

June 29, 2021

CPUC Energy Division Tariff Unit
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Re: Protest of the California Energy Storage Alliance to Advice Letter 6204-E of Pacific Gas and Electric Company

Dear Sir or Madam:

Pursuant to the provisions of General Order 96-B, the California Energy Storage Alliance (“CESA”) hereby submits this protest to the above-referenced Advice Letter 6204-E of Pacific Gas and Electric Company (“PG&E”), *Evaluation of Clean Substation Pilot Project Opportunities Pursuant to D.21-01-018* (“Advice Letter”), submitted on June 9, 2021.

I. INTRODUCTION & BACKGROUND.

The Commission issued Decision (“D.”) 21-01-018 on January 14, 2021 that, among a number of Track 2 proposals in Rulemaking (“R.”) 19-09-009, adopted an interim resiliency strategy for the 2021 wildfire season focused on “keeping the lights on” that would allow the investor-owned utilities (“IOUs”) to reserve and deploy temporary generation at safe-to-energize substations.¹ The Decision affirmed the use of temporary generation as an “interim step” conditioned on a transition to clean alternatives to address resiliency needs, with the specific criteria outlined in Appendix A to be invested for such projects.²

In submitting Advice Letter 6105-E on March 5, 2021 to reserve 168 MW of temporary generators, which were approved in part by Energy Division,³ PG&E is required by the Decision to also submit and document its plans for clean substation pilots for at least one substation, supporting the Commission’s intent to transition to clean alternatives, subject to the above conditions. To this end, PG&E submitted the Advice Letter on June 9, 2021 that proposed to expand the use of two existing demand response (“DR”) programs as a Clean Substation Microgrid Pilot Project for approval. Due to concerns about the feasibility of deploying diesel alternatives at substation-level microgrids in 2021 and costs of these alternative technologies, PG&E would instead leverage its

¹ D.21-01-018 at 93-94 and Finding of Fact (“FOF”) 35.

² D.21-01-018 Appendix A at 4.

³ In the disposition letter on April 14, 2021, Energy Division narrowly approved the temporary generation request and clarified its intent to resolve PG&E’s documentation of clean substation pilots separately.

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Base Interruptible Program (“BIP”) and its SmartAC Programs, using the existing authorized DR budget for these programs, and merely seek Commission clarification that Public Safety Power Shut-off (“PSPS”) events fall within the boundaries of emergency or reliability events and locational dispatch is possible. Notably, PG&E does not anticipate that repurposing these DR programs as proposed will result in any change in their temporary generation procurement for 2021. Finally, PG&E detailed the selection of the substation site for the pilot, assessing against three criteria.

In reviewing the Advice Letter, CESA submits this protest because PG&E’s conclusion on the infeasibility of deploying clean alternatives at the substation level was based on a Request for Proposals (“RFP”) that was structured in a way that was all but doomed to fail in terms of its ability to elicit robust market participation and a diversity of solutions. Furthermore, the 2019 Distributed Generation Enabled Microgrid Services (“DGEMS”) RFP outlined eligibility and performance requirements that do not reflect the new requirements set forth in D.21-01-018, such that reference to these RFP results as evidence of the infeasibility of clean alternatives cannot be made. Finally, PG&E fails to substantiate how the proposed DR solutions meet the requirements of D.21-01-018.

For these reasons, CESA recommends that the Commission reject PG&E’s Advice Letter and direct PG&E to immediately issue a new Clean Substation Microgrid Pilot RFP on an all-source basis with delivery deadlines starting in May 2022, with opportunities for full capacity deliveries by May 2024. This RFP should be structured to more expressly contemplate solutions that leverage both in-front of the meter (“IFOM”) and behind-the-meter (“BTM”) resources. Such steps are necessary if PG&E and the Commission sincerely wish to assess the feasibility of clean alternatives as resiliency solutions and set the stage for moving away from the highly emissive temporary resources that PG&E has been deploying to date. Alternatively, if the Commission supports the narrower proposed DR solution, CESA recommends a significant expansion of the scope of the DR program, including incentives to deploy BTM energy storage solutions.

II. DISCUSSION.

In this protest, CESA details how the evidence cited for dismissing diesel alternatives at substation-level microgrids in 2021 is not indicative of their feasibility and costs given the expedited process and “outdated” requirements of the 2019 DGEMS RFP. PG&E’s conclusion of the feasibility and costs of diesel alternatives at substation-level microgrids was based on findings from a DGEMS RFP in December 2019 and an all-source Temporary Generation RFP in January 2021, where PG&E observed the entirety of bids coming from standalone natural gas technologies or natural gas-fueled technologies paired with energy storage. Even as the summary of diesel alternative bids are confidentially attached to the Advice Letter, CESA explains below how the aforementioned solicitations do not demonstrate the infeasibility or costs of many clean microgrid projects or portfolio solutions.⁴

⁴ CESA was unable to find and locate the solicitation protocols and requirements of the all-source Temporary Generation RFP, so our protest focuses on concerns or limitations of the DGEMS RFP.

A. The DGEMS RFP process and commercial online dates likely screened out many potential market solutions.

PG&E cites the results of the 2019 DGEMS RFP and the 2021 Temporary Generation RFP as grounds for dismissing diesel alternatives at substation-level microgrids,⁵ but the context by which the RFP was launched and conducted should be taken into account. For several reasons, CESA disagrees with the use of the DGEMS RFP to make determinations on the feasibility and cost of diesel alternatives. In fact, the DGEMS RFP likely did not yield the full breadth of market participation, leading PG&E to make a proposal on incomplete information.

First, the expedited nature of the RFP likely contributed to reduced market participation. The RFP was launched on December 11, 2019 and required a one-week turnaround to submit a notice of intent and a one-month time period before offers were due,⁶ overlapping with a major holiday period.⁷ While not the core reason driving market participation since other solicitations by load-serving entities (“LSEs”) in California have operated under such compressed solicitation timelines,⁸ our members have reported to CESA that this was a contributing factor. In particular, for technology providers and developers who can offer “innovative” solutions, such compressed timelines are non-starters since more time is needed for securing financing and supply chains in response to solicitation opportunities that more “routine” resources like solar photovoltaics (“PV”) and lithium-ion battery storage have easier access to. For pilot(s), PG&E should not be foreclosing such opportunities and should seek more complete information on the array of solutions, as intended by the Commission.⁹

Second, the compressed commercial deployment timelines required of DGEMS resources greatly limited the scope of market participants. With preferred and required online dates of June 1, 2020 and September 1, 2020, respectively,¹⁰ the RFP effectively screened out the possibility of many permanent generation and storage projects, which typically involve 6-18 months to interconnect, depending on the size, complexity, and configuration of the resources. Additional time may also be needed if customer acquisition is required for

⁵ PG&E Advice Letter at 3.

⁶ https://www.pge.com/en_US/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/system-reliability-rfo.page?WT.mc_id=Vanity_rfo-systemreliabilityrfo

⁷ The turnaround time to respond to the Temporary Generation RFP also was not reasonable. The RFP was issued on January 20, 2021 and responses were due on February 3, 2021.

⁸ See, e.g., IOUs’ Summer 2021/2022 Emergency Reliability RFO.

⁹ See D.21-01-018 Appendix A at 4: “This opportunity is intended to be open to projects that are novel or not commercially tested, i.e. pilot projects, as well as permanent projects in general, even if they are commercially tested and available.”

¹⁰ 2019 System Reliability RFO DGEMS Phase Solicitation Protocol at 3.

https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/System%20Reliability%20RFO/SystemReliabilityRFO_DGEMS_Phase_Protocol_3-16-20update.pdf

BTM solutions. Since the proposed schedule involved PG&E submitting executed DGEMS agreements to the Commission for approval in Q2 2020,¹¹ PG&E essentially established a 2- to 5-month window to bring projects online, which would be technically unrealistic to interconnect and construct projects in that timeframe. Even if technically feasible, the commercial risk is almost definitely unreasonable and/or the bid-in costs are likely inflated to account for commercial risk.

In sum, an RFP with such impossible deadlines and timelines should not serve as proof that low-carbon and/or clean alternatives are not feasible or cost-effective.

B. The DGEMS RFP performance and operational requirements are misaligned with the requirements established in D.21-01-018.

Another key reason to dispute PG&E's conclusion of the lack of feasibility or cost-effectiveness of clean alternative technologies for the Clean Substation Pilot is that the eligibility and operational requirements of the DGEMS RFP in 2019 do not reflect the guidance directed in D.21-01-018.

For example, whereas the DGEMS RFP required eligible resources to meet the substation peak load with no transmission supply for four consecutive days, or 96 hours, or two consecutive days, or 48 hours, without any customer load drop,¹² D.21-01-018 set minimum technical and safe operational requirements such that proposed projects designs must be capable of islanding for 48 hours.¹³ The revision to the operational load requirements is significant and could have yielded more market participant or a different suite of clean alternative solutions had the aforementioned requirements been set at a 48-hour islanding requirement, presenting potentially different findings on feasibility and cost-effectiveness. Though the technical capabilities to provide black start, cold load pickup, frequency and frequency response, and protection remain the same, the load requirements are an important threshold criterion to the viability of a number of potential alternative solutions.

To this end, PG&E explained how the 2021 Temporary Generation RFP specified the minimum load requirement of 48 hours, with a preference toward 72 hours,¹⁴ likely reflecting the updated requirements and guidance set forth in D.21-01-018. However, given that the DGEMS RFP was not re-run on reasonable timelines and with updated requirements, it is not possible for PG&E to definitely claim that no clean permanent generation or storage alternatives are viable or cost-effective.

¹¹ Sellers are less likely to begin commercial development until Commission approval is secured. Otherwise, regulatory risk only serves to raise financing costs and places undue risk on counterparties.

¹² 2019 System Reliability RFO DGEMS Phase Solicitation Protocol at 5-6.

¹³ D.21-01-018 Appendix A at 4.

¹⁴ PG&E Advice Letter at 4.

C. The DGEMS RFP was specified to be narrow in scope that eliminated the possibility of assessing the full range of clean alternatives, including portfolio solutions.

The DGEMS RFP results do not present a case against the feasibility or cost-effectiveness of a wide range of clean alternatives for the Clean Substation Pilot because of the narrow focus of the resources being sought. As a result, a number of alternatives were deterred from participation in the solicitation, including for portfolio-based solutions involving both in IFOM and BTM resources. CESA highlights three main areas where the RFP was structured in a way to not yield comprehensive results based on the structure of the RFP.

First, in conflating this solicitation with the near-term system reliability procurement requirements as directed in D.19-11-016, PG&E explicitly required that offers be able to provide resource adequacy (“RA”) services.¹⁵ Given the two- to five-month timelines to have resources online, this effectively screened out a wide range of market participants since the likelihood of market participants with RA deliverability in extreme short order is likely minimal. Securing deliverability typically involves two years or longer processes given the time to proceed through the cluster study process and have upgrades constructed by the participating transmission owner (“PTO”) if needed, which can span an additional four years, more or less. Very few resources thus could meet both the resiliency requirements of the RFP along with being able to provide RA services by the required timelines.

Second, although RA could be delivered via load reduction technologies, such resources were also structured to be ineligible in this solicitation because the RFP required that eligible projects must be interconnected to one of the substations designated by PG&E.¹⁶ As load reduction technologies, some of the deliverability challenges or limitations could have been bypassed had they been deemed eligible in the RFP. However, even as PG&E considers the use of load response as part of the proposed pilot, the DGEMS RFP failed to yield information or results on how various BTM solutions could have been deployed to reduce load needs and thus diesel usage during PSPS events.

Third, the DGEMS RFP cannot be used to cite infeasibility or cost-effectiveness for clean alternatives because this pilot is being structured to only focus on distribution resiliency needs, without requiring RA services to be procured as well. This key difference raises questions as to whether PG&E has comprehensively and accurately assessed the full range of alternative technologies. Most likely, if the DGEMS RFP was re-run with the updated load requirements, with more flexible consideration of BTM resources, and without a requirement for RA deliverability, PG&E may have observed a wider range of both feasible and cost-effective options, including portfolio-based approaches that involve both BTM

¹⁵ 2019 System Reliability RFO DGEMS Phase Solicitation Protocol at 4.

¹⁶ *Ibid* at 4-5.

resources to shape and reduce the load requirements and IFOM resources that can interconnect at the substation level and meet the shaped/reduce load requirements.

D. PG&E does not sufficiently demonstrate compliance of the proposed DR programs with the requirements laid out in Appendix A of D.21-01-018.

CESA takes issue with the lack of demonstrated compliance by PG&E of the proposed DR program alone to the requirements laid out in Appendix A of D.21-01-018. Modifications to the BIP and SmartAC Program are merely discussed as not impacting the planned procurement for temporary generation at the substations in 2021, but PG&E otherwise does not explain how the DR programs will meet the load requirements or the technical capabilities outlined in Appendix A to provide black start, cold load pickup, frequency and frequency response, and protection.¹⁷ This hardly represents a transition to clean generation and instead extends the reliance on temporary generation, albeit at a potentially reduced level, to support reduced negative externalities of diesel usage. Concerns about the viability of a transition are also highlighted by the fact that there is currently zero load reduction potential from BIP due to the lack of enrolled customers.¹⁸

DR programs are certainly a potentially useful element of an overall strategy to eliminate reliance on temporary diesel generators during PSPS events, but they are limited in their ability to wholly eliminate the need for backup generating resources. In this respect, PG&E's proposal utterly fails in terms of realizing the Commission's intent when the Commission conditioned contracting for temporary generation on good-faith efforts to pursue a clean substation pilot program. PG&E's proposed pilot denies the Commission the opportunity to meaningfully test the capability of clean alternatives like energy storage and other non-emissive solutions that can serve as a true substitute for conventional backup generators to support customers' energy needs and avoid diminished or disrupted service during PSPS events.

Though not explicitly required of D.21-01-018, PG&E also fails to discuss the limitations of leveraging BIP and SmartAC Programs for distribution resiliency needs in the face of PSPS events. Both of these programs underwent some modifications as part of R.20-11-003 targeting customer participation and response for potential Summer 2021-2022 events,¹⁹ raising questions as to whether such customers can be increasingly relied upon for additional PSPS load events without risking customer attrition and/or reducing their responsiveness to system-wide reliability events. This has not been sufficiently addressed in PG&E's Advice Letter.

¹⁷ D.21-01-018 Appendix A at 4.

¹⁸ PG&E Advice Letter at 9-10.

¹⁹ See, e.g., D.21-03-056.

III. ALTERNATIVE PROPOSALS.

In the alternate, CESA urges the Commission to reject PG&E's proposal and to direct PG&E to pursue either of the following two alternative proposals or incorporate elements of both in the disposition of PG&E's Advice Letter.

A. PG&E should immediately issue an all-source Clean Substation Microgrid Pilot RFP with the updated requirements of D.21-01-018 and without the narrow restrictions included in the 2019 DGEMS RFP.

PG&E should be directed to immediately issue a new Clean Substation Microgrid Pilot RFP on an all-source basis with delivery deadlines starting in May 2022, 2023, and 2024. This would provide something closer to a more reasonable lead time for developers to respond and allow for a broader set of resources and solutions to bid in, including IFOM and BTM solutions, and including temporary and permanent deployments. Since a fair feasibility and cost-effectiveness assessment was not conducted considering the limitations of the previous DGEMS RFP discussed above, PG&E should earnestly assess the full range of diesel alternatives as part of a plan to transition to clean generation. As noted above, the new all-source RFP should not require RA services to be provided (though it could be optional), should establish a 48-hour load requirement (with a 72-hour preference), and should be open to portfolio offers, or solicit from a wide range of eligible resources for PG&E to construct the portfolio itself.

To PG&E's credit, the incorporation of load modification to reduce diesel usage is an innovative approach to address resiliency challenges. However, CESA is disappointed to see PG&E stop there without considering the role of load modification to shape and reduce the load requirements at the selected substation to increase the viability of clean alternatives. By shaping and reducing the load requirements, for example, a load requirement could be reduced from 48 hours to 32 hours, which could increase the viability of portfolio solutions involving solar, storage, and fuel cells, for example, and improve their costs (*e.g.*, such as through reduced land requirements). The proposed DR programs could be one component of a broader portfolio solution.

Appendix A of D.21-01-018 offers flexibility for alternatives to be "partially ready" for commercial operation by the 2021 wildfire season, citing the potential for permanent projects to run into delays.²⁰ In this case, the "delay" is a result of inadequate consideration of the full range of clean alternatives. Therefore, in the interim, CESA recommends that PG&E's proposed DR modifications proposal combined with temporary generation be pursued as part of a broader portfolio and transition to a long-term alternative, providing time for the solicitation to be conducted and to have PG&E consider and potentially procure and contract for IFOM/BTM generation and/or storage solutions, or portfolios involving

²⁰ D.21-01-018 Appendix A at 6.

them. Such a transition path is within the guidance and authority of D.21-01-018, in CESA's view, is more consistent with the intent of the Commission.

This proposed alternative path also presents few downsides but potentially significant unrealized or unrecognized upsides that would give PG&E and the Commission better and more accurate information about the feasibility and costs of clean alternatives. Considering the potential to rely on BIP and SmartAC Programs as a means to transition away from diesel generation appears speculative, it would be prudent to continue to explore and pursue other alternatives.

B. PG&E should expand the proposed DR portfolio of solutions to include incentives to support the deployment and operation of BTM energy storage resources.

If DR solutions are considered as part of a broader portfolio strategy or in isolation as proposed by PG&E, CESA recommends that the Commission direct PG&E to also include deployment and performance-based incentives for BTM energy storage solutions. As discussed above, BIP and SmartAC Programs face customer attrition risks if leveraged to support not only system reliability events but also for PSPS events. Unlike traditional DR options where customers are directly impacted by load-reduction events, storage-backed DR mitigates a customer's direct load impacts and enables more frequent dispatch and cycling, enabling them to support both system-level reliability needs as well as distribution resiliency needs. As a result, CESA believes that PG&E has overlooked the possibility for a BTM energy storage incentive program to be pursued in support of a transition to clean alternatives.

While still being cognizant of the cost caps set forth in D.21-01-018, CESA recommends that PG&E and the Commission strongly consider a BTM storage incentive program, especially as available Self-Generation Incentive Program ("SGIP") Equity Resiliency Budget ("ERB") funds in PG&E service territory have depleted, addressing any concern of duplication of an existing program. The additional energy storage incentives as part of this pilot could support incremental deployments of energy storage projects needed for distribution resiliency. CESA submitted testimony in R.20-11-003 on a proposed program that could be adapted for either system reliability or PSPS mitigation.²¹

Alternatively, the Commission could direct PG&E to mirror the process and requirements adopted for the Partnership Pilot in R.14-10-003, which is expected to launch with its first cycle in late Summer 2021 and involves a deployment and performance-based incentive methodology to solicit distributed energy resources ("DERs") to defer planned capital investments. An incentive budget could thus be established as a percentage (*e.g.*, 85%) of the cost cap as established in D.21-01-018 as a multiple of the temporary diesel generator, along with operational requirements developed as a percentage of the load

²¹ CESA Opening Testimony ([Exhibit No. CESA-1](#)) at 35-36.

requirements.²² If a ready-made and Commission-adopted model is sought, the Partnership Pilot may be a viable pilot program to leverage.

Finally, at minimum, if any of the above are not found to be feasible or reasonable in the immediate term, CESA recommends that the Commission at least direct PG&E to increase the budget and scope of the DR programs, rather than merely leveraging the existing authorized DR budget. This may limit the incentives available to these DR resources, which will be called upon to do more with the same. Rather than targeting just a percentage of the load being served by temporary generation, a higher goal should be pursued to not only incentivize reliable and potentially frequent load response, but also expand the customer base. Given the cost cap authorized by the Commission in D.21-01-018, CESA views PG&E's proposed approach leverage the existing authorized DR budget to lack ambition or urgency to transition away from diesel generation.

IV. CONCLUSION.

Considering the above, CESA recommends that the Commission reject PG&E's Advice Letter and direct PG&E to pursue one or more of CESA's proposed alternatives to comply with the intent and requirements of D.21-01-018. CESA appreciates the opportunity to submit this protest on PG&E's Advice Letter and looks forward to collaborating with the Commission and stakeholders in this proceeding.

Respectfully submitted,



Jin Noh
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cc: Sidney Dietz , c/o Megan Lawson (PGETariffs@pge.com)
Service Lists R.19-09-009, R.18-10-007 and A.17-01-012

²² See, e.g., D.21-02-006. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M365/K628/365628213.PDF>