

Date of Hearing: January 10, 2022

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Luz Rivas, Chair

AB 1078 (Patterson) – As Introduced February 18, 2021

SUBJECT: Energy: building standards: photovoltaic requirements

SUMMARY: Extends, for one year, the 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.

EXISTING LAW:

- 1) Requires the Air Resources Board (ARB) to ensure that statewide greenhouse gas emissions (GHG) are reduced to 40% below the 1990 level by 2030.
- 2) Requires the California Energy Commission (CEC) to establish energy efficiency standards for new residential and new nonresidential buildings.
- 3) Pursuant to the California Residential Building Code, specifies that any work, addition to, remodel, repair, renovation, or alteration of any building or structure may be defined as “new construction” when 50% or more of the exterior weight bearing walls are removed or demolished.
- 4) Requires CEC to establish regulations to develop and implement a comprehensive program to achieve greater energy savings in California's existing residential and nonresidential building stock. The program is targeted at buildings that "fall significantly below" the current Title 24 energy efficiency standards. Requires the program to minimize the overall costs of establishing and implementing the energy efficiency program requirements. For residential buildings, specifies that the regulations ensure that the energy efficiency assessments, ratings, or improvements do not unreasonably or unnecessarily affect the home purchasing process or the ability of individuals to rent housing.
- 5) On or before November 1, 2017, requires CEC to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses by January 1, 2030.
- 6) Exempts, until January 1, 2023, 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 before 2020 from the state’s requirement for PV systems, if:
 - a) The income of the owner of the residential building is at or below the median income for the county in which the building is located;

- b) The construction does not exceed the square footage of the property at the time it was damaged;
- c) The new construction is located at the site of the home that was damaged; or,
- d) The owner of the residential building did not have code upgrade insurance at the time the property was damaged.

FISCAL EFFECT: Unknown

COMMENTS:

1) **Author's statement:**

In a state where many Californians already face a housing affordability crisis, thousands of Californians now also have to deal with the financial cost of rebuilding their homes. All of this in the midst of a pandemic and economic recession. Requiring these victims to also adhere to the CEC's solar panel mandate that was instated in 2020 - well after many of these homes were originally built - would be adding insult to injury; the additional \$20,000 average cost of a solar panel system will be enough to discourage many homeowners from rebuilding at all. AB 1078 will be an important life raft for thousands of Californians who may otherwise choose not to or be unable to rebuild their homes after a wildfire or related natural disaster in 2020.

- 2) **California's solar standards.** The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. The new standards are the first in the nation to require PV systems for new 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, the standards are expected to result in about 53% less energy use than under the 2016 standards. The CEC further estimates that the new standards will reduce GHG emissions by 700,000 metric tons over three years.

Statute requires that CEC's standards must be "cost-effective." Moreover, unlike other building standards, solar earns money for homeowners as their homes generate electricity. 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. 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 are expected to continue to decrease.

CEC established a few exemptions to the new solar requirement. Primarily, homes that are shaded by trees, hills, other structures, etc. are not required to install solar. 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 with two stories and for low-rise multifamily or single-family homes with three or more stories.

- 3) **Changing solar costs.** Net energy metering (NEM) tariffs allow a customer to reduce energy charges as a result of energy generated behind the customer's meter. Specialized metering measures the difference between the amount of electricity the system generates throughout the month and the amount of electricity supplied by the utility. The difference is "net energy" and participating customers are referred to as customer-generators. NEM tariffs are available to customers for electricity generated from renewable resources like solar and have the result of off-setting electricity costs but also reducing related transmission, distribution, demand, and other charges.

NEM has been very successful at increasing the amount of solar in California. According to the California Public Utilities Commission (CPUC), "now that California has nearly 25 gigawatts of solar on our grid, our needs have shifted. It is now essential to address grid reliability shortfalls during net peak hours in the early evening when the sun is down and we rely on fossil fuels to meet demand." CPUC further states that the current NEM program does not incentivize pairing storage systems with solar systems. Ratepayers without NEM 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.

On December 13th of this year, the CPUC proposed revisions to NEM tariffs. The revised tariffs would pay 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 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. According to the CPUC and the Natural Resources Defense Council, the revisions to the NEM tariffs proposed by the CPUC would increase the payback time for solar energy systems from 3-5 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 the costs of new solar systems, especially solar systems without storage.

- 4) **Emergency declarations.** Unfortunately, California has had a large number of emergency declarations over the last several years. 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.

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.

REGISTERED SUPPORT / OPPOSITION:

Support

Pine Ridge Property Owners Association
Pine Ridge Volunteer Fire Department
Rural County Representatives of California
Valley Contractors Exchange
4 Individuals

Opposition

California Solar & Storage Association
Environment California
Natural Resources Defense Council
Sierra Club California

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