BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the Self-Generation Incentive Program and Related Issues.	FILED PUBLIC UTILITIES COMMISSION MAY 28, 2020 SAN FRANCISCO, CALIFORNIA RULEMAKING 20-05-012

ORDER INSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES

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ORDER INSTITUTING RULEMAKING REGARDING POLICIES, PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM AND RELATED ISSUES

Summary

This rulemaking is initiated to develop and refine policies, procedures and rules for the Self-Generation Incentive Program (SGIP) and, to a lesser extent, the California Solar Initiative (CSI). The purpose of the rulemaking is to ensure the effectiveness of programs and policies to promote customer renewable generation and energy storage systems in compliance with statute. To accomplish this, this rulemaking will initially focus on SGIP requirements for behind-the-meter renewable generation and heat pump water heater technologies. The rulemaking will subsequently consider the greenhouse gas emissions (GHG) performance of energy storage systems using SGIP incentives and may consider the GHG performance of energy storage systems installed without SGIP incentives. The rulemaking will consider other matters regarding the ongoing implementation of Public Utilities Code Sections 379.6 and 379.9 as they arise.

1. Background

The Commission established the Self-Generation Incentive Program (SGIP) in 2001 in Decision (D.) 01-03-073 in response to Assembly Bill (AB) 970 (Ducheny, Stats. 2000, Ch. 329). AB 970 directed the Commission to provide incentives for distributed generation resources to reduce peak energy demand.

Since 2001, the Legislature has refined and extended the SGIP numerous times.[1] As a result of legislation signed into law between 2001 and 2017, Public Utilities Code Section 379.6 directs the California Public Utilities Commission (Commission) to undertake the following regarding the SGIP:[2]

1. Increase deployment of distributed generation and energy storage systems to facilitate the integration of those resources into the electrical grid; improve efficiency and reliability of the distribution and transmission system; reduce GHG emissions, peak demand, and ratepayer costs; and, provide for an equitable distribution of the costs and benefits of the program (§ 379.6(a)(1));
2. Limit eligibility for incentives to distributed energy resources that reduce GHG emissions (§ 379.6(b)(1));
3. Limit eligibility for incentives under the program to distributed energy resource technologies that meet all of these criteria: (1) shifts onsite energy use to off-peak time periods or reduces demand from the grid by offsetting some or all of the customer's onsite energy load, including, but not limited to, peak electric load; (2) is commercially available; (3) safely utilizes the existing transmission and distribution system; (4) improves air quality by reducing criteria air pollutants (§ 379.6(e));
4. Ensure that recipients of funds provide relevant data to the Commission and the California Air Resources Board

[1] AB 1685 (Leno, 2003), AB 2778 (Lieber, 2006) and SB 412 (Kehoe, 2009) collectively shifted SGIP's focus from peak demand reduction towards reducing criteria pollutants and greenhouse gas (GHG) emissions. Senate Bill (SB) 861 and AB 1478 authorized SGIP collections through 2019 and administration through 2020 and required a number of other changes. AB 1637 (Low, 2016) authorized the Commission to double annual collections through 2019 as compared to calendar year 2008.

[2] Hereafter, all references to code are to the Public Utilities Code, unless otherwise indicated.

(CARB), upon request, and are subject to onsite inspection to verify equipment operation and performance, including capacity, thermal output, and usage data and to verify criteria air pollutant and GHG emissions performance (§ 379.6(f));

5. Determine minimum system efficiency by calculating electrical and process heat efficiency as set forth in Section 216.6 or by calculating overall electrical efficiency (§ 379.6(d)); and, determine a capacity factor for each generation system technology (§ 379.6(g));[3]
6. Consider the relative amount and cost of GHG emission reductions, peak demand reductions, system reliability benefits, and other measure factors when allocating program funds between eligible technologies (§ 379.6(h)(2));
7. Ensure that distributed generation resources are made available for all ratepayers (§ 379.6(i));
8. Ensure that SGIP costs are not collected from customers participating in the California Alternate Rates for Energy program (§ 379.6(k)); and,
9. Evaluate the success and impact of the SGIP based on: (1) the amount of GHG emission reductions; (2) the amount of reductions of criteria pollutants; (3) the amount of energy reductions measured in energy value; (4) the amount of reductions of customer peak demand; (5) the capacity factor; (6) the value to the electrical transmission and distribution system measured in avoided costs of transmission and distribution upgrades and replacement; and, (7) the ability to improve onsite electricity reliability

[3] Defined in Section 379.6(l) as the ratio of the electricity generated by the distributed energy resource generation projects receiving incentives from the program to the electricity capable of being produced by these projects.

> as compared to onsite electricity reliability before the incented technology was placed in service (§ 379.6(l)).

In response to these statutory requirements, the Commission in D.08-11-044 expanded the SGIP program to add customer energy storage as an eligible technology. In D.11-09-015 and D.15-11-027 the Commission established and then revised GHG emission factors and eligibility criteria for distributed generation technologies receiving SGIP incentives. In D.17-10-004, the Commission established an SGIP equity budget providing higher energy storage incentives for low-income customers and disadvantaged communities.[4]

SB 700 (Wiener, 2018), authorizes the Commission to extend annual ratepayer collections for the SGIP from December 31, 2019 to December 31, 2024 by up to $166 million annually and to extend administration of the program from January 1, 2021 to January 1, 2026.[5] SB 700 also requires the Commission to adopt requirements for energy storage systems to ensure that eligible energy storage systems reduce GHG emissions and to return to ratepayers any unallocated SGIP funds remaining as of January 1, 2026.[6] Additionally, AB 1144 (Friedman, 2019) requires the Commission to allocate at least 10 percent of annual SGIP ratepayer collections for the 2020 calendar year for the installation of energy storage and other distributed energy resources for customers that operate critical facilities or critical infrastructure serving communities in High

[4] For a full list of substantive decisions adopted in R.12-11-005, *see* Appendix A.

[5] Section 379.6(a)(2).

[6] Section 379.6(c).

Fire Threat Districts (HFTDs) to support resiliency during de-energization events.[7] AB 1144 requires the Commission to prioritize projects for customers meeting certain criteria when allocating these funds and to evaluate these SGIP projects against these criteria no later than December 31, 2022.[8]

In 2019 and 2020, the Commission undertook broad SGIP revisions in response to SB 700 and AB 1144 and to address challenges caused by widespread wildfires and electric grid de-energizations during 2017 and 2018. In D.19-08-001, the Commission established GHG emission reduction requirements for energy storage systems. In D.19-09-027, the Commission established a $100 million equity resiliency budget for energy storage technologies that support resiliency to electric grid de-energizations for equity and medically vulnerable customers located in areas of extreme or elevated fire risk and the critical facilities supporting them. D.19-09-027 adopted requirements to ensure

[7] Section 379.9.

[8] Section 379.9(b) states that in allocating funds collected from ratepayers between 2020 and 2024, the Commission must prioritize funding to projects for eligible customers that do all of the following: (1) demonstrate a financial need; (2) operate a critical facility or critical infrastructure serving communities in high fire threat districts during a de-energization event; and, (3) demonstrate coordination with the electrical corporation serving the customer's community, relevant local governments and the California Office of Emergency Services. Section 379.9(b) requires that evaluation of these SGIP projects must include a list of customers receiving funding and the type of customer operating each project and, that for a representative sampling of projects, the SGIP evaluation shall also include the known and expected performance of each project as a source of backup power, the impact of the project on GHG emissions, the communities served by the critical facility or critical infrastructure, customer coordination with the Office of Emergency Services, the electrical corporation serving the community, relevant local governments, and any other information the Commission deems useful.

that projects using SGIP incentives to support customer resiliency are verified as able to safely island during a grid outage.

Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SDG&E), Southern California Gas Company (SoCalGas) and the Center for Sustainable Energy (CSE) serve as the SGIP program administrators (PAs).[9] In D.20-01-021, the Commission directed PG&E, SCE, SoCalGas and SDG&E (collectively investor-owned utilities or IOUs) to collect $166 million annually for the SGIP through 2024, as authorized by SB 700, and directed the IOUs to return all unallocated SGIP funds as of January 1, 2026 to ratepayers. D.20-01-021 confirms allocation of significantly more than 10 percent of annual SGIP collections for the 2020 calendar year for the installation of energy storage and other distributed energy resources for customers that operate critical facilities or critical infrastructure serving communities in Tier 2 or Tier 3 HFTDs as required in AB 1144. D.20-01-021 also expands the equity resiliency budget to $613 million over five years, establishes resiliency adder incentives for general market non-residential energy storage systems and renewable generation technologies, and shifts 88 percent of SGIP incentive funds to energy storage. D.19-09-027 and D.20-01-0221 together establish a $45 million incentive budget for heat pump water heater (HPWH) technologies and direct a workshop to explore whether modifications to SGIP program processes may be necessary to accommodate HPWH.

[9] CSE serves as SGIP PA in the service territory of San Diego Gas and Electric Company (SDG&E).

Section 3796.6(m) prohibits use of SGIP incentives for distributed generation technologies using non-renewable fuels as of January 1, 2020.[10] In D.19-09-027, the Commission clarified that renewable generation technology projects receiving SGIP incentives must use renewable fuels over their entire lifetime to be eligible for incentives. In D.20-01-021, the Commission also paused SGIP acceptance of new incentive applications for renewable generation technology projects using biofuel derived from biomethane already required to be controlled and captured (also known as "flaring") under existing regulations. The Commission took this step to respond to concerns raised by parties on the GHG emission impacts and environmental benefits of SGIP renewable generation projects in California.

Rulemaking (R.) 12-11-005 included aspects of the California Solar Initiative (CSI) and its sub-programs and the Net Energy Metering (NEM) tariff, including revision of program requirements, evaluation and program oversight functions within scope. However, this new rulemaking will consider a limited set of CSI sub-program evaluation and program implementation issues, only, and does not address NEM policies or evaluation. NEM policies and evaluation guidance were transferred to R.14-07-002 in the Order Instituting Rulemaking (OIR) for that proceeding.[11]

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[10] Section 379.6(m).

[11] *See* OIR to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering, available here: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M098/K303/98303355.PDF

After adopting over 30 decisions addressing a wide variety of distributed energy resource incentive, program and evaluation requirements (*See* Appendix A), the Commission closed R.12-11-005 on February 6, 2020. However, on March 11, 2020, the Commission reopened R.12-11-005 to address a Petition for Modification (PFM) of D.19-08-001. On April 1, 2020, a second PFM was filed regarding D.19-09-027 and D.20-01-021. The Commission will again close R.12-11-005 after addressing these two PFMs.

The SGIP has contributed to the growth of customer generation and energy storage markets in California since it was established. Since 2001, the SGIP has provided over $1.2 billion in incentives to support over 750 megawatts (MW) of generation technologies. Customer demand for energy storage has accelerated in California during this period as well. Since 2012, when the Commission opened R.12-11-005, the SGIP has provided $630 million in incentives for 270 MW of distributed generation technologies and 620 megawatt hours (MWh) of energy storage technologies.[12] In 2017, the SGIP awarded incentives to 2,476 small residential energy storage projects. By 2018, the SGIP awarded incentives to 5,670 small residential energy storage projects.

2. Preliminary Scoping Memo: Scope of the Proceeding

The Commission initiates this OIR to address critical tasks to improve and refine the SGIP in response to statutory requirements and other developments

[12] SGIP Weekly Statewide Report (www.selfgenca.com), *accessed April 2, 2020*

and to continue program implementation oversight and evaluation activities for CSI sub-programs. The following issues comprise a preliminary Scoping Memo.

2.1 SGIP Review, Evaluation and Program Oversight

This rulemaking will address program, policy and evaluation issues relating to the SGIP with priority given to implementation of legislative guidance. As initial priorities, this rulemaking will consider the need for revisions to program and evaluation requirements for HPWH and renewable generation technologies. As needed, it will address SGIP requirements in other areas, such thermal energy storage (TES) system requirements more broadly.

Next, this rulemaking will review the GHG emissions reduction performance of SGIP energy storage technologies in response to requirements adopted in D.19-08-001 and will consider program adjustments to those requirements as necessary. For comparison purposes, it may also consider the GHG emissions performance of behind-the-meter energy storage systems installed without SGIP incentives.

This rulemaking will consider other program revisions as the need arises.

2.1.1. Heat Pump Water Heaters

As noted in D.19-09-027, HPWH qualify as eligible SGIP technologies because these systems have the capability to shift load from peak to off-peak periods and can provide California Independent Service Operator (CAISO)-integrated load drop and ramping services.[13] However, prior to

[13] *See* also D.11-09-015, which authorizes funding for emerging advanced energy storage technologies and D.14-08-029, which finds that small TES systems should be treated as an SGIP emerging technology.

D.19-09-027 and D.20-01-021, the Commission had not specifically promoted HPWH as an eligible SGIP technology. As a result, as of April 2020, the SGIP PAs have received no applications for residential HPWH.

In D.20-01-021 and D.19-09-027, the Commission established a five percent budget allocation for general market HPWH, resulting in an approximate HPWH incentive budget of $44.7 million between 2020 and 2025, including a $4 million equity budget HPWH set-aside. In adopting these budgets, the Commission recognized that because HPWH generally cost less than battery systems this technology may increase opportunities for SGIP participation by lower income customers while still providing grid benefits and bill reduction benefits. In D.20-01-021, the Commission noted that the GHG emission reduction benefits of HPWH appear promising, including that HPWH may reduce GHG emissions more than the five kilograms of carbon dioxide reduction per kilowatt hour (kg CO_2/kWh) of energy produced required of all energy storage technologies receiving SGIP incentives in D.19-08-011.[14]

D.19-09-027 and D.20-01-021 directed Commission staff and SGIP PAs to convene a workshop in 2020 to explore opportunities to facilitate participation of HPWH in the SGIP. Commission staff convened the first part of this workshop on March 19, 2020 and the second part on May 7, 2020.

This rulemaking may address program and incentive design and evaluation questions relevant to HPWH, including the following:

- Achieving market transformation of HPWH;

[14] D.20-01-021 at 22.

- HPWH incentive design and administration;
- Achieving equity in HPWH deployment;
- Ensuring load shifting, including whether SGIP should require the use of grid enabled controls to ensure HPWH water heating in off-peak hours;
- Other barriers to HPWH adoption including eligibility issues and other program rules;
- Additional HPWH budget allocations; and,
- Coordination with other Commission programs

This rulemaking will coordinate with other Commission programs addressing HPWH as it considers revisions to SGIP rules to promote this technology. To date, the Commission has approved funding for 11 programs, including SGIP, that will provide incentives for either the deployment of HPWH or the enablement of grid controls for HPWH through 2025.[15] R.19-01-011 addresses building decarbonization and in D.20-03-027 the Commission approved a $200 million budget for the TECH Initiative and the BUILD Program.

[15] Energy efficiency funded programs include PG&E's Advanced Energy Rebuild program, SCE's Clean Energy and Resiliency Rebuild Program, SCE's Midstream HPHW program, the Bay Regional Energy Network's (BayREN's) Home+ program, and BayREN's Bay Area Multifamily Building Enhancements (BAMBE) program. The San Joaquin Valley disadvantaged communities pilot funds the potential installation of 1,667 HPWH. The Energy Savings Assistance Program funds Marin Clean Energy's (MCE's) Low-Income Families and Tenants (LIFT) program. SCE's Demand Response and Disadvantaged Communities pilot (AL 3951-E-A) funds the installation of controls on HPWH installed by the San Joaquin Valley disadvantaged pilot and is funded by the Demand Response Emerging Technology program and Demand Response Disadvantaged Communities pilot program ordered in D. 18-11-029. P&GE's "WatterSaver" program, authorized in D. 19-06-032, funds the replacement of propane water heaters and installation of controls for HPWH. D.20-03-027 adopted the Technology and Equipment for Clean Heating (TECH) Initiative and the Building Initiative for Low-Emissions Development (BUILD) Program.

These two pilot programs will likely provide incentives for the installation of HPWH in both new and existing homes. D.19-08-009 in R.13-11-005 modified energy efficiency policies to facilitate the use of energy efficiency incentives for HPWH that replace natural gas water heaters.[16] R.15-03-010 addresses affordable energy options for disadvantaged communities in the San Joaquin Valley pursuant to Section 783.5. D.18-12-015 in R.15-03-010 adopts electrification pilot projects in 11 communities and could result in the installation of HPWH in up to 1,400 homes over the next several years. Several other state and local agencies provide HPWH incentives as well.[17]

2.1.2. Thermal Energy Storage Systems

As discussed in D.19-08-001, TES systems operate quite differently than electrochemical storage systems. As a result, in D.19-08-001 and D.19-09-027, the Commission established a SGIP TES working group to discuss the need for modifications to the GHG emission reduction requirements adopted in D.19-08-001 to ensure their applicability to TES systems. D.19-08-001 and D.19-09-027 authorized the SGIP PAs to consult with the SGIP TES working group and to propose revisions to SGIP system, operation, measurement, verification and performance evaluation requirements, and other issues as they

[16] D.19-08-009, "Decision Modifying the Energy Efficiency Three-Prong Test Related to Fuel Substitution," adopted August 1, 2019.

[17] Municipal electricity districts, such as the Sacramento Municipal Utility District (SMUD), regional air quality management districts, such as the Bay Area Regional Air Quality Management District, and other state agencies, such as the California Department of Community Services and Development's Low-Income Weatherization program, offer programs currently providing incentives for HPWHs.

pertain to the application of the GHG requirements adopted in D.19-08-001 to TES systems.[18]

TES systems are eligible for all categories of energy storage incentives, if they meet other applicable requirement, but developers have submitted very few applications for TES systems to date. As of early April 2020, 10 thermal energy storage projects have reserved incentives and just one, 115 kilowatt (kW) TES project is currently receiving performance based incentives.[19] This rulemaking may consider the need for revisions to SGIP requirements to address the dynamic operation of some TES systems, including updates to evaluation methods establishing baselines.

2.1.3. Renewable Generation Technologies

The Commission has established and revised SGIP requirements for generation technologies repeatedly over the last 19 years. This rulemaking will consider revisions to SGIP renewable generation technology requirements starting with the areas identified in D.20-01-021.

In D.20-01-021, the Commission directed the SGIP PAs to pause acceptance of new incentive applications for renewable generation projects using control and capture as the biomethane baseline until this Commission provides further

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18 D.19-08-001 at 86 states "we clarify that the TES [working group] may include system, measurement, verification, performance evaluation and other program requirements for TES systems in its scope and that the PAs may include proposals on these topics as part of the advice letter process approved elsewhere in this decision;" D.19-09-027 at 99 further clarifies that "the scope of the TES working group discussions is limited to alterations to the GHG emission reduction requirements adopted in that decision to ensure their general applicability for TES systems."

19 SGIP Weekly Statewide report (www.selfgenca.com), *accessed April 2, 2020.*

guidance in a decision.[20] The Commission took this step in response to a number of concerns raised by parties regarding the proposed decision for D.20-01-021. In reviewing these concerns, D.20-01-021 found the following regarding renewable generation technologies:[21]

1. SGIP renewable generation technologies using on-site biogas with venting as the baseline have a solid track record of providing GHG emission reductions;
2. In 2016-2017, on-site biogas SGIP projects with venting as the baseline produced over ten times as many GHG emission reductions per megawatt hour (MWh) of energy generated as SGIP biogas projects with control and capture as the biomethane baseline;
3. SGIP directed biogas projects in 2017 resulted in a small increase in GHG impacts due to biogas contracts expiring;
4. To date, all SGIP projects using vented methane as the baseline have been located on dairy farms;
5. Limiting SGIP generation projects to those with a 10-year contract for biogas supply and operation may be a reasonable way to ensure compliance with requirement of Section 379.6(m) that SGIP generation projects only use renewable fuels; and,
6. Some parties are concerned that existing tracking and verification systems may not ensure that directed biogas projects produce incremental environmental benefits.

[20] D.20-01-021, Ordering Paragraph 6.

[21] D.20-01-021, Findings of Fact 18-20 and 26-28.

In 20-01-021, the Commission committed to revisiting the performance of SGIP renewable generation technologies and the appropriate program requirements, incentive levels and budgets.[22] D.20-01-021 states that:

> Amongst other changes, the next SGIP rulemaking will consider adopting the same or similar requirements for tracking biomethane used in SGIP projects as those required by the CARB in the [Low Carbon Fuel Standard] (LCFS) to verify the source of an SGIP project's biofuel and to ensure no double counting of the environmental benefits. Further, the next SGIP rulemaking may consider requirements regarding biomethane procurement and environmental benefits modeled on the [California Energy Commission] (CEC's) [Renewable Portfolio Standard] (RPS) rules and/or other requirements. The potential changes discussed in this paragraph may be imposed on all projects that submit an incentive application after the date of this decision.
>
> In addition to directing SGIP PAs to pause acceptance of incentive applications for renewable generation technologies using collect/use/destroy as the biomethane baseline until this Commission provides further direction, we will convene a workshop on renewable generation technologies in the second or third quarters of 2020. Subsequently, the new SGIP rulemaking may revisit the question of the appropriate level of annual budget allocations using SB 700 funds for renewable generation technologies that use biofuels.[23]

Additionally, SB 1369 (Skinner, 2017) requires the Commission to "authorize procurement of resources to provide grid reliability services that minimize reliance on system power and fossil fuel resources and, where feasible,

[22] D.20-01-021 at 69.

[23] *Ibid*.

cost effective, and consistent with other state policy objectives, increase the use of large- and small-scale energy storage with a variety of technologies, including green electrolytic hydrogen, ..." SB 1369 defines green electrolytic hydrogen as "hydrogen gas produced through electrolysis and does not include hydrogen gas manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock."[24] SGIP renewable generation incentives are available to fuel cells that use renewable fuel, including green electrolytic hydrogen. This rulemaking will consider program revisions to implement SB 1369 as necessary.

This rulemaking will focus on program requirements for renewable generation technologies in the above and additional areas as needed to address barriers to participation of renewable generation technologies in the SGIP and appropriate oversight requirements.

2.1.4. Energy Storage GHG Emissions Impact

In D.19-08-001, the Commission adopted a range of new requirements for SGIP energy storage technologies to ensure that they reduce GHG emissions. D.19-08-001 also signaled the Commission's intent to timely review the GHG performance of SGIP projects against the new rules. Specifically, upon completion of the 2020 SGIP evaluation report, D.19-08-001 states that the Commission will notice a workshop to consider the report's GHG emissions

[24] Section 400.2.

findings to determine if these are consistent with our expectations for reductions and the needs of the changing grid.[25]

D.19-08-001 requires all new residential SGIP customers to enroll in an SGIP-approved time-of-use rate, if available, defining this as "a time-varying rate with a peak period starting at 4 pm or later and with a summer peak to off-peak price differential of 1.69 or more."[26] Additionally, as discussed in D.19-08-9001, the Commission in 2018 required PG&E and SCE to offer special rates for large- and medium-sized commercial customers with energy storage systems.[27]

This rulemaking will review evaluation data regarding the GHG emissions performance of residential and non-residential energy storage systems and related issues and will provide an opportunity for parties and Commission staff to consider whether any further changes to the GHG rules adopted in D.19-08-001 are necessary. This rulemaking may also direct study of the GHG emissions profile of energy storage systems that do not use SGIP incentives, for comparison purposes to SGIP systems. As a preliminary matter, we may require PG&E to file in this proceeding the study of its non-residential energy storage

[25] D.19-08-001 at 29-30.

[26] D.19-08-001 at 42.

[27] D.18-03-013 directs PG&E to offer Option-S rates for customers with loads greater than 75 kW and D.18-11-027 directs SCE to offer Option-E rates for customers with loads exceeding 20 kW. PG&E's Option-S rates significantly reduce non-coincident demand charges and SCE's Option-E rates eliminate non-coincident peak charges.[27] SCE and PG&E also have rates for small commercial customers with storage: SCE's TOU-GS-1 and PG&E's A-1-STORE rates. SDG&E's general rate case Application (A). 19-03-002 may consider rates for educational institutions with storage.

rates directed in D.18-08-013, when complete, to provide a venue for discussion of the results by interested stakeholders.[28]

Beyond review and discussion of evaluation findings on GHG emissions performance, this rulemaking may convene workshops to consider the quality of data available to SGIP evaluators, the effectiveness of the GHG signal directed in D.19-08-001, performance of the SGIP data upload portal in providing GHG performance information to developers, the impact of new metering requirements for new commercial projects smaller than 30 kW, the number and total GHG emissions of new commercial projects receiving reduced performance based incentive payment and related matters.[29]

2.1.5. Other Program Issues to Ensure SGIP Effectiveness

This rulemaking will address additional program and evaluation issues as required to ensure the effectiveness of the SGIP. Program issues related to specific customer segments and eligible technologies or the need for further refinement of evaluation requirements are likely to arise.

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[28] D.18-08-013, Ordering Paragraph 35 requires PG&E to study the performance of a representative sample of Option S energy storage systems after 12 months of operation, and compare them with the performance of a representative sample of non-Option S energy storage systems of comparable size on the relevant medium and large light and power rate (E-19V, E-19, or E-20), to determine the impact of Option S rates on energy storage performance and any potential cost-shift that results from that performance. The cost-shift analysis must account for the benefit of reduced peak usage and reduced greenhouse gas emissions as well as avoided payments for embedded costs and requires the study due at the time of the first PG&E rate design application filed after January 1, 2021.

[29] The 2017 SGIP Impact Evaluation Report at 1-29 recommended evaluation of processes for ensuring that SGIP storage projects are collecting data of sufficient quality for impact evaluation purposes. *See* http://www.cpuc.ca.gov/General.aspx?id=7890.

An example of a customer segment issue that may warrant further clarification is SGIP requirements for multifamily buildings. Although D.19-08-001 revised certain rules to facilitate SGIP participation by multifamily buildings on a virtual net energy metering (VNEM) tariff, certain technical issues may require further Commission guidance. On the topic of multifamily buildings participation in SGIP, additional guidance may be required on the appropriate rates for multifamily building common areas versus individual units, how to better facilitate multifamily building access to equity resiliency or resiliency adder incentives, guidance on solar charging of energy batteries during electric grid de-energizations for multifamily buildings on a VNEM rate where the solar system is in *front* of the meter, additional guidance on GHG emission reduction requirements for multifamily buildings, and other issues.

Another example of an issue that may warrant further clarification is SGIP requirements for the submittal of pilot project proposals and evaluation guidelines for pilot projects.

The proceeding will also continue to address facilitating SGIP participation by customers in disadvantaged, low income and tribal communities, and other potential environmental justice concerns.

2.1.6. CSI Sub-Program Review, Evaluation and Program Oversight

This rulemaking will address remaining review, evaluation, and program implementation issues for the Multifamily Affordable Solar Housing (MASH), Single-family Affordable Solar Homes (SASH), and the CSI Thermal Programs as these programs near their sunset dates. Pursuant to D.15-01-027, the MASH and

SASH programs will close on December 31, 2021. The CSI Thermal program will close on July 31, 2020, pursuant to AB 797 (Irwin 2017).

3. Categorization; *Ex Parte* Communications; Need for Hearing

The Commission's Rules of Practice and Procedure require that an OIR preliminarily determine the category of the proceeding and the need for hearing. As a preliminary matter, we determine that this proceeding is quasi-legislative, because our consideration and approval of this matter would establish policy or rules affecting a class of regulated utilities. Accordingly, *ex parte* communications are permitted without restriction or reporting requirement pursuant to Article 8 of the Rules.

We are also required to preliminarily determine if hearings are necessary. We preliminarily determine that hearings are not necessary.

4. Preliminary Schedule

Opening comments in response to this OIR are due no later than 30 days from adoption of this order, or June 27, 2020. Reply comments are due 10 days after the due date of opening comments, or July 7, 2020.

A prehearing conference (PHC) for this rulemaking will be held for the purposes of (1) taking appearances, (2) discussing schedule and process, and (3) informing the scoping memo. The PHC will be held beginning at 10:00 am on July 29, 2020. Location, call-in or WebEx information for the PHC will be provided at a later date.

The following is a draft schedule for the proceeding. Subsequent to the PHC, the assigned Commissioner will issue a Scoping Memo with a more detailed schedule after consideration of the insights gleaned.

Event:	**Date:**
Adoption of OIR	May 28, 2020
Comments on OIR	June 27, 2020
Reply comments on OIR	July 7, 2020
Prehearing conference	July 29, 2020
Scoping Memo	August 2020
Ruling with HPWH staff proposal and/or questions	Fall 2020
Comments and reply on staff HPWH proposal	Winter 2020
Renewable generation technology workshop	Fall 2020
Ruling with renewable generation technology staff proposal and/or questions	Winter 2020
Proposed Decision on HPWH and renewable generation technologies	Winter 2021
Decision on HPWH and renewable generation technologies	Winter 2021

The statutory deadline for completing this proceeding is within 18 months of the date this decision is adopted, i.e., not later than November 28, 2021. This deadline may be extended by order of the Commission. (Public Utilities Code § 1701.5(a).)

If there are any workshops in this proceeding, notice of such workshops will be sent to parties on the proceeding service list and posted on the Commission's Daily Calendar to inform the public that a decision-maker or an advisor may be present at those meetings or workshops.

5. Respondents

PG&E, SCE, SoCalGas, CSE and SDG&E are named as respondents in this proceeding.

6. Service of OIR

This OIR shall be served on all respondents.

In addition, in the interest of broad notice, this OIR will be served on the official service lists for the following proceedings:

- R.19-01-011, addressing building de-carbonization;
- R.19-09-009, addressing microgrids and grid resiliency strategies;
- R.15-03-010, addressing affordable energy options for San Joaquin Valley disadvantaged communities;
- R.13-11-005, energy efficiency rulemaking;
- R.14-07-002, net energy metering tariff rulemaking;
- A.19-11-003 et al., SCE's Energy Savings Assistance Building Electrification and New Construction Pilot;
- R.17-07-007, Rule 21 interconnection rulemaking; and
- R.18-12-005, De-Energization procedures.

In addition, in the interest of broad notice, this OIR will be served on the following local agencies:

- Sonoma Clean Power Authority;
- Marin Clean Energy;
- East Bay Community Energy; and,
- Silicon Valley Clean Energy Authority / Sonoma Clean Power Authority / Peninsula Clean Energy Authority.

Service of the OIR does not confer party status or place any person who has received such service on the Official Service List for this proceeding, other

than respondents. Instructions for obtaining party status or being placed on the official service list are given below. Filing and service of comments and other documents in the proceeding are governed by the Commission's Rules of Practice and Procedure.

7. Addition to the Official Service List

Addition to the official service list is governed by Rule 1.9(f) of the Commission's Rules of Practice and Procedure. Respondents are parties to the proceeding (*see* Rule 1.4(d)) and will be immediately placed on the official service list. Any person will be added to the "Information Only" category of the official service list upon request, for electronic service of all documents in the proceeding, and should do so promptly in order to ensure timely service of comments and other documents and correspondence in the proceeding. (*See* Rule 1.9(f). The request must be sent to the Process Office by e-mail (process_office@cpuc.ca.gov) or letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, California 94102). Please include the Docket Number of this rulemaking in the request.

Persons who file responsive comments thereby become parties to the proceeding (see Rule 1.4(a)(2)) and will be added to the "Parties" category of the official service list upon such filing. *In order to assure service of comments and other documents and correspondence in advance of obtaining party status, persons should promptly request addition to the "Information Only" category as described above;* they will be removed from that category upon obtaining party status.

8. Subscription Service

Persons may monitor the proceeding by subscribing to receive electronic copies of documents in this proceeding that are published on the Commission's website. There is no need to be on the official service list in order to use the subscription service. Instructions for enrolling in the subscription service are available on the Commission's website at http://subscribecpuc.cpuc.ca.gov/.

9. Public Advisor

Any person or entity interested in participating in this rulemaking who is unfamiliar with the Commission's procedures should contact the Commission's Public Advisor in San Francisco at (415) 703-2074 or 1-(866) 849-8390 or e-mail public.advisor@cpuc.ca.gov. The TTY number is 1-(866) 836-7825.

10. Intervenor Compensation

Intervenor Compensation is permitted in this proceeding. Any party that expects to claim intervenor compensation for its participation in this Rulemaking must file its notice of intent to claim intervenor compensation within 30 days of the PHC (*See* Rule 17.1(a)(2).) Intervenor compensation rules are governed by Section 1801. Parties new to participating in Commission proceedings may contact the Commission's Public Advisor (see contact information in section 9).

O R D E R

IT IS ORDERED that:

1. The Commission institutes this rulemaking to enhance the effectiveness of the Self-Generation Incentive Program and to ensure that we comply with Public Utilities Code Sections 379.6 and 379.9.

2. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, Center for Sustainable Energy and San Diego Gas and Electric Company are named as respondents to this proceeding.

3. The Executive Director will cause this Order Instituting Rulemaking to be served on all respondents and on the service lists for the following Commission proceedings: Rulemaking (R.) 19-01-011, R.15-03-010, R.13-11-005, R.19-09-009, R.14-07-002, R.17-07-007, R.18-12-005, and Application 19-11-003 et al.

4. The preliminarily scope of issues is as stated above Section 2.

5. The preliminary categorization is quasi-legislative.

6. The preliminary determination is that a hearing is not needed.

7. A prehearing conference is set for July 29, 2020 at 10:00 am. Location, call-in or WebEx information for the PHC will be provided at a later date. The schedule for the remainder of the proceeding will be adopted in the Assigned Commissioner's Scoping Memo.

8. Respondents, parties, and/or prospective parties may file and serve opening comments on the preliminary scope of this proceeding outlined in this document no later than 30 days after adoption of this order. Pursuant to Rule 6.2 of the Commission's Rules of Practice and Procedure, parties shall include in their comments any objections regarding the category, need for hearing, issues to be considered, or schedule. Comments shall be limited to no more than 25 pages.

9. Respondents, parties, and/or prospective parties may file and serve reply comments on the preliminary scope of this proceeding outlined in this document no later than 10 days after opening comments are filed.

10. Any person or representative of an entity interested in participating in or monitoring this proceeding that does not make an appearance at the prehearing conference shall follow the processes set forth herein.

11. Any party that expects to claim intervenor compensation for its participation in this Rulemaking must file its notice of intent to claim intervenor compensation within 30 days of the prehearing conference.

12. The assigned Commissioner or Administrative Law Judge may make any revisions to the scheduling and filing determinations made herein as necessary to facilitate the efficient management of the proceeding.

This order is effective today.

Dated May 28, 2020, at San Francisco, California.

MARYBEL BATJER
President
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
Commissioners

APPENDIX A

APPENDIX A – LIST OF DECISIONS IN R.12-11-005

1. On February 6, 2020, the Commission granted a petition for modification of D.11-09-015 and D.16-06-055 eliminating the application fee for SGIP residential projects and modifying requirements for the provision of energy efficiency audit results as part of the application process. *(See* D.20-02-002 *Decision Granting Petition for Modification of D.11-09-015 and D.16-06-055 Concerning Self-Generation Incentive Program Application Requirements.)*
2. On January 16, 2020, the Commission approved collection of $166 million annually from ratepayers to fund the SGIP program through 2025 pursuant to Section 379.6(a)(2), established new incentive budget allocations for this period, and revised program requirements for the equity resiliency budget established in D.19-09-027. *(See D.*20-01-021 *Self-Generation Incentive Program Revisions Pursuant to Senate Bill 700 and Other Program Changes.)*
3. On September 12, 2019, the Commission established an equity resiliency budget, incentives and program requirements, revised the equity budget incentive levels established in D.17-10-004 and established a $10 million budget to support pilot projects for disadvantaged communities lacking access to natural gas in the San Joaquin Valley. (*See* D.19-09-027 *Decision Establishing a Self-Generation Incentive Program Equity Resiliency Budget, Modifying Existing Equity Budget Incentives, Approving Carry-Over of Accumulated Unspent Funds, and Approving $10 Million to Support the San Joaquin Valley Disadvantaged Community Pilot Projects.)*
4. On August 1, 2019, the Commission adopted requirements for new and legacy residential and non-residential energy storage systems to reduce GHG emissions pursuant to SB 700. *(See* D.19-08-001 *Decision Approving*

Greenhouse Gas Emission Reduction Requirements for the Self-Generation Incentive Program Storage Budget.)

5. On February 19, 2019, the Commission granted petitions for modification of D.16-06-055 and D.16-12-055 addressing requirements related to the California manufacturer adder and CSI general market performance-based incentives. (*See* D.19-02-006 *Decision Granting Petitions for Modification of Decisions 16-06-055 and 16-12-055.)*

6. On October 12, 2017, the Commission established a SGIP equity budget providing for increased incentives for residential and non-residential customers located in disadvantaged or low-income communities and meeting certain other eligibility requirements. (*See* D.17-10-004 *Decision Establishing Equity Budget for Self-Generation Incentive Program.)*

7. On September 28, 2017, the Commission modified reporting requirements and eliminated requirements for CSI General Market Program quarterly public forums. (*See* D.17-09-028 *Decision Granting, in Part, the Motion of the California Solar Initiative Program Administrators to Modify or Retire Remaining Reporting Requirements*.)

8. On April 6, 2017, the Commission increased the budget for SGIP consistent with the authorization established by AB 1637 (Low, ch. 658, Stats. 2016) and granted the November 18, 2016 Petition for Modification of D.16-06-055 by the California Solar Energy Industry Association. (*See* D.17-04-017 *Decision Revising the Self-Generation Incentive Program Pursuant to Assembly Bill 1637 and Granting the Petition for Modification of Decision 16-06-055 by the California Solar Energy Industry Association.)*

9. December 15, 2016, the Commission established December 31, 2019 as the date for completing all administrative tasks, including payment of incentives, related to the CSI General Market Program in all service territories. (*See* D.16-12-055 *Decision Granting the Joint Motion of the California Solar Initiative Program Administrators to Establish a Program*

Closure Date for the General Market Program of the California Solar Initiative.)

10. December 1, 2016, the Commission granted the July 26, 2016 Petition for Modification of D.10-01-022 by PG&E to obtain Commission authorization to combine two parts of its existing CSI Thermal Program budget. (*See* D.16-12-007 *Decision Granting the Petition for Modification of Decision 10-01-022 of Pacific Gas and Electric Company on the California Solar Initiative-Thermal Budget.)*

11. July 14, 2016, the Commission granted the December 3, 2015 Petition for Modification by the CSE to combine two parts of CSE's existing budget for the CSI Thermal Program. (*See* D.16-07-009 *Decision Granting the Petition for Modification of the Center for Sustainable Energy on the California Solar Initiative-Thermal Budget.)*

12. June 23, 2016, the Commission modified SGIP to implement changes pursuant to SB 861 and AB 1478 and made other program changes to improve SGIP. (*See* D.16-06-055 *Decision Revising the Self-Generation Incentive Program Pursuant to Senate Bill 861, Assembly Bill 1478, and Implementing Other Changes*.)

13. June 9, 2016, the Commission authorized funding of an additional $111.78 million to provide for continuing financial incentives for homeowners, builders, and developers to install solar energy systems on new, energy efficient residential dwellings under provisions of the New Solar Homes Partnership Program. (*See* D.16-06-006 *Decision Funding Authorizations and Related Measures for Continuation of the New Solar Homes Partnership Program.)*

14. April 21, 2016, the Commission adopted an estimation methodology for determining NEM billing credits for storage devices with a capacity of 10 kW or less that are an addition or enhancement to a NEM-eligible generation facility. (*See* D.16-04-020 *Decision Adopting Net Energy*

Metering Bill Credit Estimation Methodology for Generating Facilities Paired with Small Storage Devices.)

15. December 17, 2015, the Commission granted the Petition for Modification of D.06-08-028 to accelerate the performance-based incentive payment of the CSI Program. (*See* D.15-12-023 *Decision Granting the Petition for Modification of the Performance-Based Incentive Payment Structure by the Program Administrators of the California Solar Initiative.)*

16. December 17, 2015, the Commission directed the SGIP Program Administrators to partially fund the acceptance of new applications and disbursement of the SGIP program year 2016 funds until the Commission revises the SGIP pursuant to SB 861. (*See* D.15-12-027 *Decision Partially Suspending Disbursement of 2016 Program Year Funds and Acceptance of New Applications for the Self-Generation Incentive Program.*)

17. On November 19, 2015, the Commission voted to update the GHG emission factor that determines eligibility to participate in the SGIP. *(See* D.15-11-027 *Decision Revising the Greenhouse Gas Emission Factor to Determine Eligibility to Participate in the Self-Generation Incentive Program Pursuant to Public Utilities Code Section 379.6(B)(2) as Amended by Senate Bill 861.)*

18. On October 01, 2015, the Commission voted to modify D.11-10-015 to expand the eligibility requirements for customers seeking to participate in the CSI Thermal Low-Income Program to include customers in the Low-Income Weatherization Program and Low-Income Home Energy Assistance Program. *(See* D.15-10-004, *Decision Modifying and Expanding the Low-Income Eligibility Requirements of the California Solar Initiative Thermal Program in Decision 11-10-015.)*

19. On July 23, 2015, the Commission voted to modify D.15-01-027 to remove the finding that documentation required by Pub. Util. Code §

2852 be recorded at least 180 days prior to the date of a MASH application. *(See* D.15-07-010, *Decision Granting, in Part, the Petition for Modification of Decision 15-01-027 by Shorebreak Energy Developers, LLC to Remove the 180 Day Requirement.)*

20. On June 11, 2015, the Commission voted to grant the petition filed by the SGIP program administrators to increase the number of six-month extensions from two to three for SGIP projects at commercial or government host customer sites and to allow projects located at all host customer sites to seek a third six month extension. *(See* D.15-06-002, *Decision Granting the Petition for Modification of the Self-Generation Incentive Program Administrators of Decision 11-09-015 to Provide a Maximum of Three Extensions of the Reservation Expiration Date.)*
21. On January 29, 2015, the Commission voted to extend the CSI SASH and MASH programs with additional $108 million funds, and to adopt multiple modifications to the CSI Thermal Program filed by the program administers. *(See* D.15-01-027, *Decision Extending the Multifamily Affordable Solar Housing and Single Family Affordable Solar Homes Programs within the California Solar Initiative and* D.15-01-035, *Decision Granting Petition for Modification of D.12-08-008 and D.13-08-004 regarding changes to the California Solar Initiative Thermal Program.)*
22. On December 18, 2014, the Commission voted to authorize the IOUs to continue to collect funds for the SGIP at an annual budget of $83 million annually for years 2015 through 2019. (*See* D.14-12-033.)
23. On November 06, 2014, the Commission voted to transfer the responsibility for collecting solar statistics from the CSI program to the NEM interconnection process. (See *D.14-11-001.)*
24. On May 15, 2014, the Commission voted to, among other things, clarify existing policy regarding storage devices that are an addition or enhancement to NEM-eligible generators. *(See* D.14-05-003, *Decision Regarding Net Energy Metering Interconnection Eligibility for Storage Devices Paired with Net Energy Metering Generation Facilities.)*

25. On March 27, 2014, the Commission voted to, among other things, establish a transition period during which electric customers taking service under an electric utility's NEM tariff prior to July 1, 2017 may remain on the previously applicable NEM tariff, consistent with the provisions of AB 327. *(See* D.14-03-041, *Decision Establishing a Transition Period Pursuant to Assembly Bill 327 for Customers Enrolled in Net Energy Metering Tariffs).*
26. On October 17, 2013, the Commission voted to permit CSE to (1) combine the CSI General Market program marketing and outreach with the administration budgets, and (2) modify the current requirement that two-thirds of the CSI megawatt allocation be reserved for the non-residential sector by allowing the remaining incentive budget to be equally divided between non-residential and residential customer sectors. *(See* D.13-10-026, *Decision Granting in Part A Petition for Modification Regarding the Administration Budget for the California Solar Initiative.)*
27. On August 15, 2013, the Commission voted to expand the definition of a solar water heating system to include solar pool heating systems at multifamily residential, governmental, educational, and non-profit installations and allow these systems to qualify for incentives under the CSI Thermal Program. *(See* D.13-08-004, *Decision to Incorporate Solar Pool Heating Systems into the California Solar Initiative –Thermal Program.)*
28. On February 28, 2013, the Commission voted to modify the CSI Thermal Program to provide incentives to additional technologies, including process heat applications, solar cooling technologies, space heating technologies, and systems that combine multiple applications. *(See* D.13-02-018, *Decision to Modify Decision 10-01-022 to Expand Technologies Incentivized Under the California Solar Initiative Thermal Program.)*
29. On December 20, 2012, the Commission voted to suspend SDG&E's CSI collections from electric ratepayers for 2013. *(See* D.12-12-018, *Decision*

Granting Petition to Modify Decision 11-12-019 to Suspend San Diego Gas & Electric Company's California Solar Initiative Collections Requirement for 2013.)

(END OF APPENDIX A)