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

**Senator Ben Hueso, Chair
2021 - 2022 Regular**

Bill No:	AB 1078	Hearing Date:	5/31/2022
Author:	Patterson		
Version:	2/18/2021	Introduced	
Urgency:	No	Fiscal:	Yes
Consultant:	Nidia Bautista		

SUBJECT: Energy: building standards: photovoltaic requirements

DIGEST: This bill extends by one year, from January 1, 2023 to January 1, 2024, an exemption from the state’s requirement for solar photovoltaic (PV) systems for residential construction intended to “repair, restore, or replace” a residential building that was damaged or destroyed as a result of a disaster in an area in which the governor has declared a state of emergency, and extends eligibility to homes affected in disasters in 2020.

ANALYSIS:

Existing law:

- 1) Authorizes the State Energy Resources Conservation and Development Commission (also known as the California Energy Commission (CEC)) to prescribe, by regulation, energy efficiency standards, including appliance efficiency standards. Under this authority, the CEC has established regulations requiring solar-ready buildings and for the installation of PV systems meeting certain requirements for low-rise residential buildings built on or after January 1, 2020. (Public Resources Code §25402)
- 2) Specifies, until January 1, 2023, that residential construction intended to repair, restore, or replace a residential building damaged or destroyed as a result of a disaster in an area in which a state of emergency has been proclaimed by the governor, before January 1, 2020, is required to comply with the PV requirements, if any, that were in effect at the time the damaged or destroyed residential building was originally constructed and is not required to comply with any additional or conflicting PV requirements in effect at the time of repair, restoration, or replacement. Provides that this provision applies if certain requirements are met with respect to the owner’s income and insurance coverage and the location and square footage of the construction. (Public Resources Code §25402.13)

- 3) Requires electric utilities to procure 60 percent of their retail sales of electricity from renewable energy by 2030. This is known as the Renewable Portfolio Standard (RPS). (Public Utilities Code §399.11 et seq.)
- 4) Requires every electric utility (other than a local public owned utilities (POU) that serves more than 750,000 customers and that also conveys water to its customers) to offer net-energy metering (NEM) to eligible customer-generators, upon request, on a first-come-first-served basis until the total rated generating capacity used by eligible customer-generators exceeds five percent of the electric utility's aggregate customer peak demand. (Public Utilities Code §2827)
- 5) Directs the California Public Utilities Commission (CPUC) to develop a standard tariff or contract, known as the "successor tariff," for eligible customer-generators with a renewable electrical generation facility no later than December 31, 2015. Requires, for each large electrical corporation, using the successor tariff, to continue to offer NEM to its customers on July 1, 2017, or upon reaching the five-percent NEM program limit, whichever is earlier. (Public Utilities Code §2827.1)

This bill:

- 1) Extends, by one year, the application of the exemption from the CEC's requirements for the installation of PV systems until January 1, 2024, and would extend the application to emergencies declared by the governor in 2020 calendar year.
- 2) Imposes a state-mandated local program, because a local agency would be required to determine whether those requirements are met.

Background

California's building energy efficiency standards. California's building energy efficiency standards are updated on an approximate every three years cycle. The CEC adopted the 2019 Building Energy Efficiency Standards, which went into effect on January 1, 2020. The new standards are the first in the nation to require solar PV systems for new building construction. The standards also include improved thermal building envelope standards (i.e., insulating the interior), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. For residential buildings, according to the CEC, the standards will result in about 53 percent less energy use than under the 2016 standards. The CEC further estimates that the new standards will reduce greenhouse gas (GHG)

emissions by 700,000 metric tons over three years. CEC's energy efficiency standards are adopted by the Building Standards Commission as part of the *California Building Standards Code*, which serves as the basis for building and construction in California. The CEC reports that the energy efficiency building standards have saved Californians billions of dollars since their first adoption (dating back to 1977), avoided the need for powerplants and transmission lines, and helped keep California's per-capita energy consumption flat.

Statute requires that CEC's standards must be "cost-effective." CEC estimates that based on a 30-year mortgage, the new standards will add about \$40 per month in costs and result in about \$80 per month in reduced energy costs. According to the CEC, on average, a solar system adds about \$9,500 to the cost of a new home and will result in a savings of \$19,000 in energy costs over 30 years. The up-front costs for solar have decreased over the past several years and many in the industry anticipate continued declines. More recently, costs for solar installations have seemed to inch upwards, with many sites reporting average installation costs between \$16,000 to \$27,000 before federal incentives. Nonetheless, there are many variables to the overall cost of solar installation, including the size of the panels. CEC established a few exemptions to the new solar requirement, including homes that are shaded by trees, hills, other structures. This may exclude a number of homes impacted by fires in wooded areas. Homeowners in areas with community solar programs are also exempt from the requirement. Additionally, reduced system size is permitted for low-rise residential buildings with two stories and for low-rise multifamily or single-family homes with three or more stories.

Net Energy Metering (NEM). The vast majority of solar customers are enrolled in NEM (NEM 1.0) or NEM Successor (NEM 2.0) tariffs, established under Public Utilities Code §§2827 and 2827.1, respectively. The NEM program supports onsite renewable energy (largely rooftop solar) installations designed to offset a portion, or all, of the customer's electrical energy usage. Under NEM, customers receive a bill credit (in dollars) based on the retail rate (including generation, transmission, and distribution rate components) for any excess generation (in kilowatt hours (kWh)) that is exported back to the grid. In periods when a customer's bill is negative (because the amount of energy the solar system exported to the grid exceeded the amount of energy consumed by the customer), the bill credits are carried forward up to one year, at which point customers may elect to receive net surplus compensation for any electricity produced in excess of on-site energy usage.

Solar system payback period likely affected. On August 27, 2020, the CPUC initiated Rulemaking (R. 20-08-020) to develop a successor to the NEM 2.0 tariff, as part of its commitment in a previous decision to review the current tariff pursuant to a requirement in statute. The CPUC noted the need to address grid

reliability shortfalls during net peak hours in the early evening when the sun is down and there's a greater reliance on fossil fuels to meet demand. CPUC further states that the current NEM program does not incentivize pairing storage systems with solar systems which would help with address the net peak hours. Customers without solar energy systems, who are more likely to be low-income, pay higher electricity rates. The CPUC estimates that low-income households pay \$67 to \$128 more per year due to the costs of NEM systems, while non-low-income households pay \$100 to \$234 more annually.

CPUC issues proposed decision. The CPUC released a proposed decision in December 2021, which proposes to revise the tariff to net billing customers for the electricity they export to the grid based on its value and charges net billing customers for the electricity they receive from the grid based on "high differential time-of-use tariffs" to incentivize the installation of energy storage systems. The proposal also adds a new "grid participation charge" based on the size of the solar system that is intended to require net billing customers to pay the same fixed costs of the electric grid as other customers. Finally, the proposal creates a "market transition credit" to help customers pay back the cost of a new solar plus energy storage system in about 10 years, which would phase out for new customers over four years. These proposed adjustments suggest a change to the payback time for solar energy systems from three to five years to 10 or more years. While these changes may provide equity for customers who are not able to install solar energy systems, they will increase affect the pace of payback period for solar systems, especially solar systems without storage. However, a revised proposed decision is pending as the CPUC is currently soliciting additional stakeholder/party comments after concerns were raised by the proposed decision.

Governor's proposed May Budget Revision proposes incentives for solar and storage. The May Revision proposes \$970 million for the CPUC to provide residential solar and storage system incentives, including for low-income households. Specifically, the proposal consists of \$670 million for solar and storage systems for low-income households and also includes \$300 million for additional storage installations paired with existing residential solar systems.

Emergency declarations. Unfortunately, California has been no stranger to disasters in recent years. Within the past two years or so, the governor has made over 30 declarations of emergency largely due to severe storms or fires which have affected all 58 of the state's counties, except Imperial County. This bill would apply to any home damaged or destroyed in a disaster in an area in which the governor has declared a state of emergency as of January 1, 2021, instead of January 1, 2020.

The additional year of declarations include:

- a) November 18, 2020, issued for Mono County due to the effects of the Mountain View Fire.
- b) September 28, 2020, issued for the counties of Napa, Sonoma, and Shasta due to the Glass and Zogg fires.
- c) September 25, 2020, issued for the counties of Del Norte, Los Angeles, and Mendocino to bolster the response to various fires.
- d) September 10, 2020, issued for Siskiyou County due to fires.
- e) September 6, 2020, issued for the counties of Fresno, Madera, and Mariposa due to the Creek Fire; for San Bernardino County due to the El Dorado Fire; and, for San Diego County due to the Valley Fire.
- f) August 18, 2020, issued statewide to help ensure the availability of vital resources to combat fires throughout the state.

AB 1078. This bill would extend, by one year, the current exemption from the CEC's solar mandate for residential properties affected by disasters and extend by an additional year the disasters that would qualify a property from the exemption. There are many variables to the costs of repairing or rebuilding a home or residential structure after a disaster. These include costs related to labor, permitting, supplies, insurance coverage, and others. In this regard, the need to help victims from the many disasters, especially wildfires, to forgo additional costs to rebuilding is understandable. The Legislature may also consider that another option could be to direct funding from the proposed budget to help victims of wildfires pay for the solar and storage installations utilizing a portion of the nearly \$1 billion proposed by the governor. Additionally, given the number of disasters, especially wildfires, that have affected the state in recent years, it is likely more homes will experience property damage from future fires. Therefore, the desire to continue the exemption as proposed by this bill will likely continue in future years. While local governments are the main permitting entities who must review the considerations noted in this bill, there's a need to collect data to inform future policy. *In order to collect data on the application of the exemption so as to inform future proposals, the author and committee may wish to require the CEC to collect information from local permitting agencies, to the extent possible, regarding the use of the exemption and report this information to the Legislature annually.*

Prior/Related Legislation

SB 1385 (Cortese, 2022) establishes, by January 1, 2024, a new 1,500 megawatts (MW) multifamily housing local solar program that requires each large electrical corporation, as specified, to construct solar and storage systems in front of the

customers' meters on or near multifamily housing. This bill sunsets the program as of January 1, 2027. The bill is pending referral in the Assembly Committee on Rules.

AB 178 (Dahle, Chapter 259, Statutes of 2019) exempted, until January 1, 2023, residential construction from complying with the solar requirements in the recently adopted building standards when the construction is in response to a disaster in an area in which a state of emergency has been proclaimed by the governor.

AB 693 (Eggman, Chapter 582, Statutes of 2016) created the Multifamily Affordable Housing Solar Roofs Program, to provide financial incentives—up to \$100 million annually, for qualified solar installations at multifamily affordable housing properties funded from IOU greenhouse gas allowances.

AB 217 (Bradford and De León, Chapter 609, Statutes of 2013) extended the low-income programs of the California Solar Initiative from 2016 until 2021, authorizes the collection of an additional \$108 million for these programs, and adds additional standards to the program, as specified.

AB 327 (Perea, Chapter 611, Statutes of 2013) restructured the rate design for residential electric customers and revised the NEM program.

SB 1 (Murray, Chapter 132, Statutes of 2006) established the electric portion of the CSI with a 10-year budget of \$2.2 billion collected from ratepayers.

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

SUPPORT:

California Builders Alliance
County of Fresno
Pine Ridge Volunteer Fire Department
Rural County Representatives of California
Sacramento Regional Builders Exchange
Valley Contractors Exchange

OPPOSITION:

350 Sacramento
California Solar & Storage Association
Natural Resources Defense Council
Sierra Club

ARGUMENTS IN SUPPORT: According to the author: “AB 1078 is an appropriate, fair, and limited measure to help ease the burden of rebuilding one’s life after all was destroyed by a wildfire.”

Rural County Representatives of California states:

As these communities [those affected by wildfires] begin rebuilding, many insured homeowners are finding themselves underinsured. Rebuilding is even more difficult for uninsured homeowners. This is becoming an even larger problem because many insurers are canceling policies for those who live in high-fire risk areas and homeowners are finding that they cannot afford replacement policies.

While it is admittedly less expensive to install solar panels on a newly-constructed home, even those reduced costs add up and make rebuilding harder and more expensive for those who have already lost everything and may not have the resources necessary to rebuild the life they once had.

ARGUMENTS IN OPPOSITION: In opposition to this bill, the California Solar and Storage Association states:

While AB 1078 is purported to be relief to families needing to rebuild their homes, the reality of the bill is an attack on solar. Homes rebuilt after fires still need to follow the rest of the building standards – including today’s requirements for attic insulation, double-paned windows, and energy efficient appliances – many of which carry high price tags.

Singling out rooftop solar as a burden to rebuilding homes while continuing to require new energy efficiency features for rebuilt homes is unjustified. In reality, rooftop solar makes housing more affordable by allowing the homeowner or tenant to buy less electricity from the utility, thus lowering their energy bills.

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