

August 24, 2021

CPUC Energy Division Tariff Unit
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**Re: Comments of the California Energy Storage Alliance to Resolution E-5164:
Pacific Gas and Electric. Evaluation of Clean Energy Resource
Opportunities for Substation Microgrids Pursuant to Decision (D.) 21-01-
018**

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the California Energy Storage Alliance (“CESA”) hereby submits these comments to the above-referenced Draft Resolution E-5164 (“Draft Resolution”) issued on August 3, 2021, approving Advice Letter 4373-E of Pacific Gas and Electric Company (“PG&E”), submitted on June 9, 2021 and ordering PG&E to pursue a clean substation microgrid project at one or more substations, as required by D. 21-01-018.

I. INTRODUCTION & SUMMARY.

With the issuance of Decision (“D.”) 21-01-018, the Commission adopted an interim resiliency strategy focused on “keeping the lights on” and directed investor-owned utilities (“IOUs”) to submit and document plans for clean substation pilots for at least one substation if temporary generation is used for the 2021 wildfire season. In submitting Advice Letter 6105-E on March 5, 2021, followed by Advice Letter 6204-E on June 9, 2021, PG&E proposed to reserve 168 MW of temporary generation and expand the use of two existing demand response (“DR”) programs as a Clean Substation Microgrid Pilot Project for Commission approval, citing the infeasibility of deploying diesel alternatives at substation-level microgrids in 2021. In a protest to Advice Letter 6204-E submitted on June 29, 2021, CESA disputed PG&E’s conclusion on the infeasibility of deploying clean alternatives at the substation level based on Request for Proposals (“RFP”) results that were either not in line with D.21-01-018 or were structured in a way to insufficiently elicit robust market participation to generate a diversity of potential solutions.

In light of these concerns, CESA is supportive of the conclusions and determinations made in Draft Resolution E-5164. CESA supports the decision to approve the DR proposal as fitting within the spirit and intent of the D.21-01-018,¹ but also agrees that PG&E did not document the

¹ Draft Resolution E-5164 at 12-13.

infeasibility of permanent clean projects through its past RFPs, pointing to four main reasons to arrive at this conclusion: (1) PG&E has shown a willingness to use current models to justify investments in locationally-specific Public Safety Power Shutoff (“PSPS”) mitigation; (2) a permanent microgrid project can support system-wide emergency reliability needs during extreme weather events in Summer 2022; (3) the emissions requirements are flexible; and (4) one of the top three candidate substations has deliverable capacity equal to its peak load.²

To this end, Draft Resolution E-5164 appropriately directs PG&E to issue a new RFP for permanent clean substation microgrid projects at one or more substations with a 2022 operational date. Considering issues highlighted in CESA’s protest, CESA also agrees with the proposed process by which Energy Division staff would review bid protocols and other documents in advance of the issuance of the RFP in order to affirm compliance with the letter and spirit of D.21-01-018.³ Given recent RFP experiences and in an effort to avoid further delay or misalignment on the requirements of D.21-01-018, CESA believes that this intermediate step involving staff review is smart and reasonable.

Beyond our broadly supportive comments, CESA also offers several other recommendations for inclusion as revisions to Draft Resolution E-5164 that provide greater assurances of compliance with the letter and spirit of D.21-01-018.

- The RFP performance and operational requirements should be aligned with Appendix A of D.21-01-018 but allow for creative, innovative solutions.
- The provision of Resource Adequacy (“RA”) should be optional, not a requirement.
- An appropriate bid and proposal submittal window of at least one month should be established.
- Creative microgrid solutions should be allowed, including a portfolio of in-front-of-the-meter (“IFOM”) and behind-the-meter (“BTM”) resources.
- The forthcoming solicitation should allow for rolling commercial online dates (“CODs”) that enable full project development and construction in stages.
- A forward-looking analysis should be used if possible to determine at-risk substations that could be mitigate through permanent clean microgrid projects.

² *Ibid* at 10-11.

³ *Ibid* at 12.

II. COMMENTS.

With the below changes, CESA believes that PG&E and the Commission will be able to better assess the full range of solutions and determine the appropriate path forward. While some of the below proposed recommendations are implied by D.21-01-018, CESA believes these changes should be explicitly included in the Draft Resolution to avoid ambiguities and potential further delays in launching a reasonable and effective solicitation for IFOM clean microgrid options.

1. The RFP performance and operational requirements should be aligned with Appendix A of D.21-01-018 but allow for creative, innovative solutions.

First and foremost, CESA recommends that the Commission ensure PG&E's compliance with Appendix A of D.21-01-018. In particular, as highlighted in our protest, the new RFP should update previous RFP requirements to ensure that project designs are capable of islanding for 48 hours instead of 96 hours. This appears to be readily addressed through Draft Resolution E-5164 and is self-evident as Appendix A of D.21-01-018 is the source of authority and guidance on this entire solicitation process for clean substation microgrid project.

At the same time, CESA encourages the Commission to allow for some flexibility in complying with the guidance and requirements of Appendix A of D.21-01-018. A silver lining of PG&E's Advice Letter 6204-E is that it identified a creative solution to meet the spirit and intent of D.21-01-018 and introduced a concept of reducing diesel usage by leveraging the load reduction capabilities of potential customer downstream of the at-risk substation(s). Though the proposed DR solution alone would not meet the requirements of D.21-01-018 (e.g., black start or cold load pickup capabilities), it could be used in tandem with other resources in a portfolio solution that "shapes" the various technical requirements, such as in modifying the duration of the islanding requirement. The RFP documents should invite such creative and innovative solutions, and the Commission's review of projects and contracts for approval should provide flexibility to submit such solution sets, so long as PG&E is able to substantiate any deviations from D.21-01-018 and demonstrate meeting both the compliance requirements and spirit and intent of the decision.

2. The provision of RA should be optional, not a requirement.

CESA is a strong proponent of value stacking for resources that are able to do so in order to improve the cost-effectiveness of microgrid investments and help PG&E meet

multiple compliance requirements, but such opportunities are not always present⁴ or may create barriers to deployment to support applications with short lead times. In many cases, there can be a tension between deploying and constructing permanent microgrid projects in advance of the next wildfire season and the lead time required to secure not only interconnection but also be studied for and allocated RA deliverability and have the necessary upgrades constructed if needed. Importantly, nothing in Appendix A of D.21-01-018 requires the provision of RA or other “stacked” grid services, with the guidance strictly focusing on distribution resiliency need in the face of wildfire and PSPS risk.

As such, in contrast to the 2019 DGEMS RFP, the new RFP directed in Draft Resolution E-5164 should make the provision of RA an optional term, but not a requirement, in order to fairly assess a broader range of proposals and better position the solicitation for a successful outcome. If project proposals can be cost-effective as a distribution resiliency resource alone, then it should be pursued and allowed. The ability to provide RA and/or summer emergency reliability is, of course, ideal/preferable and would improve the value proposition to PG&E and ratepayers, but it should be reflected in the bid evaluation and selection criteria rather than an eligibility criterion.

3. An appropriate bid and proposal submittal window of at least one month should be established.

A contributing factor to the unsuccessful DGEMS RFP and Temporary Generation RFP was the compressed time period in which market participants were given to respond to the solicitation announcement and issuance. Even for a standard or recurring RFP, a one-week deadlines can be challenging and deter market participants, who must assess the opportunity internally on whether it is financially and technically viable and worthwhile. For market participants with a global footprint, the solicitation may need to be assessed against other business opportunities as well.

Furthermore, given the location-specific nature of the opportunity, additional time may be needed to review the specific technical information that are available related to the specific substation location (*e.g.*, space available, interconnection, loading) and/or customers served by the substation. Unlike solicitations for System RA, for example, where developers can identify optimal locations and begin the project development process in advance of and independent of a general supply resource solicitation, project development in response to distribution-related solicitations do not benefit from such structural advantages, instead requiring location-specific information to assess and initiate project development processes.

⁴ See, *e.g.*, Resolution E-5164 at 11 where the Commission highlighted one of three candidate substations with deliverable capacity, but this observation should broadly highlight how RA value-stacking opportunities are not always present.

Considering the above, CESA recommends that Draft Resolution E-5164 explicitly establish a minimum one-month period for the bid and proposal submittal window. This is reasonable to take past lessons learned and ensure that market participants have a reasonable opportunity to respond and prepare effective bids/proposals. Although the Commission has afforded the IOUs flexibility in how they conduct solicitations, recognizing that independent evaluators (“IE”) are in place to provide oversight, it is also not atypical for the Commission to prescribe certain solicitation processes, as done currently in the Distribution Investment Deferral Framework (“DIDF”) solicitations.⁵

4. Creative microgrid solutions should be allowed, including a portfolio of IFOM and BTM resources.

Building on previous points regarding how PG&E should invite creative and innovative solutions, the Commission should ensure that the new RFP explicitly includes both IFOM and BTM resources. Such explicit clarification will invite more market participation and support a more comprehensive review of the potential range of permanent clean microgrid solutions. Notably, in its reply to CESA’s response to Application (“A.”) 21-06-022, PG&E affirmed IFOM and BTM resource eligibility, as well as portfolio-based solutions as part of its broader PSPS Substation Microgrid Solutions Framework:⁶

“Finally, CESA requests that “PG&E should also affirm that a portfolio or mix of [distributed energy resources] can also be used to address the eligibility and performance requirements for the PSPS mitigation need, even though any single technology or resource within the portfolio would not be able to meet these requirements on its own.” PG&E confirms that this statement is consistent with the intent of its proposal.”

Since the potential permanent microgrid pilot, if selected in a newly-directed RFP, is being pursued in parallel with the framework development in A.21-06-022 and could increase the knowledge and experience with substation-level microgrids, portfolio-based solutions from either or a combination of IFOM and BTM resources should be explicitly allowed, thereby informing the procurement, evaluation, contracting, and operationalization of similar solutions withing PG&E’s longer-term framework, and/or informing the identification of key barriers and gaps from the pilot and development of approaches to address them going forward.

⁵ See, e.g., *Administrative Law Judge’s Ruling on Recommended Reforms for the Distribution Investment Deferral Framework* in R.14-08-013. <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M389/K136/389136743.PDF>

⁶ *Reply of Pacific Gas and Electric Company (U 39 E) to Protests and Responses to Application Proposing Framework for Substation Microgrid Solutions to Mitigate Public Safety Power Shutoffs* filed on August 16, 2021 in A.21-06-022 at 4. <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M399/K245/399245084.PDF>

Otherwise, without this explicit clarification, CESA is concerned that PG&E and the Commission may be overly narrowing the list of potential solution sets to a single resource or project connected to or near the specific at-risk substation. Space limitations and/or limitations of any single technology type can thus become more binding, whereas more creative portfolio-based approaches and the use of both IFOM/BTM resources may invite more creative, innovative, and successful permanent clean microgrid proposals. After all, this new solicitation is intended to support a pilot and should thus invite innovative and potentially untested approaches.

5. The forthcoming solicitation should allow for rolling CODs that enable full project development and construction in stages.

Draft Resolution E-5164 extends various deadlines by one year for the new RFP and pilot project requirements,⁷ which is reasonable and necessary. As CESA understands it, this determination would postpone the expected COD of permanent clean substation microgrid projects to 2022 and the various emissions requirements to 2023. However, this is not entirely clear from Draft Resolution E-5164 that a full permanent clean substation microgrid project would need to be operational by the 2022 wildfire season, even though D.21-01-018 makes it “permissible for a subset of the project generation and/or storage resources to enter operation before the entire project is completed, allowing the project to progress in stages.”⁸ Allowing for phased interconnection, construction, and COD better positions clean substation microgrid projects to succeed and would facilitate the consideration and use of portfolio-based solutions, which may involve both IFOM and BTM resources. This should be made explicitly clear in Final Resolution E-5164.

6. A forward-looking analysis should be used, if possible, to determine at-risk substations that could be mitigate through permanent clean microgrid projects.

PG&E’s use of a 10-year lookback analysis will likely be more deeply examined in A.21-06-022, but CESA reiterates our concerns and questions regarding whether a lookback analysis is the best means to determine at-risk substations on a going forward basis. With D.21-01-018 requiring PG&E to assess the probability of transmission-level power loss and whether they are expected to persist,⁹ CESA believes a more forward-looking analysis needs to be developed. However, we recognize that this may not be

⁷ Draft Resolution E-5164 at 13.

⁸ D.21-01-018 Appendix A at A-5.

⁹ *Ibid* at A-4.

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feasible in the time between the adoption of Final Resolution E-5164 and PG&E's launch of the new RFP.

In the interim, for pilot purposes, CESA recommends that, when PG&E refreshes its 10-year lookback analysis to identify at-risk substations, recent years could be more heavily weighted (*e.g.*, last three years in the 10-year historical period) to capture how recent weather years and environmental conditions may be more indicative of expected fire and PSPS risk for the next decade and beyond. Though heat events, wildfires, and droughts did not occur overnight, it has also become more severe and has trended in a more extreme direction over the last few years. As permanent microgrid solutions that span 10 or more years, a forward-looking analysis, even though a weighted-year approach as a proxy until better methodologies are identified and/or developed, would more accurately capture the value of permanent clean microgrid solutions.

III. CONCLUSION.

CESA appreciates the opportunity to submit these comments to Draft Resolution E-5164 and looks forward to collaborating with the Commission and PG&E.

Respectfully submitted,



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Service lists A.17-01-012, R.18-10-007, and R.19-09-009