SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS
Senator Ben Hueso, Chair
2019 - 2020 Regular

Bill No:	AB 1144	**Hearing Date:**	6/18/2019
Author:	Friedman		
Version:	4/11/2019 As Amended		
Urgency:	No	**Fiscal:**	No
Consultant:	Nidia Bautista		

SUBJECT: Self-generation incentive program: community energy storage systems: high fire threat districts

DIGEST: This bill would require the California Public Utilities Commission (CPUC) to allocated ten percent ($16.6 million) of the annual allocation of the self-generation incentive program (SGIP) in 2020 for the installation of energy storage and other distributed energy resources for customers that provide critical infrastructure to communities in high fire threat districts.

ANALYSIS:

Existing law:

1) Requires the CPUC to require the administration, until January 1, 2026, of a SGIP to increase the development of distributed generation resources and energy storage technologies. Authorizes the CPUC to require investor-owned electric utilities (IOUs) to collect funds, up to $166 million annually, from ratepayers, through December 31, 2024, to be used to provide incentives under SGIP, for distributed energy resources the CPUC , in consultation with the California Air Resources Board (CARB), determines will achieve reductions in emissions of greenhouse gas emissions (GHGs). Authorizes the CPUC, in administering the program, to adjust the amount of rebates and evaluate other public policy interests, including, but not limited to, ratepayers, energy efficiency, peak load reduction, load management, and environmental interests. (Public Utilities Code §379.6)

2) Requires electrical corporations to file wildfire mitigation plans which include protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure; and appropriate and feasible methods for notifying a customer that may be impacted by the deenergizing of electrical

lines including consideration of the need to notify, as a priority, critical first responders, heath care facilities, water agencies, wastewater utilities, and operators of telecommunications infrastructure. (Public Utilities Code §8386)

This bill:

1) Requires the CPUC, in administering the SGIP, to allocate ten percent of the annual collection for the program in the 2020 calendar year for the installation of energy storage and other distributed energy resources for customers that provide critical infrastructure to communities in high fire threat districts.

2) Provides that eligible customers may include, but are not limited to, water suppliers, wastewater agencies, hospitals, fire stations, police stations, telecommunications providers, and schools.

Background

Self Generation Incentive Program (SGIP). The CPUC established SGIP pursuant to AB 970 (Ducheny, Chapter 329, Statutes of 2000), which directed the CPUC to establish incentives for distributed generation resources. The program provides incentives for installation of distributed energy resources that are located at a customer's side of the meter and sized no larger than what is needed to meet on-site energy needs. SGIP provides rebates for qualifying distributed energy systems installed on the customer's side of the utility meter. While SGIP has provided incentives for a variety of distributed energy resources, the program largely focuses on energy storage systems. Existing law authorizes the CPUC to direct IOUs to collect $166 million annually from ratepayers through 2024 to fund SGIP. Existing law also requires the CPUC to administer the program until January 1, 2026.

SGIP projects. SGIP is one of the longest-running distributed generation incentive programs in the country. According to the CPUC, as of December 2016, SGIP has funded 2,178 completed projects representing over 450 megawatts (MW) of rated capacity. An additional 312 projects representing over 178 MW of rated capacity are in process towards completion. The SGIP provides incentives to support existing, new, and emerging distributed energy resources. SGIP provides rebates for qualifying distributed energy systems installed on the customer's side of the utility meter that the CPUC, in consultation with CARB, determines will achieve reductions in GHG emissions. Qualifying technologies include wind turbines, waste heat to power technologies, pressure reduction turbines, internal combustion engines, microturbines, gas turbines, fuel cells, and advanced energy storage systems. The program has several goals:

- Environment – reduce GHGs, integrate renewables and reduce criteria air pollutants;
- Grid support – reduce or shift peak demand, reduce grid costs, provide ancillary services;
- Market transformation – support technologies that have the potential to thrive in future years without rebates; and
- Maximize ratepayer value and ensure equitable distribution of costs and benefits.

SGIP funding. SGIP is funded through annual collections from customers in the amount of $166 million per year through 2026. SGIP allocates 85 percent of the funds to energy storage technologies. Last year the CPUC established an "Equity Budget" for SGIP to ensure that a portion of the SGIP budget will be reserved for projects that are located in disadvantaged and low-income communities and for customers that meet specific eligibility requirements. The objective of the investments is to: 1) bring positive economic and workforce development opportunities to the state's most disadvantaged communities; 2) help reduce or avoid the need to operate conventional gas facilities in these communities, which are exposed to some of the poorest air quality in the state; and 3) to ensure that low-income customers, and non-profit or public sector organizations in disadvantaged or low-income communities, have access to energy storage resources.

Deenergizing policies & protocols. California is experiencing an increase in wildfire events due to a number of factors, including an extended period of drought, upwards of 10 years, increased fuel for fires, and unprecedented conditions that are leading to extreme weather events. Exacerbating wildfire conditions are energized power lines and the potential of these lines to either spark or worsen an existing wildfire. To mitigate these and other risks, the CPUC has authorized the IOUs to use the option of proactively shutting down power to specific power lines to limit the impact or damage of these lines to communities in situations where the utilities are aware of dangerous conditions. Deenergization of distribution lines under certain circumstances is now expected of all electric utilities in the state. However, deenergizing electric lines can result in the loss of power to households, businesses, traffic signals, communication systems, critical facilities, water treatment facilities, emergency services and others. Therefore, efforts to deenergize electric lines must be done in a manner that balances the potential harm of the energized lines causing a wildfire against the safety hazards associated with eliminating electricity to the areas that are served by the line(s).

Use of power shutoffs. In 2007, San Diego Gas & Electric (SDG&E)'s electric infrastructure ignited three destructive fires. In response to that experience, SDG&E requested and received approval from the CPUC for a number of mitigation efforts, including roughly a billion dollars of ratepayer funds to invest in a state-of-the-art weather center and monitoring network, as well as, the authority to deenergize power lines during high wildfire risk days. After the 2017 fires ravaged several parts of the state, in July 2018, the CPUC expanded the requirements on the power shutoffs it has for SDG&E, including requirements related to specified notifications and reasonableness review, to the state's other IOUs, including Southern California Edison (SCE) and Pacific Gas & Electric (PG&E). Known as the Public Safety Power Shutoff (PSPS) program, after a power shutoff event, per the CPUC requirements, the utility must inspect the lines of the circuits that were shutoff before it can restore power. As such, the power shutoff event may last several days, leaving the affected customers without power during the full time of the event. In the fall of 2018, both SCE and PG&E exercised their authority for power shutoffs, under the new CPUC requirements, to various communities in their service territory during high wildfire risk days. In Northern California, community response to the extended power shutoffs (they lasted multiple days) were generally not receptive to the new policy as stores, businesses, schools and others had to close during the event. The passage of SB 901 (Dodd, Chapter 626, Statutes of 2018) further expanded the requirements of the protocols related to the power shutoffs as part of the electric utility's wildfire mitigation plans currently under review.

Comments

Powerless. Earlier this year, the CPUC adopted additional policies for power shutoffs by electric utilities, noting they should be exercised as a last resort. However, until the electric distribution and transmission system lines are hardened, it is more likely that power shutoffs will be a mainstay in high wildfire threat areas, and neighboring areas attached to shared electric circuits. The continued use of the shutoff policies has communities and residents scrambling to better prepare for these and other events that may cause a temporary loss of power. As noted above, the loss of power affects the entire circuit, including critical infrastructure such as emergency responders, water treatment facilities and others that are on the circuit. As such, communities in high wildfire threat areas are having to consider how to maintain operations of their critical infrastructure during these events, as well as other disasters that result in the loss of electric distribution power. In many instances, residents, businesses, local governments, are likely purchasing diesel-fueled generators to help them weather the power outages. Additionally, there is public dialogue around the ability of distributed energy resources, including the combined use of solar and battery storage, to provide backup power with fewer

emissions. However, the ability of these systems to provide reliable backup power may be limited by the area and whether tree canopy prevents the solar rays from reaching the roof, as well as, questions about whether the battery storage will be fueled sufficiently during an unexpected power shutoff event and the ability of the system to endure a multi-day outage, to name a few.

Critical infrastructure. As currently drafted this bill would provide incentive funding for critical infrastructure to procure backup power in the form of energy storage and distributed energy resources. However, the current rules for SGIP do not allow the program to fund back up power. Additionally, in consideration of the limited funding, it may be wise to ensure that any incentives are provided to eligible facilities based on demonstrated need, actions taken by the entity and community to address their wildfire risk, and clear understanding that the system may not be fully reliable to provide the power needed for the duration of a power shutoff event. *As such, the author and committee may wish to amend this bill to direct the CPUC to alter the rules for the pilot program to allow for the funding of backup power, narrow the eligibility of facilities with consideration for the above criteria (need and actions to reduce wildfire risks), and requirements to ensure customers understand the system may not provide the power needed for the duration of a power shutoff event. The author and committee may also wish to have the CPUC report on the results of the pilot program, including the projects funded, performance as backup power, and how GHGs were affected, among other reporting requirements.*

Dual referral. Should this committee approve this bill, it will be re-referred to the Senate Committee on Appropriations for their consideration.

Prior/Related Legislation

SB 167 (Dodd, 2019) would require electrical corporations to include impacts on customers enrolled in specified programs as part of the protocols for deenergizing portions of their electric distribution system within their wildfire mitigation plans filed at the CPUC. The bill is pending consideration in the Assembly Committee on Utilities & Energy.

SB 774 (Stern, 2019) would require specified actions related to the deployment of microgrids, including requiring exclusive utility-ownership, and, as such, ratepayer funding, of microgrids that are located in the electrical corporation's side of the electrical distribution grid. The bill also requires electric IOUs to work with local governments and the Office of Emergency Services to prepare for power shutoff events. The bill is consideration in the Assembly Committee on Utilities & Energy.

SB 901 (Dodd, Chapter 626, Statutes of 2018) includes a number of measures to address the risk of wildfires, including further expanding the requirements of the protocols related to the power shutoffs as part of the electric utility's wildfire mitigation plans.

SB 700 (Wiener, Chapter 839, Statutes of 2018) extends the sunset date for the Self-Generation Incentive Program (SGIP) by five years, requires the CPUC to adopt requirements for storage systems to ensure that they reduce GHG emissions, and prohibits generation technologies using non-renewable fuels from obtaining SGIP incentives as of January 1, 2020.

AB 1637 (Low, Chapter 658, Statutes of 2016) doubled the annual funding authorization for SGIP and revised and extended the net energy metering program for fuel cells by five years.

AB 1478 (Committee on Budget, Chapter 664, Statutes of 2014) extended the sunset to collect SGIP funds through 2019 and extended the program's sunset to 2021.

SB 861 (Committee on Budget and Fiscal Review, Chapter 35, Statutes of 2014) established SGIP eligibility restrictions for distributed generation resources and required the CPUC to establish a capacity factor for distributed energy resource technologies.

AB 970 (Ducheny, Chapter 329, Statutes of 2000) enacted the California Energy Security and Reliability Act of 2000 to expedite siting of certain power plants and implement new energy conservation and demand management programs. The bill required the CPUC establish incentives for distributed generation resources.

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

SUPPORT:

Amber Kinetics
City of Malibu
Clean Power Alliance of Southern California
Climatec
Rural County Representatives of California

OPPOSITION:

None received

ARGUMENTS IN SUPPORT: According to the author:

> Energy storage systems and distributed energy resources may have the potential to provide grid resilience while also reducing wildfire risk in high fire threat communities. AB 1144 will address the growing risk of wildfires in California by requiring a portion of Self Generation Incentive Program (SGIP) funds to be used towards the installation of energy storage and distributed resources at critical infrastructure facilities in high fire threat communities through pilot projects.

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