

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

Application of Pacific Gas and Electric
Company (U 39 E) for Approval of its
2020 Energy Storage Procurement Plan.

Application 20-03-002
(Filed March 2, 2020)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO THE
APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) FOR
APPROVAL OF ITS 2020 ENERGY STORAGE PROCUREMENT PLAN**

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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”) hereby submits this response to the *Application of Pacific Gas and Electric Company (U 39 E) for Approval of its 2020 Energy Storage Procurement Plan* (“Application”), submitted and filed by Pacific Gas and Electric Company (“PG&E”) on March 2, 2020.

I. INTRODUCTION.

CESA commends the investor-owned utilities (“IOUs”) for largely meeting and/or exceeding their overall and domain-specific energy storage procurement targets pursuant to Assembly Bill (“AB”) 2514 and Decision (“D.”) 13-10-040. The IOUs’ efforts have played a pivotal role in helping to transform the market for energy storage such that this asset class is now positioned to play a significant role in advancing the state’s decarbonization goals and ensure grid reliability. Since when the first biennial storage applications were filed, energy storage has been procured through this Energy Storage Procurement Framework as well as in separate all-source solicitations to has played a critical role in reliability emergencies (*e.g.*, Aliso Canyon), as viable economic alternatives to fossil generation (*e.g.*, Moss Landing), and as distribution deferral assets (*e.g.*, Distribution Investment Deferral Framework procurements). As a sign of things to come, a

Proposed Decision in the Integrated Resource Planning (“IRP”) proceeding, Rulemaking (“R.”) 16-02-007, was voted for approval on March 26, 2020 that adopted 2019-2020 Reference System Portfolio, where significant amounts of energy storage (*i.e.*, 8,873 MW of battery storage and 973 MW of long-duration storage) was identified as being needed by 2030 to achieve our base-case greenhouse gas (“GHG”) emissions targets.¹

Recognizing its important role in helping to make the Energy Storage Procurement Framework a general success, PG&E submitted its final biennial application pursuant to D.13-10-040 and D.17-04-039 that provided updates on its energy storage procurement, reported on ongoing solicitations where some levels of storage procurement is expected, and identified no need to launch a storage-specific solicitation. Furthermore, despite being authorized to procure up to 166.66 MW of energy storage pursuant to AB 2868, PG&E did not propose any programs or investments.

II. RESPONSE.

CESA generally supports PG&E’s Application but observes that some of the contract terminations warrant some review and identification of lessons learned. A broader Energy Storage Procurement Framework evaluation would be beneficial, which may occur outside of this Application and within a more cross-cutting new Energy Storage rulemaking. Moreover, given the energy storage procurement expected in the competitive solicitations to address a System Resource Adequacy (“RA”) pursuant to D.19-11-016 and the current deployment trajectory of Self-Generation Incentive Program (“SGIP”), CESA has little concern that PG&E will be able to achieve its domain-specific 2020 and cumulative targets. With PG&E expected to submit contracts

¹ 2019-2020 Electric Resource Portfolios to Inform Integrated Resource Plans and Transmission Planning approved on March 26, 2020 in R.16-02-007 at 26, 41-42, and 46-48.

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M330/K357/330357384.PDF>

for approval by mid-May 2020 for the procurement launched pursuant to D.19-11-016, CESA expects that an update to storage procurement levels, if any, will be provided at that time.

III. ISSUES TO BE CONSIDERED.

In this response, while generally supportive of the Application, CESA recommends that the Commission modify the scope of the Application to consider energy storage diversity issues that were previously considered in the 2018 biennial applications (A.18-02-016, *et al.*) via a Ruling² and subsequent comments by parties. CESA even proposed a new procurement framework for “emerging” technologies that would be incremental to existing procurement targets established in D.13-10-040 and support diversity and long-term grid needs.³ However, the overall issue was left unaddressed in D.19-06-032, which concluded this consolidated proceeding. The Commission should reconsider energy storage diversity issues within PG&E’s Application. Specifically, the Commission should consider whether it is reasonable and prudent to potentially direct minimal additional procurement beyond the current domain targets to identify energy storage resources with “diverse” beneficial attributes that can transform the market for a diverse range of energy storage technologies that aligns with meeting long-term decarbonization goals, which may or may not be sufficiently met with the current suite of storage technologies.

For example, the modeled need for energy storage technologies with long-duration attributions have been highlighted as being potentially needed in multiple venues. With very high

² *Assigned Commissioner’s and Assigned Administrative Law Judge’s Ruling Requesting Comments on Issues Pertaining to Energy Storage Technology Diversity* issued on August 8, 2018 in A.18-02-016, A.18-03-001, and A.18-03-002.

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M221/K391/221391308.PDF>

³ *Comments of the California Energy Storage Alliance to Assigned Commissioner’s and Assigned Administrative Law Judge’s Ruling Requesting Comments on Issues Pertaining to Energy Storage Technology Diversity* filed on August 28, 2018 in A.18-02-016, A.18-03-001, and A.18-03-002 at 6-10.

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M229/K724/229724855.PDF>

levels of renewable penetration, the California Independent System Operator (“CAISO”) has noted the relevance of a diversified fleet that can mitigate multi-day weather risks, stressing the relevance of having regulators act now rather than waiting for technologies to become cost-effective.⁴ The CAISO has noted that long-duration energy storage will be necessary to overcome periods of low generation from renewables, both in their own discussion papers⁵ and in their comments on active regulatory proceedings at the Commission.⁶ Additionally, in distribution planning processes, IOUs and stakeholders have found that forecasted or contingency-based longer-duration needs are challenging for distributed energy resources (“DERs”) given the current suite of DER technologies and costs.⁷ Finally, as resiliency needs are increasingly identified in the face of public safety power shut (“PSPS”) events and as part of wildfire mitigation efforts, the Commission has recognized the importance of longer-duration storage in meeting resiliency needs.⁸

While many long-duration storage technologies are commercially available today, they face barriers to procurement due to “experience requirements” and longer lead time need to prepare supply chains, as well as policy barriers to valuation, as highlighted in our previous comments.

⁴ See CAISO’s presentation at the SB 100 Joint Agency Report Workshop:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=232217&DocumentContentId=64199>

⁵ CAISO’s *Energy Storage: Perspectives from California and Europe* at 30.

<https://www.caiso.com/Documents/EnergyStorage-PerspectivesFromCalifornia-Europe.pdf>

⁶ CAISO’s *Consolidated Comments on All Track 2 Workshops and Proposals* in R.19-11-009 at 3-6.

⁷ See, for example, *PG&E’s Advice 5435-E. Request for Approval to Issue Competitive Solicitations for Distributed Energy Resource (DER) Procurement for Electric Distribution Deferral Opportunities Pursuant to D.18-02-004* submitted on November 28, 2018 at 5: “The lessons learned from the DRP RFOs are that not all distribution deferral opportunities are suited for cost-effective DER deferral. Long duration needs limits feasible technologies and increase costs. The long duration needs (hours, months) also limits the counterparty’s ability to monetize other revenue streams.”

https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5435-E.pdf

⁸ *Self-Generation Incentive Program Revisions Pursuant to Senate Bill 700 and Other Program Changes*, D.20-01-021, issued on January 27, 2020 in R.12-11-005 at 57: “Longer duration SGIP storage projects are well suited to provide resiliency services during PSPS or other outage events but must also provide the grid and GHG emission reduction services required by § 379.6 and this Commission.”

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M325/K979/325979689.PDF>

Incremental procurement targets could spur economies of scale and advance procurement, valuation, and operational experience with long-duration technologies that can support these current and future needs. While grant programs exist through the California Energy Commission (“CEC”), such funding does not support the scaling and full commercialization of diverse energy storage technologies, whereas IOU procurement could help bridge the divide.

Therefore, CESA recommends that the Commission consider the following issue in the scope and review of PG&E’s Application:

- Should PG&E consider technology diversity in its 2020 biennial storage application?
- If diversity is needed, what “diverse” attributes should be procured that is not being met by the current suite of energy storage technologies but has been identified as being needed in other Commission proceedings or initiatives?
- Given these attributes, is it necessary or reasonable to direct incremental procurement pursuant to D.13-10-040 that transform the market for energy storage resources with these identified attributes? Are there barriers to their procurement in other venues that can be overcome through these biennial storage applications to support their market transformation?
- If incremental procurement is necessary and reasonable, what should be the procurement targets? Should the framework adopted in D.13-10-040 be modified or changed, and if so, how?

Given the identified need and the opportunity to leverage the Energy Storage Procurement Framework, CESA believes that this Application is the appropriate venue to advance market transformation for the energy storage resources needed to support our current and future grid

IV. CATEGORIZATION, HEARINGS, AND SCHEDULE.

CESA agrees that no evidentiary hearings are needed, and that this Application should be categorized as a “quasi-legislative” proceeding. CESA also supports the proposed schedule to ensure timely resolution of the storage diversity question.

VII. CONCLUSION.

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

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Alex J. Morris".

Alex J. Morris
Executive Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: April 3, 2020