Date of Hearing: April 22, 2026

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Cottie Petrie-Norris, Chair
AB 2612 (Schultz) – As Amended April 16, 2026

SUBJECT: Building standards: qualified plug-in photovoltaic systems

SUMMARY: Permits the California Building Standards Commission (CBSC) to adopt, approve, codify, and publish building energy standards for building electrical circuit features to enable a qualified plug-in photovoltaic (PV) system to function as an energy source within the electrical circuit of single-family residential dwelling, multiunit residential dwelling, or nonresidential development. Directs the CBSC to commence this update with the first triennial edition of the California Building Standards Code (Title 24 of the California Code of Regulations), adopted after June 1, 2031. Specifically, **this bill**:

1) Makes a number of findings, declarations, and legislative intents regarding the accessibility of onsite solar systems.

2) Clarifies that the building energy standards are for dwellings or development that is constructed after the adoption of the first triennial edition of the California Building Standards Code (Title 24 of the California Code of Regulations) that is adopted after June 1, 2031.

3) Requires the Department of Housing and Community Development (HCD) to research, develop, and propose for adoption building standards for a qualified plug-in PV system to function as an energy source within the electrical circuit of a single-family residential dwelling, multiunit residential dwelling, or nonresidential development, that is constructed after the adoption of the first triennial edition of the California Building Standards Code (Title 24 of the California Code of Regulations) that is adopted after June 1, 2031.

4) Requires the CBSC and HCD to do all of the following when developing the new building standards:

    a. Consult with interested parties, including, but not limited to, the California Energy Commission (CEC), electrical safety standard setting bodies, PV and battery equipment manufacturers, commercial building and apartment owners, and the building industry.
    b. Invite the participation of the public at large in the development of those building energy standards through open consensus-based processes.
    c. Propose new construction building electrical standards that allow a qualified plug-in PV system with appropriate grid protective functions and rapid shutdown features to function as an energy source for a building's electrical circuit by connecting to a standard alternating current electrical outlet.
    d. Propose building circuit design features to allow a qualified plug-in PV system to provide limited backup power funding during outages.

5) Defines "qualified plug-in photovoltaic system" as a device that meets the following conditions:

a. It is designed to be connected to a building's electrical system through a standard electrical outlet.
b. It is intended to offset the customer's onsite electricity consumption.
c. It meets the standards of the most recent version of the National Electrical Code, as published by the National Fire Protection Association, and of the California Electrical Code, as specified.
d. It is certified as a plug-in PV system by the Underwriters Laboratories as specified.

EXISTING LAW:

1) Establishes the CBSC within the Government Operations Agency and requires CBSC to receive proposed building standards from state agencies for consideration on a 3-year code adoption cycle, with procedures that ensure adequate public participation, notice, and justification, technical review, and opportunities for advisory input before adoption by CBSC. (Health and Safety Code Section §§ 18920, 18942)

2) Requires any building standard adopted or proposed by state agencies to be submitted to, and approved or adopted by, the CBSC prior to codification. Requires building standards submitted for approval to include an analysis written by the agency proposing the standards, which justifies the approval using specified criteria (Health and Safety Code § 18930)

3) Prohibits any building standards affecting residential units from being considered, approved or adopted by CBSC from October 1, 2025, to June 1, 2031, with some exceptions for emergencies and other specified conditions. (Health and Safety Code § 18929.1)

4) Requires the CEC to regulate lighting, insulation, climate, and other building design and construction standards that increase efficiency in the use of energy and water; energy and water conservation design standards; and standards for minimum levels of operating efficiency for energy- and water-efficient appliances. Local governments may not issue permits for construction and installation projects that fail to comply with the CEC's certified efficiency standards. (Public Resources Code §§ 25402, 25402.1)

FISCAL EFFECT: Unknown. This bill is keyed fiscal and will be referred to the Assembly Committee on Appropriations for its review.

BACKGROUND:

What is plug-in solar? Plug-in solar, also called balcony solar or portable solar, refers to a solar power system that is generally not permanently mounted to a customer's roof or the ground, and can be plugged into a conventional power outlet rather than being permanently wired to the electrical system of the building.[1] Plug-in solar energy systems are currently available for retail sale in some markets, including via Amazon and from Bright Savers, a nonprofit focused on making plug-in solar more accessible.[2] These units are referred to as "balcony solar," given their use by residents living in high-rise multi-housing units in throughout Europe, and are especially popular in Germany.[3] Proponents for plug-in solar systems contend that these systems can be

[1] https://permitpower.org/wp-content/uploads/sites/35/2026/01/Safety-of-Plug-in-Solar-fact-sheet.pdf
[2] https://www.brightsaver.org/about
[3] https://grist.org/buildings/how-germany-outfitted-half-a-million-balconies-with-solar-panels/

purchased by a resident and plugged into a standard electrical outlet without involvement from the utility, an electrician, or local building code officials. This is counter to the treatment of rooftop and ground-mounted solar energy systems, which are installed with code compliance, hard-wired to the building's electrical system, and checked for safety. Instead, plug-in solar systems consist of two or more PV (solar) panels equipped with a microinverter, a cord that can plug into a standard electrical outlet (110/120V), and a tripod or mounting hardware (such as to place on a balcony). Some systems may also come with a battery. The microinverter converts the direct current (DC) electricity generated by the solar panels into alternating current (AC) electricity and feeds that generated AC back into the home's existing branch circuit. That electricity is then used by appliances on the same circuit or elsewhere in the home, reducing the amount of power drawn from the electric distribution grid. A single solar panel at peak output could generate enough electricity to power a standard refrigerator, computer, and some lights.

Plug-in solar safety risks – In a late 2025 white paper, "Interactions of Plug-in Photovoltaic with Protection of Existing Power Systems,"[4] by Underwriters Laboratories (UL) Solutions, outlined safety concerns regarding plug-in solar. UL notes the risks of overload current produced from these plug-in systems that can pose a risk of fire or shock through damaged conductors, insulation, and/or equipment connected to the circuit. The white paper contemplated various solutions to address the overcurrent risk, including a dedicated circuit with unique plug-in PV receptacle (therefore, not a standard electrical wall outlet). In January 2026, UL Solutions debuted a "Testing and Certification Framework for Safer Plug-In Solar Across the United States."[5] The framework provides a pathway for manufacturers to certify and test their plug-in solar systems using the UL 3700, which defines construction, performance, and labeling criteria tailored to plug-in solar systems. These include considerations such as requiring a qualified professional, generally an electrician, to do some additional work to protect buildings' wiring systems from potential shock. While the considerations from UL, are rooted in safety, they run counter to the key benefits of plug-in solar – namely, it being a turnkey, out of the box system, not needing special equipment nor qualified professionals to install.

Plug-in solar has been successful in European markets, particularly in Germany, despite these safety concerns. Indeed, Germany is often cited as a model for the use of plug-in solar, but there are different electrical systems and policies that make this comparison incomplete. For example, German outlets are recessed into the wall, which helps protect users from accidental contact with plug prongs that may still be energized while being inserted or removed, posing a shock hazard. Germany also initially authorized a 600W limit, which was subsequently raised to 800W to align with the lower limit of regulation under the European Network Code.[6] In the U.S., there has yet to be wide-spread adoption of plug-in solar systems. Utah is the only state to adopt legislation authorizing the use of plug-in solar without utility approval.[7] Roughly half of the states in the country had or have pending legislation modeled after Utah's law. In some states, the efforts for similar legislation have been stymied due to safety concerns, including Washington[8] and

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[4] UL Solutions, White Paper: "Interactions of Plug-in PV with Protection of Existing Power Systems," 2025. https://www.ul.com/insights/safety-considerations-plug-photovoltaic-pipv-systems
[5] https://www.ul.com/news/ul-solutions-debuts-testing-and-certification-framework-safer-plug-solar-across-united-states
[6] Gerber et al., Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States. Energies. 2025; 18(8):2132. https://doi.org/10.3390/en18082132
[7] House Bill 340: https://le.utah.gov/~2025/bills/static/HB0340.html
[8] SB 6050: https://app.leg.wa.gov/billsummary/?BillNumber=6050&Chamber=Senate&Year=2025

Arizona.[9] However, other states such as Virginia[10] and Maine,[11] have recently passed legislation that is largely similar to Utah's. And while Utah's effort is seeking to enable the adoption of plug-in solar equipment, the law does require devices to meet full system-level certification from a nationally recognized testing organization (like UL). To the committee's knowledge, no commercially available plug-in solar system has achieved that certification to date;[12] meaning, the law effectively freezes adoption of these kits until manufacturers respond to the newly created legal market.

California Building Codes – California's Building Standards Code (California Code of Regulations, Title 24) has 12 parts. Each covers a different discipline, such as mechanical, plumbing, electrical, energy, or fire, and each part has both a proposing agency (which drafts standards) and an adopting agency (which formally and lawfully approves them). Addressing how plug-in solar products interact with electrical circuits would fall under Part 3 – the California Electrical Code. Under this section and specifically for residential electrical standards, HCD is the proposing agency and CBSC is the adopting agency. Other agencies, such as the CEC, may participate in an advisory capacity. Recent legislation delayed any adoption of new building codes (with some exceptions) until June 1, 2031, for residential units.[13] Development of relevant building codes for nonresidential units remains ongoing. For example, the CEC adopts new building energy efficiency standards every three years, and standards become effective one year after their adoption. The 2025 Energy Codes went into effect January 1, 2026, and the CEC is already in development on their 2028 Energy Codes.

COMMENTS:

1) *Author's Statement.* According to the author, "AB 2612 (Schultz) aims to expand access to affordable solar energy for Californians who have historically been excluded from rooftop solar benefits — particularly renters, apartment dwellers, and low-income households. The bill directs the California Building Standards Commission to develop and adopt mandatory building standards that would allow portable, plug-in solar generation devices (small solar panels that connect directly to a standard electrical outlet) to safely function as an energy source within residential and nonresidential electrical systems. By establishing safety certifications and circuit standards for these devices, the bill seeks to give renters and multifamily residents a practical, low-cost way to generate their own clean energy onsite, reduce their electricity bills, and improve energy resilience — without requiring the permanent rooftop solar installations that have long been out of reach for non-homeowners."

2) *Purpose of Bill.* AB 2612 allows new building electrical codes to be established for plug-in solar systems to safely function as an energy source by ensuring compatibility with electrical circuits. The goal of this bill is to ensure that plug-in solar systems are able to safely connect to a building's electrical system, providing the user of the product with the benefits of a distributed energy resource.

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[9] SB 2843: https://legiscan.com/AZ/bill/HB2843/2026
[10] HB 395 and SB 250, https://www.utilitydive.com/news/virginia-legislature-passes-balcony-solar-bill/814582/
[11] LD 1730
[12] Individual components have, but not the full kit as the law requires; https://www.ul.com/news/ul-solutions-debuts-testing-and-certification-framework-safer-plug-solar-across-united-states
[13] HSC § 18929.1

However, as detailed above, there are a number of safety concerns surrounding plug-in solar products in the U.S. Through the new building electrical codes, this bill would require newly constructed buildings' electrical circuits to be compatible with "qualified" plug-in solar systems. As defined in the bill, qualified systems meet a number of safety requirements on the product side, including meeting standards established in the National Electrical Code and certified under the UL 3700 (or similar) requirements. While not explicitly addressing the safety of plug-in solar products, this bill directs the appropriate entities to consider building codes appropriate for this technology, so consumers can more safely use plug-in solar products.

3) *Future protections?* The focus of this bill is on updates to building codes for the electrical circuit changes needed for safe plug-in solar use. If the new codes are established, they will apply only to new construction. This means that there will be plenty of older buildings without adequate protection for plug-in solar products. Moreover, the building standards called for in this bill cannot be adopted until after June 1, 2031, as a result of recently passed legislation that prohibited any new residential building standards codes from being adopted.[14] Because plug-in solar products are already commercially available and the technology is rapidly evolving, this bill is unlikely to meaningfully address the safety concerns surrounding these products in the near term. It is plausible that by 2031, when the requirements in this bill would go into effect, these plug-in solar products will be mainstream (like in Germany). Therefore, additional regulations may be necessary to ensure these products can be used safely in California. If plug-in solar products gain traction here, the technology itself should be required to independently adopt safety standards like those outlined by UL,[15] rather than tying all safety considerations to the buildings hosting the technology. Because this legislation does not impose immediate safety requirements, the Legislature should consider whether and how plug-in solar developers should bear responsibility for product safety in the interim. Relying on any future building standards to address this technology risks being reactive rather than preventative.

4) *Double referred.* This bill is double referred. It was first heard in the Assembly Committee on Housing and Community Development on April 15, 2026, and passed with minor amendments (12-0).

5) *Related Legislation.*

AB 2200 (Hart) exempts greenhouse facilities from the California Energy Code's double-paned glazing requirement, allowing single-paned windows paired with thermal curtains or equivalent technologies to qualify as code-compliant. Additionally, directs the Building Standards Commission to codify permanent standards for this alternative approach in the next triennial code update. Status: passed this committee on April 8th (17-0) and is pending hearing in the Assembly Committee on Appropriations.

AB 2458 (Bennet) requires that appliances that are rented, leased, imported, or distributed meet efficiency standards set by the CEC and prohibits the sale or offering for sale of appliances in California that do not comply with applicable standards and are not

[14] HSC § 18929.1
[15] UL 3700

certified to the CEC. Status: passed this committee on April 8th (17-0) and is pending hearing in the Assembly Committee on Appropriations.

SB 868 (Wiener) exempts portable solar devices from state law and electric utility rules regarding requirements to connect to the electrical distribution system, known as interconnection. The bill authorizes electrical corporations or local publicly owned electric utilities to require customers to notify them via an online registration form. Status: passed the Senate Committee on Energy, Utilities, and Communications on March 17th (14-0) and is set for hearing in the Senate Committee on Appropriations on April 20th.

6) *Prior Legislation.*

AB 130 (Assembly Committee on Budget), among its many provisions, prohibits any building standards affecting residential units from being considered, approved, or adopted from October 1, 2025, to June 1, 2031. Status: Chapter 22, Statutes of 2025.

AB 1738 (Boerner) requires the Department of Housing and Community Development (HCD) to research and develop building standards for electric vehicle charging stations when retrofits are completed in existing residential structures and gives HCD the option of proposing those standards for adoption. Status: Chapter 687, Statutes of 2022.

REGISTERED SUPPORT / OPPOSITION:

Support

Advanced Energy United
California Apartment Association
Enphase Energy
Pacific Gas and Electric Company and its Affiliated Entities

Support If Amended

Edison International and Affiliates, Including Southern California Edison

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