BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems	R.10-12-007 (Filed December 26, 2010)

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) REPLY COMMENTS ON THE PROPOSED DECISION OF COMMISSIONER PETERMAN

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Pursuant to Article 14 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure, Pacific Gas and Electric Company (PG&E) files its reply comments on the Proposed Decision of Commissioner Peterman (PD).

I. FURTHER PROCEEDINGS ON COST-EFFECTIVENESS SHOULD NOT BE HELD AT THIS TIME

The Division of Ratepayer Advocates (DRA), the California Energy Storage Alliance (CESA), the Energy Producers and Users Coalition (EPUC), and the Large-Scale Solar Association and the Solar Energy Industries Association (Joint Solar Parties) suggest that the cost-effectiveness methodologies and assumptions be subject to further stakeholder input and litigation at this time, and that they be fully transparent.[1] PG&E disagrees with this suggestion.

From the perspective of customer costs, it does not make sense for stakeholders interested in profiting from energy storage projects to also influence the selection and evaluation criteria to be applied to storage projects. This type of process would increase the potential for inflated valuations. Further, consensus among the stakeholders is extremely unlikely, as has been evidenced by the cost-effectiveness modeling efforts that have already taken place within this proceeding.

By allowing each investor owned utility (IOU) to propose and apply its own methodologies to evaluate the costs and benefits of bids, the Commission enables evaluations that are consistent across the various solicitations the utility conducts. Furthermore, this approach will enable technology neutral evaluations that are based on the specific attributes of a project.

Finally, the Commission has an already established approach to ensure that proposed projects are evaluated fairly. The procurement review group (PRG) framework provides non-market stakeholders such as DRA access to IOU evaluation methodologies, and enables them to provide input. The independent evaluator (IE) helps to ensure that solicitations are fairly conducted. In short, each IOU should be permitted to apply its own evaluation methodology and assumptions without further Commission proceedings on cost-effectiveness.

II. THE PD SHOULD NOT BE MODIFIED TO FURTHER LIMIT THE STORAGE OWNERSHIP OPTIONS OF INVESTOR-OWNED UTILITIES

Several parties, including CESA and Calpine Corporation (Calpine), argue that the PD should be modified to place more limitations on utility ownership of storage projects.[2] Calpine goes so far as to propose that utility ownership only be allowed if procurement of third-party owned storage is infeasible.[3] This proposed modification should be rejected. The more options for storage projects that

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1 DRA Comments, pp. 9-11; CESA Comments, p. 7; EPUC Comments, p. 2; Joint Solar Parties Comments, pp. 6-7.
2 CESA Comments, p. 3; Calpine Comments, pp. 4-5.
3 Calpine Comments, pp. 4-5.

are allowed, including the option of IOU ownership, the more ability there is to lower customer costs to meet the adopted storage targets.

III. MINIMUM DURATION CONDITIONS SHOULD NOT BE SET

The California Hydrogen Business Council (CHBC) recommends that the Commission consider establishing a minimum duration (the amount of time for charging/discharging) for energy storage projects to count toward the utilities' procurement obligations.[4] This proposal should be rejected. As PG&E indicated in its opening comments, the Commission should state that there is no minimum duration requirement for projects to count towards each utility's procurement targets. The IOUs will be able to capture the benefits and costs of the differing storage attributes, such as duration, from proposals for storage that they receive in response to the storage solicitations.

IV. STORAGE CONTRACTS SHOULD NOT BE REQUIRED TO HAVE 10-YEAR TERMS

CESA recommends that the PD be modified to require that all eligible energy storage should provide grid services and be operational for a minimum term, such as 10 years.[5] CESA's recommendation should not be adopted.

Contract terms are based on the commercial needs of the parties to the transaction. Requiring an arbitrary ten-year minimum term of operation could reduce the cost-effectiveness of solicited projects by excluding projects that could be otherwise valuable, but which cannot feasibly meet this arbitrary condition.

Even if the limitation did not render a particular project completely infeasible, requiring a ten-year minimum operational life might impose artificial operational restrictions on the project that would constrain the utility's ability to dispatch the resource, and therefore reduce the value of the project. For example, some storage resources have an expected life based on charge and discharge cycles.

In short, each IOU should have the flexibility to align a contract's term with the expected operational life of the proposed project based on economic dispatch procedures. CESA's proposal to impose an arbitrary threshold for project operational life and contract term has the potential to reduce value for ratepayers, and so should be rejected.

V. THE PD SHOULD BE MODIFIED SO THAT THE FIRST 50 MW OF ANY PUMPED STORAGE PROJECT COUNTS TOWARD STORAGE PROCUREMENT TARGETS

The PD allows pumped storage projects of less than 50 megawatts (MW) to count toward the storage targets, but does not allow larger projects to count, either in whole or in part. Southern California Edison Company (SCE) proposes that larger pumped storage projects be allowed to count in

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[4] CHBC Comments, p. 3.
[5] CESA Comments, pp. 5-6.

part, *up to* the 50 MW limit.[6] PG&E supports SCE's proposal, and asks that the PD be modified accordingly.

The PD acknowledges the potential value of pumped storage, but raises the concern that if allowed to count in whole, a single large pumped storage project could meet an IOU's entire storage target. But excluding such a project altogether goes too far, as the project would be an important component of the IOU's, and the state's, storage portfolio. The better balance is the one proposed by SCE, where new pumped storage projects count in part toward the sponsoring IOU's storage targets, up to the 50 MW limit established by the PD.

VI. DIRECT ACCESS PROVIDERS AND COMMUNITY CHOICE AGGREGATORS SHOULD BE TREATED EQUIVALENTLY WITH INVESTOR-OWNED UTILITIES

PG&E agrees with The Utility Reform Network (TURN) that "To ensure these customer categories' contributions are equivalent, the Commission should amend the PD to increase the ESPs' and CCAs' percentage obligation to the same fraction of peak that bundled customers meet by 2020 pursuant to the PD's storage procurement program."[7] In order to maintain bundled customer indifference, the storage procurement obligation should be equivalent for all customers whether they are bundled customers, direct access (DA) customers, or community choice aggregation (CCA) customers.

Marin Energy Authority (MEA) and the Direct Access Parties[8] both argue that CCAs and DA providers should have equivalent deferment provisions as the bundled customers of the IOUs.[9] It is not reasonable for the DA providers and CCAs to expect equivalent deferment provisions on the one hand, but not to have an equivalent procurement obligation on the other. *If* the PD were revised to include an equivalent procurement obligation in terms of both quantity and phasing for all customers (bundled, DA, and CCA), then PG&E would agree with MEA and the Direct Access Parties that they should have the same deferment provisions as the IOUs.

The Direct Access Parties argue that, for any IOU storage projects whose costs are collected from all customers, the MWs that count toward the storage targets should allocated proportionally to DA providers and CCAs, stating that if they do not get such an allocation, then their customers would be paying twice.[10] PG&E disagrees. Since the current PD requires far less storage procurement for the DA providers and CCAs, there is no sense in which they would be paying for the same storage twice. *If* the PD were revised such that DA providers and CCAs had an equivalent storage procurement obligation to

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6 SCE Comments, p. 7.
7 TURN Comments, p. 3.
8 The Direct Access Parties consist of the Alliance for Retail Energy Markets (AReM), Sam's West, Inc. and Walmart Stores, Inc.
9 MEA Comments, pp. 3-4; Direct Access Parties Comments, pp. 3-5.
10 Direct Access Parties Comments, pp. 5-7.

the IOUs' bundled customers, then PG&E would agree that IOU storage projects that have their costs collected in distribution or transmission rates should create proportionate storage target credits for DA providers and CCAs.

VII. THE PD'S DISCUSSION OF UTILITY OWNED STORAGE SHOULD BE CLARIFIED

PG&E agrees with SCE that the PD should not require a utility proposing a utility owned storage project to simultaneously offer that opportunity for third party ownership in a solicitation.[11] The PD should be clarified on this point. For cases where an IOU chooses a storage project to provide distribution reliability, the IOU could conduct a competitive process to procure equipment and installation services from potential vendors. The project would require the approval of the Commission, and be subject to cost-effectiveness evaluation. However, the entire project should not be required to be offered for third-party ownership in a different solicitation.

In addition, the Commission should acknowledge that solicitation for utility owned projects would be conducted through a different process and timeline from solicitations for long-term contracts for energy products and services from third party owned projects.

VIII. SOLICITATIONS SHOULD NOT INCLUDE A MARGIN FOR FAILED PROJECTS

The Green Power Institute (GPI) states its belief that the energy storage procurement targets are for installed MW, and that solicitations need to award contracts for a greater amount of capacity than targeted to ensure installed procurement targets are met.[12] PG&E disagrees with GPI.

First, as PG&E discussed in its opening comments, projects should count toward the energy storage procurement targets once contracts are executed. Many of these projects will likely be new projects with long development timelines. It will be more informative and straightforward for all parties if the tracking of progress in meeting targets is based on contracted volumes rather than operational projects. The tally of executed contracts should be adjusted if an executed contract fails prior to achieving commercial operation.

Second, solicitations should not be required to award contracts for a greater amount of capacity than targeted to ensure installed procurement targets are met. This issue of Request For Offer (RFO) contingencies, to account for contracted resource uncertainty, was considered and rejected by the Commission in the 2006 Long Term Procurement Plan.[13] Instead, the Commission should make adjustments as needed to future RFOs if an executed contract fails prior to achieving commercial operation. Such an approach will be a more precise mechanism for ensuring targets are met.

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[11] SCE Comments, p. 12.
[12] GPI Comments, p. 3.
[13] *See,* D.07-12-052, Finding of Fact 39.

IX. THE PD'S GUIDING PRINCIPLES SHOULD NOT BE MODIFIED

As the PD notes, the guiding principles it sets forth are closely based on AB 2514.[14] CESA would add several other guiding principles that go beyond AB 2514, including items such as "grid resiliency."[15] CESA's proposal to modify the PD's guiding principles should be rejected. AB 2514 provides an appropriate foundation for the guiding principles in this proceeding. The adopted principles, grid optimization, renewables integration, and greenhouse gas reduction, provide a direct, clearly understandable set of principles for entities to work with as they work to meet their adopted storage targets. CESA's recommended additions do not add to this effort, and so should be rejected.

X. THE ALREADY ESTABLISHED PROCUREMENT PROCESS SHOULD BE APPLIED TO ENERGY STORAGE SOLICITATION

As PG&E noted in its opening comments, the Commission has an already approved procurement solicitation process. Consistent with PG&E's comments, SCE in its opening comments also urges the Commission to rely on the already adopted process.[16] The existing process, including the PRG and the use of an IE, should be retained for the storage solicitation. As PG&E proposed in its opening comments, the Commission should not require a pro forma Energy Storage Agreement (ESA) as a part of the solicitation application, but should leave the negotiation of the ESAs to the IOUs and the storage project bidders. A term sheet, including the significant commercial terms, should be required for the solicitation application in lieu of a pro forma ESA.

Respectfully submitted,

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[14] PD, p. 9; *see, e.g.*, Public Utilities Code Section 2837(a)-(h).
[15] CESA Comments, p. 2
[16] SCE Comments, pp. 9-10