Date of Hearing: June 29, 2022

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
SB 1385 (Cortese) – As Amended June 21, 2022

SENATE VOTE: 24-7

SUBJECT: Electricity: multifamily housing local solar program

SUMMARY: Establishes, by January 1, 2024, a new 1,500 megawatt (MW) multifamily housing local solar program (1385 Program) that requires each large electrical corporation (IOU), as specified, to construct solar and storage systems connected to the distribution system in front of the customers' meters on or near the multifamily housing. This bill sunsets the program as of January 1, 2027. Specifically, **this bill**:

1) Requires the California Public Utilities Commission (CPUC), on or before January 1, 2024, to establish the new program, and:
   a) Prohibits deed-restricted multifamily housing properties from participating;
   b) Specifies eligible multifamily housing is:
      (1) Housing with four or more units;
      (2) Either predominantly houses low-income customers, as defined; is located in an underserved community, as defined; or is located in a high fire threat district, as defined.
   c) Mandates construction of one half of the program's capacity (750 MW) by five years and the remaining (750 MW) capacity by 10 years;
   d) Mandates the solar and storage system is connected to the distribution system in front of the customers' meter;
   e) Specifies export revenues from the system shall be used to provide monthly bill credits to participating low-income customers, pay the costs of constructing and operating the system, and pay the costs of administering the program;
   f) Prohibits an IOU from obligating nonparticipating customers for costs recovery of the *system*, and requires that revenue from energy, capacity, and ancillary sales is used to pay for the *system*;
   g) Requires all renewable energy credits from generation exported by the solar and storage system must be retired on behalf of the participating customers;
   h) Mandates construction of each solar and storage system from this programs constitutes a public works project for purposes of Article 2 (commencing with Section 1770) of Chapter 1 of Part 7 of Division 2 of the Labor Code, except when built by employees of the IOU; and
   i) Mandates the retail sales of IOUs, as calculated for the Renewables Portfolio Standard (RPS) compliance, be reduced by the number of kilowatthours credited to its customers participating in the program.

2) Requires the CPUC, when the installed capacity of the program reaches 500 MW or as of January 1, 2026, whichever occurs first, to evaluate the program, as specified.

3) Repeals all of the above provisions on January 1, 2027.

4) Makes various legislative findings and declarations related to existing rooftop solar programs.

EXISTING LAW:

1) Requires, under the Green Tariff Shared Renewables Program, an electrical corporation with 100,000 or more customers in California to file with the CPUC an application requesting approval of a tariff to implement a program enabling ratepayers to participate directly in offsite electrical generation facilities that use eligible renewable energy resources. (Public Utilities Code § 2831 et seq.)

2) Requires the CPUC, by June 30, 2017, to authorize, through the Multifamily Affordable Housing Solar Roofs Program, the awarding of monetary incentives for qualifying solar energy systems that are installed on qualified multifamily affordable housing properties through December 31, 2030. This program is now known as the Solar on Multifamily Affordable Housing (SOMAH). (Public Utilities Code § 2870)

3) Requires the CPUC to establish a program for assistance to low-income electric and gas customers, referred to as the California Alternate Rates for Energy (CARE) program. (Public Utilities Code § 739.1)

4) Creates the California Solar Initiative (CSI) with a goal to install solar energy systems with a generation capacity of 3,000 MW, to make solar energy systems a viable mainstream option for both homes and businesses in 10 years, and to place solar energy systems on 50 percent of new homes in 13 years. Specifies no less than 10 percent of the overall CSI funding is to be directed toward programs assisting low-income households in obtaining the benefits of solar technology. (Public Utilities Code § 2852)

5) Permits the CPUC to adopt decisions that establish the Single-Family Affordable Solar Homes Program (SASH) and the Multifamily Affordable Solar Housing Program (MASH), which provides monetary incentives for the installation of solar energy systems on low-income residential housing. Extends the SASH and MASH programs until December 31, 2021, or until budgeted funds are exhausted, whichever occurs sooner. (Public Utilities Codes § 2852 and § 2851)

6) Establishes the Energy Efficiency Low-Income Weatherization Program in the Department of Community Services and Development from the appropriation of greenhouse gas (GHG) emissions reductions allowances from non-utility funds. The program provides for weatherization and renewable energy installations in disadvantaged communities defined by the California Environmental Protection Agency. (Government Code § 12087.5)

7) Defines "large electrical corporation" as an IOU with more than 100,000 service connections in California. This includes Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric. (Public Utilities Code § 2827)

FISCAL EFFECT: According to the Senate Committee on Appropriations, this bill would result in costs of almost $3 million, some one-time and some ongoing, for the CPUC to establish and evaluate the program under this bill. Additional unknown, potentially significant costs to the state as an electric utility ratepayer. As the Appropriations Committee notes, while the bill

includes provisions intended to avoid a cost-shift to nonparticipants, it is unclear how plausible or effective this effort would be in practice.

BACKGROUND:

What is Community Solar? The U.S. Department of Energy defines community solar as any solar project or purchasing program, within a geographic area, in which the benefits of a solar project flow to multiple customers such as includes from various customer classes: residential, commercial, etc. Community solar can be designed in several ways, but the ultimate goal is to provide residents more options to participate in solar projects. In most cases, customers are benefitting from energy generated by solar panels at an off-site array; however, there are also on-site multifamily community solar options where occupants of apartment and condominium buildings each benefit from the energy produced from the rooftop solar project. Additionally, who pays to plan, construct, and operate the solar project varies across the different community solar models—such as when a utility may own or operate a project that is open to voluntary ratepayer participation, or when customers themselves may collectively sign a contract with a third-party developer and be treated as departing load from their utility.

Community solar customers typically receive a bill credit for electricity generated by their share of the community solar system—similar to someone who has rooftop panels installed on their home and receives the net energy metering (NEM) tariff. However, the value of that customer bill credit can also vary widely between community solar programs, with some more generous than others. Community solar can be a great option for people who do not own their homes, have financial constraints, or have insufficient roof conditions such as shading, roof size, or other factors and who desire to participate in a solar project.

California's Community Solar Programs

There have been and remain many community solar programs for eligible customers of California's large electric IOUs. These include:

1. Disadvantaged Communities-Green Tariff (DAC-GT) program;
2. Disadvantaged Communities-Community Solar Green Tariff (DAC-CSGT) program
3. Green Tariff Shared Renewables (GTSR) program, which is comprised of two subprograms:
    - Green Tariff (GT) option.
    - Enhanced Community Renewables (ECR) option.
4. Solar on Multifamily Affordable Housing (SOMAH)
5. California Solar Initiative (CSI) Multifamily Affordable Solar Housing Program (MASH)

DAC-Focused Programs – AB 327 (Perea, Chapter 611, Statutes of 2013) directed the CPUC to develop specific alternatives designed to increase adoption of renewable generation in disadvantaged communities. In 2018, the CPUC created several programs aimed at increasing access to solar energy for residents of DACs located in one of the three large electric IOU distribution service territories.[1] These include:

- DAC-GT program:

[1] D. 18-06-027

  - Renewable facility is a utility-scale, utility-procured project.
  - Open to residential customers in disadvantaged communities.
  - Customers receive a 20 percent bill discount.
  - According to the CPUC, as of the end of 2021, DAC-GT had 20,721 residential customers enrolled across five load-serving entities (electric IOUs and CCAs) Interim RPS capacity may be used until new projects come online; currently, 80 MW serve such a role.
- DAC-CSGT program:
  - Renewable facility is a local solar project.
  - Open to residential customers in disadvantaged communities.
  - Communities work with a local non-profit or government sponsor to organize community interest and present siting locations to their electric IOU or CCA.
  - Project sizes are capped at four MW.
  - Projects must be built within five miles of where customers reside.
  - Customers receive a 20 percent bill discount.
  - The CSGT program does not yet have any customers enrolled, because newly procured projects must be built to begin enrollment (cannot use RPS projects as stop-gap). According to the CPUC, the first CSGT customers will likely be enrolled later this year.

In order to offset the high costs of these projects, electric IOU greenhouse gas (GHG) auction proceeds and public purpose funds from non-participating ratepayers are utilized.

Prior to the establishment of the DAC programs, SB 43 (Wolk, Chapter 413, Statutes of 2013) directed the CPUC to establish the GTSR program. GTSR has the overall objective of expanding customer access to renewable energy and to build up to 600 MW in additional renewable facilities. GTSR includes both a GT option and an ECR option. Pursuant to statute, the costs of GTSR may not be borne by nonparticipants. The two GTSR programs are similar in structure to the two DAC community solar programs mentioned previously.

- GT program:
  - Renewable facility is utility-scale and utility procured.
  - Open to all customers of states' three largest IOUs.
  - Customer pays the difference between their current charge for generation on their IOU bill and the cost of procuring either 50% or 100% renewables.
  - As of September 2019, 153 MW of new renewable capacity had been built.
- ECR program:
  - Renewable facility is a local solar project.
  - Project size limited to 20 MW.
  - Facility developers must fulfill a "community interest requirement," where interested customers commit to enroll in 30% of the project's capacity or expressed interest to reach a 50% subscription rate ahead of time, and must have a minimum of three separate subscribers.
  - Customers agree to purchase a share of a local solar project directly from a solar developer, and in exchange, the customer will receive a credit from their utility for the customer's avoided generation and for their share of the benefit of the solar development to the utility.

- Customers, in buying the solar generation directly from a third party, are treated as departing load. When an ECR customer moves within the IOU's territory they can retain their ECR subscription at their new service address.
- As of September 2019, 10 MW of new renewable capacity had been built, six in Southern California Edison's (SCE's) territory and four in Pacific Gas & Electric's (PG&E's).

Solar on Multifamily Affordable Housing (SOMAH) – Established by AB 693 (Eggman, Chapter 582, Statutes of 2015), the SOMAH program provides incentives for solar energy systems for multifamily affordable housing. SOMAH requires:

- Renewable facility is co-located on multi-tenant property.
- Must be deed-restricted low-income residential housing of at least 5 units.
- Onsite electricity generated helps lower tenants' bills.
- Property owner or third party pays upfront costs of system.
- Up to $100 million annually from the electric IOUs GHG auction proceeds[2] help offset the upfront costs, via fixed, capacity-based incentives.
- Program goal to install 300 MW of capacity.

The SOMAH program began accepting applications on July 1, 2019, receiving more than 200 applications on the first day it opened, and waitlists were started in the large electric IOUs' territories. According to the CPUC, by the end of 2020, 406 applications with 71.4 MW of capacity had been submitted into the program, with participation in all five SOMAH-eligible electric IOU territories. In April 2020, the CPUC directed the utilities to continue funding the SOMAH program through 2026. Unlike the DAC or GTSR programs which often have their solar power offsite or near the housing, SOMAH seeks to install the solar capacity onsite, directly on the multifamily property.

California Solar Initiative (CSI) – In 2006 the CPUC adopted Decision 06-01-024, creating the ratepayer-funded CSI which provided incentives for eligible solar energy systems. SB 1 (Murray, Chapter 132, Statutes of 2006) imposed a reporting requirement on the CSI program. After 10 years of market transformation marked by significant drops in equipment prices, the CPUC concluded that direct incentives were no longer necessary and the CSI General Market program was closed in 2016. Some sub-programs of the CSI remained until recently. The thermal sub-program which provided rebates for solar thermal systems was closed in 2020, and the single-family affordable solar homes (SASH) and multi-family affordable solar homes (MASH) sub-programs also ended in 2021.

By the end of 2020, approximately 9,671 MW of customer-sited solar projects had been installed at over 1.1 million locations within the service territories of the state's three major electric investor-owned utilities (IOUs). This total, which is almost five times the CSI program goal,[3] includes 29.7 MW of capacity under the SASH program and 53.5 MW of capacity under the MASH program. The SASH and MASH programs provided monetary incentives for the installation of solar energy systems on low-income residential housing. Since the MASH program was launched in 2008, 574 MASH projects have been completed as of December 2020. There are an additional 97 MASH projects in progress or under review, with a total pending

[2] up to one billion dollars over ten years
[3] Program goal was 1,750 MW by 2016.

capacity of 18.9 MW. MASH applicants have received or reserved 100% of the original $95 million MASH incentive budget. The program closed on December 31, 2021.

Evaluations of GTSR and related programs – On June 1, 2022, the three electric IOUs filed applications with the CPUC for review of their community solar programs. The proceedings that will be initiated by these applications are expected to review the program's goals, budget, capacity, design, implementation, and consumer protections. It is also likely that the proceedings will draw upon the 2021 DAC-GT and DAC-CSGT Program Evaluation Report which was completed at the end of March 2022.

Prevailing wages – In California, the prevailing wage rate is an hourly rate paid on public works projects that is often set in the terms of a collective bargaining agreement. Prevailing wage creates a level playing field by requiring an across-the-board rate for all bidders on publically subsidized projects. According to the Department of Industrial Relations, the wage rate relies upon such factors as "the particular craft, classification or type of work within the locality and in the nearest labor market area (if majorities of such workers are paid at a single rate). If there is no single rate paid to a majority, then the single or modal rate being paid to the greater number of workers is prevailing."

Rooftop solar wages – Residential rooftop solar installation does not currently require payment of the prevailing wage; as such, rooftop solar installers are generally making below the wage rate paid to other building and construction trade workers. According to the Bureau of Labor Statistics, Occupational Employment Statistics, the median hourly wage in 2015 for a solar installer was a little under $21 an hour. According to a UC Berkeley Labor Center report on solar jobs: "residential rooftop solar companies, whether they directly employ workers or subcontract out the work to other installation crews, essentially compete in the residential construction market where barriers to entry are low, unionized contractors are absent, and contractors who comply with employment laws and building codes must compete with many who skirt these regulations. All of this puts downward pressure on wages."

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 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. On August 27, 2020, the CPUC initiated a rulemaking[4] to develop a successor to the NEM 2.0 tariff, as part of its commitment in a previous decision to review the current tariff. The CPUC released a proposed decision in December 2021. However, a revised proposed decision is pending.

The Cost Shift – The controversy associated with NEM is that the customers with NEM (most of whom have rooftop solar) are subsidized by customers without NEM. Extensive study has

[4] R. 20-08-020

occurred for several years. The committee is not aware of any refutation of the cost shift. All residential non-NEM or nonparticipating customers, including low-income customers, shoulder an additional rate burden as a result of the cost shift from NEM customers. According to Next10 and the Energy Institute at Haas:

> "*…residential customers with [rooftop solar] are credited at the retail electricity rate for every kWh of solar electricity they generate. This effectively shifts the burden of fixed cost recovery onto customers that have not adopted [rooftop solar]…this confers a generous subsidy because residential rates significantly exceed social marginal cost (which includes, among other components, the estimated social cost of greenhouse gas emissions). Importantly, the growing gap between the retail rate and marginal cost reflects costs that are not avoided—only shifted—when a household adopts [rooftop solar].*"[5]

A recent study commissioned by the CPUC also found that, as compared to the general California population, NEM customers are disproportionately older, located in high-income areas, likely to own their home, and less likely to live in a disadvantaged community. Consequently, the costs of NEM are disproportionately paid by younger, less wealthy, and more disadvantaged ratepayers, many of whom are renters.[6]

COMMENTS:

1) *Author's Statement.* According to the author, "The data clearly show that low-income renters have been left out of the rooftop solar expansion. According to the Lawrence Berkeley National Laboratory, only four percent of solar adopters come from the lowest 20 percent of earners. The state requires creative solutions that will aggressively expand solar access to underserved communities that are paying increasingly expensive energy bills every month. SB 1385 will achieve this goal by creating a program that will both increase high paying clean jobs as well as bring solar access to low-income families across the state."

2) *SB 1385 Program.* This bill establishes a new 1,500 MW solar program that requires each large IOU to construct distribution system-connected solar and storage systems on, or near, qualified multifamily housing. The 1385 Program is fashioned as a community solar program; but one where the solar system is utility-owned and need not serve the electric load of the multifamily housing it is sited near. Rather, the solar and storage systems export their power to the grid to generate revenue. The generated revenue is then provided as monthly bill credits to eligible low-income customers that volunteer to receive the credits. Export revenue also pays the cost of construction and operating the system, and administering the program. While solar systems built under the 1385 Program must be "sized to meet all, or part of the participating customers' electrical requirements," the projects do not have a size cap nor are required to be onsite, nor are they even required to have participating customers in order to be built. Therefore, projects could theoretically be quite large.

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[5] *Designing Electricity Rates for an Equitable Energy Transition*, p. 27-28, Next10 and the Energy Institute at Haas, February 23, 2021, available at https://www.next10.org/sites/default/files/2021-02/Next10-electricity-rates-v2.pdf

[6] Verdant Study,

There is no commitment to customers to participate in the program. The utility identifies properties near eligible multifamily housing to site the systems. If the utility owns the land, they build it; otherwise they enter into an arrangement with the property owner. Eligible, low-income customers nearby may opt-in to receive bill credits; however, if customers choose not to receive credits it does not cancel the project.

3) *Helping Low-Income?* The program established by this bill is fashioned as enabling low-income families greater access to the benefits of solar energy. There is certainly an avenue for low-income support in this bill by enabling the electric IOUs to site systems near eligible multifamily housing, and then provide bill credits to willing low-income customers on an opt-in basis. However, this scenario is ***optional*** under the 1385 Program; it is not required. Rather, this bill defines "qualified multifamily housing" as any housing with four or more units that either *predominantly* houses low-income customers, is located in an underserved community, or is located in a high fire threat district. The 1385 Program also explicitly excludes qualified multifamily *affordable* housing from eligibility, so as not to compete with SOMAH. Further, 1385 projects only need to be built "near" qualified multifamily housing. It is unclear what mileage constitutes "near."

   These broad definitions make a solar and storage system built in a high fire threat district eligible under the 1385 Program so long as the system is near housing that is at least four units. It needn't serve any low-income customers nor provide any bill credits. As almost half the state is in a high fire threat district,[7] it is possible that many of the projects enabled by this bill could be built without providing any relief to low-income populations, contrary to the author's stated intent.

4) *Getting it to Pencil.* This bill would create a new program focused on installing solar and storage on multifamily housing. The 1385 Program would be utility directed, located on the distribution system in front of the customer's meter, and apply to a wide definition of multi-family housing. According to the CPUC, the average cost for a SOMAH solar project is estimated to be $650,000 per project, with about 1,400 installations anticipated to achieve the program's 300 MW goal and $1 billion budget.

   There is concern that the costs of the program proposed in this bill—which would be enormous if all 1,500 MW were built—could result in increased costs to electric ratepayers via recovery of the program's costs in electric utility rates. This bill currently has customer protections in place requiring all costs *for the system* to be borne exclusively through revenues generated by the projects via the sale of energy and capacity. It additionally prohibits IOUs from shifting program costs to nonparticipants, or obligating nonparticipants from cost recovery of the system.

   Rather, the system and its operations are proposed to be paid for by revenue arising from the export of the energy from these systems. Presumably, because they are solar and storage arrays, the systems would be connected in a manner to maximize power prices – charging during the day when solar is peaking and power is cheap, and then exporting during net peak when solar is coming offline and the grid is constrained. Even with such pricing arbitrage, and the utilization of tax credits for project construction, it is unclear how the projects under this bill would pay for themselves, or how long their payback

[7] By total land area; 44% of the state is in a Tier 2 or Tier 3 HFTD. See CPUC D. 17-12-024.

period might be. This all seems to suggest IOUs would be incentivized to build large solar and storage arrays to maximize the payback potential of these projects. Nothing in this bill seems to limit the 1385 Program from becoming a vehicle for IOUs to install hundred-plus-MW solar and storage projects that they finance, own, and operate.

It is also not clear what constitutes a "participant"—and thus also a "nonparticipant"—in this program, as these systems are not required to have customers that receive bill credits as a condition of their being built. Therefore it is unclear what universe of electric ratepayer may be considered "nonparticipants," and thus protected from cost obligations under the provisions in this bill. Moreover, while these systems are meant to be paid for by revenues for exported electricity, they will still require upfront financing from the IOU. Traditionally, IOU project financing arises from bonds or loans encumbered by the ratepayers; that debt accrues interest that is also paid for by the ratepayers. It is unclear if this traditional financing is expected for the 1385 Program's projects, and whether or not doing so would constitute a cost-shift to nonparticipating customers.

Given these uncertainties with the projects' finances, and the author's intent to protect nonparticipating ratepayers from absorbing any costs, *the author and committee may wish to consider clarifying amendments to the bill that 1) include all program costs, including bill credits and administrative costs, in the protection to not obligate customers in 2827.5(b)(6)(B)(ii); 2) include an option that should any additional program costs arise outside of what export revenue is able to cover, that those costs be paid for only by an appropriation of the Legislature; 3) strike the requirement that the CPUC may increase the total program size.*

5) *Timing Incongruities.* The 1,500 MW proposed by the 1385 Program is an incredibly ambitious scale on an incredibly tight timeline. For context, the GTSR is 600 MW and has been operational for over a decade, while the SOMAH is 300 MW over a 10 year period. This bill requires that 750 MW be installed within five years of the start of the program, with the remaining 750 MW installed in ten. The bill requires the CPUC to establish the program no later than January 1, 2024, which puts all 1,500 MWs of systems envisioned by this bill online by 2034. However, this bill additionally requires all provisions to sunset by January 1, 2027, three years after the program's launch. It is unclear which aspect of the bill's timing is superior – can projects still be encumbered and installed under a program that has sunset? What timeline will the CPUC establish for the program in order to meet these competing statutory directives? How will the financial community view the viability of projects meant to come online over the course of a decade but also under a program that sunsets in three years? *Given the clear timing incongruities present, and the need to be cautious when establishing the parameters of such large-scale projects as envisioned by this bill, the author and committee may wish to strike all reference to the 5- and 10-year deadlines in the bill.*

6) *Prevailing Wage*. All workers employed on public works projects must be paid the prevailing wage determined by the Director of the Department of Industrial Relations, according to the type of work and location of the project. Public works projects of $30,000 or more must also meet apprenticeship requirements. The policy behind paying a prevailing wage is to ensure that contractors are not awarded public works contracts by virtue of paying low wages and undercutting competitors who provide higher

compensation. Prevailing wage creates a level playing field by requiring an across-the-board rate for all bidders on publically subsidized projects.

This bill requires the construction of any 1385 Program project be constituted a public works project. This Committee adopted a similar measure earlier this year that defined any renewable electrical generation facility greater than 15 kilowatts and on a net energy metering tariff as a public works project.[8] However, unlike the earlier measure which was limited to only apply to NEM projects, this bill includes projects not on a NEM tariff. Rather, the 1385 Program's projects will be IOU-financed, operated, and maintained. As such, this bill may be establishing a new standard for renewable public works projects—that they need not be publically subsidized.

7) *Understanding the Universe.* As evidenced by the multi-page background section at the top, the 1385 Program is not being created in isolation. Rather, many (many, many) community solar options exist for a variety of California electric customers. While each program may have its own target audience or niche financing mechanism, it is unclear how each program provides unique goals or targets. Given every program created—either through regulatory initiative or legislative mandate—carries its own administrative, marketing, and outreach price tag, it may be wise to review all programs comprehensively. The program envisioned by this bill provides a welcome opportunity to evaluate similar voluntary renewable energy programs to determine whether they all still meet state goals and provide value to unique customer groups. *As such, the author and committee may wish to amend this bill to include direction to the CPUC to evaluate similar voluntary renewable energy programs and determine if those programs efficiently serve distinct customer groups, minimize duplicative offerings, and promote participation by low-income customers. Additionally, such an evaluation would provide the opportunity for the CPUC to consolidate or eliminate programs that do not achieve such aims.*

8) *Helping the Grid?* As mentioned earlier, this bill seems to enable very large, utility-owned solar and storage projects to be built and connected to the distribution system. The author notes the intent for these systems to provide resiliency benefits to both communities in high fire threat districts as well as to the grid generally. Having projects connected at the distribution-level can allow those assets to be brought online more quickly, as the projects won't have to wait in the California Independent System Operator's (CAISO) queue. This expedition will likely be necessary for a program with a three-year window before it sunsets.

The IOU would operate the projects on the distribution system as load modifying resources that could be responsive to system-wide grid conditions. But that additionally means these projects may not be participating in CAISO's market, and the visibility to CAISO of projects installed in this manner is unclear. For its part, Southern California Edison's Ameresco battery energy storage system is designed in a similar fashion – a 500+ MW system of distribution-level batteries that Edison operates as a load-modifying

[8] AB 2143 (Carrillo, 2022); Passed out of this Committee on April 6th, 2022. Vote: 12 Ayes, 3 No Vote Recorded.

resource.[9] Edison ultimately plans to have the battery asset participate in CAISO's market, but according to Edison that process could take years.

This bill defines the solar and storage systems as ones that are "sized to optimize the system's ability to export electricity to the electrical grid at times of day when it is most valuable" and that project revenue would be generated from the "sale of energy, capacity, and other services." The mechanics of this are unclear, and therefore exactly what grid benefit may arise from these projects is likewise unclear. Presumably, the 1385 Program can be structured in such a way that projects could choose to participate in the CAISO market or not, depending on what is most financially advantageous. However the CPUC must be careful in establishing the program to ensure large amounts of energy from these projects are not exported onto the grid without any visibility by the CAISO to monitor their operation.

9) *Further Amends.* This bill makes inaccurate findings and declarations related to existing rooftop solar programs. The intended subject of these findings seems to be the state's NEM policy; however they are broadly written to include all existing rooftop solar programs, of which—as indicated above—there are many. *The author and committee may wish to strike these erroneous findings and declarations.*

10) *Related Legislation.*

AB 2316 (Ward) requires the CPUC to open a proceeding by March 31, 2023, to establish a community renewable energy program that meets specified criteria. This bill also requires the CPUC, as part of the proceeding, to evaluate customer renewable energy subscription programs and to report the findings from the evaluation to the Legislature by December 31, 2023. Upon evaluation, authorizes the CPUC to terminate or modify programs that fail to meet certain requirements, as specified. Status: *set for hearing* in the Senate Committee on Energy, Utilities, and Communications on June 27, 2022.

AB 2838 (O'Donnell) authorizes the CPUC, beginning April 1, 2023, to permit IOUs to terminate their GTSR programs. Status: pending in the Senate Committee on Appropriations.

11) *Previous Legislation.*

AB 693 (Eggman) created the Multifamily Affordable Housing Solar Roofs Program, now known as SOMAH, to provide financial incentives for qualified solar installations at multifamily affordable housing properties funded from IOU's GHG allowances. Status: Chapter 582, Statutes of 2015.

AB 217 (Bradford) extended the low-income programs of the CSI Program from 2016 until 2021, authorizes the collection of an additional $108 million for these programs, and adds additional standards to the program, as specified. Status: Chapter 609, Statutes of 2013.

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[9] Ameresco announcement, "Three Battery Energy Storage Systems at distribution level substations will provide California residents with electricity in time for next summer's reliability challenges," 2021, https://www.ameresco.com/portfolio-item/southern-california-edison/

AB 327 (Perea) among other provisions, required the CPUC to develop specific alternatives to the net energy metering tariff to ensure that customer-sited renewable distributed energy is available to residential customers in disadvantaged communities. Status: Chapter 611, Statutes of 2013.

SB 43 (Wolk) established a Green Tariff Shared Renewables Program to allow electric IOUs to administer a program that allows utility customers to voluntarily purchase electricity from renewable energy facilities. Status: Chapter 413, Statutes of 2013.

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

REGISTERED SUPPORT / OPPOSITION:

Support

California Apartment Association
California State Association of Electrical Workers
Climate Reality Project, San Fernando Valley
Coalition of California Utility Employees
IBEW Local 11
IBEW Local 617
IBEW Local 684
International Brotherhood of Electrical Workers, Local 1245
International Brotherhood of Electrical Workers, Local 47
State Building and Construction Trades Council of Ca

Support If Amended

The Utility Reform Network (TURN)

Opposition

350 Bay Area Action
350 Conejo
350 Conejo / San Fernando Valley
Angelenos for Green Schols
Angelucci Development
Association for Energy Affordability, INC.
Berkeley Climate Action Coalition
Berkeley Electrification Working Group
Berkeley Tenants Union
Brighter Climate Futures
Cadem Renters Council
California Alliance for Community Energy
California Climate Voters
California Democratic Party Renters Council

California Housing Partnership Corporation
California Solar & Storage Association
California Solar and Storage Association
Californians for Community Energy
CCC Climate Leaders
Citizen's Climate Lobby, Castro Valley Chapter
Clean Coalition
Climate Hawks Vote
Coalition for Environmental Equity and Economics
Community Advancement Development Corporation
Desert Valleys Builders Association (DVBA)
East Area Progressive Democrats
Environmental Center of San Diego
Environmental Justice Coalition for Water
Extinction Rebellion Sf Bay
Glendale Environmental Coalition
Grid Alternatives
Hammond Climate Solutions
Indivisble East Bay
Indivisible Alta Pasadena
Indivisible CA 37
Indivisible Ca-14
Indivisible Ca-33
Indivisible Ca-37
Indivisible California Green Team
Indivisible East Bay
Indivisible Marin
Indivisible Media City Burbank
Indivisible Resistance San Diego
Indivisible Ross Valley
Indivisible Sacramento
Indivisible San Jose
Indivisible Sonoma County
Indivisible South Bay LA
Indivisible Ventura
Indivisible Resistance San Diego
Kire Builders INC
Livermore Indivisible
Long Beach Alliance for Clean Energy
Nirvani Sai LLC
Northern California Land Trust
Progressive Democrats of America
Progressive Democrats of America, California
Progressive Democrats of Santa Monica Mountains
Rooted in Resistance
San Joaquin Valley Democratic Club
Santa Cruz Climate Action Network
SEI
Self Help Enterprises

Service First of Northern California
Silicon Valley Youth Climate Action
SoCal 350
Solidarity Infoservice
Stand Strong LA Indivisible
Sunflower Alliance
Sunrise Bay Area
The Resistance Northridge-indivisible
Topper Packaging, LLC
Valley Women's Club of San Lorenzo Valley
Wellstone Democratic Renewal Club

Other

Center for Sustainable Energy

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