
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

**Senator Steven Bradford, Chair
2023 - 2024 Regular**

Bill No:	SB 38	Hearing Date:	4/10/2023
Author:	Laird		
Version:	3/22/2023 Amended		
Urgency:	No	Fiscal:	Yes
Consultant:	Nidia Bautista		

SUBJECT: Battery energy storage facilities: emergency response and evacuation plans

DIGEST: This bill requires each battery energy storage facility in the state to have an emergency response plan and an evacuation plan that covers the area of the battery energy storage facility.

ANALYSIS:

Existing law:

- 1) Requires the State Energy Resources Conservation and Development Commission (known as the California Energy Commission (CEC)) to undertake various actions in furtherance of meeting the state's clean energy and pollution reduction objectives, including implementing the Long-Duration Energy Storage Program to provide financial incentives for projects to deploy innovative energy storage systems to the electrical grid for purposes of providing critical capacity and grid services. (Public Resources Code §25640 et seq.)
- 2) Establishes and vests the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations. (California Constitution Article XII)
- 3) Requires the CPUC to determine appropriate targets, if any, for each load-serving entity to procure viable and cost-effective energy storage systems to be achieved by December 31, 2015, and December 31, 2020. Requires the governing board of each local publicly owned electric utility to initiate a process to determine appropriate targets, if any, for the utility to procure viable and cost-effective energy storage systems to be achieved by December 31, 2016, and December 31, 2020. (Public Resources Code §2836)

- 4) Authorizes the CPUC, after a hearing, to require every public utility to construct, maintain, and operate its line, plant, system, equipment, apparatus, tracks, and premises in a manner so as to promote and safeguard the health and safety of its employees, passengers, customers, and the public. (Public Utilities Code §768)
- 5) Requires the CPUC, as part of the Public Utilities Act, to implement and enforce standards for the maintenance and operation of facilities for the generation and storage of electricity owned by an electrical corporation or located in the state to ensure their reliable operation. (Public Utilities Code §761.3)
- 6) Authorizes the California Occupational Safety and Health Standards (Cal/OSHA) Board within the Department of Industrial Relations (DIR) to establish by an affirmative vote of at least four members (from a total of seven), to adopt, amend or repeal occupational safety and health standards and orders. Requires Cal/OSHA to adopt standards that are as effective as the federal standards, as specified. Establishes that Cal/OSHA is the only agency in the state authorized to adopt occupational safety and health standards. (Labor Code §142.3)
- 7) Requires every employer to furnish employment and a place of employment that is safe and healthful for the employees, including requiring an injury prevention plan. (Labor Code §6401 et seq.)

This bill requires each battery energy storage facility in the state to have an emergency response plan and an evacuation plan that covers the area of the battery energy storage facility.

Background

Growth in battery energy storage. California is increasingly relying on new and emerging energy storage technologies to support electric service reliability and help achieve the state's ambitious greenhouse gas (GHG) reduction goals. Energy storage technology offers opportunities for balancing increasing volumes of intermittent renewable energy (such as solar and wind energy), allowing for the storage of energy during times when production is high but demand is lower, and discharging during times when production from renewable resources is more limited or not available. In particular, lithium-ion stationary energy storage development in California is accelerating rapidly. The technology is fast-tracked in utility procurements due to its ability to support the state's clean energy and reliability goals cost-effectively. In 2019, there was 250 megawatts (MW) of

utility-scale lithium-ion battery systems operating and participating in the state's wholesale power markets, which has grown to over 3,000 MW. The CPUC anticipates growth in total battery energy storage installed capacity to reach almost 15 gigawatts by 2032, with lithium-ion batteries as the main type of storage.

Safety incidents at battery storage facilities. There have been three distinct and recent safety incidents at separately owned battery energy storage facilities located at the Moss Landing Harbor location in Monterey County which occupies one of the largest battery energy storage systems.

- On September 4, 2021, there was a safety incident at the Moss Landing Phase I (300 MW) lithium-ion battery energy system owned by Vistra Corporation that prompted an immediate shutoff of the facility. According to Vistra Corporation, an investigation found that smoke from a failed bearing in an air-handling unit in the building triggered a heat suppression system to improperly spray water on battery racks, causing damage and overheating.
- The same facility, though in a separate building, experienced a second incident on February 13, 2022, at its Phase II (100 MW) building. Following the incident, Vistra stated in a news release that there was early evidence that water hoses leaked and that some batteries short circuited, creating smoke in the building. Vistra subsequently decided to pause restart activities while they assess the Phase II incident and incorporate any learnings. Both Vistra-owned facilities have since been brought back on-line.
- On September 20, 2022, a separate incident occurred at a neighboring battery energy storage facility (182 MW) at Moss Landing, but owned by Pacific Gas & Electric (PG&E). The battery fire at the storage facility led to a shelter-in-place advisory for the neighboring community, including to a local recreational vehicle camp. According to news reports, the fire smoldered for five hours as emergency responders are advised to not extinguish a battery fire, but allow it to burn itself out.

SB 1383. Given California's growing reliance on lithium-ion battery storage systems and recent safety issues at one of the state's largest lithium-ion battery storage facilities, SB 1383 (Hueso, Chapter 725, Statutes of 2022) expanded the CPUC Generating Asset Owner (GAO) operation and maintenance standards, contained in General Order (GO) 167-B to oversight of energy storage systems, not just electric generation facilities, including systems owned by third-parties. The CPUC's Safety and Enforcement Division (SED) implements GO 167-B by

conducting in-person audits at CPUC-jurisdictional electric generation and storage facilities (e.g. natural gas, combined cycle, solar, wind and geothermal) throughout the state. As part of the SED's responsibility to ensure compliance with GO 167-B, a team of auditors from the Electric Safety and Reliability Branch (ESRB) within SED regularly conduct comprehensive audits of power plants through performance data analysis, record review, field inspection, and plant staff interviews. SB 1383 expanded the CPUC's authority to audit and inspect energy storage facilities in order to help ensure safety and reliability, potentially reducing future safety incidents and related unexpected loss of energy capacity on the electric system. As part of the safety oversight, facilities are required to comply with existing laws and statutes, including those related to ensuring protection of life and limb.

Need for this bill? Following the September fire incident, local residents and other community stakeholders expressed concerns about the safety and potential risks of battery energy storage facilities, including the potential for toxic emissions affecting local residents. A town hall meeting to discuss these concerns has been in the works, but has been delayed due to the recent and repeated winter storms affecting the region. Existing statutory requirements (Labor Code §§142.3 and 6401, among others), and related regulations (California Code of Regulations DIR Subchapter 7 *General Industry Safety Orders*, including §3220), generally, require employers to provide a safe environment for workers, which includes emergency action plans and evacuation procedures and plans as it relates to fires and other emergency events. As such, employers who operate battery energy storage facilities are subject to the Cal/OSHA requirements, though there are not specific requirements for these facilities as there may be with some high risk facilities, such as refineries. Nonetheless, the author wishes to have the statute explicitly require battery energy storage facilities to have emergency response and evacuation plans.

Technical amendments needed. **The author and committee may wish to adopt amendments to clarify that the requirements proposed by this bill are in adherence of existing Labor Code and related regulations regarding worker safety, including requirements related to emergency action plans and evacuation procedures that apply to the premise of the facility. Additional amendments will move this requirement to the Public Utilities Code §761.3 which provides for an inspection and enforcement regime administered by the CPUC.**

Prior/Related Legislation

SB 1383 (Hueso, Chapter 725, Statutes of 2022) expanded the CPUC's safety oversight of electric generating facilities to encompass energy storage facilities.

AB 2514 (Skinner, Chapter 469, Statutes of 2010) required the CPUC to determine appropriate targets for load serving entities to procure energy storage systems.

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

SUPPORT:

None received

OPPOSITION:

None received

ARGUMENTS IN SUPPORT: According to the author:

This September, California saw record temperatures putting immense strain on our state's electrical grid. We were able to avoid blackouts in part due to our investments of 3,500 megawatts of clean energy battery storage. Increasing the state's battery storage is essential to reaching our clean energy goals, but we also have to ensure that these facilities have safety systems in place to ensure the safety of workers and surrounding communities.

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