

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

Application of Pacific Gas and Electric
Company (U 39-E) for Authorization to
Procure Energy Storage Systems During the
2016-2017 Biennial Procurement Period
Pursuant to Decision 13-10-040.

Application 16-03-001
(Filed March 1, 2016)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO THE APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY FOR
AUTHORIZATION TO PROCURE ENERGY STORAGE SYSTEMS DURING THE
2016-2017 BIENNIAL PROCUREMENT PERIOD
PURSUANT TO DECISION 13-10-040**

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April 11, 2016

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ hereby submits this response to the *Application of Pacific Gas and Electric Company for Authorization to Procure Energy Storage Systems During the 2016-2017 Biennial Procurement Period Pursuant to Decision 13-10-040*, submitted on March 1, 2016 (“Application”), in accordance with Rule 2.6 of the Commission’s Rules of Practice and Procedure and Administrative Law

¹ 1 Energy Systems Inc., Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ELSYS Inc., Energy Storage Systems, Inc., Enphase Energy, EV Grid, GE Energy Storage, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IMERGY Power Systems, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mitsubishi Corporation (Americas), NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, RES Americas Inc., Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, Younicos. The views expressed in this Response are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

Judge Michelle Cooke's e-mail ruling issued March 23, 2016, which set this date for filing of protests.

I. INTRODUCTION.

CESA appreciates the opportunity to comment on Pacific Gas and Electric Company's ("PG&E") Application for Approval of its 2016 Energy Storage Procurement ("ESP") Plan. CESA supports PG&E's procurement to date through the 2014 Energy Storage Request for Offers ("RFO") and its focus on gaining experience in different applications and on "achieving diversity in the agreements it executes," which comes in the form of different technologies, terms, sizes, configurations, and operational characteristics.² The open and technology-neutral approach to energy storage procurement will be critical to transforming this market.

Overall, CESA supports PG&E's 2016 ESP Plan to procure up to 120 MW of energy storage to meet its outstanding 2016 biennial cycle procurement targets. According to its Application, PG&E is seeking: stand-alone transmission or distribution connected energy storage for market participation that is controlled independently of other generation sources and participates in the California Independent System Operator's ("CAISOs") markets; energy storage for market participation developed for PG&E ownership at one of three identified PG&E-owned solar PV Sites, and PG&E-designated transmission or distribution connected energy storage for reliability and capacity needs that would enable PG&E to defer otherwise planned investments.

While generally supportive of PG&E's 2016 ESP Plan, CESA focuses its response here on several high level considerations to ensure that PG&E continues to make progress on its

² *Pacific Gas and Electric Company 2016 Energy Storage Procurement Plan Prepared Testimony, Chapter 1: Overview and Policy*, submitted March 1, 2016, p. 2.

procurement targets and position PG&E as a leader in energy storage technologies. Specifically, CESA recommends that PG&E and the Commission consider: a) incentives to accelerate PG&E's solicitation timeline as applicable and practical, b) third-party ownership and operation of energy storage projects for the distribution deferral use cases; c) PG&E's proposal to own customer-sited storage at this early stage in the market; d) appropriate definitions for station power in *pro forma* contracts; e) deferment of procurement to later biennial cycles only if energy storage is found to not be cost-effective; f) clarification of the method used by utilities to "count" Self-Generation Incentive Program ("SGIP") projects; and g) cost recovery of transmission-domain energy storage projects through the transmission access charge ("TAC").

II. THE PROCESS FROM REQUESTS FOR OFFERS TO APPLICATIONS FOR APPROVAL TAKES TOO LONG.

Overall, the process from issuing the RFO to submitting Applications for Approval is too long and leads to higher bid costs and risk factors from a number of changes to the market and regulatory environment that occur over a long solicitation timeline. While it is understandably difficult to structure and develop a relatively new type of contract for energy storage, the solicitation cycle needs to move faster to reduce transaction costs and minimize external risks from market, regulatory, and capital cost risk faced by both the utility buyer and the third-party bidder. PG&E proposes to launch its 2016 Energy Storage RFO on December 1, 2016, and subsequently submit its Application for Approval at the Commission deadline one year later on December 1, 2017. While this timeline adheres to the Commission requirements, CESA recommends that PG&E accelerate its procurement timeline where reasonable given its experience with energy storage contracts and negotiations during the 2014 Energy Storage RFO. CESA suggests that financial incentives could be provided to the PG&E to accelerate their solicitation schedule.

III. ENERGY STORAGE PROCUREMENT FRAMEWORKS SHOULD MOVE TOWARD AN OPEN COMPETITION OUTLINING CERTAIN REQUIREMENTS AND REQUESTING SPECIFIC SERVICES TO IDENTIFIED PROBLEMS.

CESA believes that ESP frameworks must balance the need for flexibility to submit innovative and unique bids while providing specificity in what is service is required to allow for appropriate planning. While certain key requirements must be met (*e.g.*, safety considerations) by all energy storage projects, CESA recommends that all ESP frameworks, including that for PG&E, move toward an open competition where specific services are requested to clearly defined grid needs and problems, but that the investor-owned utilities do not prescribe specific technologies, operational profiles, or ownership models. For the most part, PG&E has adhered to these values. However, for the transmission and distribution (“T&D”) deferral use case, PG&E only seeks utility-owned and operated projects. PG&E elaborates that this requirement is necessary to comply with Public Utilities (“P.U.”) Code Section 399.2(a)(2) and also because the “complete control of usage, maintenance, and replacement that comes with facility ownership, rather than relying on contractual obligations, is necessary to ensure continued operation and reliability.”³ In addition, while PG&E does not propose exclusive ownership of behind-the-customer-meter storage, CESA seeks clarification that there is no need for utility ownership on the customer-side of the meter, especially at this nascent stage of the market. Utility ownership of behind-the-meter storage systems is not likely to effectively deploy the most relevant configurations, operational approaches, and ownership models that will exist in the near term. The third-party customer-sited industry is seeing increased success and CESA believes that utilities should be testing protocols to control third-party owned storage assets and not direct

³ *Pacific Gas and Electric Company 2016 Energy Storage Procurement Plan Prepared Testimony, Chapter 3: Intended Procurement of Energy Storage Resources*, submitted March 1, 2016, p. 3.

ownership. CESA is opposed to utility ownership of customer-sided assets at this early stage in the market and believes it will ultimately hinder competition.

CESA sees no need to specify ownership models in its 2016 ESP Plan and believes that PG&E should be open to third-party owned and operated projects and/or utility owned but third-party controlled and dispatched projects for the T&D deferral use case. While PG&E is understandably concerned about ensuring distribution reliability, energy storage contracts could be negotiated and structured that set operational parameters to prioritize its reliability service and such that bidders assume the responsibilities and risk for ensuring reliability. The CAISO, for example, has a similar obligation to ensure system-wide reliability yet offers Reliability Must-Run (“RMR”) contracts with generating units that gives the CAISO the right to call upon the generator to meet local reliability needs and/or ancillary services. PG&E even suggests that such third-party contracts could be established to ensure reliability in saying that “whenever the storage alternative has a dual-use regulatory function – including both reliability and market functions – the reliability operating requirements will be satisfied first.”⁴ The specification of ownership models (*i.e.*, utility-owned) therefore needlessly precludes innovative business models in providing distribution deferral through energy storage.

IV. PG&E MUST APPROPRIATELY DEFINE STATION POWER IN ITS PRO FORMA CONTRACTS.

The issue of defining what constitutes station power is scoped into Track 2 of the Energy Storage Rulemaking (R.15-03-011), but CESA reiterates its concern of PG&E’s *pro forma* contracts continuing to mistakenly define many of an energy storage device’s non-discretionary loads as station use, leading to discriminatory rate treatment of energy storage devices. This

⁴ *Pacific Gas and Electric Company 2016 Energy Storage Procurement Plan Prepared Testimony, Chapter 5: Evaluation Methodology*, submitted March 1, 2016, p. 13.

issue is glaring when considering conventional generation units have loads that are essential to their operation (e.g., emissions controls or water treatment at a combined cycle plant) netted against the output of the generators and settled at wholesale levels. Similar rate treatment should be applied to essential loads for energy storage, such as thermal management systems and pumps for flow batteries. Just as PG&E proposed to modify its *pro forma* agreements to comply with final CAISO requirements as it relates to multiple-use applications (i.e., as it relates to the determinations made out of the Energy Storage and Distributed Energy Resources Initiative),⁵ PG&E should also be required to modify its *pro forma* contracts according to the determinations made in Track 2 of R.15-03-011.

V. **PG&E SHOULD ONLY BE ALLOWED TO DEFER ITS PROCUREMENT SCHEDULE IF ENERGY STORAGE RESOURCES ARE FOUND TO NOT BE COST EFFECTIVE.**

Since PG&E is expecting a robust response to its 2016 Energy Storage RFO, it left open the possibility of deferring up to 80% of the procurement targets for the 2016 biennial cycle to a future solicitation year “if the RFO results in an insufficient amount of viable and cost-effective energy storage bids.”⁶ The Commission should ensure that deferment is only allowed when all energy storage bids are found to be not cost-effective, where benefits are not greater than the costs.

⁵ *Pacific Gas and Electric Company 2016 Energy Storage Procurement Plan Prepared Testimony, Chapter 4: Operational Requirements for Energy Storage Resources*, submitted March 1, 2016, p. 5.

⁶ *Pacific Gas and Electric Company 2016 Energy Storage Procurement Plan Prepared Testimony, Chapter 2: Report on Existing and Eligible Energy Storage Resources*, submitted March 1, 2016.

VI. PG&E SHOULD CLARIFY THE METHOD USED TO COUNT SELF GENERATION INCENTIVE PROGRAM PROJECTS TOWARDS ITS PROCUREMENT TARGET

The utilities are using SGIP as a vehicle to achieve the customer-sited procurement targets. However, CESA recommends clarification as to the calculation method used to count SGIP projects. Utilities should not count SGIP projects based on when the applications are received. CESA believes that SGIP projects should only be able to count towards the utilities' procurement mandate once they have reached all verification milestones in the program and have been deemed a viable project likely to move forward.

VII. PG&E APPROPRIATELY PROPOSES TO RECOVER TRANSMISSION-DOMAIN STORAGE PROJECT COSTS THROUGH THE TRANSMISSION ACCESS CHARGE.

In its Application, PG&E appropriately seeks to have the CAISO consider how energy storage projects could defer transmission investment as part of its Transmission Planning Process ("TPP"). A major challenge in getting energy storage to compete against traditional "wires" solutions is that there is currently no consensus cost allocation methodology for the costs and benefits that energy storage provides. Since energy storage functions as both a transmission asset and market resource, the CAISO has faced challenges in determining whether or all of storage's system-level benefits should be included in the TAC. PG&E agrees that "if there is an identified need for storage resources to support transmission grid reliability, storage's role should be recognized by including the cost of storage procurement in the statewide transmission access charge."⁷ CESA recommends that the Commission work with the CAISO to determine how transmission-domain storage projects can recover costs through the TAC.

⁷ *Application of Pacific Gas and Electric Company (U 39-E) for Authorization to Procure Energy Storage Systems (2016-2017 Biennial Procurement Period)*, submitted March 1, 2016, p. 9.

VIII. CONCLUSION.

CESA appreciates the opportunity to submit this response to PG&E's Application and looks forward working with the Commission and PG&E in ensuring a robust solicitation of cost-effective energy storage resources.

Respectfully submitted,



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Date: April 11, 2016