

**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 PROPOSED DECISION REVISING THE SELF-GENERATION INCENTIVE
PROGRAM PURSUANT TO SENATE BILL 861, ASSEMBLY BILL 1478, AND
IMPLEMENTING OTHER CHANGES**

Donald C. Liddell
DOUGLASS & LIDDELL
2928 2nd Avenue
San Diego, California 92103
Telephone: (619) 993-9096
Facsimile: (619) 296-4662
Email: liddell@energyattorney.com

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

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The California Energy Storage Alliance (“CESA”)¹ hereby submits these reply comments pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) regarding the Proposed *Decision Revising the Self-Generation Incentive Program Pursuant to Senate Bill 861, Assembly bill 1478, and Implementing Other Changes*, issued on May 16, 2016 (“Proposed Decision”).

I. INTRODUCTION.

Despite reasonable program revisions to the SGIP based on a robust record, several parties voiced disagreement with the Proposed Decision, especially regarding energy storage technologies being allocated 75% of SGIP funds. In these reply comments, CESA focuses its response on explaining why the Commission is justified in supporting energy storage

¹ 1 Energy Systems Inc., Adara Power, Advanced Microgrid Solutions, AES Energy Storage, Amber Kinetics, Aquion Energy, Bright Energy Storage Technologies, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, Electric Motor Werks, Inc., ElectrIQ Power, ELSYS Inc., Enphase Energy, GE Energy Storage, Geli, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, Johnson Controls, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, NEC Energy Solutions, Inc., NextEra Energy Resources, NGK Insulators, Ltd., NRG Energy LLC, OutBack Power Technologies, Parker Hannifin Corporation, Powertree Services Inc., Qnovo, Recurrent Energy, RES Americas Inc., Saft America Inc., Samsung SDI, Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunPower Corporation, Sunrun, Swell Energy, Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, Yunicos. The views expressed in these reply comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

technologies as proposed, based on the assessment approach used in the Energy Division Staff Proposal²

II. THE COMMISSION IS JUSTIFIED IN ALLOCATING 75% OF THE SELF-GENERATION INCENTIVE PROGRAM BUDGET TO ADVANCED ENERGY STORAGE TECHNOLOGIES.

A number of parties disagreed with the Proposed Decision and argued for a lower funding allocation for energy storage technologies in their Comments.³ CESA finds these views flawed. Some parties' question the 75% funding allocation on the grounds that energy storage results in higher or unproven GHG emission reductions than asserted. This perspective contradicts the Commission's determination in D.15-11-027, where the Commission decided that energy storage projects with a 66.5% round-trip efficiency do, in fact, provide GHG emission reduction benefits. Arguments against the Commission's reasoning in D.15-11-027 are misplaced re-litigation efforts and should be disregarded.

Relatedly, some parties cite Itron's *2013 SGIP Impact Evaluation Report* as evidence of energy storage technologies adding GHG emissions rather than reducing GHG emissions. CESA finds it deeply flawed to highlight such conclusions on energy storage based on the few energy storage projects reviewed in the *2013 SGIP Impact Evaluation Report*⁴ when the more current and Commission-directed Itron *2015 SGIP Cost Effectiveness Study* clearly details energy storage as a technology that provides GHG emissions reductions while also projecting substantial benefits to society in 2020.⁵

The focus by some parties on a single energy storage use case (demand charge management) is also misplaced given the Itron *2015 SGIP Cost-Effectiveness Study*'s findings on GHG emission reduction benefits. Performance requirements for using and cycling energy storage, along with utility retail rates, can provide ample incentive to cycle energy storage resources in beneficial ways. Ongoing rate-design changes will drive even greater benefits from energy storage. Inherently, unlike generation technologies, energy storage technologies do not emit GHG emissions and only 'cause' GHG emissions when they charge and discharge, which

² *Staff Proposal to Modify the Self-Generation Incentive Program pursuant to SB 861 and the Commission's Own Motion*, November 23, 2015.

³ Comments of Advanced Power and Energy Program ("APEP") at p. 9; Bloom Energy, Inc. ("Bloom") at p. 6.; California Clean DG Coalition ("CCDC") at p. 6; Doosan Fuel Cell America ("Doosan") at p. 14; National Fuel Cell Research Center ("NFCRC") at p. 8; NLine at p. 5; Southern California Gas Company ("SCG") at p. 8; and San Diego Gas and Electric Company ("SDG&E") at p. 2.

⁴ *2013 SGIP Impact Evaluation*, Itron, pp. 8-1, 8-5.

⁵ *2015 SGIP Cost Effectiveness Study*, Itron, p. 1-14.

should be guided by smart rate design. When energy storage charges from renewable energy sources and reduces curtailments, GHG reductions are clearly provided.

Modeling and input from APEP⁶ on these topics are also flawed. APEP suggest that “the proposed decision should be modified to consider the GHG emissions reduction and grid support goals of the SGIP program.” Beyond citing Itron’s *2013 SGIP Impact Evaluation Report*, APEP also cites its own study methodology and notes its understanding of differences between energy storage and ‘clean power generation’ (which commonly refers to fuel-cells).

Finally, PG&E argues that generation technologies currently applying for SGIP funds under an outdated GHG Emissions Factor, and absent a zero-emissions fuel adder requirement, make up a percentage of project applicants greater than 25%.⁷ PG&E takes this view to suggest a larger allocation of SGIP funding for generation technologies. However, PG&E makes an apples-to-oranges comparison that is mostly inappropriate because it looks at SGIP applications without today’s more stringent GHG requirements.

III. INITIAL ENERGY STORAGE INCENTIVE LEVELS CAN BE RE-VISITED BETWEEN STEP LEVEL TRANSITIONS IN ORDER TO MAINTAIN SUSTAINABILITY OF THE SELF-GENERATION INCENTIVE PROGRAM.

Concern regarding a quick exhaustion of SGIP funds in the energy storage category was discussed in some parties’ Comments,⁸ stating that a repeat of the ‘stampede’ during the February 23, 2016 partial program opening must be avoided to ensure steady activity to achieve market transformation.⁹ As a result, several parties suggested a lower starting incentive level than the \$0.50/Wh for large energy storage systems and \$0.60/Wh for small energy storage systems in the Proposed Decision. For instance, CalSEIA suggests \$0.36/Wh and \$0.41/Wh, respectively, would be more appropriate, while CSE proposes \$0.40/Wh and \$0.50, respectively, for large and small energy storage systems.

With respect to large energy storage systems, CESA supports the Proposed Decision’s initial incentive level, which translates to \$1/W for a two-hour system, and which effectively

⁶ APEP’s Alliances include the National Fuel Cell Research Center, the California Stationary Fuel Cell Collaborative, the California Fuel Cell Partnership, the Hydrogen Highway Network, the UCI Combustion Laboratory, the Pacific Rim Consortium on energy, Combustion, and the Environment, and ILASS-Americas. www.apep.uci.edu/3/aboutthecenter/alliances.aspx

⁷ PG&E’s Comments at p. 3.

⁸ Comments by: California Solar Energy Industries Association (“CalSEIA”) at p. 2; Center for Sustainable Energy (“CSE”) at p. 2; Pacific Gas and Electric Company (“PG&E”) at p. 3; SCG at p. 9 and SDG&E at p. 3.

⁹ CalSEIA’s Comments at pp. 2-3.

balances the need for supporting a large number of projects while not disrupting the market's incentive and cost trajectory.¹⁰ CESA found this \$1/W to be a reasonable starting incentive level that supports appropriate continued market development. The Proposed Decision's \$0.50/Wh represents a 24% reduction in incentives from the February 23, 2016 partial program opening.

For small energy storage systems, however, CESA recommends that the initial incentive be lowered to \$0.55/Wh from \$0.60/Wh. CESA shares the policy goal of creating a sustainable SGIP program that allows for steady market development for both large and small energy storage systems, ensures that SGIP participants have 'skin in the game,' and provides an equitable distribution of funds. On balance, CESA concludes that a \$0.55/Wh initial incentive level would achieve these goals.

Safeguards have been added to the SGIP program that will help avoid another 'stampede' and quick exhaustion of funds. For example, a lottery mechanism would better manage any large rush for funds.¹¹ CESA also recommended a 30-day pause between incentive steps in its Comments to potentially recalibrate incentive levels if a 'stampede' does occur and concerns are raised of a quick exhaustion of funds if incentive levels are not adjusted downward more significantly.¹² Overall, CESA agrees that these negative outcomes must be avoided by implementing these safeguards.

Finally, PG&E's concern that a rapid depletion of funds could render useless its work on the lottery design or on zero-emission fuel blending requirements implementation is unfounded. With CESA's 'pause' recommendation, the potential for funds to quickly run out without a lottery or a recalibration should be reduced. Only through a Commission-approved reallocation of funds could funds for the generation funding 'bucket' be transferred for use in the energy storage 'bucket'

IV. THE PROPOSED DECISION'S BIOGAS BLENDING REQUIREMENTS SHOULD BE IMPLEMENTED AND GHG EMISSIONS REDUCTION REQUIREMENTS SHOULD BE ENFORCED IMMEDIATELY.

Calls to delay the implementation of the biogas blending requirement by PG&E¹³ and CCDC¹⁴ should be rejected by the Commission as contrary to the goals of the SGIP to reduce

¹⁰ *Reply Comments of the California Energy Storage Alliance on the Energy Division Staff Proposal to Modify the Self-Generation Incentive Program*, filed on January 22, 2016, pp. 8-9.

¹¹ Proposed Decision at p. 44.

¹² CESA's Comments at p. 6.

¹³ PG&E's Comments at p. 2.

¹⁴ CCDC's Comments at p. 4.

GHG emissions. CESA agrees with the Sierra Club that the SGIP is a technology program that should “incentivize increased efficiency and technological improvements in fossil-reliant technologies.”¹⁵ As the Office of Ratepayer Advocates (“ORA”) adds, “SGIP projects should meet the GHG emissions factor even without factoring in the GHG emissions reductions associated with biogas blending.”¹⁶ The minimum blending requirements for natural gas-fueled generation technologies are intended to support the market for zero-emission fuels, not to allow these technologies from circumventing the GHG emissions factor.¹⁷


V. SELF-GENERATION INCENTIVE PROGRAM RULES SHOULD SUPPORT MULTIPLE-USE APPLICATIONS.

The concept of "double-dipping" is based on the assumption that demand side management functions and services are separable and distinct by technology type. The concept of value stacking requires the seamless integration of multiple functions and services performed by the same technology. The intrinsic value of energy storage is the ability to perform multiple functions. To the extent that these values are separated out for policy reasons it undermines the value and the cost-effectiveness of energy storage resources. It is imperative that the CPUC affirm its commitment to value stacking in order to ensure market transformation for energy storage.

VI. CONCLUSION.

CESA thanks the Commission for the opportunity to submit these reply comments on the Proposed Decision.

Respectfully submitted,


Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

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¹⁵ Sierra Club’s Comments at p. 3.

¹⁶ ORA’s Comments at p. 2.

¹⁷ Proposed Decision at p. 20.