BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies.	Rulemaking 19-09-009

CLEAN COALITION REPLY COMMENTS IN RESPONSE TO ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON POLICY QUESTIONS AND AN INTERIM APPROACH FOR MINIMIZING EMISSIONS FROM GENERATION DURING TRANSMISSION OUTAGES

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I. INTRODUCTION

Pursuant to Rule 6.1 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") the Clean Coalition submits these reply comments in response to opening comments on the ALJ ruling Seeking Comments on Policy Questions and an Interim Approach for Minimizing Emissions from Generation During Transmission Outages. Opening comments by PG&E did not effectively explain why the presentations made on August 25 were not sufficient to solve the problem of substation-level backup power. The Clean Coalition supports proposals made by Sunrun and Tesla for solution microgrids as the ideal solution to the current problem.

II. DESCRIPTION OF PARTY

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources ("DER") — such as local renewables, demand response, and energy storage — and we establish market mechanisms that realize the full potential of integrating these solutions for optimized economic, environmental, and resilience benefits. The Clean Coalition also collaborates with utilities, municipalities, property owners, and other stakeholders to create near-term deployment opportunities that prove the unparalleled benefits of local renewables and other DER.

III. COMMENTS

a. PG&E

Before delving into PG&E's comments, the Clean Coalition wishes to strongly disagree with the its list of "core tasks that should remain within the Microgrid rulemaking."[1] PG&E lists cost recovery, standards for guiding the procurement of substation-level solutions and a longer-term framework for PSPS mitigation-solutions, a list that does not consider a comprehensive microgrid tariff, determining a standard value of resilience, nor does it consider the creation of appropriate standards for the deployment of Community Microgrids. The list PG&E suggests in these comments cannot be considered sufficient for achieving the commercialization of microgrids as is the statutory mandate in SB1339.

The extent of PG&E's comments can be summarized as a number of excuses as to why microgrids — especially solar microgrids — will not work in the next two years, bringing PG&E to the conclusion that the sustained use of diesel is the only alternative. Its comments request that this approach continue until at least 2022 and that the Commission grant cost recovery for the sustained use of fossil fuel generation. The Clean Coalition finds this to be astonishingly unambitious and is surprised that PG&E appears to be focused wholeheartedly on monetary concerns rather than the best interests of ratepayers it purports to be serving. At the meeting when the Commission issued D. 20-06-017, multiple commissioners suggested that the only reason that diesel fuel was allowed for the 2020 fire season is because there wasn't enough time for permanent renewable solutions to be deployed in time. Extending that deadline to 2022 (or 2023 for the deployment of permanent solutions), as PG&E suggests in opening comments, is definitely a mistake.[2] It would not only go against the expressed language of the Commission, but also offers PG&E an opportunity to take its time before taking action, rather than acting with urgency and beginning immediately. PG&E offers a timeline suggesting it will not even finish analysis of the 2020 wildfire season until the end of Q1 2020, a platitude that does not change the need for action in 2020 (whether that is creating an RFP, rolling out a Feed-In Tariff for the procurement of solar assets, or beginning the deployment of utility scale solar+storage resources). The longer PG&E and the proceeding waits, the further the window of opportunity shrinks and the more likely it becomes that temporary diesel contracts will be the answer for another year.

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[1] PG&E Opening Comments at 3-4
[2] Ibid at 2

In this case, the onus is on PG&E to prove the solutions posed by other organizations are not sufficient for substation level backup power, rather than answering with ambiguity. In multiple instances, the opening comments reference the need for a set of resources that can be moved from one location from another (or a non-mobile solution that can be deployed for a limited number of years) — what PG&E deems "optionality".[3] Both of these scenarios are directed at temporary, non-renewable based solutions that cannot effectively perform alternate functions other than emergency power. This is despite there being no evidence of a demand for temporary generation that can be moved from substation to substation. There is no apparent evidence that locations currently in high fire threat areas and areas that have experienced PSPS events will not need backup power throughout the next decade, especially as successive fire seasons start earlier and burn worse than the one before it. The entire framework for substation level backup power should not be hijacked because of an undue focus on temporary backup power that only serves a single purpose. The third scenario PG&E includes under the umbrella of optionality is, "the ability to use resources contracted or built primarily to serve as substation-level microgrids during PSPS outages for other purposes, deriving additional customer or resource owner benefit from those resources," which is a perfect explanation of why solar microgrids are cost-effective. In addition to not polluting — both fossil fuels and hazardous particulate matter — they can operate throughout the year under normal blue-sky conditions, creating alternate economic benefits while maintaining sufficient energy reserves for emergency backup power. If the utility's main focus is cost recovery and breaking even, PG&E needs to consider that solar microgrids have a built-in method to offset building costs; the same cannot be said of temporary fossil fuel generation. PG&E's supplemental report — written by ADL — explains that over a single year, understanding the total cost of a resource such as a diesel engine requires adding up the cost to rent an engine, the cost to operate, the cost to reserve and transport fuel, as well as the cost of fossil fuel emission and particulate emission. Furthermore, using 2020 as an example, PG&E contracted for 450 MW of diesel generation, but probably will not use any more than 300 MW. The demand for 2020 was an estimate and PG&E would argue that the contracts for 2021 will be much closer to the actual demand, but the point remains that temporary diesel generation comes at a premium to the utility and to the ratepayers in the area, especially when PG&E is not

[3] Ibid at 6

held accountable for the pollution it is causing. Thus, PG&E's statement that, "certain corollary value or revenue streams from any type of solution intended primarily for PSPS outage mitigation may be greater than the benefits," in reference to selling energy to wholesale markets, is an attempt to use uncertainty to dissuade the Commission against the deployment of solar microgrids rather than actually calculating that value or comparing it to the value of fossil fuel generation when all externalities are factored in.[4]

The Clean Coalition wishes to highlight that one of the main reasons that renewables-based microgrids are not presented as the ideal solution in PG&E's comments is due to a lack capabilities on the part of the utility itself. In response to question 6 of section 2.1.3, PG&E describes the role of BTM resources as "complementary" to temporary generation because they can act as load modifiers and carry the load over time.[5] Yet, full explanation for that answer is quite revealing, "PG&E does not currently have an enterprise-wide DERMS that would be required to monitor and control customer sited DERs within a microgrid."[6] It is not to say that the presentations by Sunrun and Tesla do not provide sufficient answers to the challenges posed by the Commission, PG&E simply does not have the technical capabilities to make them feasible. PG&E explains, "The first phase of PG&E's 10 Year Grid Modernization Vision is to deploy a foundational Advanced Distribution Management System to provide enhanced situational awareness followed by potential future investments in DERMS in subsequent GRCs." When suggesting that centralized management of resources might carry the load over time, PG&E is really explaining that it is possible sometime in the next decade when, according to its current schedule, PG&E has developed the DERMS making it possible. In the eyes of the Clean Coalition, PG&E's answer does not hold water; other companies have developed DERMS that could be used, and clearly the 10-year plan mentioned in opening comments needs to be revised to match the current needs of the grid.[8] None of the reasons that PG&E provides in comments are reasons to delay the deployment of solar+storage resources for a solar microgrid supplemented with diesel generators (that can be removed during the transition process). If anything, they are

[4] Ibid at 7
[5] Ibid at 16
[6] Ibid
[8] As adopted in D. 20-06-017, SDG&E is in the process of developing a Local Area Distribution Controller (LADC) system for the purpose of interoperating smoothly with its ADMS.

- *Solar microgrids will require grid isolation switches:* The installation of grid isolation switches makes the grid more sectionalized, which is beneficial for the creation of Community Microgrids in the long-term.
- *Solar microgrids will require technology being advanced in Track 2*: Other companies have DERMs technology and the challenge should be a reason to increase the urgency for PG&E to either contract or develop such software itself, not to abdicate the possibility of a solar microgrid solution.
- *It is too complicated to complete the studies while relying on storage resources:* This process is already being completed as part of PG&E's Community Microgrid Enablement Program, meaning it is feasible to scale up the process for substation level backup power.
- *Running multiple island zones will put a strain on PG&E's resources:* If PG&E is seeking cost recovery, the focus should be on the best possible solution for ratepayers, not the solution which is easiest to manage for PG&E.

It is worth considering that SB 1339 states that a customer may not be compensated for the use of diesel generation. If the Commission approves PG&E's request for cost recovery, the ratepayers in the service territory will pay for it, in essence paying a penalty for backup power. If this continues for the next two-three years, should it not be considered a statutory failure?

b. Tesla

The Clean Coalition is extremely impressed with Tesla's opening comments and is in complete agreement with the opinions listed within. Whereas PG&E's comments push for the lowest-common denominator fossil fuel solutions without providing sufficient reasoning as to why other preferred solutions should not be used, Tesla explains why a solar microgrid is feasible now and how the continued use of fossil fuels is to the detriment of California ratepayers. As it points out, "sanctioning the use of diesel and other fossil-fired resources as the default solution would be a tragically ironic outcome of this effort in the face of massive climate change-induced fires that have both torched huge swaths of the state and caused some of the worst local air quality in the world."[9] During the 2020 fire season, thousands of fires have already burned, the majority of which have stayed away from densely populated parts of California, but the same might not be true in 2021. Relying diesel generation and natural gas

[9] Tesla Opening Comments at 2

generation is setting up an accident waiting to happen and must not be the main method of backup power at a substation level. With that in mind, the Clean Coalition supports Tesla's statement that, "starting with a zero emissions RFP in no way hinders utilities from renting diesel gensets in the residual resilience RFP if they are needed to maintain reliability."[10] As the Clean Coalition explains in our opening comments, to the point which it is not possible to completely deploy a solar microgrid by the beginning of the 2021 wildfire season, it is reasonable that PG&E supplement with temporary diesel generation (preferably renewable diesel) that can be phased out as more solar resources are deployed. Tesla succinctly suggests, "Tesla believes it is incumbent on the Commission to prioritize consideration of zero-emission solutions, like solar and storage, before it contemplates relying on conventional solutions that are dependent on diesel or other fossil fuels."[11] The Clean Coalition agrees; we believe that diesel should only be used as a backup to the backup. With the ever increasing penetrations of DER through NEM, the quick deployment of utility-scale solar, and the potential for FOM storage — which can increase the hosting capacity of the feeder it is interconnected to — solar microgrids are a realistic solution that offer a multitude of benefits fossil fuels cannot compete with.

The Clean Coalition agrees with Tesla that the need for pilot programs is over; solar microgrids are tried and true products capable of being deployed immediately. When PV is combined with storage, the inability of solar resources to produce energy 24 hours a day is managed, especially with peak smoothing and load shedding capabilities that are offered in a microgrid. Moreover, since energy storage devices have black start capabilities — as has been proven by GE and other companies/utilities — and grid forming capabilities, the need for permanent diesel generation is being obviated. In some cases a blend of resources might be beneficial, but there is no reason why planning for those resources and those cases should inhibit the deployment of DER and FOM solar+storage resources that can take time to deploy. With that in mind, the Clean Coalition supports Tesla's recommendation, "that the Commission require the use of an Independent Evaluator to objectively assess the fairness and robustness of the solicitation process and methodological approach utilized by the utilities to evaluate proposals." Only through a fair and open process will the stakeholders of this proceeding and the ratepayers

[10] Ibid at 3
[11] Ibid at 4

be sure that total lifecycle costs are accurately weighed in the deliberation of the most cost-effective solutions for substation-level backup power.

c. Sunrun

The Clean Coalition also agrees with much of what Sunrun stated in its presentation and its opening comments. Specifically, we wish to remark on the importance of value stacking as a way to pay for Community Microgrids in the short term. Sunrun mentions, "There are no limitations on our runtime based on environmental factors. Benefits during normal grid operations include, but are not limited to: dispatchable resource adequacy capacity, energy to meet ramping needs, peak shaving and time of use management for the customer, and distribution system capacity deferral."[13] In addition, due to the recently published FERC Order 2222, aggregation of DER has even more of an opportunity to maximize economic value in wholesale markets, increasing the viability of Community Microgrids to pay for themselves over time. If the value of DER is properly assessed, though correctly allocating Transmission Access Charges, Sunrun's proposal of a "neighborhood grid" will be even more economically viable for PG&E, especially when compared to polluting fossil fuel generating resources and certainly has a greater longevity. The real question is how the Commission values GHG reduction, which is supposed to be the overarching goal of these questions; solar microgrids do not pollute.[14]

IV. CONCLUSION

The Clean Coalition appreciates the opportunity to submit these reply comments and urges the Commission to choose solar microgrids as the non-polluting solution with the greatest longevity.

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[13] Sunrun Opening Comments at 3-4
[14] Ibid at 7

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