BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

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OPENING COMMENTS OF VOTE SOLAR AND GRID ALTERNATIVES TO MICROGRID RELIABILITY PROPOSALS SUBMITTED IN THE TRACK 4: EXPEDITED PHASE 1 PROCEEDING

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In accordance with Rule 6.2 of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), Vote Solar and GRID Alternatives (Joint Solar Reliability Parties) are providing comments to the Assigned Commissioner's Amended Scoping Memo in Rulemaking 19-09-009. Our comments are in response to the Microgrid Reliability Proposals filed by the Investor Owned Utilities (IOUs) on September 10, 2021.

I. INTRODUCTION

The Joint Solar Reliability Parties welcome the opportunity to comment on the Microgrid Reliability Proposals filed by Southern California Edison (SCE), San Diego Gas and Electric (SDG&E) and Pacific Gas and Electric (PG&E) in the expedited Phase 1 phase of Track 4 in the Microgrid Proceeding (R. 19-09-009).

Each IOU has taken a very different approach to addressing the need for accelerating plans for the construction, procurement, and rapid deployment of new clean energy and storage projects to mitigate the risk of capacity shortages in the summers of 2022 and 2023.[1]

[1] These IOU proposals are in response to Governor Gavin Newsom's Proclamation of a State of Emergency, July 30, 2021.

II. RESPONSE TO THE SCE RELIABILITY PROPOSAL

SCE has correctly observed that larger utility-scale generation projects take several years to develop, construct and commission. They propose that expediting and scaling smaller-scale, single-customer behind-the-meter (BTM) distributed energy generation projects across a larger population of customers can result in capacity additions that mitigate the potential reliability shortfall in the summers of 2022 and 2023.[2] SCE correctly observes that the Commission has approved programs that incentivize the adoption of customer-owned generation such as the Self-Generation Incentive Program (SGIP).

The Joint Solar Reliability Parties agree with SCE that the SGIP can be enhanced to encourage greater customer participation in addressing grid reliability issues. We believe that SCE's proposal is compatible with the Microgrid Battery Reliability Incentive Proposal that Vote Solar submitted in this proceeding on September 10, 2021.[3] We appreciate SCE's recommendation that the Commission immediately expedite implementation of BTM microgrid projects that could help address the near-term capacity shortfall.

SCE has referenced the comments it submitted in the SGIP on August 3, 2021 as containing specific recommendations to address the 2022 summer capacity shortage.[4] In those comments SCE indicated that higher SGIP incentives could help contribute to grid reliability. Logically, higher incentives will motivate customers to install a battery back-up system for resiliency. What is missing is directing the use of those batteries to meet system reliability

[2] Reliability Proposal of Southern California Edison, September 10, 2021, Page 3.
[3] See Vote Solar's September 10, 2021 Proposal in the Track 4, Phase 1 Microgrid proceeding starting at Page 2.
[4] SCE Opening Comments on Assigned Commissioner's Ruling Requesting Comment on Heat Pump Water Heater Contract Training and Workforce Issues and Methods to Increase Self-Generation Incentive Program Technologies' Contributions to Summer Reliability, submitted on August 23, 2021 in R.20-05-012. (SGIP Comments).

requirements. SCE has recommended that SGIP budget categories that are in waitlist status be considered for additional funding.[5] Currently, the SGIP Residential Storage Equity Budget is waitlisted in PG&E and SCE territory and the Residential Equity Resiliency Budget is waitlisted in PG&E, SDG&E, and SCE territory.[6]

We concur with the need for additional funding, but recommend the Commission prioritize clearing the equity budgets as part of the recommendation by SCE. If revenue is available through participating in VPP grid services agreements, we prefer that low-income households have the enhanced ability to generate wealth while also having access to continuous power during de-energization events. To enable this opportunity for low-income participation, community-based education and outreach resources are needed so communities can learn about opportunities that provide health, safety, and total system reliability benefit from organizations and community leaders they know and trust. Moreover, we believe that incremental funding should be linked to providing reliability services as is outlined in the Vote Solar Microgrid Reliability Incentive Proposal.

SCE has correctly observed that most customers do not likely install battery storage with grid reliability in mind. Instead, they usually install storage to manage their own energy consumption and provide resiliency during power outages.[7] In order to improve grid reliability, specific performance requirements for the battery storage systems will be needed. SCE recommends that customers who receive an enhanced incentive enroll in a Demand Response

[5] *Id*. at Page 17.
[6]://www.selfgenca.com/home/program_metrics/, budget status as of September 22, 2021, residential storage equity and equity resiliency budget.
[7] *Id*. at Page 18.

(DR) program including the newly proposed Emergency Load Reduction Program (ELRP) or Virtual Power Plant (VPP) pilot.[8]

The Joint Solar Reliability Parties are not opposed to enrolling customers into these DR programs. However, we believe that our proposed Microgrid Battery Reliability Incentive Program will be simpler to administer and will lower peak net energy needs on the CAISO system daily throughout the summer. The Vote Solar proposed program is modeled after Hawaii Electric Company's Battery Bonus program, which was approved by the Hawaii Public Utilities Commission this year and became operational on June 23, 2021.[9] The program could be established quickly, particularly if the existing administrative structure in place for the SGIP is used. The Vote Solar proposed program does not require that customers enroll in market-integrated programs. The proposed program is more akin to the out-of-market ELRP except that the batteries are dispatched daily during the summer rather than in response to a CAISO emergency signal.[10]

Finally, we agree with SCE that storage systems that are incentivized to provide reliability services should be "future proof." We agree that the system should be capable at some point in the future of communicating with the utility. However, we do not believe that utility dispatch is necessary to ensure that the BTM resources provide the expected reduction in capacity during the summers of 2023 and 2023. It should be possible to monitor battery performance either through a third-party customer aggregator with access to inverter data, or a

[8] SCE estimates a pool of approximately 4,600 customers with a high potential for reliability disruption who could benefit from solar plus storage systems and recommended higher incentives for this group of customers.

[9] https://www.hawaiianelectric.com/products-and-services/customer-renewable-programs/private-rooftop-solar/battery-bonus

[10] More detail on the Vote Solar proposed dispatch plan can be found in the Vote Solar September 10, 2021 comments beginning on page 3.

load serving entity or the distribution utility with access to the smart meter. While we support collecting data for evaluating the impact of battery dispatch on greenhouse gas emission reductions we want to emphasize that the primary objective of the proposed battery incentive program should be to meet reliability needs in the summer of 2022 and 2023.

SCE did not directly respond to the question in the SGIP proceeding as to what level of higher incentive would be appropriate to drive additional uptake of BTM batteries that would be available in the summer of 2022. We understand their reluctance to specify a specific amount without a detailed analysis of participation in the SGIP. We encourage the Commission to initiate this analysis as part of this proceeding so that an appropriate incentive level can be set before the end of 2021. We recommend that the Commission consider increasing the current incentive level for qualified customers who are eligible for the Residential Equity Budget up to the same incentive level as customers who are qualified for the Equity Resiliency Budget of the SGIP. This is warranted because a low-income households' ability to contribute to total system reliability is equal, regardless of households' resilience need. As such, increasing the Residential Equity Budget incentive level to $1.00/Wh, matching the incentive level provided by the Equity Resiliency Budget, would lead to more low-income household participation in meeting total system reliability.

SCE in its September 10, 2021 proposal also recommended that BTM microgrids that support system reliability be approved under SCE's Rule 21 Fast Track Initial Review.[11] We agree that this approach can expedite the interconnection of resources that need to be available for summer 2022.

[11] SCE September 10, 2021 Proposal, Page 4.

III. SDG&E RELIABILITY PROPOSAL

SDG&E at the beginning of their proposal points out that there is a difference between reliability and resilience. They note that "reliability" refers to the normal operation of the grid with a focus on system capacity shortfalls. "Resiliency", on the other hand, requires adaptation to outages on a localized basis. Vote Solar agrees with this distinction. However, we do not agree with the conclusion that microgrids are not generally appropriate for addressing reliability problems except in exceptional circumstances.[12]

By developing new clean energy resources, microgrids can contribute both to reliability and resiliency. They do not need to operate in islanded mode to improve system reliability. SDG&E acknowledges that their Borrego Springs microgrid addresses a reliability problem. They go on to recommend two additional microgrid projects that can provide additional capacity for the summer of 2023. They recommend that these two projects and possibly two more that could be developed after the summer of 2023 would be owned and operated by SDG&E.

Generally, Vote Solar would argue that SDG&E and other IOUs should be required to competitively solicit for the development and operation of microgrid projects in their service territory. However, given the importance of maintaining reliability in the summer of 2023 we do not oppose SDG&E's proposal to develop the Boulevard and the Paradise microgrid projects. We are also encouraged by the fact that SDG&E has identified microgrid projects that serve lower income communities. We are further encouraged that SDG&E is planning to integrate existing solar generation in these areas into the proposed microgrids.

That said, Vote Solar opposes the Commission authorizing SDG&E to develop and operate microgrid projects that would not become operational, at least, until 2024. These

[12] SDG&E September 10, 2021 Proposal, Pages 1 and 2.

additional projects may be very worthy of development as microgrids, but there is sufficient time for SDG&E to run a competitive solicitation that would enable third parties to compete for such development.

IV. PG&E RELIABILITY PROPOSAL

PG&E, like SDG&E, makes a distinction between reliability and resiliency. They observe that microgrids can be beneficial for resiliency use cases. However, they go on to state that microgrids are not well aligned with mitigating system capacity shortfalls.[13] As noted above, we disagree with this blanket conclusion.

That said, we do not believe that it is prudent policy to rely on temporary fossil generation to meet system capacity requirements. PG&E proposes to conduct a study to determine what infrastructure investments might be required to allow temporary distribution microgrids to operate in parallel with the larger grid. PG&E proposes to present the study results to the Commission to determine whether it is feasible and cost effective to operate temporary generation by September 2022.[14]

PG&E notes that in this microgrid proceeding it was authorized to proceed with a Temporary Generation Program that allowed it to procure temporary generators for substation microgrids, distribution microgrids, for critical backup power support and to power Community Resource Centers.[15] PG&E points out that it was able to use some of these temporary generators to operate in parallel in August and September, 2020, to provide additional capacity to the grid. However, in most cases, the temporary generators could not operate safely in parallel with the system.[16] PG&E proposes to study how these temporary generators might be used safely to

[13] PG&E September 10 Proposal, Page 2.
[14] *Id*.
[15] D.20-06-017.
[16] PG&E September 10 Proposal, Page 9.

export power to the grid in the late summer of 2022 in the event of a shortfall event. PG&E describes in some detail the challenges of using temporary generators either in parallel or as "drop and pick" microgrids.[17]

PG&E also observes that make-ready upgrades may not be cost-effective in comparison to other options. PG&E acknowledges that a study of using temporary generators may find that no projects are cost-effective and/or feasible.[18] PG&E provides no cost estimate for carrying out a study of "make-ready" investments at specific locations. Before proceeding with such a study, Vote Solar recommends to the Commission that PG&E provide a detailed budget in an advice letter for the study. The advice letter should include information about the specific substations and distribution circuits that would be studied for the potential use of temporary generation.

V. CONCLUSION

The Joint Solar Reliability Parties strongly believe that there is an opportunity to demonstrate in this Microgrid Proceeding that customer-sited solar and storage can be dispatched in collaboration with load serving entities and distribution utilities to meet the electric system's reliability needs and still be used to provide for improved customer resiliency. We support aspects of the SCE reliability proposal that would leverage the existing SGIP and streamline interconnection to promote more single-customer microgrids. We also support the development of the Boulevard and Paradise microgrids by SDG&E. However, we oppose the development of additional microgrids by IOUs without first going through a competitive solicitation. With regard to the PG&E proposal to study utility investments at substations and on distribution circuits in order to make those sites ready to use temporary generation for the provision of temporary capacity, we urge the Commission to require PG&E to provide more information

[17] Id. Page 10-12
[18] Id.

before proceeding with the study. We look forward to working with the Commission staff and other parties to work out the incentive details and quickly put this program into effect.

Respectfully submitted on September 24, 2021.

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