

**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)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON THE PROPOSED DECISION APPROVING GREENHOUSE GAS EMISSION
REDUCTION REQUIREMENTS FOR THE SELF GENERATION INCENTIVE
PROGRAM STORAGE BUDGET**

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ hereby submits these comments to the *Proposed Decision Approving Greenhouse Gas Emission Reduction Requirements for the Self Generation Incentive Program Storage Budget* (“PD”), issued by Assigned Commissioner Clifford Rechtschaffen on May 31, 2019.

¹ 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, Aggreko, Alligant Scientific, LLC, AltaGas Services, Amber Kinetics, Ameresco, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Better Energies, Boston Energy Trading & Marketing, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Clean Energy Associates, ConEd Battery Development, Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, EDF Renewable Energy, eMotorWerks, Inc., Enel X North America, Energport, Energy Vault, Engie Storage, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, General Electric Company, Greensmith Energy, Gridwiz Inc., Hecate Grid LLC, Highview Power, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Energy Solutions, LS Power Development, LLC, Magnum CAES, Malta Inc, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., Nuvve, Pattern Energy, Pintail Power, Plus Power, Primus Power, PolyJoule, Quidnet Energy, PXiSE Energy, Range Energy Storage Systems, Recurrent Energy, RES Americas, SNC-Lavalin, Soltage, Southwest Generation, Stem, STOREME, Inc., Sunrun, Swell Energy, Tenaska, Inc., Tesla, True North Venture Partners, Viridity Energy, VRB Energy, WattTime, and Wellhead Electric. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

I. INTRODUCTION.

The Self-Generation Incentive Program (“SGIP”) has made a number of modifications over the years to better ensure that the program goal of reducing greenhouse gas (“GHG”) emissions is met. CESA appreciates the Commission’s efforts to engage stakeholders via the GHG Signal Working Group and through commenting opportunities to ensure that operational and GHG compliance requirements are effectively structured. Over the course of conducting modeling in the GHG Signal Working Group, preparing a final working group report, and iterating on two Commission staff proposals, stakeholders in this proceeding have attained valuable and novel insights into behind-the-meter (“BTM”) energy storage operations and have incrementally improved upon various program designs to ensure SGIP-funded storage projects achieve compliance with the program’s GHG emission reduction goals.

The PD again marks an incremental improvement on the two previous Commission staff proposals, especially around the definition and treatment of legacy commercial and residential projects. This is a key area of improvement that sets the appropriate precedent for early, innovative storage projects. In addition, the PD generally takes the approach of offering multiple compliance options – an approach that is flexible and avoids a “one size fits all” approach. Finally, the PD represents an important improvement in removing the roundtrip efficiency (“RTE”) requirement and in reducing the cycling requirement for certain types of projects – areas of concern that CESA expressed that created incentives for energy storage systems to operate not necessarily for GHG or grid benefit but to meet a program requirement. CESA is very appreciative of the Commission’s aforementioned improvements on these aspects of the Commission staff proposals and thanks the Commission for its responsiveness to CESA and other industry stakeholders’ concerns.

Overall, CESA is directionally supportive of the PD but there are a few areas of further improvement or refinement to the Commission’s proposed GHG and operational requirements. In making its findings and orders, the PD leaned on the market transformation goal of the program to promote more advanced operations of SGIP-funded energy storage systems to achieve GHG emission reductions and to provide grid support, such as when the PD determined that “a 72-hour ahead signal... does not reflect our desired trajectory for market transformation of storage

technologies in California.”² Similar rationale was used for other aspects of the proposed new requirements, including around the non-zero GHG emission reduction threshold.

While supportive of transforming energy storage tools to provide increasingly complex and more advanced operations, CESA believes that the market transformation goals of the program should consider the market transformation potential of deploying significant amounts of energy storage that increase the volume of flexible BTM assets on the grid that can provide load shifting, renewable integration support, local and flexible capacity, distribution resiliency, and other grid services. BTM energy storage deployments are growing but still represent a very small fraction of the grid’s resources as compared to other BTM resources, such as rooftop solar, making it important to keep in mind the need to balance the interest of market transformation in the form of deployments with the goals of the program to reduce GHG emissions and provide grid support. As observed in a separate Ruling related to Senate Bill (“SB”) 700 implementation,³ participation in certain storage budget categories has stalled for various reasons, among which the uncertainty of operational and GHG requirements was cited by CESA as among the contributing factors. Though the adoption of this PD will provide greater certainty around the operational and GHG requirements, CESA is concerned that certain aspects of the PD require modifications that account for these broader market transformation goals as well. A poor outcome of the program, upon making the changes adopted in the eventual decision, would be the stalling of the program for some or many storage project types due to the difficulty in acquiring customers, in navigating the complexities of SGIP rules, and in financing SGIP energy storage projects.

In this vein, CESA recommends several modifications to the operational and GHG requirements proposed for adoption in the PD that ensures continued growth of BTM energy storage deployments while ensuring achievable and necessary grid support and GHG emission reductions. Specifically, CESA makes the following recommendations or comments:

- The compliance options for legacy projects are commendable, but Option 2 for legacy commercial projects should be modified to remove the RTE requirement and be replaced with a reduced cycling requirement.

² PD at p. 16.

³ *Assigned Commissioner’s Ruling Seeking Comment on Implementation of Senate Bill 700 and Other Program Modifications* issued on April 15, 2019 in R.12-11-005.

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M281/K395/281395627.PDF>

- The compliance requirements for new commercial projects are improved for removing the RTE requirement and reducing the annual cycling requirement, but many of the proposed changes may still be disruptive for the development of new commercial projects.
- The deemed-compliant pathways for new residential projects are generally commendable but should be modified to provide greater optionality and account for potential standalone storage deployments.
- The public listing of developer GHG performance can lead to potentially damaging misperceptions and the program should instead rely on conventional Handbook approaches to enforce GHG compliance for certain cases.
- The definition for “new” versus “legacy” projects is reasonable but the definition of “developer fleet” should be modified and defined differently for residential versus non-residential projects.
- Developer fleet GHG performance compliance requirements should account for different business models and program definitions for developers.
- Equity and thermal energy storage (“TES”) issues require further discussion and consideration in this proceeding.

In addition to the above changes, CESA recommends that the Commission consider how the adopted operational and GHG requirements can be customized or modified to account for SGIP energy storage systems directed toward resiliency use cases. In this new world of increased climate-driven outages and Public Safety Power Shut-off (“PSPS”) events, BTM energy storage systems have significant potential to provide resiliency that ensures that customers in high-fire risk zones and other vulnerable customers have power as the investor-owned utilities (“IOUs”) work to mitigate wildfire-related or other risks. CESA understands that these issues will be addressed later in this proceeding, particularly in response to the April 15, 2019 Ruling, but flexibility is needed in regards to the operational and GHG requirements for these use cases. CESA looks forward to collaborating with the Commission and other stakeholders in this proceeding as SGIP program rules are refined and/or modified for this growing and urgent use case.

II. THE COMPLIANCE OPTIONS FOR LEGACY PROJECTS ARE COMMENDABLE, BUT OPTION 2 FOR LEGACY COMMERCIAL PROJECTS SHOULD BE MODIFIED TO REMOVE THE ROUNDTRIP EFFICIENCY REQUIREMENT AND BE REPLACED WITH A REDUCED CYCLING REQUIREMENT.

CESA commends the Commission for modifying its proposals around legacy projects to recognize the market transformation contributions of these early SGIP systems and ensure that

these projects are not penalized for operating under the applicable rules at the time. CESA is largely supportive of the PD's determinations around legacy residential and commercial projects and believes that the PD makes reasonable and smart options for these legacy systems to potentially do more in terms of providing grid support and incremental GHG emission reductions (e.g., Options 2 and 3 for legacy commercial projects).

However, CESA recommends a minor modification to Option 2 for legacy commercial projects, which, as proposed in the PD, would allow these projects to continue with previously approved operational requirements around RTE requirements but to substitute cycling requirements for enrollment in an approved storage rate or in a demand response ("DR") program. CESA supports the removal of the cycling requirement, which was found in the annual evaluation report to often lead to unnecessary cycling that is not necessarily tied to a grid need, but also recommends that the Commission remove the RTE requirement for Option 2. Similar to the cycling requirement, the RTE requirement is not a "bellwether" to achieve the program's GHG and grid support goals, as the timing of charge and discharge are most important.⁴ The PD does not adequately address why the RTE requirement needs to be maintained for Option 2 when the desired GHG emission reductions should be achieved when commercial storage projects would take service under approved storage rates or DR programs that are aligned with GHG emission reductions and grid-support objectives. CESA thus recommends the removal of the RTE requirement for Option 2.

Furthermore, the PD needs to be modified to address how performance-based incentive ("PBI") payments would be made under Option 2 if the cycling requirement is removed. Typically, PBI payments are made on a per-kWh basis in accordance with the measured energy dispatch of PBI systems. Rather than proposing a different mechanism by which PBI payments are made under Option 2, CESA recommends that the cycling requirement be applied where such systems are subject to an annual requirement of 52 cycles, similar to legacy and new residential systems. In doing so, a new structure for PBI payments is not needed, the Commission would be assured that legacy commercial projects are not used just for backup,⁵ and economic incentives to dispatch

⁴ Itron's *2016 SGIP Advanced Energy Storage Impact Evaluation* at Chapter 1 p. 28.

⁵ In the future, for any legacy or new storage system, the Commission may also wish to explore whether a verification process and test could be established to ensure that they are not technically capable of providing backup (e.g., cannot island in the case of a grid outage). With such a process and test in place, the Commission may be able to remove the cycling requirement altogether for all storage systems.

in accordance with GHG emissions and grid need are provided via service on storage rates or enrollment in DR programs. PBI payments will also still be paid out based on completion of annual cycling requirement with the potential to accelerate PBI payments by cycling more than required.

III. THE COMPLIANCE REQUIREMENTS FOR NEW COMMERCIAL PROJECTS ARE IMPROVED BY REMOVING THE RTE REQUIREMENT AND REDUCING THE ANNUAL CYCLING REQUIREMENT, BUT MANY OF THE PROPOSED CHANGES MAY STILL BE DISRUPTIVE FOR THE DEVELOPMENT OF NEW COMMERCIAL PROJECTS.

The PD makes a number of changes for new commercial projects, which includes setting a GHG emission reduction threshold and PBI reduction penalties for falling short of this threshold and subjecting all new commercial systems to the 50:50 PBI structure that currently applies to non-residential projects greater than or equal to 30 kW. In addition, the PD eliminates the RTE requirement, applies a lower annual requirement of 104 cycles, and subjects projects to the cycling requirement and 5 kg-CO₂/kWh GHG requirement on a fleet basis in the post-PBI period.

First, CESA commends the Commission for removing the RTE requirement, which has been demonstrated to be counterproductive and sometimes leading to unintended GHG outcomes even as projects were following applicable rules at the time.

CESA also applauds the Commission for lowering the annual cycling requirement to 104 cycles, especially in response to our recommendations, but, given the clear GHG emission reduction threshold and penalty structure in place as well as the impending implementation of the GHG signal, the PD should be modified to reduce the annual cycling requirement further to 52 cycles. Altogether, clear incentives have been put in place to ensure GHG compliance of new commercial projects without the need for an annual cycling requirement at 104 cycles, which could still lead to unintended outcomes of needlessly cycling energy storage systems that are not directly tied to GHG emissions and/or grid needs. While SGIP systems should be used and useful, cycling of energy storage systems should be purposeful and in alignment with GHG emissions and grid needs. As no evidence was presented in this proceeding to show that more cycling in general would lead to better outcomes, CESA believes that the annual cycling requirement should be reduced to 52 cycles similar to what is in place for residential storage projects, which amply guards against SGIP-funded storage projects from being used solely for backup purposes.

Second, CESA is concerned with all new commercial projects being subject to 50% upfront and 50% PBI payment structures, which has the potential to increase difficulties in financing

smaller non-residential projects and thus chill small commercial storage deployments. The PD reasons that the 50:50 payment structure better aligns rules for small and large commercial projects while also providing a stronger incentive for GHG emissions reduction.⁶ While the rationale seems reasonable, CESA believes that the market transformation goals should be balanced against the GHG emission reduction and grid-support goals. With commercial storage project deployments dramatically slowing down for PBI projects,⁷ there is a risk that re-allocating a greater amount of SGIP payments from 100% upfront (current) to 50% upfront and 50% PBI payments (proposed) made over time may present an added barrier to project deployments for small commercial projects, similar to what is being experienced for larger commercial projects. Given this, CESA recommends that the Commission modify the payment structure for small commercial storage projects (less than 30 kW) to be set at 70% upfront and 30% PBI payments. As a result, a stronger incentive relative to the status quo could be provided while still supporting the market transformation of small commercial projects. Depending on the observed performance of small commercial projects under a 70:30 payment structure, the Commission could tighten these rules in the future. Though a 70:30 payment structure would not ensure alignment of payment structures for all commercial projects, this separate set of payment rules should be manageable from a program administration perspective as it has been done to this point.

Finally, CESA still finds the GHG threshold to be beyond the statutory requirements that only required below-zero GHG emission reductions and the penalty to be punitive relative to the cost of carbon in other proceedings. Even as staff found 50% of projects in modeling runs were able to achieve the threshold,⁸ these are simulated modeling runs based on perfect foresight and response/dispatch and may overstate the feasibility of such outcomes out in real-world situations, even though below-zero GHGs can be reasonably achieved. Additionally, while the PD cited the staff proposal in highlighting how the GHG non-compliance penalty would only reduce PBI payments by a modest amount,⁹ the Commission should recognize that such uncertainties around

⁶ PD at pp. 20-21.

⁷ As of June 17, 2019, the *SGIP Weekly Statewide Report* shows that only two non-residential projects (522 kW) greater than or equal to 30 kW (PBI projects) are in the process of getting PBI payments or have completed payments since 2018. By contrast, since 2018, there are 3,235 non-residential projects (17,995 kW) less than 30 kW (non-PBI projects) that are in the process of receiving PBI payments or have completed payments.

⁸ PD at p. 24.

⁹ PD at pp. 27-28.

PBI payments creates financing and development challenges of energy storage projects. CESA continues to recommend a 0 kg-CO₂/kWh GHG threshold and a penalty rate commensurate with the cost of carbon established in other proceedings.

However, if the Commission proceeds with the proposed threshold and penalty rates in the PD, CESA recommends that the Commission adopt the aforementioned modifications to the payment structure from 50:50 to 70:30 to mitigate some of the disruptions to small commercial storage deployments and the lower annual cycling requirement from 104 to 52 cycles to minimize the risk of unintended performance results to achieve an administrative operational requirement.

IV. THE DEEMED-COMPLIANT PATHWAYS FOR NEW RESIDENTIAL PROJECTS ARE GENERALLY COMMENDABLE BUT SHOULD BE MODIFIED TO PROVIDE GREATER OPTIONALITY AND ACCOUNT FOR POTENTIAL STANDALONE STORAGE DEPLOYMENTS.

CESA commends the Commission and supports the PD for proposing deemed-compliant pathways for new residential projects that are appropriate for this class of projects. Specifically, the PD proposed that new residential projects would be deemed compliant if enrolled in approved time-of-use (“TOU”) rates if one is available with peak periods starting at 4pm or later with summer peak-to-off-peak differentials of 1.69 or more, and if no such TOU rate is available, then customers must install storage with solar-only charging or be set to solar self-consumption manufacturer settings. In addition, the PD established a single-cycle RTE requirement of 85%.

However, CESA recommends some minor modifications to these pathways that still ensure compliance with the program’s GHG goals but that offer greater optionality for residential storage projects. As proposed, the PD is too prescriptive without necessarily providing greater assurances of GHG emission reductions. Specifically, the PD prescribes a minimally acceptable rate differential and only offers solar-only charging and solar self-consumption as options if a TOU rate is unavailable.¹⁰ As evidenced in the GHG Signal Working Group final report,¹¹ the primary factor for GHG emission reductions for new residential storage projects was being enrolled in a TOU rate with updated peak periods starting at 4pm or later. As such, CESA believes that setting a threshold for peak-to-off-peak rate differentials is unnecessary so long as residential storage projects are enrolled in rates with the appropriate peak period, which may also reduce the

¹⁰ PD at pp. 42-43 and 48.

¹¹ *SGIP GHG Signal Working Group Final Report* published on September 6, 2018 at Appendix C.

administrative burden of getting new rates approved by the program administrators (“PAs”). The price-differential alone may direct energy arbitrage, but the *timing* of cycling, even if with lower price differentials, can direct GHG reductions.

Similarly, as noted by the PD, the working group final report found that solar-only charging or solar self-consumption reasonably achieved GHG emission reductions,¹² such that this deemed-compliance option should be available to all residential customers certified to this configuration, regardless of whether the customer takes service from a load-serving entity (“LSE”) with a TOU rate that meets the PD’s eligibility criteria. As proposed, the PD only makes the solar-only charging and solar self-consumption option available to certain LSE customers, but if this deemed-compliance option satisfies the GHG emission requirements for one set of LSE customers, it should be reasonably extended to all residential customers.

Finally, CESA recommends that the PD be modified to direct the development of deemed-compliant options for standalone residential storage projects without TOU rates. No such pathway is proposed for such projects but timing charging in line with solar self-consumption period or through other approaches may be workable.¹³ CESA encourages the Commission to consider pathways for these cases.

By accommodating these recommended changes, the Commission can still be assured that GHG emission reductions will be achieved while offering greater optionality for residential storage projects to effectively deploy their systems.

V. **THE PUBLIC LISTING OF DEVELOPER GHG PERFORMANCE CAN LEAD TO POTENTIALLY DAMAGING MISPERCEPTIONS AND THE PROGRAM SHOULD INSTEAD RELY ON CONVENTIONAL HANDBOOK APPROACHES TO ENFORCE GHG COMPLIANCE FOR CERTAIN CASES.**

CESA continues to oppose the public listing of GHG performance by developer given the risks of such data being misinterpreted and unduly harming developers as a result. With the publication of previous annual evaluation reports for SGIP storage projects, CESA has seen the media and the public not sufficiently capture the nuance or the contextual factors contributing to the performance of SGIP storage projects and fears that similar or worse outcomes could occur for

¹² *SGIP GHG Signal Working Group Final Report* published on September 6, 2018 at Appendix C; See also PD Finding of Fact 40.

¹³ *SGIP GHG Signal Working Group Final Report* published on September 6, 2018 at p. 68.

developers if actual GHG performance does not meet expectations, even as developers have operated in good faith to the compliance requirements in place at the time. CESA understands that the Commission is seeking enforcement options in the post-PBI period and for projects that are not subject to PBI payments. At the same time, CESA believes that the SGIP Handbook has sufficient levers to enforce GHG compliance via suspensions or expulsions of developers from the program. Such penalties are significant and sufficient to address the Commission's enforcement, as it is in the interest of all storage developers to being prevented from accessing SGIP funds for new storage projects.

However, if the Commission opts to publish performance data by developer, CESA stresses that the presentation of this information must be made carefully to avoid harm to good-faith developers. The Commission should be careful to present and distinguish between compliance-based versus actual GHG performance and differentiate developer performance for legacy versus new projects, as well as between different compliance pathways (*e.g.*, deemed-compliant, GHG signal). For example, CESA believes that it is important to clarify that legacy commercial systems that choose Option 1 or 2 compliance are not enrolled on an approved storage rate or DR program and/or not reacting to a GHG signal. Such contextual information is critically needed; if not, CESA cautions against publishing developer performance.

VI. THE ONE-HOUR AHEAD GHG SIGNAL FOR GHG COMPLIANCE IS REASONABLE, BUT THE COMMISSION SHOULD CONSIDER INCENTIVES AND NOT PENALIZE PROJECTS FOR USING THE REAL-TIME SIGNAL.

CESA supports the PD directing the eventual GHG signal vendor to produce a day-ahead, one-hour-ahead, and 15-minute-ahead (with 5-minute granularity) forecasts, with the one-hour-ahead forecast being used for GHG compliance. Understandably, the GHG Signal Working Group found that the day-ahead forecast is not yet accurate enough, so it is reasonable to adopt the one-hour-ahead forecast for GHG compliance purposes. CESA agrees with the PD's reasoning that SGIP-funded storage projects should be transformed in their operations to be informed and operated in response to one-hour-ahead signals. Importantly, CESA emphasizes the importance of assessing developer performance against the one-hour-ahead signal, even as the actual GHG emissions may differ in outcomes when measured and evaluated in the annual evaluation report. Developers should not be subject to retroactive penalties or major rule changes for dutifully following the applicable GHG rules at the time. Any deviation in actual GHG outcomes would be

due to deviations in the one-hour-ahead and real-time GHG signals, so such outcomes should be informative to the Commission on how the accuracy of the GHG signal could be improved or on how rules could be modified on a going-forward basis to move SGIP storage projects toward more effective GHG emission reduction outcomes. The Commission and the independent evaluator should also make a clear distinction in compliance-related versus actual performance when presenting results for SGIP-funded storage projects.

At the same time, in the spirit of market transformation, CESA recommends that the Commission consider ways by which SGIP storage projects could be encouraged and/or incentivized to follow the real-time GHG signal. Whether through a carve-out or high incentives, some developers may be willing to test out and develop the dispatch algorithms and financial models and/or install automated demand response (“ADR”) controls to subscribe under the real-time signal. Such ideas should be considered in the future in this proceeding, perhaps along with the other program modifications being considered in response to the April 15, 2019 Ruling.

VII. DEVELOPER FLEET GHG PERFORMANCE COMPLIANCE REQUIREMENTS SHOULD ACCOUNT FOR DIFFERENT BUSINESS MODELS AND PROGRAM DEFINITION FOR DEVELOPERS.

The PD seeks to incentivize GHG compliance for new commercial projects in the post-PBI period and for all new residential and legacy projects by publishing performance data of developer fleets, but the Commission should be aware that the PD would, in effect, be forcing business model decisions where developers, as defined in the SGIP Handbook, would be incentivized to also operate the storage project to ensure compliance with the GHG and operational requirements. According to Resolution E-4887, the Commission outlined a list of “development activities” that would contribute to the determination of the entity that is the developer based on handling a “substantial” amount of these activities.¹⁴ Given this, CESA finds the developer fleet performance and compliance requirements may present difficulties for projects where the developer, as defined by SGIP rules, would also have to assume operational functions to avoid penalties or publication of poor performance data. For example, the “developer” as defined may not be responsible for the

¹⁴ Resolution E-4887. *Adoption of revised Self-Generation Incentive Program developer definition pursuant to Decision (D.) 16-06-055 and other revisions to the SGIP Handbook* issued on October 13, 2017 at pp. 13-14. <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M197/K216/197216880.PDF>

actual operation and management of the storage project but would be subject to potential penalties, ‘shaming’, suspensions, expulsions, etc. CESA thus recommends that the Commission rethink whether these rules could be modified in some way and recommends clarification and/or stakeholder processes to discuss these matters.¹⁵

VIII. THE DEFINITION FOR “NEW” VERSUS “LEGACY” PROJECTS IS REASONABLE BUT THE DEFINITION OF “DEVELOPER FLEET” SHOULD BE MODIFIED AND DEFINED DIFFERENTLY FOR RESIDENTIAL VERSUS NON-RESIDENTIAL DEVELOPERS.

CESA supports the PD’s definition of “new” versus “legacy” projects, where the cut-off date is set at April 1, 2020.¹⁶ By setting the cut-off and transition date for operational and GHG requirements far enough into the future, the Commission provides developers with sufficient time to prepare and respond to the new requirements for new projects in the future (*e.g.*, developing algorithms for storage dispatch, understanding how to finance projects under this new regime) and allows projects already in the development pipeline to move forward under a set of legacy rules with some changes that manage disrupts to project financing.

However, CESA recommends a modification to the definition of “developer fleet” that would be subject to compliance to the new operational and GHG requirements. For commercial projects, it is reasonable to define developer fleet as 10 or more projects from the same developer, as defined in the SGIP Handbook, given the size of these projects. In assessing the SGIP Weekly Statewide Report, as of June 18, 2019, the average capacity of non-residential storage projects is 160.85 kW, with non-PBI projects averaging to 21.23 kW and PBI projects averaging to 289.48 kW. Under the proposed definition, an average commercial developer fleet subject to fleet compliance requirements would constitute approximately 1,600 kW of capacity under the SGIP. By contrast, for residential projects, CESA believes the proposed developer fleet definition may prove to be burdensome while representing a disproportionately smaller amount of capacity in SGIP. Under the proposed definition, given that the average small residential storage project is 5.775 kW, an average residential developer fleet subject to fleet compliance requirements would constitute approximately 57.75 kW of capacity under the SGIP. Though the developer fleet

¹⁵ It is unclear from the list of development activities on which activities are relevant and whether a developer who conducts the majority of these roles is best positioned to manage GHG compliance.

¹⁶ PD at p. 70.

compliance will be assessed separately for residential versus commercial projects, an equivalence of fleet compliance requirements is reasonable. To roughly approximate the average commercial developer fleet in terms of equivalent capacity, CESA recommends that the residential developer fleet definition be modified to 30 or more projects.

IX. EQUITY AND THERMAL STORAGE ISSUES REQUIRE FURTHER DISCUSSION AND CONSIDERATION IN THIS PROCEEDING.

The PD defers determinations and resolution around Equity projects and TES systems to later in this proceeding, with a separate Ruling related to SB 700 implementation beginning to tee up questions and address issues related to such projects.¹⁷ CESA is supportive of this pathway to address these issues, as further discussion on their unique challenges and barriers need to be discussed. In light of this PD, it will be important to consider whether the proposed adoption of new operational requirements is appropriate for such projects, or other operational requirements are needed. In particular, CESA appreciates and agrees with the PD determination to convene a Thermal Storage Working Group, which should not only focus on these GHG and operational requirement issues but also on measurement, verification, and performance evaluation of TES capacity and energy and on the potential eligibility of electric water heaters.

X. CONCLUSION.

CESA appreciates the opportunity to submit these comments to the PD and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



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Date: June 20, 2019

¹⁷ *Assigned Commissioner's Ruling Seeking Comment on Implementation of Senate Bill 700 and Other Program Modifications* issued on April 15, 2019 in R.12-11-005.

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M281/K395/281395627.PDF>