Office of Senate Floor Analyses
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UNFINISHED BUSINESS

Bill No: SB 700
Author: Wiener (D)
Amended: 8/24/18
Vote: 21

SENATE ENERGY, U. & C. COMMITTEE: 7-2, 4/24/17
AYES: Hueso, Hertzberg, Hill, McGuire, Skinner, Stern, Wiener
NOES: Cannella, Vidak
NO VOTE RECORDED: Morrell, Bradford

SENATE APPROPRIATIONS COMMITTEE: 5-2, 5/25/17
AYES: Lara, Beall, Bradford, Hill, Wiener
NOES: Bates, Nielsen

SENATE FLOOR: 23-13, 5/31/17
AYES: Allen, Atkins, Beall, De León, Dodd, Galgiani, Glazer, Hertzberg, Hill, Hueso, Jackson, Lara, Leyva, McGuire, Mendoza, Mitchell, Monning, Newman, Roth, Skinner, Stern, Wieckowski, Wiener
NOES: Anderson, Bates, Berryhill, Cannella, Fuller, Gaines, Moorlach, Morrell, Nguyen, Nielsen, Stone, Vidak, Wilk
NO VOTE RECORDED: Bradford, Hernandez, Pan, Portantino

ASSEMBLY FLOOR: Not available

SUBJECT: Self-generation incentive program

SOURCE: California Solar and Storage Association

DIGEST: This bill extends the sunset date for the Self-Generation Incentive Program (SGIP) by five years, requires the California Public Utilities Commission (CPUC) to adopt requirements for storage systems to ensure that they reduce greenhouse gas (GHG) emissions, and prohibits generation technologies using non-renewable fuels from obtaining SGIP incentives as of January 1, 2020.

Assembly Amendments delete the prior bill language and instead extend the sunset of the SGIP, require the CPUC to adopt energy storage system requirements to ensure that systems reduce GHG emissions, and prohibit SGIP from providing incentives to generation technologies using non-renewable fuels as of January 1, 2020.

ANALYSIS:

Existing law:

1) States the intent of the Legislature that the SGIP should increase deployment of distributed generation and energy storage systems to facilitate grid integration; improve distribution and transmission efficiency and reliability; and reduce GHG emissions, peak demand, and ratepayer costs. It is the intent of the Legislature that the CPUC provide for an equitable distribution of the costs and benefits of the program through proceedings. (Public Utilities Code §379.6(a)(1))

2) Allows the CPUC to direct investor-owned utilities (IOUs) to collect up to $166 million annually from ratepayers through December 31, 2019, to be used to provide SGIP incentives for distributed energy resources. The CPUC must administer SGIP incentives until January 1, 2021, and provide repayment of all unallocated SGIP funds to reduce ratepayer costs. (Public Utilities Code §379.6(a)(2))

3) Restricts SGIP incentive eligibility to distributed energy resources that the CPUC and California Air Resources Board (ARB) determine will achieve reductions in GHG emissions based on criteria developed pursuant to the California Global Warming Solutions Act of 2006. (Public Utilities Code §379.6(b)(1))

4) Establishes criteria by which SGIP must evaluate the success of the program. These criteria include, but are not limited to, reductions in criteria air pollutants and GHG emissions. (Public Utilities Code §379.6(l))

This bill:

1) Extends the sunset date for the IOUs to collect monies to fund SGIP from December 31, 2019, to December 31, 2024.

2) Extends the sunset date for CPUC's administration of the SGIP from January 1, 2021, to January 1, 2026.

3) Requires the CPUC to adopt requirements for energy storage systems to ensure that systems receiving SGIP incentives reduce GHG emissions.

4) Prohibits generation technologies using non-renewable fuels from receiving SGIP incentives as of January 1, 2020.

Background

Self-generation Incentive Program. 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 2019 to fund SGIP. Existing law also requires the CPUC to administer the program until January 1, 2021. This bill extends each of these sunset dates by five years to 2024 and 2026, respectively.

Energy storage systems can increase GHG emissions. Energy storage stores energy generated at one time of the day and discharges that energy at a later point in time. Energy storage can be used as a tool to conduct energy arbitrage, a process by which lower cost energy is stored at one point in time and that energy is discharged at a point in time when electricity generation is more costly. Distributed energy storage can facilitate greater integration of intermittent renewable energy resources and shave peak demand by storing excess renewable energy at one point in time and discharging that energy at a time of day when the grid relies more heavily on fossil fuel generation to meet demand.

While energy storage systems can reduce GHG emissions by lowering the need for fossil fuel electricity generation, this benefit is not always realized. Recent studies have shown that energy systems may increase demand for electricity and result in a net increase of GHG emissions. These demand and GHG increases are largely associated with the use of less efficient energy storage systems and ineffective energy arbitrage price signals that lead storage owners to store electricity when the grid contains a higher mix of fossil fuel generation and discharge that energy at a point in time when the mix contains greater renewable generation.

Outcomes in California are different because California is different. Many of the studies regarding energy storage systems' contribution to GHG emissions are conducted on a national level. The findings in these studies are partly shaped by the degree to which other states rely more heavily on fossil fuels for electricity, including coal-based generation. In these states, energy arbitrage can lead storage owners to store cheap fossil fuel generation and discharge that energy at a point in time when prices are higher but the generation mix is cleaner. Data from these studies show that the GHG emissions impacts from energy storage are much lower in California than in other states. This outcome in California can be largely attributed to policies that have reduced California's reliance on fossil fuel generation across the grid.

This bill requires the CPUC to adopt requirements for energy storage systems to ensure that systems receiving SGIP incentives reduce GHG emissions. This bill also prohibits the CPUC from providing SGIP incentives for generation technologies using non-renewable fuels as of January 1, 2020. Establishing requirements to ensure that incentives are provided only to systems that lower GHG emissions and help integrate renewable energy resources will help address the degree to which less efficient energy storage systems may increase GHG emissions and energy demand. Phasing out incentives for these systems is consistent with the intent of the SGIP to provide grid-level benefits and reduce GHG emissions.

Related/Prior Legislation

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.: Yes Local: Yes

According to the Assembly Appropriations Committee, annual costs of approximately $160,000 (special fund) to the CPUC to administer and oversee the program.

SUPPORT: (Verified 8/29/18)

California Solar and Storage Association (source)
350 Bay Area
ACR Solar International Corp.
Adroit Energy Inc.
Advanced Energy Economy
Advanced Microgrid Solutions
Alive Industries
Alternative Energy Systems, Inc.
Avalon Battery Corporation
Aztec Solar, Inc.
Borrego Solar
Bosch
Brightline Defense Project
CalCom Solar
California Building Industry Association
California Business Properties Association
California Energy Storage Alliance
California Housing Partnership Corporation
California State Association of Electrical Workers
CALPIRG
CED Greentech
Center for Climate Protection
Center for Sustainable Energy
Civic Solar, Inc.
Clean Solar
Climate Action Campaign
Cobalt Power Systems, Inc.
Defenders of Wildlife
Energy Toolbase
ENGIE Services U.S. Inc.
Enphase Energy
Environment California
Friends Committee on Legislation of California

GRID Alternatives
Growing Energy Labs, Inc.
JKB Energy
Just Energy Solutions Inc.
Los Angeles Business Council
Luminalt
McCalmont Engineering
Namasté Solar
Non-Profit Housing Association of Northern California
OpTerra Energy Services
Outback Power
Promise Energy
Renova Solar
Renvu
Rising Sun Energy Center
Sierra Club California
Silicon Valley Leadership Group
Solar Energy Industries Association
Solar Forward
Solar Richmond
Solar Rights Alliance
SolarGnosis
Spectrum Energy Development, Inc.
Sullivan Solar Power
Sun Light and Power
SunEarth, Inc.
Sunpower
Sunrun Inc.
Sunverge Energy
TechNet
TerraVerde Renewable Partners, LLC
The Alliance for Solar Choice
The Greenlining Institute
Union of Concerned Scientists
Villara Building Systems
Voices for Progress Education Fund
Vote Solar

OPPOSITION: (Verified 8/29/18)

San Diego Gas & Electric Company

Southern California Gas Company

ARGUMENTS IN SUPPORT: According to the author, "SB 700 would extend the California Public Utilities Commission's critically important Self-Generation Incentive Program (SGIP) for five years by authorizing revenue collection through the end of 2024 and program administration through January 1, 2026. The bill also makes several targeted changes to ensure that SGIP recipients use their technologies to reduce greenhouse gas emissions. Nearly all SGIP funding is currently dedicated to helping offset the costs of small-scale, behind-the-meter energy storage systems and ultimately achieving market transformation in this area, similar to how the California Solar Initiative and other programs launched the rise of the modern solar power industry ten years ago. Energy storage is a critical tool in addressing the surplus of renewable energy during midday periods of low demand (the 'duck curve') while saving ratepayers money on transmission and distribution investments, and behind-the-meter systems can ensure that owners of home solar systems in particular can reap the full benefits of their investment. Small-scale, localized energy storage systems also provide valuable resiliency in cases of wildfire or other natural disasters, when traditional power lines may be severed or unusable. Unfortunately, under current law, the SGIP is set to expire at the beginning of 2021, likely creating only 700 MW or less of storage capacity during that time period. The five-year SGIP extension envisioned in SB 700 could lead to as many as 2,000 MW of storage total deployed across California through the program, on a par with the amount necessary to achieve true market transformation."

ARGUMENTS IN OPPOSITION: Opponents claim that SGIP provides ratepayer incentives that tend to favor wealthier customers who can afford distributed energy resources at the expense of customers who cannot afford these technologies and do not benefit from their deployment. In opposition, San Diego Gas & Electric Company and Southern California Gas Company argue: "While the bill aims to extend an existing program, it does so at a cost exceeding $190 million for Sempra Energy Utilities ratepayers. SGIP was established in 2001. At some point, this long-running program should come to an end and subsidized technologies should be required to stand on their own."

Prepared by: Sarah Smith / E., U., & C. / (916) 651-4107
8/30/18 0:10:12

****** END ******