SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS
Senator Steven Bradford, Chair
2023 - 2024 Regular

Bill No:	AB 1918	**Hearing Date:**	6/4/2024
Author:	Wood		
Version:	4/3/2024 Amended		
Urgency:	No	**Fiscal:**	Yes
Consultant:	Nidia Bautista		

SUBJECT: State building standards: solar-ready and photovoltaic and battery storage system requirements: exemption

DIGEST: This bill exempts from the solar and battery storage requirements, as part of the state's building standards, residential construction to repair or replace a residential building within the utility service territory of the Trinity Public Utilities District (TPUD).

ANALYSIS:

Existing law:

1) Authorizes the State Energy Resources Conservation and Development Commission (CEC) to prescribe, by regulation, lighting, insulation, climate control system, and other building design and construction standards that increase efficiency in the use of energy and water for new residential and new nonresidential buildings, and energy and water conservation design standards for new residential and new nonresidential buildings. Under this authority, the CEC has established regulations for the installation of photovoltaic (PV) systems meeting certain requirements for low-rise residential buildings built on or after January 1, 2020. (Public Resources Code §25402)

2) Requires the CEC to establish building design and construction standards that increase the efficiency in the use of energy and water for new residential and new nonresidential buildings. The CEC must periodically update the standards. Six months after the CEC certifies an energy conservation manual, cities, counties, and state agencies are prohibited from issuing a building permit for a building that does not comply with the current standards created by the CEC. (Public Resources Code §25402(a)(1))

3) Requires the CEC and the Department of Housing and Community Development to issue a joint finding that a building water efficiency standard is equivalent or superior in performance, safety, and for the protection of life,

health, and general welfare to existing standards. The finding must also ensure that the standard does not unreasonably or unnecessarily impact Californians' ability to purchase or rent affordable house by taking into account the overall benefit derived from the standard. (Public Resources Code §25402(a)(2))

4) Requires the CEC's building efficiency standards to be cost-effective when taken in their entirety and amortized over the economic life of the structure compared with historic practice. When determining cost-effectiveness, the CEC must consider the value of the water or energy saved, impact on product efficacy for the consumer, and the life-cycle cost of complying with the standard. The CEC must consider other relevant factors, including, but not limited to the standards' cost on house costs, the total statewide costs and benefits of the standard over its lifetime, economic impacts on California businesses, and alternative approaches and their associated costs. (Public Resources Code §25402(b)(3))

5) 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.)

6) 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)

7) 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)

8) Existing law, the California Building Standards Law, establishes the California Building Standards Commission and requires state agencies that adopt or propose adoption of any building standard to submit the building standard to the California Building Standards Commission for approval and adoption. Existing law requires the California Building Standards Commission to approve and adopt building standards, to codify those standards in the California Building

Standards Code, and to publish, or cause to be published, editions of the code in its entirety once every three years.

9) Existing law authorizes the CEC to prescribe, by regulation, energy efficiency standards, including appliance efficiency standards. Under this authority, the CEC has established building standards for the installation of PV systems meeting certain requirements for certain residential and commercial buildings.

10) Requires every retail seller of electricity to disclose its electricity sources and the associated greenhouse gases (GHG) emissions intensity for the previous calendar year. (Public Utilities §398.4)

This bill:

1) Exempts a building that is constructed in the service territory of a public utility district and that receives all of its electricity pursuant to a preference right adopted and authorized by the United States Congress, if that electricity is carbon free, from the building standards adopted by the CEC and the California Building Standards Commission that require new residential and commercial buildings to be solar ready or to have photovoltaic and battery storage systems installed.

2) Because local entities would determine whether a building qualifies for the exemption, this bill would impose a state-mandated local program.

3) Makes legislative findings and declarations as to the necessity of a special statute for the TPUD.

Background

California's building energy efficiency standards. California's building energy efficiency standards are updated on roughly every three years cycle. The CEC adopted the 2019 Building Energy Efficiency Standards, which went into effect on January 1, 2020, as the first in the nation to require solar 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, 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 GHG emissions by 700,000 metric tons over three years. CEC's energy efficiency standards are adopted by Building Standards Commission as part of the *California Building Standards Code*, which serves as the basis for building

and construction in California. The CEC first adopted building energy efficiency standards in 1977. The CEC reports that the energy efficiency building standards have saved Californians billions of dollars since their first adoption, avoided the need for powerplants and transmission lines, and helped keep California's per-capita energy consumption flat. The CEC has since adopted the 2022 Building Energy Efficiency Standards which, after January 1, 2023, require newly constructed residential buildings to be electric-ready (including 240-volt outlets and space for electric appliances to replace installed gas appliances). The 2022 standards also allow exceptions to the solar PV standards when roof area is not available. The standards also establish combined solar PV and battery storage standards for select businesses. The 2022 standards specifically:

- Require solar PV and battery storage systems for newly constructed nonresidential and high-rise multifamily buildings.
- Require the use of electric heat pumps for space heating and water heating.
- Establish electric-ready requirements for all buildings, including single-family homes.
- Reinforce and strengthen ventilation standards, particularly above stoves, to improve the quality of indoor air quality.

The 2022 Energy Code permits the CEC to determine that the solar PV and/or battery storage system requirements applicable to non-residential buildings, and those applicable to multi-family homes with more than three habitable stories, do not apply if the CEC determines that its cost-effectiveness conclusions regarding solar PV and battery storage requirements are unreasonable for such buildings. Importantly, the CEC is currently updating the standards for the 2025 Energy Code which is scheduled to take effect January 1, 2026.

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 (largely based on pre-COVID numbers). Current prices are tend to range in $15,000 to $20,000 based on news reports. The up-front costs for solar have decreased over the past several years, but experienced some increases since COVID. The 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 buildings

with two stories and for low-rise multifamily or single-family homes with three or more stories.

Exemptions to the CEC Solar Mandate. Through a determination process, the CEC may, upon written application or its own motion, determine that the PV or battery storage rules do not apply to particular buildings or service territories. A public agency is required to provide information regarding the differences between its rules regarding utility system costs and revenue requirements, and the cost-effectiveness determinations that the CEC made in adopting the PV and battery storage requirements. The CEC may request additional information to enable a full review of the application. Applications from the public agencies must be submitted to the CEC only after public review within the jurisdiction of the agency or service area of the utility. Once the CEC receives the application from the public agency and deems it complete, the CEC allows a 60-day public comment period. The CEC may again request additional information to evaluate the application. The CEC then proceeds to make a recommendation on the application and any additional information considered to the business meeting calendar for the full commission to consider. The average timeline for this determination process may be closer to a year.

Trinity County demographics. Trinity County is located midway between Redding in Shasta County and the Northern Redwood Coast. The County is home to about 15,000 residents and is a small a rural community. The percentage of Trinity residents living below the federal poverty level was about twice as high as for California overall (23 percent compared to 12 percent). TPUD is the main service electricity provider serving about 7,200 customers. It is reportedly one of the poorest counties in the state and its remote location can make building construction more expensive than many other places in the state.

Trinity Public Utilities District electricity generation source. In 1955, Congress passed the Trinity River Act providing dams, reservoirs, and power plants on the Trinity River for the Central Valley Project (CVP). The CVP is a 400-mile complex, multi-purpose network of dams, reservoirs, canals, hydroelectric power plants and other facilities. The CVP reduces flood risk for the Central Valley, and supplies the valley with domestic and industrial water. The U.S Bureau of Reclamation operates the CVP. To compensate Trinity County residents, Congress granted first preferential rights to 25 percent of the net electricity generated by these power plants to electricity users in Trinity County and subsequently TPUD service area has low rates. The generating capacity of approximately 233 MW[1]of electricity provided by TPUD to its customers is 100 percent carbon-free

[1]Pg 21, "Trinity Public Utility District's Application for a Solar Photovoltaic and Battery Storage Cost-Effectiveness Determination for Nonresidential Buildings." June 2023

hydropower. Given its unique zero-carbon portfolio, TPUD is exempt from the RPS under Public Utilities Code Section 399.30(g).

Comments

Exemptions from solar ready and battery storage requirements. This bill would provide that homes that are being built or repaired in the service territory of the TPUD are exempt from the . The RPS, as written today, excludes a POU that receives all of its electricity from hydropower pursuant to the Trinity River Division (TRD) Act. Enacted by Congress in 1955, the TRD Act authorized the United States Government to build the Trinity Dam, which led to the generation of hydropower in Trinity County. The CEC has the authority to exempt public utilities from the application of solar PV requirements of the Building Energy Efficiency standards for residential property, and has exercised this right in recent years. Most recently, in February 2023 and September 2023, the CEC approved exemption for the TPUD from the residential and non-residential solar and battery storage requirements determining that the requirements were not cost-effective.

Given TPUD has a power supply that is 100 percent hydropower (the only utility of its kind in the state), customers in utility's service territory pay a below market price for its clean energy, averaging approximately 6.5 cents per kWh over the last 10 years. The supporters of this bill note that while the CEC can issue exemptions to utilities, this process takes an immense amount of time, even up to a year. They contend that such a long drawn out effort is incredibly burdensome for small public utilities. Further, even if a utility obtains an exemption, they have to return to the CEC every three years to recertify that they have not begun procuring carbon emitting energy. This creates an unnecessary burden for both CEC and utility staff. In late March the CEC proposed a process to allow for a continued exemption within the regulations. However, the supporters of this bill express concerns that such a change does not provide the certainty that would be afforded by this bill to codify a narrow exemption from the Building Energy Efficiency Standards for their service territory.

Prior/Related Legislation

AB 2787 (Patterson) would exempt homes that are being rebuilt due to a disasters from the solar ready requirements in the building standards. The bill is pending before this committee.

AB 704 (Jim Patterson, 2023) was substantially similar to AB 2787. AB 704 was held in the Assembly Committee on Appropriations.

AB 1078 (Patterson, 2022) would have extended the exemption established by AB 178 for one year, until January 1, 2024. The bill was vetoed.

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 GHG 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:

Trinity Public Utilities District, Sponsor

OPPOSITION:

California Solar & Storage Association

ARGUMENTS IN SUPPORT: According to the sponsor:

> While TPUD [Trinity Public Utilities District] has been able to obtain temporary exemptions from these standards [solar and battery storage requirements], the effort to do so has been immense for a small public utility district like TPUD. TPUD has 25 employees, only six of whom are administrators responsible for managing TPUD. In its most recent effort to obtain a temporary exemption, there were 74 email exchanges and eight

video meetings with CEC staff. These communications generated approximately 240 hours of work for TPUD staff. In addition, TPUD had to retain an attorney to ensure its application was properly filed.

AB 1918 would address this problem by providing TPUD and Trinity County with a permanent exemption to the solar ready program so that time and money is no longer wasted by TPUD or the CEC. Should residents of Trinity County wish to install solar on their buildings despite TPUD's cleaner and less expensive power AB 1918 would not preclude them from doing so.

ARGUMENTS IN OPPOSITION: The opposition states:

While California should be doubling down on its commitment to solar, AB 1918 would take the state in the opposite direction. For properties in Trinity Public Utilities District, AB 1918 would allow new homes on those properties to be exempt from the solar mandate. The reasoning is that this utility gets its energy from hydropower facilities. However, we are headed for prolonged drought, and even if the utility's hydroelectric production continues at current levels and customer demand goes down, the utility can sell power to other utilities. Reducing customer demand so that the utility has excess power is not a negative outcome. We would not discourage energy efficiency because the utility has clean generating sources.

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