Date of Hearing: July 16, 2025

ASSEMBLY COMMITTEE ON LOCAL GOVERNMENT
Juan Carrillo, Chair
SB 283 (Laird) – As Amended June 27, 2025

SENATE VOTE: 38-0

SUBJECT: Energy storage systems

SUMMARY: Enacts the Clean Energy Safety Act of 2025 and requires energy storage systems authorized by the California Energy Commission (CEC) or a local jurisdiction to comply with new fire safety standards and inspection requirements. Specifically, **this bill**:

1) Requires the California Building Standards Commission (CBSC) and the Office of the State Fire Marshall (OSFM) to adopt provisions that are at least as protective as the most recently published edition of the National Fire Protection Association (NFPA) 855, Standard for the Installation of Stationary Energy Storage Systems (NFPA 855), in the next update of the California Building Standards Code adopted after July 1, 2026.

2) Defines the following:

   a) "NFPA 855" means the National Fire Protection Association 855, Standard for the Installation of Stationary Energy Storage Systems. The applicable edition of NFPA 855 is the 2023 edition, and any subsequent update to the 2023 edition, even if that subsequent update has not yet been incorporated into the California Building Standards Code. If there is a conflict between a provision of NFPA 855 and a provision of the California Building Standards Code (Title 24 of the California Code of Regulations) or any other regulation adopted by a state agency, the more protective provision shall apply.

   b) "Energy storage system" means a stationary system consisting of one or more devices, assembled together, capable of storing 10 megawatthours (MWh) or more of energy in order to supply electrical energy at a future time.

3) Prohibits the CEC or a local jurisdiction from certifying or approving an energy storage system from an application submitted after January 1, 2026, unless both of the following requirements are satisfied:

   a) The energy storage system is constructed, installed, commissioned, operated, maintained, and decommissioned to comply with NFPA 855. A manufacturer or energy storage system owner may voluntarily design the energy storage system to comply with a more recent edition of NFPA 855 before its operative date, if compliance with all applicable listing and testing requirements is demonstrated; and

   b) After installation is complete, but before commencing operations, the energy storage system must be inspected by the local fire department responsible for fire suppression where the system is located or by a representative or designee of the State Fire Marshal. The applicant shall bear the cost of the inspection. The inspector must be provided a copy of documentation of the initial fire official consultation submitted with the application.

4) Requires an application submitted to the CEC or local jurisdiction for an energy storage system to include the applicant's certification that:

   a) The energy storage system is designed to comply with NFPA 855; and,

   b) At least 30 days before submitting the application, the applicant met and conferred with the local fire department responsible for fire suppression in the area where the energy storage system is proposed and discussed the energy storage system design, sought input on mitigating potential fire and life safety concerns, and sought input on the content of emergency action plans. The application shall include documentation of this consultation, including the date, the names and titles of participants, a summary of matters discussed, and a description of how the application addresses those matters.

5) Authorizes a state or local entity to approve the construction of an energy storage system only if it is located in a dedicated-use, noncombustible building or is an outdoor installation, as defined:

   a) A "dedicated-use building" must comply with all of the following:

      i) The building must only be used for energy storage system, electrical energy generation, and other electrical grid-related operations;

      ii) Occupants in the rooms and areas containing an energy storage system are limited to personnel that operate, maintain, service, test, and repair the energy storage system and other energy systems;

      iii) No other occupancy types shall be permitted in the building;

      iv) Administrative and support personnel shall be permitted in areas within the buildings that do not contain an energy storage system, provided that:

         A) The areas do not occupy more than 10 percent of the building area of the story in which they are located; and,

         B) A means of egress is provided from the incidental use areas to the public way that does not require occupants to traverse through areas containing an energy storage system or other energy system equipment.

   b) A "noncombustible building" is a building in which the building elements are of noncombustible materials, except as permitted by the California Building Standards Code.

   c) "Outdoor installation" means an outdoor energy storage system installation regulated by the California Fire Code, including a requirement that energy storage systems located outdoors must be separated by a minimum of 10 feet from exposure hazards such as buildings and public ways.

6) Provides that this bill does not prevent a city or county from adopting and enforcing laws consistent with or more protective than this bill.

7) Includes findings that changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities.

8) Imposes a state-mandated local program by imposing additional duties on local officers.

9) Provides that with regard to certain mandates no reimbursement is required by this bill because a local agency has the authority to levy fees, charges, or assessments. Provides that, with regard to any other mandates, if the Commission on State Mandates determines that this bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions.

EXISTING LAW:

1) Authorizes a city or county to make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws. (California Constitution, Article XI § 7)

2) Requires each city or county to adopt a general plan for the physical development of the city or county and authorizes the adoption and administration of zoning laws, ordinances, rules, and regulations by cities and counties. (Government Code § 65300 *et seq.*)

3) Provides that the California Environmental Quality Act (CEQA) applies to discretionary projects, but not to ministerial projects, proposed to be carried out or approved by public agencies. (Public Resources Code § 210800)

4) Authorizes the CEC to certify eligible renewable energy facilities and energy storage systems. (Public Resources Code § 25545 *et seq.*)

5) Establishes the CBSC within the Government Operations Agency with duties that include adopting building standards codified in the California Building Standards Code every three years. (Health and Safety Code § 18901 *et seq.*)

6) Requires the OSFM, before the next triennial edition of the California Building Standards Code adopted after January 1, 2025, to propose to the CBSC updates to the fire standards relating to requirements for lithium-based battery systems. (Health and Safety Code § 13110.3)

7) Establishes the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations and requires the CPUC, as part of the Public Utilities Act, to implement and enforce standards for the maintenance and operation of facilities for generation and storage of electricity owned by an electrical corporation or located in the state to ensure their reliable operation. (California Constitution, Article XII and Public Utilities Code § 761.3)

8) Requires each battery energy storage facility located in the state to have an emergency response plan and emergency action plan that covers the premises of that facility. (Public Utilities Code § 761.3(g))

FISCAL EFFECT: According to the Senate Appropriations Committee:

1) By imposing additional duties on local officers, this bill would create a state-mandated local program. To the extent the Commission on State Mandates determines that the provisions of this bill create a new program or impose a higher level of service on local agencies, local agencies could claim reimbursement of those costs. The magnitude is unknown, but potentially in excess of $50,000 annually (General Fund).

2) The CPUC and CEC do not anticipate any additional costs as a result of the provisions of this bill as they already consider state and local standards in their respective processes.

3) Unknown but likely minor costs for the OSFM to implement the provisions of this bill.

COMMENTS:

1) **California's Clean Energy Goals**. AB 1279 (Muratsuchi), Chapter 337, Statutes of 2022, codified into law the state's goals to achieve net zero greenhouse gas (GHG) emissions and a reduction of statewide anthropogenic GHGs to at least 85% below 1990 levels by 2045. This parallels the state's goal of 100% clean electricity by 2045, as established by SB 100 (De León), Chapter 312, Statutes of 2018. Actualizing these goals will require a significant buildout of renewable energy infrastructure.

2) **Battery Energy Storage Systems.** Energy storage technology helps balance the growing supply of intermittent renewable energy, such as solar and wind energy, with energy demand by storing excess energy when production is high and demand is low, and discharging energy when renewable generation is limited or unavailable. In particular, battery energy storage systems (BESS) powered by large lithium-ion batteries are rapidly increasing in prevalence in California. According to the CPUC, statewide BESS capacity has surged from approximately 500 megawatts (MW) in 2019 to over 13,300 MW in 2024. California's current installed battery storage capacity is over 20% of California's peak demand. The state is projected to need 52,000 MW of BESS by 2045.

3) **BESS Permitting.** A BESS may be permitted through either the local government or through the CEC, provided the project meets certain requirements.

    a) **Local Government Permitting.** The California Constitution allows cities and counties to "make and enforce within its limits, all local, police, sanitary and other ordinances and regulations not in conflict with general laws." It is from this fundamental power (commonly called the police power) that cities and counties derive their authority to regulate behavior to preserve the health, safety, and welfare of the public—including land use authority. Cities and counties use their police powers to spell out, through general plans and zoning ordinances, the types of developments that can be built in their jurisdiction, where that development can occur, and what conditions must be satisfied for a development to be approved.

    Local governments have broad authority to define the specific approval processes needed to satisfy these considerations. Most large projects require "discretionary" approvals from local governments. This process requires hearings by the local planning commission and

public notice and may require additional approvals. Unlike projects that are subject only to ministerial review, projects that require discretionary approval are subject to CEQA.

b) **CEC AB 205 Process.** AB 205 (Committee on Budget), Chapter 61, Statutes of 2022, granted authority to the CEC to oversee the permitting of clean and renewable energy facilities, including energy storage systems capable of storing 200 MWh or more. Known as the Opt-In Certification Program, this permitting process offers developers an optional pathway to submit project applications until June 30, 2029. Under AB 205, the CEC is the lead CEQA agency for environmental review and permitting for any facility that elects to opt into the CEC's jurisdiction.

The Opt-In program requires the CEC to:

i) Complete in 270 days an EIR under CEQA;

ii) Certify compliance with requirements for community benefits agreement, project labor agreements, and economic benefits; and,

iii) Ensure consistency with all laws, ordinances, regulations, and standards under the Warren-Alquist Act.

The CEC has eight pending project applications under this program. The Darden Clean Energy Project was approved in June 2025 as the first facility to be certified through the AB 205 process.

4) **Fire Risk of Lithium Batteries.** Lithium-ion batteries offer several advantages over other types of batteries: they are comparatively low maintenance, have high energy densities, and do not require scheduled cycling to maintain their battery life. However, they come with the risk of "thermal runaway," which is a phenomenon in which the battery enters an uncontrollable, self-heating state. Thermal runaway can result in extremely high temperatures, explosion, smoke, and fire. Internal failures (such as manufacturing defects, the use of lower-quality materials, or degradation over time) and external conditions (such as overcharging, water ingress, physical damage to the system, or excessive external heat) can result in a thermal runaway. Lithium-ion batteries stored near or next to another battery or batteries can set off a chain reaction, making an already tough fire to fight even worse. When they reach thermal runaway, lithium-ion battery fires can burn for hours or days.

5) **Safety Incidents at BESS.** The CPUC has identified at least 10 incidents related to BESS facilities in recent years. The most significant among those include four distinct and recent safety incidents at two 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.

a) On September 4, 2021, a safety incident at the Moss Landing Phase I (300 MW) lithium-ion battery energy system owned by Vistra Corporation prompted an immediate shutoff of the facility. 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.

b) 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 assessed the Phase II incident and incorporate any learnings. Both Vistra-owned facilities have since been brought back on-line.

c) 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.

d) Most recently, on January 16, 2025, a large fire broke out at Vistra's Moss Landing BESS facility in California, leading to the evacuation of around 1,200 residents. The fire was contained to one building housing LG Energy Solution lithium-ion batteries. All battery facilities at the site are currently offline, and the cause of the fire is under investigation. Debris removal and soil testing are ongoing, with some heavy metals detected.

These events, particularly major fires like the one at Vistra's Moss Landing facility in January 2025, have resulted in community evacuations, highway closures, air quality monitoring for hazardous materials like hydrogen fluoride, and concerns about potential environmental contamination.

6) **California Fire Code.** The California Building Standards Code (Title 24 of the California Code of Regulations) contains building standards and regulations as adopted by the CBSC. These standards include, among other requirements, structural standards for building safety (the Building Code), fire safety standards (the Fire Code), energy efficiency standards (the Energy Code), and standards for green buildings (CalGreen). The CBSC updates the Building Standards Code on a three-year cycle—the CBSC published new standards that went into effect on January 1, 2023. Once adopted at the state level, cities and counties in California then enact an ordinance to adopt the codes. Improvements to existing buildings must comply with the current building codes, and may trigger additional code upgrades for other parts of the building.

   Chapter 12 of the Fire Code provides state regulations for energy systems. It sets requirements for manufacturing standards, installation (such as spacing between units), capacity limits for residential installations, fire detection, and impact protection.

7) **NFPA 855: Standards for the Installation of Energy Storage Systems.** NFPA is a private, non-profit organization that develops safety standards that state and local officials can use as guidance to develop codes. NFPA 855 provides guidelines for the design, construction, installation, maintenance, and operation of energy storage systems, including lithium-ion batteries. NFPA 855 includes standards for siting, fire detection and suppression, ventilation, containment, and emergency planning, including safety strategies related to thermal runaway

and explosions associated with lithium-ion batteries. The current version of NFPA 855 dates to 2023, but an updated standard is expected to be released later this year.

8) **SB 1383 of 2022.** In response to safety incidents at Moss Landing in 2021, the Legislature passed SB 1838 (Hueso), Chapter 725, Statutes of 2022. The CPUC's Safety and Enforcement Division (SED) regularly conducts comprehensive audits of power plants through performance data analysis, record review, field inspection, and plant staff interviews to ensure compliance with its Generating Asset Owner (GAO) operation and maintenance standards. 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 expanded the CPUC GAO standards to oversight of energy storage systems, not just electric generation facilities, including systems owned by third-parties. Under SB 1383, the CPUC can 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.

9) **SB 38 of 2023.** SB 38 (Laird), Chapter 377, Statutes of 2023, further expanded on the requirements of SB 1383 to explicitly require each battery energy storage facility located in the state, and subject to the CPUC safety requirements, to have an emergency response plan and emergency action plan that covers the premises of the battery energy storage facility. In March 2025, the CPUC adopted changes to its GAO operation and maintenance standards to comply with SB 1383 and SB 38.

10) **Bill Summary.** This bill requires the next update of the California Building Standards Code to contain provisions at least as protective as NFPA 855. This bill requires the applicant for an energy storage system to certify that the energy storage system is designed to comply with NFPA 855 and that they have met and conferred with the local fire department. In order to certify an energy storage system, the local jurisdiction or CEC that receives the application must confirm that the energy storage system complies with NFPA 855 and has been inspected by the local fire department.

    This bill is sponsored by the California Professional Firefighters, the California State Association of Electrical Workers, and the Coalition of California Utility Employees.

11) **Author's Statement**. According to the author, "The fire at the Moss Landing battery storage was a tragedy for the local community and region when it prompted evacuations and raised serious concerns within the community about toxic smoke, heavy metals, and ash. As California expands battery storage to meet its clean energy goals, we must prioritize safety at every step and ensure that new battery storage facilities do not move ahead without being safe for first responders and the people who live and work around them. Fortunately, advancements in battery storage technology since the approval of the Moss Landing facility have provided critical insights into safer battery compositions and configurations.

    "Senate Bill 283 provides a crucial tool and safeguard to ensure battery storage facilities are built and maintained with the highest level of safety and oversight by our local fire officials.SB 283 requires adoption of the National Fire Protection Association (NFPA) 855 standards, which are widely recognized as the strongest standards for safety and hazard mitigation of battery storage facilities, and requires fire authority inspection and consultation at various stages before a facility goes online. The bill also prohibits the development of battery storage facilities in combustible buildings that were not constructed for the dedicated

use of housing battery storage. SB 283 ensures that future battery storage facilities adhere to the highest fire safety standards, protecting first responders, local communities, and the integrity of our renewable energy transition."

12) **Policy Considerations.** The Committee may wish to consider the following:

a) Adding a definition of "local jurisdiction" to clarify the entities to which the bill applies.

b) Clarifying that the bill does not prevent a city and county from adopting and enforcing laws consistent with or more protective than this bill.

13) **Committee Amendments.** The Committee may wish to consider the following amendments:

a) **Section 8500. (c) "Local jurisdiction" means a city, county, or city and county.**

b) Section 8504. This chapter does not prevent a ~~city or county~~ **local jurisdiction** from adopting and enforcing laws consistent with or more protective than this chapter.

14) **Related Legislation.** AB 303 (Addis) prohibits permitting of battery energy storage facilities of specified sizes within specified distances to sensitive areas and removes battery storage facilities from the CEC AB 205 opt-in permitting process. This bill was held in the Assembly Utilities and Energy Committee.

15) **Arguments in Support.** The California Professional Firefighters, co-sponsor of this bill, state, "There has been a recent spate of incidents involving lithium-ion batteries and energy storage systems (ESS). These incidents have been increasing in frequency and severity and have resulted in widespread community impacts, severe toxic exposures, and severe injuries to firefighters as they respond to try and mitigate the damage. While these facilities represent a step forward in providing clean energy for our state, the still-developing nature of this technology has resulted in dangerous consequences for both the surrounding communities and the emergency responders working to keep them safe…

"Firefighting is already one of the most dangerous and demanding jobs imaginable. Those who answer the call to serve their communities put their mental and physical health on the line every time they respond to an incident, risking a known range of injuries and illnesses to serve the public. Firefighters carry a 14% higher risk of dying of cancer than the general population…

"While firefighters stand ready to respond to and attempt to contain fires involving lithium-ion batteries, more can be done to ensure that we are collectively working to mitigate risks to firefighter health and safety. Recent incidents have shown that health impacts can be catastrophic for firefighters exposed on these fires. While that direct challenge is in front of us, it is also highly likely that long term health complications can come from repeated exposure to these incidents.

"Currently, BESS facilities can be permitted locally and there are no coherent guidelines for fire safety to mitigate the risks posed [by] a fire of any scale. Additionally, there are no requirements for coordination with local fire departments or routine safety inspections, increasing the likelihood of faults or failures going unnoticed until they result in disaster.

"SB 283 recognizes the role that BESS facilities play in adapting our energy grid and integrating new solutions, while ensuring that these facilities are held to strict safety standards. Not enough is known about the long-term impacts of lithium-ion battery fires on both the environment and human health to allow for these facilities to be constructed without strict guidelines to minimize the risks. This measure will protect the health and safety of the firefighters who put themselves in harms' way to respond to these emergencies, as well as the surrounding communities that they serve."

16) **Arguments in Opposition.** None on file.

REGISTERED SUPPORT / OPPOSITION:

Support

California Professional Firefighters (co-sponsor)
California State Association of Electrical Workers (co-sponsor)
Coalition of California Utility Employees (co-sponsor)
American Clean Power – California
Ava Community Energy Authority
California Community Choice Association
California Energy Storage Alliance
California State Association of Counties (CSAC) (previous version)
City of Goleta
Climate Action California
Comite Civico Del Valle, INC
County of Monterey (previous version)
County of Orange
County of Santa Barbara
County of Santa Cruz (previous version)
Democrats of Rossmoor (previous version)
District Council 16, International Union of Painters and Allied Trades (previous version)
District Council 36, International Union of Painters and Allied Trades (previous version)
Fluence Energy, INC.
Independent Energy Producers Association (previous version)
League of California Cities (previous version)
Orange County Fire Authority (previous version)
Pacific Gas and Electric Company (previous version)
Rural County Representatives of California (RCRC) (previous version)
San Diego Community Power
San Diego Gas and Electric Company (previous version)
San Diego Regional Chamber of Commerce (previous version)
San Luis Obispo County Board of Supervisors (previous version)
Santa Cruz Climate Action Network (SCCAN)
Santa Cruz County Board of Supervisors (previous version)
Sierra Club (previous version)
Southern California Edison (previous version)
Tri County Chamber Alliance (previous version)

Opposition

None

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