BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U 39 E) Proposing Framework for Substation Microgrid Solutions to Mitigate Public Safety Power Shutoffs.	Application 21-06-022 (Filed June 30, 2021)

OPENING BRIEF OF THE CALIFORNIA ENERGY STORAGE ALLIANCE

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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 opening brief in the *Application of Pacific Gas and Electric Company (U 39 E) Proposing Framework for Substation Microgrid Solutions to Mitigate Public Safety Power Shutoffs* ("Application"), pursuant to *the Emailing Ruling Directing Opening Briefs Due 7/8/2022; Reply Briefs Due 7/21/2022* ("Ruling") issued by Administrative Law Judge ("ALJ") Colin Rizzo on May 10, 2022.

I. INTRODUCTION.

Public Safety Power Shutoffs ("PSPS") have significantly impacted customers in California over the last four years. As climate change has created hotter, direr conditions throughout the state, the risk of electric equipment causing wildfire has increased significantly, requiring the creation of PSPS protocols. In order to mitigate the impacts of PSPS, California utilities, including Pacific Gas and Electric ("PG&E"), have deployed diesel generation at certain substations. While this strategy allows PG&E to keep the lights on when transmission lines are de-energized, the use of these diesel assets produces greenhouse gas ("GHG") emissions and air pollution in local communities, thus hampering the state's climate and air quality goals. In

Decision ("D.") 21-01-018, the Commission established a process and parameters by which the investor-owned utilities ("IOUs") would transition to clean temporary generation and/or clean substation-level microgrid solutions. In line with D.21-01-018, PG&E submitted this Application proposing a framework methodology to identify and procure substation-level microgrids to mitigate PSPS events.

Overall, CESA supports the creation of a framework to annually assess the need for substation microgrids. Instances of PSPS have been in decline since 2019, showing that procurement of microgrids in this particular moment may not be needed. At the same time, future weather volatility, drought conditions, and other elements of wildfire risk may cause PSPS to re-emerge. Therefore, regularly assessing the need for microgrids through an established framework with an approved, streamlined procurement mechanism is appropriate. CESA offers the following recommendations with regards to the candidate substations to be analyzed for a microgrid, and the evaluation of requests for offers ("RFO"):

- PG&E should run the 2022 Historical Lookback Analysis ("HLA") and candidate substation prioritization using the Alternative Prioritization Metric, the Aggregate PSPS Consequence Score.
- Alternative benefits of the microgrid should be explicitly considered in PG&E's framework.

II. PG&E SHOULD RUN THE 2022 HISTORICAL LOOKBACK ANALYSIS AND CANDIDATE SUBSTATION PRIORITIZATION USING THE ALTERNATIVE PRIORITIZATION METRIC, THE AGGREGATE PSPS CONSEQUENCE SCORE.

In their original testimony, PG&E outlined a framework in which a historical lookback analysis ("HLA") would be conducted, and those substations with more than 10 modeled PSPS

events with over 100 safe-to-energize ("STE") customers would be considered for a substation-level microgrid and go through a subsequent alternatives analysis to determine whether a microgrid is the best solution to mitigate PSPS at that location. In testimony, CESA, Enchanted Rock, the Public Advocates Office at the California Public Utilities Commission ("Cal Advocates"), and The Utility Reform Network ("TURN") raised that a strict 10 event cutoff would not allow for the consideration of other PSPS severity factors – including durations of outages and number of customers impacted, including vulnerable and medical baseline customers. For example, in the HLA done in December 2021, both the Santa Rosa A and Sonoma substations each had 9 modeled PSPS events with over 100 STE customers, yet the cumulative customer-hours without service were over 12,000,000 hours for the Santa Rosa A substation, while being a bit under 5,000,000 hours for the Sonoma substation.[1] This indicates that, while both substations had the same number of PSPS events, Santa Rosa A likely serves more customers or is experiencing longer PSPS events and should be prioritized above the Sonoma substation for consideration of a microgrid.

Acknowledging parties' perspectives in rebuttal testimony, PG&E proposed an Alternative Prioritization Metric based on an Aggregated PSPS Consequence Score. The PSPS Consequence Score is currently used by PG&E to analyze the cost benefit of triggering a PSPS event and considers safety, customer minutes interrupted, and financial impact. Assessing the PSPS Consequence Score in its current form, CESA agrees with PG&E that, "this approach would explicitly incorporate other aspects of PSPS consequence such as projected number of customer[s] impacted, PSPS duration,"[2] and we are encouraged to hear that future versions of the score may,

[1] PAO-004 at 17.

[2] PGE-005 at p.2-2, lines 20-22.

"consider unique weighing by customer type." [3] Therefore, we believe that this Alternative Prioritization Metric is better than the 10 PSPS event cutoff.

PG&E has not conducted an HLA and Candidate Substation Prioritization using the Alternative Prioritization Metric, but given the benefits that the metric can provide, CESA believes that the HLA for 2022 should be run with this Alternative Prioritization Metric and that substation prioritization should be done with this analysis prior to the launch of any substation microgrid RFO in 2022.

III. ALTERNATIVE BENEFITS OF THE MICROGRID SHOULD BE EXPLICITLY CONSIDERED IN PG&E'S FRAMEWORK.

PG&E states that the D.21-01-018 mandates that PG&E consider substation microgrids for PSPS mitigation only. However, the ability to provide other benefits, even if not monetized in the particular contract executed by PG&E, should be considered in the RFO evaluation to reduce the risk of stranded assets.

This proceeding has highlighted the challenges of predicting and modeling future PSPS risk. On one hand, global warming is increasing the probability of extreme climate events and wildfire in California as hot, dry conditions become more common.[4] In this sense, PSPS risk has emerged only recently, with older weather conditions unlikely to trigger PSPS. As highlighted by Cal Advocates, "Only 9 of the total 669 Hypothetical Events in PG&E's 2011-2020 Supplemental took place from 2011-2016, constituting 1.35% of all hypothetical events."[5] On the other hand, climate change can cause weather patterns to be volatile and PG&E notes that "the 2021 fire season

[3] Ibid. at line 23.

[4] *See* CESA-001 at p.2-3. *See also* ER-001 at p.2-3.

[5] PAO-002 at p.13, footnote 49.

had a lower level of PSPS risk as compared to the 2017-2020 period."[6] While CESA urges PG&E to incorporate future weather projections when data is available, no data set can perfectly predict the future. Whether new data sets are adopted or future vintages of the HLA incorporate changing weather patterns, it should be expected that "this could lead to an unstable and changing list of candidate substations that are reviewed for cost-effective alternatives."[7]

Given the uncertainty surrounding PSPS need, PG&E should prioritize solutions that can provide multiple value streams in its RFO evaluation, not just those that can provide PSPS backup. PG&E has outlined that it will "evaluate the value of any *offered* blue-sky services and the impact of that value on the net cost of the substation microgrid solution [*emphasis added*]." Although, if no explicit blue-sky services are offered at that time, then no costs will be netted out and the potential for future services will not be explicitly considered by PG&E. It can take time to execute the needed studies and different contracts for blue-sky services, including non-PSPS resiliency, distribution deferal, and resource adequacy ("RA") capacity. For RA especially, it can take significant amounts of time to go through the interconnection and queue cluster studies needed to be assigned the partial or full capacity deliverability status that is needed to participate in the RA program. Given these barriers to immediate execution of additional services, CESA believes that this potential should be explicitly considered, including for third-party owned solutions. PG&E should "highlight value-stacking opportunities that third parties can take advantage of"[8] where feasible to allow third parties to adjust their bids themselves. Additionally, PG&E could estimate the potential value of blue-sky and non-PSPS resiliency services and net those potential revenues from the cost as it would for offers that explicitly include those services.

[6] PGE-005 at p.2-4, lines 2-3.
[7] PAO-001 at p.3-5, lines 11-17.
[8] CESA-001 at p.10, line 1.

Nevetherless, given the difficulty in predicting these values, particularly in the future, and the desire to also mitigate the risk of stranded investments, CESA believes that qualitative considerations of this potential, as suggested by Cal Advocates, are appropriate.[9]

IV. CONCLUSION.

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

Respectfully submitted,

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[9] PAO-001 at p.5-5, lines 8-9.