

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

Application of Pacific Gas and Electric Company (U39E) for Approval of Demand Response Programs, Pilots and Budgets for 2012-2014.

And Related Matters.

Application 11-03-001
(Filed March 1, 2011)

Application 11-03-002
Application 11-03-003

REPLY TO RESPONSES TO PETITION OF THE CALIFORNIA ENERGY STORAGE ALLIANCE FOR MODIFICATION OF D. 12-04-045 ADOPTING DEMAND RESPONSE ACTIVITIES AND BUDGETS FOR 2012 THROUGH 2014

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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Pursuant to Rule 16.4 of the California Public Utilities Commission's ("Commission's") Rules of Practice and Procedure, the California Energy Storage Alliance ("CESA")¹ respectfully submits this Reply to Responses to Petition for Modification ("Petition") of Decision ("D") 12-04-045, (the "2012 through 2014 DR Decision"). This Reply is properly filed in accordance with Rule 16(g) because it was authorized by an email message sent by assigned Administrative law Judge Kelly A. Hymes to the Service List in this proceeding on September 17, 2013.

¹ The California Energy Storage Alliance consists of 1 Energy Systems, A123 Systems, AES Energy Storage, Alton Energy, American Vanadium, AU Optronics, Beacon Power, Bright Energy Storage, BrightSource Energy, CALMAC, Chevron Energy Solutions, Christenson Electric Inc., Clean Energy Systems Inc., CODA Energy, Deeya Energy, Demand Energy, DN Tanks, Eagle Crest Energy, East Penn Manufacturing Co., Ecoult, Energy Cache, EnerVault, FAFCO Thermal Storage Systems, FIAMM Group, FIAMM Energy Storage Solutions, Flextronics, Foresight Renewable Systems, GE Energy Storage, Green Charge Networks, Greensmith Energy Management Systems, Growing Energy Labs, Gridtential Energy, Halotechnics, Hecate Energy LLC, Hydrogenics, Ice Energy, Innovation Core SEI, Invenergy, K&L Gates LLP, KYOCERA Solar, LightSail Energy, LG Chem Ltd., NextEra Energy Resources, OCI Company Ltd., Panasonic, Paramount Energy West, Parker Hannifin, PDE Total Energy Solutions, Powertree Services, Primus Power, RedFlow Technologies, RES Americas, S&C Electric Co., Saft America, Samsung SDI, Sharp Labs of America, Silent Power, SolarCity, Stem, Sovereign Energy Storage LLC, Sumitomo Corporation of America, TAS Energy, UniEnergy Technologies, and Xtreme Power. 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.

This reply responds directly to parties that filed Responses to the Petition. For the reasons set forth in the Petition, and very briefly restated here, the 2012 through 2014 DR Decision should be narrowly modified to clarify that small thermal energy storage systems integrated with direct expansion refrigerant based air conditioning units sized at 20 tons or less to offset on-peak energy consumption (“Small TES”) do not qualify as “mature”, and are therefore not eligible for incentives under the Permanent Load Shifting (“PLS”) Program established under the 2012 through 2014 DR Decision.

As discussed below, the Petition also brings before the Commission the much broader and important policy question of how the terms “emerging” and “mature” are to be applied on a consistent basis to determine eligibility of demand management technologies such as energy storage, in the PLS Program and the Self Generation Incentive Program (“SGIP”). CESA recommends that the Petition should be promptly granted on its merits, and that the general program eligibility question should be taken up in the quasi-legislative setting of a Scoping Memorandum that should be issued as soon as practicable in the SGIP.²

² CESA was encouraged by the Energy Division and the SGIP Program Administrators to file the Petition as a way of eliminating any apparent ability of CESA member companies to “double dip” by participating in both the PLS Program as “mature” and the SGIP Program as “emerging” by ruling one or the other out as a possibility. CESA recommended that the Commission should take the issue up in a Prehearing Conference Statement that was filed in R.12-11-005, on March, 2013, before a Prehearing Conference that was held on March 13, 2013. There has been no further activity related to either the SGIP or the PLS Program on the record since March 2013.

II. PROCEDURAL BACKGROUND.

The Petition was initially filed on August 7, 2013, in R.10-05-004,³ but it was not accepted for filing by the Commission's Docket Office because it should properly have been filed in the Commission's successor open proceeding, R.12-11-005. At the request of the Commission's Energy Division the Petition was re-filed in this proceeding on August 12, 2013.⁴

CESA followed the Energy Division's guidance to re-file in this proceeding because the policy question of program eligibility of "emerging" vs. "mature" energy storage technology was dealt with in both the SGIP and the PLS Dockets and could be addressed by the Commission as readily in either one or the other of the two related proceedings dealing with differently targeted energy storage incentive programs.

III. REPLY TO RESPONSE OF THE DIVISION OF RATEPAYER ADVOCATES.

CESA agrees entirely with DRA's point that Small TES recipients of SGIP incentives should not be allowed to receive duplicating incentives from another utility program which encourages permanent load shifting adoption. CESA thus recommends that a definitive size limit for Small TES should be set at 20 tons, thus drawing a clear "bright line" of separation between technology classifications of large chilled water based and refrigerant based cooling thermal energy storage systems for purposes of determining incentive exclusive program eligibility.

³ R.10-05-004, *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Program and Other Distributed Generation Issue*, filed May 16, 2010 is the closed proceeding that preceded the Commission's currently open successor proceeding of the same name, R.12-11-005, filed November 8, 2012 (together, the "SGIP Docket").

⁴ As originally filed, the Petition requested modification of D.11-09-015, issued September 8, 2011, in R.10-05-004. When the Petition was re-filed in this proceeding (the "PLS Docket") the decision that should appropriately be modified became instead D.12-04-045, issued April 19, 2012.

Small TES has significant near-term potential for reducing the state's peak caused by the millions of refrigerant based air conditioning systems installed statewide. Limiting funding to any one SGIP technology allowing market adoption equality and proposes an incentive budget limitation per utility service territory of \$1.25 million cap per program calendar year. The proposed incentive cap for any single utility equates to 1.5% of the total \$83M/year SGIP budget.

GHG reduction is one of the clearest societal benefits of Small TES. One of the most intensive efforts to evaluate the air quality benefits of TES technologies occurred in 1996 as part of a larger study undertaken by the CEC's Thermal Energy Storage Systems Collaborative. This study produced a report,⁵ which evaluated the potential TES impacts in the service areas of Pacific Gas & Electric ("PG&E") and Southern California Edison Company ("SCE"). The CEC study concluded that, due to the peak shifting, TES systems could realize 36-43 % source energy and source emissions savings for SCE and 20-30 % savings for PG&E.

IV. REPLY TO RESPONSE OF THE CALIFORNIA CLEAN DG COALITION.

CESA agrees with the Response of the California Clean DG Coalition ("CCDC") suggesting that all new technologies should be classified and considered eligible for the most appropriate incentive program, which promote market awareness and a program structure that

⁵ *Source Energy and Environmental Impacts of Thermal Energy Storage* (http://www.energy.ca.gov/reports/500-95-005_TES-REPORT.PDF).

encourages economic feasibility.⁶ CESA also agrees with the Clean DG Coalition that: “In general, CCDC suggests it is poor policy to modify SGIP on a piecemeal technology basis.” (Clean DG Coalition Response, p. 2).

CESA has advocated for classification of Small TES as “emerging” in order to align market readiness of the technology advancements which have begun to demonstrate promise at previously immeasurable levels of market penetration. Emerging technologies that demonstrate substantial market adoption success can, and should, be reclassified as a “mature” and properly eligible for a program, such as PLS, that requires a lower level incentive encouragement.

CESA also notes that the Clean Coalition registered no procedural complaint with modifying D.11-09-015 at this time. Nor did the Clean DG Coalition take any issue with the position taken by CESA that Small TES should be classified as emerging and thus eligible to participate in the SGIP at this time.

V. REPLY TO RESPONSE OF THE UTILITIES.

A. The Commission Should Deem This Petition Timely Filed.

Rule 16.4(d) very clearly requires petitions for modification to be filed and served within one year of the effective date of the relevant decision sought to be modified unless the Commission finds adequate justification for a late filing. A definition of what is properly considered “justification” is appropriately undefined in the Commission’s Rules of Practice and Procedure. Nor is the term defined anywhere in the rules, orders and decisions of the

⁶ The Response of the California Clean DG Coalition was actually filed in R.10-05-004, and thus may not technically be part of the record in this proceeding at this time. CESA nevertheless draws the Commission’s attention to the Response because it is consistent with points raised in the DRA’s Response that are legitimate policy questions concerning the relative SGIP and PLS Program impacts that the Commission granting CESA’s Petition could have. Unlike the Joint Utilities, the Clean DG Coalition chose not to challenge the timeliness of the Petition or seek to litigate the factual merits of the basis for CESA’s policy position that Small TES should be considered an emerging technology. Like the Clean DG Coalition, the DRA chose to focus on program policy questions that should be explored rather than seeking to derail the Petition on procedural grounds engage in a “battle of declarations.”

Commission, for the simple reason that it is defined on a case by case basis by the Commission balancing relevant policy considerations that weigh toward granting or denying a specific petition. Both changed facts and circumstances are relevant, but so are Commission policy evolution and trends in the energy industry ecosystem.⁷

In their Response, the Joint Utilities awkwardly attempt to promote the novel idea (based on no cited authority) that whether “justification” exists or not in the eyes of the Commission is a litigator’s view of when CESA “knew or should have known” particular asserted facts relevant to the filing of the Petition.⁸ With respect, the “one year rule” is not a statute of limitations that must be litigated against a “discovery” test. It simply does not matter whether or not the Joint Utilities took as long as they did to implement the final parameters of the PLS Program. Nor does it matter how or why the Commission has not yet acted to put concerns about “double dipping” to rest. CESA thus renews its request in the Petition that the Commission should determine, in accordance with Rule 16.4(d), that the date that the filing date of this Petition is entirely justified.

B. The Joint Utilities Miss the Point of the Petition.

The Joint Utilities misunderstand the energy storage incentive policy clarification requested by CESA in the Petition. Many unhelpful pages of the Response of the Joint Utilities are devoted to contrasting testimony in the record before D.12-04-045 was issued by the

⁷ The fact that the SGIP and the PLS Program both figure prominently in the Commission’s Proposed Decision in R.10-12-007, *Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems*, filed December 16, 2010, highlights the urgency of the Commission declaring a bright, and principled, line of eligibility between the two important energy storage incentive programs.

⁸ For example, the Joint Utilities profess to read the mind of CESA (an alliance of many companies with divergent interests in energy storage): “Once Resolution E-4584 set the level of the PLS incentive, *CESA realized* that higher per kW incentives would be available if the systems with integrated small thermal storage are classified as “emerging” technology instead of ‘mature.’” [Emphasis added]. (Joint Utilities Response, p. 2).

Commission and Testimony of Janice Lin attached to the Petition. For example: “Testimony sponsored by David M. Nemptow, mentions some of the same points as the CESA PFM, but does not claim that the technology is emerging. But now, sixteen months after the Decision, the CESA PFM asserts that small thermal energy storage integrated into direct expansion refrigerant based air conditioning is an emerging technology” (Joint Utilities Response, p. 3). The Commission should simply disregard this hyper-litigious approach to what is a serious policy issue, because it has nothing to do with the merits of the Petition.

VI. THE COMMISSION SHOULD MODIFY D.12-04-045 TO CLARIFY THAT SMALL TES SYSTEMS ARE NOT ELIGIBLE FOR PLS INCENTIVES.


Technologies that meet the SGIP's GHG reduction and peak demand reduction goals may become eligible for inclusion in SGIP as an emerging technology if their first commercial installation is less than ten years prior to SGIP funding. Small TES satisfies the timing requirement because it has only been commercially available since 2005, as explained in the attached Declaration of Greg Miller.

Technologies with the potential to achieve significant future significant cost reductions are properly categorized as emerging, rather than mature, technologies. This cost reduction requirement is consistent with, and furthers the SGIP's fundamental market transformation purpose by focusing SGIP resources on technologies poised to achieve substantial economies of scale through increased market adoption. As explained in the Declaration of Janice Lin, attached to the Petition, and the attached Declaration of Greg Miller, Executive Vice President, Market Development, of Ice Energy, Small TES systems are projected to realize substantial reductions in the cost of production as its market penetration grows.

VII. CONCLUSION

For the reasons stated herein, CESA respectfully requests that the Commission reject the Responses, grant the Petition, and modify D.12-04-045 as set forth in the Petition as expeditiously as possible.

Respectfully submitted,



Donald C. Liddell
DOUGLASS & LIDDELL
Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

DECLARATION OF GREG MILLER

1. My name is Greg Miller. I am the Executive Vice President of Market Development for Ice Energy Holdings Inc. Ice Energy is a manufacturer of a Small TES systems and developer of peak load reduction projects.

2. Ice Energy is a California based company and headquartered at:

823 Milford Street
Glendale, CA 91203

3. I have 25 years in the electric energy industry including field engineering, electrical controls and software design, project management, sales, and marketing. In the last 18 years I've been involved with the market development of innovative technologies that assist utilities and end customer decrease electric energy usage.

4. The purpose of this Declaration is to provide direct evidence in support the Petition of California Energy Storage Alliance for Modification of D.12-04-045 Adopting Demand Response Activities and Budgets for 2012 through 2014 ("Petition") and reply to Responses to the Petition filed by interested parties.

5. In my capacity I work with utilities to develop cost effective utility and end customer incentive programs which reduce peak demand of air conditioning. Our program objectives are focused on reducing peak demand of air conditioning at commercial and industrial businesses in order to increase system efficiency, grid reliability, and reduce utility energy and delivery costs to end users. Our programs intend to offer environmental and economic development opportunities for our state and local communities.

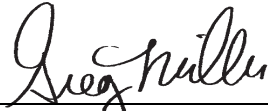
6. Market timing, energy price signals, utility incentive levels, product pricing and value proposition messaging to for target audiences are extremely important factors to drive

market transformation. In 2008 and 2009 Ice Energy launched a completely redesigned thermal energy storage unit reducing the product price while streamlining construction techniques which additionally lowered costs for building integration. In 2011, Ice Energy launch new remote monitoring and control capabilities for utilities and customers to optimize operation and to improve system performance and reliability. In 2011 and 2012, popular name brand air conditioning companies began manufacturing and promoting refrigerant based air conditioning product incorporating components to allow seamless integration of Small TES, further adding to cost reduction efforts. In 2012 under a new pilot program concept, SCE integrated these emerging systems into their HVAC Optimization Program. SCE's program objectives encouraged HVAC energy efficiency replacement alternatives for commercial and industrial customer using refrigerant based air conditioning. The program offered incentives for Small TES systems integrated with HVAC replacements presenting TOU customers with significant energy efficiency savings alternatives. For the first time, the program informed customers of equipment tax depreciation opportunities and offered Property Assessment Clean Energy financing alleviating business owner concerns with project capital expenditures. SCE's program was quite successful during its 5 month pilot period. I believe it was these market conditions, product advancements, and similarities of the SGIP program guidelines that encouraged CCSE's interest to request eligibility for Small TES in order to expand and transform energy storage opportunities statewide.

7. Based on market experience and the various MOU and IOU programs Small TES has participated, the SGIP program is the only program that would create economic incentives for end customers on IOU TOU tariffs to transform market adoption.

I hereby affirm, under penalty of perjury, that the information provided in this Declaration is true and correct to the best of my knowledge and belief.

Dated this 23th day of September, 2013 at Glendale, California.

A handwritten signature in black ink, appearing to read "Greg Miller". The signature is written in a cursive style with a large initial "G".

Greg Miller
Executive Vice President of Market Development
ICE ENERGY HOLDINGS INC.