameworks is intrinsically linked to the capability of these frameworks to foresee, plan for, and address current and future energy demands.

(6) The absence of review mechanisms for procurement in the midterm or of a formalized reliability standard, such as a 1-in-10 loss of load expectation, may hinder the state's path to consistent and cost-effective energy reliability planning.

(7) In the past few years, California has seen multiple capacity shortfalls that have led to several costly events, including the rotating electricity outages of 2020. Consequent emergency procurements, and the extensions to the Diablo Canyon powerplant and three coastal once-through cooling plants have cost taxpayers billions of dollars and underscore the urgent need for a transparent, unified, and forward-thinking planning approach.

(8) Outages and related electrical grid disturbances can affect the health and safety of Californians, especially during extreme heat events, and can be extremely disruptive and costly to our state's economy.

(9) The capacity market in California is currently constrained. Capacity prices have skyrocketed in recent years, impacting ratepayers. The Legislature aims to foster more robust reliability planning to avoid these types of market conditions in the future.

(b) It is the intent of the Legislature, in enacting this act, to increase the reliability of California's electrical grid through all of the following:

(1) Adopting transparent reliability standards to provide consistent information to ensure that planning processes genuinely reflect the electrical grid's capacity needs.

(2) Providing consistent information to policymakers and bridging the planning gap between short-term needs and long-term planning, thereby helping to avert the challenges and costs associated with electrical grid emergencies and emergency capacity procurement.

(3) Enhancing the collective efficacy of the resource adequacy and integrated resource planning frameworks in serving California's energy needs through resource assessment and planning, including through improved collaboration between the Public Utilities Commission, the State Energy Resources Conservation and Development Commission, and the Independent System Operator.

(c) (1) It is not the intent of the Legislature to further penalize load-serving entities through the resource adequacy program due to present capacity market conditions beyond their control.

(2) It is not the intent of the Legislature to prescribe a midterm reliability program design or create an additional procurement mechanism.

(3) It is not the intent of the Legislature to change the authority of the Public Utilities Commission in relation to the Independent System Operator. It is the intent of the Legislature that the primary authority for resource adequacy and procurement planning remains with the Public Utilities Commission and self-governing publicly owned utilities. The Public Utilities Commission and publicly owned utilities are in the best position to balance the objectives of reliability, cost, and environmental goals.

SEC. 2. Section 345 of the Public Utilities Code is amended to read:

345. (a) The Independent System Operator shall ensure the efficient use and reliable operation of the transmission grid consistent with the achievement of planning and operating reserve criteria that are no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Council.

(b) In furtherance of subdivision (a), the Independent System Operator may amend its tariff, as deemed necessary and subject to approval by the Federal Energy Regulatory Commission through its rulemaking process, to be consistent with subdivision (a).

SEC. 3. Section 349 of the Public Utilities Code is amended to read:

349. (a) The Independent System Operator shall perform a review following a major outage that affects at least 10 percent of the customers of the entity providing the local distribution service. The review shall address the cause of the major outage, the response time and effectiveness, and whether the transmission facility owner or operator's operation and maintenance practices enhanced or undermined the ability to restore service efficiently and in a timely manner.

(b) (1) If the Independent System Operator finds pursuant to subdivision (a) that the operation and maintenance practices of the transmission facility owner or operator prolonged the response time or was responsible for the outage, the Independent System Operator may order appropriate sanctions, subject to the Federal Energy Regulatory Commission approving that authority.

(2) (A) If the Independent System Operator finds pursuant to subdivision (a) that the primary cause of the outage was the insufficiency of the electricity supply available to serve the electrical load within its balancing area authority, the Independent System Operator shall post on its internet website the finding and recommendations to prevent future shortfalls and share the finding and recommendations with the commission, the Energy Commission, and the Legislature.

(B) Findings and recommendations submitted to the Legislature shall be provided in accordance with Section 9795 of the Government Code.

SEC. 4. Section 380 of the Public Utilities Code is amended to read:

380. (a) The commission, in consultation with the Independent System Operator, shall establish resource adequacy requirements for all load-serving entities.

(b) In establishing resource adequacy requirements, the commission shall ensure the reliability of electrical service in California while advancing, to the extent possible, the state's goals for clean energy, reducing air pollution, and reducing emissions of greenhouse gases. The resource adequacy program shall achieve all of the following objectives:

(1) Facilitate the development of new generating, nongenerating, and hybrid capacity and the retention of existing generating, nongenerating, and hybrid capacity that is economical and needed for reliability and to achieve the state policy specified in Section 454.53.

(2) Establish new, or maintain existing, demand response products and tariffs that facilitate the economical dispatch and use of demand response that can either meet or reduce an electrical corporation's resource adequacy requirements, as determined by the commission.

(3) Equitably allocate the cost of generating capacity and demand response in a manner that prevents the shifting of costs between customer classes.

(4) Minimize enforcement requirements and costs.

(5) Consideration of mitigation measures, if the commission determines they are needed, to reduce costs to ratepayers.

(6) Maximize the ability of community choice aggregators to determine the generation resources used to serve their customers.

(c) Each load-serving entity shall maintain physical generating capacity and electrical demand response adequate to meet its load requirements, including, but not limited to, peak demand and planning and operating reserves. The generating capacity or electrical demand response shall be deliverable to locations and at times as may be necessary to maintain electrical service system reliability, local area reliability, and flexibility.

(d) Each load-serving entity shall, at a minimum, meet the most recent minimum planning reserve and reliability criteria approved by the board of directors of the Western Systems Coordinating Council or the Western Electricity Coordinating Council.

(e) The commission shall implement and enforce the resource adequacy requirements established in accordance with this section in a nondiscriminatory manner. Each load-serving entity shall be subject to the same requirements for resource adequacy, the renewables portfolio standard program, and the integrated resource planning process pursuant to Section 454.52 that apply to electrical corporations pursuant to this section, or are otherwise required by law or by order or decision of the commission. The commission shall exercise its enforcement powers to ensure compliance by all load-serving entities.

(f) (1) The commission shall require sufficient information, including, but not limited to, anticipated load, actual load, and measures undertaken by a load-serving entity to ensure resource adequacy, to be reported to enable the commission to determine compliance with the resource adequacy requirements established by the commission.

(2) The commission shall calculate and publish annually on its internet website, in a new report or as part of another report, the percentage of each load-serving entity's local and system resource adequacy requirements from the previous calendar year that was met with capacity from eligible renewable energy resources pursuant to the California Renewables Portfolio Standard Program (Article 16 (commencing with Section 399.11)), other zero-carbon resources, including large hydroelectric and nuclear resources, or energy storage resources. In determining the percentage of each load-serving entity's resource adequacy requirements, the commission shall include all directly owned or contracted resources and each load-serving entity's allocation of any centrally procured resources or allocation of resources pursuant to any other mechanism that involves an assignment or allocation of resources purchased or owned by a single buyer, and shall exclude any share of a load-serving entity's resources that were allocated to another load-serving entity.

(g) An electrical corporation's costs of meeting or reducing resource adequacy requirements, including, but not limited to, the costs associated with system reliability, local area reliability, or flexible resource adequacy, that are determined to be reasonable by the commission, or are otherwise recoverable under a procurement plan approved by the commission pursuant to Section 454.5, shall be fully recoverable from those customers on whose behalf the costs are incurred, as determined by the commission, at the time the commitment to incur the cost is made, on a fully nonbypassable basis, as determined by the commission. The commission shall exclude any amounts authorized to be recovered pursuant to Section 366.2 when authorizing the amount of costs to be recovered from customers of a community choice aggregator or from customers that purchase electricity through a direct transaction pursuant to this subdivision.

(h) The commission shall determine and authorize the most efficient and equitable means for achieving all of the following:

(1) Meeting the objectives of this section.

(2) Ensuring that investment is made in new generating capacity.

(3) Ensuring that existing generating capacity that is economical is retained to ensure reliability.

(4) Ensuring that the resource adequacy program can reasonably maintain a standard measure of reliability, such as a one-day-in-10-year loss-of-load expectation or a similarly robust reliability metric adopted by the commission, and use it for planning purposes.

(5) Ensuring that the cost of generating capacity and demand response is allocated equitably.

(6) Ensuring that community choice aggregators can determine the generation resources used to serve their customers.

(7) Ensuring that investments are made in new and existing demand response resources that are cost effective and help to achieve electrical grid reliability and the state's goals for reducing emissions of greenhouse gases.

(8) Minimizing the need for backstop procurement by the Independent System Operator.

(i) In making the determination pursuant to subdivision (h), the commission may consider a centralized resource adequacy mechanism among other options.

(j) The commission shall ensure appropriate valuation of both supply and load modifying demand response resources. The commission, in an existing or new proceeding, shall establish a mechanism to value load modifying demand response resources, including, but not limited to, the ability of demand response resources to help meet distribution needs and transmission system needs and to help reduce a load-serving entity's resource adequacy obligation pursuant to this section. In determining this value, the commission shall consider how these resources further the state's electrical grid reliability and the state's goals for reducing emissions of greenhouse gases. The commission, Energy Commission, and Independent System Operator shall coordinate to jointly ensure that changes in demand caused by load modifying demand response are expeditiously and comprehensively

reflected in the Energy Commission's Integrated Energy Policy Report forecast and in planning proceedings and associated analyses, and shall encourage reflection of these changes in demand in the operation of the grid.

(k) For purposes of this section, "load-serving entity" means an electrical corporation, electric service provider, or community choice aggregator. "Load-serving entity" does not include any of the following:

(1) A local publicly owned electric utility.

(2) The State Water Resources Development System commonly known as the State Water Project.

(3) Customer generation located on the customer's site or providing electric service through arrangements authorized by Section 218, if the customer generation, or the load it serves, meets one of the following criteria:

(A) It takes standby service from the electrical corporation on a commission-approved rate schedule that provides for adequate backup planning and operating reserves for the standby customer class.

(B) It is not physically interconnected to the electrical transmission or distribution grid, so that, if the customer generation fails, backup electricity is not supplied from the electrical grid.

(C) There is physical assurance that the load served by the customer generation will be curtailed concurrently and commensurately with an outage of the customer generation.

SEC. 5. Section 454.52 of the Public Utilities Code is amended to read:

454.52. (a) (1) Beginning in 2017, and to be updated regularly thereafter, the commission shall adopt a process for each load-serving entity to file an integrated resource plan, and a schedule for periodic updates to the plan, and shall ensure that load-serving entities do all of the following:

(A) Meet the greenhouse gas emissions reduction targets established by the State Air Resources Board, in coordination with the commission and the Energy Commission, for the electricity sector and each load-serving entity that reflect the electricity sector's percentage in achieving the economywide greenhouse gas emissions reductions pursuant to Section 38566 of the Health and Safety Code.

(B) Procure at least 60 percent eligible renewable energy resources by December 31, 2030, consistent with the state policy specified in Section 454.53 and Article 16 (commencing with Section 399.11) of Chapter 2.3.

(C) Enable each electrical corporation to fulfill its obligation to serve its customers at just and reasonable rates.

(D) Minimize impacts on ratepayers' bills.

(E) (i) Ensure system and local reliability on a short-term, midterm, and long-term basis, including meeting the short-term and forecast long-term resource adequacy requirements of Section 380, and require sufficient, predictable resource procurement and development to avoid unplanned energy supply shortfalls by taking into account impacts due to climate change, forecasted levels of building and transportation electrification, and other factors that can result in those shortfalls.

(ii) In furtherance of avoiding unplanned energy supply shortfalls or expensive emergency procurement and ensuring a more accurate understanding of electrical grid operational needs, the commission shall aggregate reported short-term and midterm resource procurement from all load-serving entities conducted under Section 380 or this section and assess midterm resource sufficiency, and annually provide anonymized reports to the Independent System Operator. The commission shall report forward resource procurement using counting conventions that provide the data to the Independent System Operator to be used in its grid planning.

(iii) To accomplish clause (i), the commission shall, as part of the integrated planning process, assess short-term, midterm, and long-term reliability by conducting probabilistic reliability modeling, including if there is sufficient capacity available for procurement in the short term and midterm by all load-serving entities to meet their procurement requirements. The commission shall review the results of that reliability modeling in a public proceeding at the same frequency as the forecast conducted in accordance with this section. When modeling short-term and midterm reliability, the commission shall model all procurement consistent with clause (ii) and may rely upon or incorporate probabilistic reliability modeling conducted by the Energy Commission into the commission's public process. The commission shall also report the modeling results in the joint Reliability Planning Assessments conducted under Section 25233 of the Public Resources Code.

(F) Comply with paragraph (1) of subdivision (b) of Section 399.13.

(G) Strengthen the diversity, sustainability, and resilience of the bulk transmission and distribution systems, and local communities.

(H) Enhance distribution systems and demand-side energy management.

(I) Minimize localized air pollutants and other greenhouse gas emissions, with early priority on disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.

(J) Maintain a diverse portfolio of energy resources, which may include eligible energy resources procured by the Department of Water Resources.

(2) (A) The commission may authorize all source procurement for load-serving entities that includes various resource types including demand-side resources, supply-side resources, and resources that may be either demand-side resources or supply-side resources, taking into account the differing load-serving entities' geographic service areas, to ensure that each load-serving entity meets the goals set forth in paragraph (1).

(B) The commission may approve procurement of resource types that will reduce the overall emissions of greenhouse gases from the electricity sector and meet the other goals specified in paragraph (1), but due to the nature of the technology or fuel source may not compete favorably in price against other resources over the time period of the integrated resource plan.

(3) In furtherance of the requirements of paragraph (1), the commission shall consider the role of existing renewable generation, grid operational efficiencies, energy storage, and distributed energy resources, including energy efficiency, in helping to ensure each load-serving entity meets energy needs and reliability needs in hours to encompass the hour of peak demand of electricity, excluding demand met by variable renewable generation directly connected to a California balancing authority, as defined in Section 399.12, while reducing the need for new electricity generation resources and new transmission resources in achieving the state's energy goals at the least cost to ratepayers.

(4) (A) On or before September 1, 2024, and consistent with the process and schedule adopted pursuant to paragraph (1), the commission, in consultation with the Energy Commission and the Independent System Operator, shall determine if there is a need for the procurement of eligible energy resources based on a review of the integrated resource plans submitted by load-serving entities in compliance with the requirements of this section and Section 454.53 and the progress towards meeting the portfolio of resources identified pursuant to subdivision (a) of Section 454.51.

(B) If the commission determines that there is a need for the procurement of eligible energy resources, the commission shall specify the eligible energy resources that should be procured to meet that need.

(C) Within six months of determining that there is a need for the procurement of eligible energy resources, the commission may request the Department of Water Resources to exercise its central procurement function to procure those eligible energy resources specified pursuant to subparagraph (B) that meet the portfolio of resources identified in subdivision (a) of Section 454.51.

(D) (i) Upon receiving a request pursuant to subparagraph (C), the Department of Water Resources, before January 1, 2035, may exercise its central procurement function to conduct one or more competitive solicitations and enter into contracts to procure eligible energy resources in order to achieve the policy of the state specified in Section 454.53.

(ii) Any contract entered into by the Department of Water Resources pursuant to clause (i) and approved by the commission pursuant to Section 80821 of the Water Code before January 1, 2035, shall remain in force for the duration of the contract.

(E) The Department of Water Resources' exercising of its central procurement function to procure eligible energy resources pursuant to this paragraph shall be conducted in accordance with Division 29.5 (commencing with Section 80800) of the Water Code.

(b) (1) Each load-serving entity shall prepare and file an integrated resource plan consistent with paragraph (2) of subdivision (a) on a time schedule directed by the commission and subject to commission review.

(2) Each electrical corporation's plan shall follow Section 454.5.

(3) The plan of a community choice aggregator shall be submitted to its governing board for approval and provided to the commission for certification, consistent with paragraph (5) of subdivision (a) of Section 366.2, and shall achieve all of the following:

(A) Economic, reliability, environmental, security, and other benefits and performance characteristics that are consistent with the goals set forth in paragraph (1) of subdivision (a).

(B) A diversified procurement portfolio consisting of short-term, midterm, and long-term electricity, electricity-related, and demand reduction products.

(C) The resource adequacy requirements established pursuant to Section 380.

(4) The plan of an electric service provider shall achieve the goals set forth in paragraph (1) of subdivision (a) through a diversified portfolio consisting of short-term, midterm, and long-term electricity, electricity-related, and demand reduction products.

(c) To the extent that additional procurement is authorized for the electrical corporation in the integrated resource plan or the procurement process authorized pursuant to Section 454.5, the commission shall ensure that the costs are allocated in a fair and equitable manner to all customers consistent with Section 454.51, that there is no cost shifting among customers of load-serving entities, and that community choice aggregators may self-provide renewable integration resources consistent with Section 454.51. The commission may order the procurement of resources with specific attributes by load-serving entities as a result of the integrated resource planning process and shall enforce any resource procurement requirements on a nondiscriminatory basis. Enforcement may include the assessment of penalties for noncompliance.

(d) To eliminate redundancy and increase efficiency, the process adopted pursuant to subdivision (a) shall incorporate, and not duplicate, any other planning processes of the commission.

(e) This section applies to an electrical cooperative, as defined in Section 2776, only if the electrical cooperative has an annual electrical demand exceeding 700 gigawatthours, as determined based on a three-year average commencing with January 1, 2013.

(f) (1) The commission shall not include the energy, capacity, or any attribute from Diablo Canyon Unit 1 beyond November 1, 2024, or Unit 2 beyond August 26, 2025, in the adopted integrated resource plan portfolios, resource stacks, or preferred system plans.

(2) The commission shall disallow a load-serving entity from including in their adopted integrated resource plan any energy, capacity, or any attribute from the Diablo Canyon Unit 1 beyond November 1, 2024, or Unit 2 beyond August 26, 2025.

(g) For a thermal powerplant that uses nuclear fission technology not constructed in the twenty-first century, all resource attributes shall be retired on January 1, 2031, and shall be reported as a separate, line item resource for purposes of complying with Section 398.4.

(h) (1) Only a new energy resource that meets all of the following requirements is eligible to be procured by the Department of Water Resources pursuant to this section:

(A) The resource directly supports attainment of the goals specified in Section 454.53 without increasing the state's dependence on any fossil fuel-based resources.

(B) The resource is determined by the commission to not be under contract at sufficient levels as shown in load-serving entities' most recent individual integrated resource plans submitted to and reviewed by the commission pursuant to this section to achieve the goals specified in Section 454.53.

(C) The resource has a construction and development lead time of at least five years.

(D) The resource does not generate electricity using fossil fuels or fuels derived from fossil fuels.

(E) The resource does not use combustion to generate electricity, unless that combustion use is ancillary and necessary to facilitate geothermal electricity generation.

(2) Resources from a pump hydroelectric facility may be procured by the Department of Water Resources pursuant to this section if the pump hydroelectric facility does not exceed 500 megawatts and has been directly appropriated funding by the state before January 1, 2023.

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

(1) "Load-serving entity" has the same meaning as defined in Section 380.

(2) "Long term" means a time period that includes five or more years in the future.

(3) "Midterm" means a time period between two and five years in the future.

(4) "Short term" means a time period between the present and two years in the future.

SEC. 6. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.