

**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.

Rulemaking 20-05-012  
(Filed May 28, 2020)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON  
THE ORDER INSTITUTING RULEMAKING REGARDING POLICIES,  
PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM  
AND RELATED ISSUES**

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**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.

Rulemaking 12-11-005  
(Filed November 8, 2012)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON  
THE ORDER INSTITUTING RULEMAKING REGARDING POLICIES,  
PROCEDURES AND RULES FOR THE SELF-GENERATION INCENTIVE PROGRAM  
AND RELATED ISSUES**

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits these reply comments on the *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the Self-Generation Incentive Program and Related Issues* (“OIR”), issued by the Joint Commissioners on May 28, 2020.

**I. INTRODUCTION.**

CESA supports the Commission’s issuance of this OIR to continue to develop and refine policies, procedures, and rules for the Self-Generation Incentive Program (“SGIP”), which has evolved in structure and priorities over the past five years. Many improvements to the program have been made over the years to consider the greenhouse gas (“GHG”) emissions performance of energy storage systems and to transform the market for energy storage resources. As described in the OIR and expressed in opening comments, the program could still benefit from additional refinement to align SGIP-funded projects with the program’s goals and address barriers to participation of different types of technologies including heat pump water heaters (“HPWHs”) and

large thermal energy storage (“LTES”) systems. SGIP remains an important program to transform the market for behind-the-meter (“BTM”) storage and generation technologies, and to this extent, CESA looks forward to working with the Commission and other stakeholders to continue to support the continued success of the program.

Our reply comments to the OIR can be summarized as follows:

- Dynamic incentive calculation methodology for LTES systems must be addressed immediately to enable their participation.
- An incentive design and structure suitable for grid-interactive HPWH as thermal storage should be established in coordination with other proceedings.
- Consideration of green hydrogen as a fuel for generation and storage technologies is appropriately considered in the preliminary scope.
- The GHG evaluation should account for the build-margin of storage projects as well as the avoided emissions associated with diesel generators for storage projects designed for resiliency.
- Continued refinement of SGIP rules and policies should be considered to ensure alignment and effectiveness of projects in meeting the program’s resiliency objectives and priorities.
- A working group should be established to address program complexity and to identify solutions to potentially streamline SGIP applications, reporting, administration, and other processes.

## **II. BACKGROUND & INTEREST IN PROCEEDING.**

CESA is a 501c(6) membership-based advocacy group committed to advancing the role of energy storage in the electric power sector through policy development, education, outreach, and research. With over 85 companies represented in the energy storage ecosystem, CESA has a direct interest in the proceeding in shaping the policies, procedures, and rules for energy storage projects participating in SGIP. CESA also has been an active participant in the predecessor SGIP rulemaking, R.12-11-005, for many years.

### **III. RESPONSES ON SCOPE OF ISSUES.**

The Preliminary Scoping Memo in the OIR proposed to prioritize issues related to the program and evaluation requirements for HPWHs and renewable generation technologies, as well as the requirements for thermal energy storage (“TES”) participation more broadly. Following these near-term issues, the Commission proposed a review of GHG emissions reduction performance of energy storage systems. CESA is generally supportive of the preliminary scope and the prioritization/timing of the issues but we also offer a few other recommendations for consideration and in response to parties’ comments.

#### **A. Dynamic incentive calculation methodology for LTES systems must be addressed immediately to enable their participation.**

The Commission issued Decision (“D.”) 19-08-001 that established GHG emission reduction requirements for energy storage projects claiming SGIP incentives and adopted the five-minute real-time GHG signal for compliance as being reasonable, most accurate, and sending “the correct market message to support the SGIP’s long-term market transformation.”<sup>1</sup> In light of these changes, the Commission directed that LTES “should assess TES system performance using a dynamic approach and actual data.”<sup>2</sup> However, in advice letters jointly submitted by the Program Administrators (“PAs”), a deemed-value methodology was proposed for LTES systems instead of a more accurate and fair dynamic methodology.<sup>3</sup>

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<sup>1</sup> D.19-08-001 at 16.

<sup>2</sup> *Ibid* at 71.

<sup>3</sup> Advice Letter 5640 of Southern California Gas Company (“SoCalGas”), Advice Letter 4255-G/5839-E of Pacific Gas and Electric Company (“PG&E”), Advice Letter 4223-E of Southern California Edison Company (“SCE”), and Advice Letter 112-E of Center for Sustainable Energy (“CSE”), *Large Thermal Energy Storage (LTES) Incentive Calculation Methodology Proposal for the Self-Generation Incentive Program and Proposed Updates to the Self-Generation Incentive Program (SGIP) Handbook* (“Advice Letter”), submitted jointly by the PAs on June 2, 2020.

LTES has faced barriers to SGIP participation for years due to the lack of progress in adopting a dynamic incentive calculation and evaluation methodology for LTES technologies, which are inherently dynamic. CESA believes that a dynamic methodology should be adopted as soon as possible through the approval of the dynamic methodology in the non-standard disposition letter of Advice Letter 5640, *et al.* As detailed in our protest and discussed in a workshop held in September 2019, the adoption of the methodology proposed by CESA, Trane, and others is long overdue. Even as the Commission determined that storage technologies in SGIP should strive to respond to dynamic GHG signals and meet real-time GHG compliance requirements, LTES technologies would be otherwise subject to deemed-value calculation methodologies that do not recognize or award the additional GHG benefits that can be provided from LTES and thus inhibit their participation in the program. With a dynamic methodology in place, the Commission will also be armed with real-world data to inform evaluation and further refinements in this proceeding to improve and/or ensure LTES performance to expectations held for all storage systems participating in SGIP.

To the degree that an LTES dynamic incentive calculation methodology is not adopted in the non-standard disposition letter to the Advice Letter 5640, *et al.*, CESA agrees with Pacific Gas and Electric Company (“PG&E”) that an LTES Working Group should be convened in this proceeding to address LTES barriers<sup>4</sup> and agrees with the OIR that the rulemaking “may consider the need for revisions to SGIP requirements to address

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<sup>4</sup> PG&E comments at 8.

the dynamic operation of some TES systems.”<sup>5</sup> However, a strong case could be made that the aforementioned issues should already be addressed.

**B. An incentive design and structure suitable for grid-interactive HPWH as thermal storage should be established in coordination with other proceedings.**

The Commission issued D.19-09-027 and D.20-01-021 that deemed HPWHs as eligible SGIP technologies that warrant a carve-out of funds to support their market transformation and help realize the GHG emissions reduction benefits from their deployment and installation. CESA supports these decisions and looks forward to collaborating with other stakeholders in R.20-05-012 to develop the appropriate incentive design and structure. Since HPWHs represent equipment purchase and installation decisions as opposed to typical “project development” in the case of energy storage, it is reasonable and necessary for the Commission to develop an incentive design and structure (*e.g.*, rebates) and application process that may be more suitable for HPWHs. CESA thus generally supports the scope as identified in the Preliminary Scoping Memo.

As the Commission considers the various program and incentive design and evaluation questions relevant to HPWHs,<sup>6</sup> CESA agrees with other parties that this work should coordinate with other proceedings<sup>7</sup> and should consider the degree to which the Commission should require grid-interactive controls to provide load-shifting capabilities.<sup>8</sup> A distinction must be made between HPWH as an energy efficiency investment versus an energy storage investment since its technology eligibility in SGIP was premised on it being

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<sup>5</sup> OIR at 13-14.

<sup>6</sup> OIR at 11-12.

<sup>7</sup> East Bay Community Energy, Marin Clean Energy, and Peninsula Clean Energy (“CCA Parties”) comments at 5 and CSE comments at 2.

<sup>8</sup> Small Business Utility Advocates (“SBUA”) comments at 3 and San Diego Gas and Electric Company (“SDG&E”) comments at 3.

a TES technology type. Many different incentive programs are also available today for energy efficiency investments, and thus, the Commission should consider the most effective means to support HPWHs to complement and be incremental to these other programs. Similar to how the build-margin and avoided diesel generation cost should be incorporated in the assessment of energy storage impacts on GHG emissions (as discussed in a section below), the evaluation for HPWHs should also consider not only the fuel-switching benefits but also the GHG emissions reduction attributable to any active or “permanent” load shifting provided by shifting HPWH loads to periods of low marginal emissions. In recent HPWH-focused workshops, stakeholders shared how the costs, viability, and commercial availability of grid-responsive controls on HPWHs may be limited in this early stage of the market; as a result, CESA agrees with the Center for Sustainable Energy (“CSE”) that a pathway for load-shifting capabilities should be pursued to support the market transformation of HPWH technologies.<sup>9</sup>

**C. Consideration of green hydrogen as a fuel for generation and storage technologies is appropriately considered in the preliminary scope.**

CESA supports the Preliminary Scoping Memo in considering the necessary program revisions to implement Senate Bill (“SB”) 1369 and the consideration of green electrolytic hydrogen as a fuel for generation and storage technologies.<sup>10</sup> Green hydrogen represents a viable green alternative fuel for natural gas and diesel generators and can be effectively transported (on road or in pipelines) or stored for local pressurized containers. When combusted, green hydrogen produces no GHG emissions, and when returned to electricity via a fuel cell emits only water.

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<sup>9</sup> CSE comments at 3.

<sup>10</sup> OIR at 16-17.

SGIP incentives will be instrumental in advancing green hydrogen powered nanogrids and microgrids by providing the necessary incentives and market signals to encourage investment and development of new distribution channels for green hydrogen production and distribution. Hydrogen-powered fuel cells are commercially available today, and some are even optimized and commercially used for emergency backup events, which can be combined with solar and storage in microgrid configurations. For these reasons, CESA agrees with the CCA Parties' comments on the important focus of this proceeding on enabling green hydrogen.<sup>11</sup> However, consideration of green hydrogen in SGIP should not just be limited to electrolytic sources.

**D. The GHG evaluation should account for the build-margin of storage projects as well as the avoided emissions associated with diesel generators for storage projects designed for resiliency.**

With the requirements adopted in D.19-08-001 going into effect, including the GHG signal that went live as of April 1, 2020, this rulemaking will begin seeing GHG emissions performance data from energy storage systems.<sup>12</sup> CESA supports the inclusion of this issue in the scope of this rulemaking but also recommends that the Commission ensure that the evaluation methodology incorporate the GHG emissions impact, beyond just the operation of storage, as noted by the CCA Parties.<sup>13</sup> The “build-margin” benefits of energy storage were previously recognized in D.15-11-027,<sup>14</sup> where the Commission concluded that SGIP projects have some non-zero impact on the build-margin and associated emissions. Specifically, the Commission should work with contractors and

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<sup>11</sup> CCA Parties comments at 6.

<sup>12</sup> OIR at 17-19.

<sup>13</sup> CCA Parties comments at 9.

<sup>14</sup> D.15-11-027 at 12.



stakeholders to evaluate the renewable integration performance of energy storage in improving the effective load carrying capacity (“ELCC”) value of solar and wind and thus enabling the further build-out of renewables and the reduced operations of fossil generation. Importantly, the “diversity” value of storage boosting the ELCC capacity value of solar and wind resources have been recognized by the Commission in the Resource Adequacy (“RA”) proceedings.<sup>15</sup> Given this, it is appropriate for the Commission to consider the build-margin effects in the GHG emissions assessment of storage systems.

Furthermore, D.19-09-027 and D.20-01-021 affirmed the requirement for all storage resiliency projects to meet the GHG requirements, even as they are designed to provide backup power during PSPS or other outage events. Depending on the scope, duration, and frequency of 2020 and future PSPS events, SGIP-funded storage operating in “backup mode” could have a material impact on their GHG emissions performance since such systems may be limited in normal cycling in response to the compliance GHG signal. The decisions are clear that such systems are still subject to these GHG requirements, but it may be beneficial and informative for the Commission to also consider how such storage resiliency projects avoid the need for backup diesel generation and their associated emissions and pollutants, even if used for information-only purposes at this time. Given the criticality of having power for Equity Resiliency customers for health, safety, or critical-service purposes, for example, it is fair to assume that they would otherwise install backup diesel generators, providing a reasonable counterfactual to estimate the avoided emissions impact of such systems. Furthermore, since backup storage projects require demonstration to the PAs of their capabilities, it is feasible to “tag” and identify where such

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<sup>15</sup> D.19-06-026 at 48-49 and Appendix A.

an evaluation would be appropriate. Based on this contextualized analysis, it may inform whether different GHG regimes would be appropriate.

**E. Continued refinement of SGIP rules and policies should be considered to ensure alignment and effectiveness of projects in meeting the program’s resiliency objectives and priorities.**

The Preliminary Scoping Memo appears to include a placeholder for “other program issues” to ensure SGIP effectiveness, highlighting multi-family building customer participation as one example of “other” issues that may require further guidance. Under this category of other issues to ensure SGIP effectiveness, CESA recommends that the Commission consider how resiliency-related rules and policies can be further refined and address any identified gaps or areas of ineffectiveness. In particular, whether and how to refine or modify the customer eligibility criteria for Equity Resiliency Budget funds or the resiliency adder should be considered in the scope of this proceeding. For example, schools were deemed critical facilities subject to Public Safety Power Shutoff (“PSPS”) notification protocols in D.19-05-042 but do not qualify for the Equity Resiliency Budget since they must be officially designated a community resource center or cooling center.<sup>16</sup>

To address these gaps where certain non-residential projects in wildfire-impacted areas do not qualify for the Equity Resiliency Budget but could provide critical resiliency services to disadvantaged communities, the Commission may find it useful to consider whether the definition of eligible “critical facilities” should be expanded. Alternatively, a process by which non-residential facilities could apply and become eligible as a community resource center or cooling center could be explored. To this end, CESA agrees with the comments from California Solar and Storage Association (“CALSSA”) and Tesla to

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<sup>16</sup> D.19-05-042 at 76 and A5.

address the challenges of becoming community resource centers to be eligible for resiliency incentives<sup>17</sup> while meeting the criteria to provide the expected critical public services of a community resource center.

Additionally, CESA supports the general consideration of program adjustments based on lessons learned and effectiveness of targeting market segments and priority customer groups, as suggested by parties.<sup>18</sup> The issuance of D.19-09-027 and D.20-01-021 was made expeditiously to meet the urgent needs ahead of the next wildfire season, so it is not unreasonable to expect that there will be issues and areas of improvement that need to be resolved, especially as the focus on resiliency is a new aspect to the program. As such, CESA supports the consideration of additional mechanisms to potentially improve equitable access and deployment of resiliency-dedicated SGIP funds, such as on-bill and upfront financing at a wider scale, as proposed by PG&E.<sup>19</sup> Similarly, CESA also recommends consideration of general-market large-scale storage incentives, where, contrary to the Commission's determination, it is unclear whether the barriers to participation in this market segment are addressed given the lack of activity despite the adoption of the new GHG requirements via D.19-08-001.<sup>20</sup>

Finally, CESA agrees with San Diego Gas and Electric Company ("SDG&E") that coordination with R.18-12-005 will be needed as part of this ongoing refinement process.<sup>21</sup> For example, D.20-05-051 was issued on June 5, 2020 that proposed modified and

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<sup>17</sup> CALSSA and Tesla comments at 4.

<sup>18</sup> CCA Parties' comments at 8 and PG&E comments at 17-18.

<sup>19</sup> PG&E comments at 18.

<sup>20</sup> *Proposed Decision Addressing Petition for Modification of Decision (D.) 19-09-027 and D.20-01-021* issued on June 15, 2020 in R.12-11-005 at 29.

<sup>21</sup> SDG&E comments at 2.

additional de-energization guidelines, building off those adopted in Phase 1 of R.18-12-005. With the 2020 wildfire season looming, there will likely be new lessons learned based on 2020 PSPS experiences and possible changes in R.18-12-005 that should be similarly reflected, as appropriate, in SGIP.

**F. A working group should be established to address program complexity and to identify solutions to potentially streamline SGIP applications, reporting, administration, and other processes.**

CESA agrees with CSE that PAs and developers alike face significant confusion and complexity in participating in the SGIP program, particularly around customer eligibility criteria and the different operational requirements and performance regimes across budget categories.<sup>22</sup>

**IV. CATEGORIZATION, HEARINGS, AND SCHEDULE.**

CESA supports the proposed schedule and preliminary determinations made in the Preliminary Scoping Memo to not find evidentiary hearings necessary and to categorize the proceeding as quasi-legislative. Public Advocates Office (“PAO”), however, recommended that the proceeding be set as ratesetting because it will impact utilities’ rates.<sup>23</sup> CESA disagrees and recommends that the Commission maintain the quasi-legislative designation of this proceeding, as done for more than ten years in R.12-11-005 and previous proceedings. The scope and issues of this proceeding and all predecessor SGIP-related proceedings have not changed to the degree that they warrant a ratesetting categorization. To CESA’s knowledge, no new funding authorizations are expected at this time or in the near future and the scope of this proceeding will focus on policy matters that are more appropriate for a quasi-legislative proceeding. Even when new funding

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<sup>22</sup> CSE comments at 4-5.

<sup>23</sup> PAO comments at 2.

authorizations to the program are considered, the Commission has not categorized this proceeding as ratesetting.<sup>24</sup> Based on this history, CESA recommends that the Commission categorize this proceeding as quasi-legislative.

**V. NOTICES.**

Services of all notices and communications in this proceeding should be directed to the following CESA representative:

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**VI. CONCLUSION.**

CESA appreciates the opportunity to these comments on the OIR and looks forward to working with the Commission and other stakeholders in this proceeding.

Respectfully submitted,



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**CALIFORNIA ENERGY STORAGE ALLIANCE**

Date: July 7, 2020

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<sup>24</sup> See D.17-04-017 and D.20-01-021.