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 (Filed September 12, 2019)

COMMENTS OF VOTE SOLAR AND THE CLIMATE CENTER ON THE RULING REQUESTING COMMENTS ON R.19.09.009 TRACK 2 MICROGRID AND RESILIENCY STRATEGIES STAFF PROPOSALS

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I. INTRODUCTION

Vote Solar and The Climate Center (referred to hereafter as "the Joint Parties") respectfully submit these comments pursuant to Administrative Law Judge Rizzo's July 23 Ruling requesting comment on the Track 2 microgrid and resiliency strategies staff proposal, facilitating the commercialization of microgrids pursuant to Senate Bill 1339. Vote Solar is a 501(c)(3) non-profit organization, working to lower solar costs and expand solar access. Vote Solar advocates for state policies and programs needed to repower our electric grid with clean energy. The Climate Center is a California 501(c)(3) nonprofit organization founded in 2001 with a mission to deliver rapid greenhouse gas (GHG) reductions at scale, starting in California.

A. General Comments

In this section the Joint Parties offer general observations, comments and recommendations regarding Track 2 that are not specific to any of the proposals put forward by Commission Staff. Section B below provides our comments on the Staff proposals and responses to the Commission's questions.

1. The Commission should provide an opportunity for parties to submit comments on the Staff Concept Paper and should include these comments in the formal record for developing its Track 2 decisions.

By excluding comments on the Concept Paper from the formal record of Track 2, the ALJ ruling creates a problematic logical disconnect. On the one hand the Concept Paper states that it is of central importance as a foundation for the Staff's proposals:

"The purpose of this document is to:

> ***Establish a conceptual foundation for accompanying Staff proposals*** for facilitating the commercialization of microgrids pursuant to Senate Bill (SB) 1339 and ongoing work related to the development of policies related to resiliency and microgrids." [p. 5, emphasis added.]

And:

> "This document is intended to complement a separate companion document, titled "Staff Proposal for Facilitating the Commercialization of Microgrids Pursuant to SB 1339", which articulates specific proposals for facilitating the commercialization of microgrids pursuant to SB 1339." [p. 5]

On the other hand, the ALJ Ruling informs the parties that any comments on the Concept Paper will be excluded from the formal Track 2 record. By excluding parties' comments on the Concept Paper from the record of Track 2, the ALJ ruling essentially requires parties to accept the "conceptual foundation" for the Staff proposals without question or challenge in commenting on the specific Staff proposals. And yet, this conceptual foundation underlies and supports the logic by which Staff claims that its proposals facilitate the commercialization of microgrids in compliance with SB 1339. If the Track 2 proceeding were a house under construction, the ALJ ruling is directing parties to comment on the hanging of windows and doors and the color of the roof tiles without questioning the structural foundation and placement of walls of the house.

The Joint Parties urge the Commission to provide an opportunity for parties to comment on the Concept Paper and to include those comments in the formal Track 2 record. To this end, we recommend that the Commission schedule a workshop in the near future for Staff to present and parties to discuss the Concept Paper, followed by parties' submission of comments for the Track 2 record.

2. The Commission should use SB 1339's definition of commercialization as the primary reference for evaluating proposals to facilitate commercialization of microgrids.

We note that Staff's definition of "commercialization" (Concept Paper, pp. 15-16) does not even mention the existence of language in SB 1339 that defines commercialization quite clearly:

SB 1339 Section 1 (e):

> (e) The Public Utilities Commission, Independent System Operator, and State Energy Resources Conservation and Development Commission must take action to help ***transition the microgrid from its current status as a promising emerging technology solution to a successful, cost-effective, safe, and reliable commercial product*** that helps California meet its future energy goals and provides end-use electricity customers new ways to manage their individual energy needs. [Emphasis added.]

Although the Staff's definition of commercialization does not seem to conflict with the SB 1339 definition, explicit reference to the SB 1339 language is needed to provide a logical link between the Track 2 and any subsequent proposals and the directive of the legislation.

3. Commercialization requires enabling an open marketplace for diverse suppliers of microgrids, DERs and related technologies to transact with customers and communities.

The Joint Parties believe that transitioning microgrids to become a "commercial product" per the direction of SB 1339 requires a framework that enables diverse stakeholders — including end-use customers, local governments and CCAs, third-party DER and microgrid developers — to plan and implement microgrids. It is not sufficient, and may in fact be counter-productive, just to expand the ability of the IOUs to implement microgrids. Yet the Staff proposals focus almost entirely on IOU activities and demonstrate practically no recognition of the central role of third-party providers in microgrid commercialization.

4. Commercialization of microgrids requires clear specification of the functional responsibilities of the IOU distribution utilities, to focus on providing reliable electric distribution service and facilitating customer implementation of microgrids and other DERs.

An effective commercial framework requires a level playing field for diverse microgrid providers, where the regulated distribution monopolies are facilitators but not competitors. This means that the Commission needs to define a clear boundary between the IOUs' distribution

system roles and functions with respect to microgrids versus functions for which third-party provision on a competitive basis will provide greater overall societal benefits. Specifically, the IOUs' roles should be limited to matters related to distribution system operation and provision of data and technical information, and should exclude provision of microgrid facilities and services that are being offered by competitive third-party microgrid, DER and related technology companies. Third-party business and technology innovation, in alignment with local needs and preferences for microgrid projects, will encourage private investment and will place costs and technology risks with the private sector rather than impose them on ratepayers. Allowing the regulated monopoly distribution utilities to participate in these areas will be anti-competitive and will hinder microgrid commercialization.

5. Track 2 should explicitly recognize and offer working definitions of "community microgrids," and clarify how the community microgrid tariffs the Commission has authorized PG&E to develop in Track 1 relate to the commercialization objectives of this proceeding.

In defining the varieties of microgrids and their attributes, the Concept Paper makes no mention of the term "community microgrid." [Concept Paper pp. 10-11 and 17-18] At the August 5 workshop, the Staff rationalized this approach by saying that "community microgrid" is a confusing term that means different things to different parties, and that instead of using this term they prefer to characterize microgrid types in terms of the system of attributes described in the Concept Paper. On its face this rationale sounds reasonable. At the same time, Staff Proposal 4 "requires the IOUs to develop an incentive program to fund clean energy community microgrids ..." [Staff Proposal p. 18, emphasis added] even though Staff declines to offer a definition of the term.

Moreover, in Track 1 of this proceeding, the Commission authorized PG&E to develop "community microgrid tariffs" under its CMEP initiative, which is now procedurally disconnected from and potentially in conflict with Track 2, in which Staff is saying that "community microgrid" has no definite meaning. Parties to this proceeding are left wondering exactly what PG&E has been authorized to develop and how their actions to develop community microgrid tariffs will relate to Track 2 and the larger set of issues for facilitating commercialization of microgrids. In particular, the Joint Parties are concerned that by excluding

the term "community microgrid" from Track 2 the Commission is, by default, delegating the definition of community microgrids to PG&E. The Commission must address this disconnect by adopting a definition for "community microgrid" that will apply consistently across the various tracks and decisions of this proceeding.

In our opening comments on the Track 1 Proposed Decision [pp. 4-5], the Joint Parties urged the Commission to reject the community microgrid tariff element of PG&E's CMEP because (1) it is too important a matter to be addressed in an advice letter process rather than through an open proceeding, and (2) community microgrid tariffs are needed for all three IOUs and should be consistent across the IOUs to advance commercialization.[1] The Track 1 decision did not adopt our recommendation, and now we have greater confusion as a result because the Staff refuses even to recognize community microgrid as a meaningful concept while including it in Proposal 4. By allowing PG&E to define community microgrids and develop community microgrid tariffs for its own service area while excluding the topic from discussion in Track 2 of this proceeding, the Commission could, perhaps inadvertently, create an additional barrier to the commercialization of microgrids.

In support of our recommendation, we offer the following definitions for consideration by the Commission and the parties.

> *A community microgrid, also known as a "multi-user microgrid," is a microgrid that consists of multiple end-use customers and energy resources at multiple points of interconnection to the utility distribution system, such that the microgrid uses utility distribution system assets when operating in island mode.*

This definition is intentionally broad. It is an umbrella concept that may have many variants based on specific attributes, including those proposed by Staff in the Concept Paper. The primary distinction this definition emphasizes is between a community or multi-user microgrid

[1] The Microgrid Resources Coalition (MRC) raises the same concerns in its opening comments on the Track 1 Proposed Decision: "In particular we note PG&E's proposal to adopt a community microgrid tariff, which passes without comment in the Draft Order. We ask that the final order specifically reject this suggestion. Any microgrid tariffs created in this rulemaking should be developed through a collaborative, public stakeholder process, not unilaterally developed by one utility and approved through an Advice Letter." [MRC at p. 9]

versus a "single-user" or "customer-sited" microgrid which is located entirely at a single point of interconnection to the distribution system and whose component assets and controls are on the customer side of the utility meter. This primary distinction means that the customer-sited microgrid does not require the use of utility assets or services when it is operating in islanded mode.

Within the broad category of community microgrids, we suggest two distinct sub-categories for purposes of establishing the relevant regulatory provisions, which we believe will need to address some different issues in each sub-category:

(a) A community microgrid intended to operate "as a single, controllable entity"[2] only when operating in islanded mode. Under normal (non-islanded) operating conditions, the constituent end-users and resources would typically function as separate independent entities or possibly as elements of aggregated resources for providing grid services or participating in the wholesale market.

(b) A "permanent" community microgrid intended to operate "as a single, controllable entity" at all times.

Type (b) may be what many parties understand by the term community microgrid, but we believe the distinction between types (a) and (b) is needed because each type will raise some different issues that must be resolved to enable commercialization.

The Joint Parties recommend the above definitions not as the final word but as a starting point for consideration by the parties. To that end we urge Commission Staff to conduct a working group to discuss the matter of community microgrid definitions and terminology toward the goal of creating common community microgrid tariffs for the three IOUs before proceeding to a proposed decision on Track 2.

6. The size criterion in the Concept Paper definition of microgrids [p. 11] adds unnecessary complication and should be deleted.

[2] From the SB 1339 definition of microgrid, quoted in the Concept Paper at p, 10.

The Concept Paper creates unnecessary complication by including "relatively small size" as an element of its microgrid definition. This superfluous requirement then leads to the need to distinguish various microgrid sizes with prefixes like "milli" and "nano" which are not helpful for this proceeding. The only essential criterion is whether the electrical system in question is an electrically connected sub-system of a larger electrical system, such that it can operate in either connected mode or islanded mode and can reliably transition between the two modes. Local power systems that are permanently separate from any larger power system (e.g., remote microgrids in some places in Alaska and elsewhere) are outside of both the SB 1339 and US DOE definitions [Concept Paper, p. 10] and are not relevant to the issues being taken up in Track 2.

B. Comments on Specific Proposals and Responses to the ALJ's Questions

In this section the Joint Parties respond to some but not all of the questions itemized in the ALJ Ruling. For these questions as well as any ALJ questions we do not answer in these opening comments, we anticipate responding in our reply comments to other parties' opening comments.

PROPOSAL 1: Direct the utilities to revise Rule 2 to explicitly allow the installation of microgrids as special facilities.

ALJ Questions:

1. *In response to Proposal 1 to direct the utilities to revise Rule 2 to explicitly allow the installation of microgrids as special facilities, please indicate support or opposition to Option 1, Option 2, or Option 3 and explain your support or opposition.*

The Joint Parties oppose all three options. The options offered by Staff are all based on an implicit, unstated presumption that the regulated distribution monopoly part of the IOUs should be allowed to enter the growing competitive market for customer-sited or "behind-the-meter" microgrid equipment such as solar generation, energy storage and load/resource control systems. Such an expansion of regulated monopoly activity should be a major regulatory policy decision subject to transparent public deliberation, and yet it is not stated as such. Instead, Staff has framed it as a relatively minor change to Rule 2 within the context of utility interconnection procedures, and promulgated it as a provision to advance microgrid commercialization. The Joint

Parties view all three options of proposal 1 as contrary to commercialization by providing the regulated distribution monopolies an anti-competitive, unlimited scope to develop microgrid assets on customer sites.

2. *In response to the Staff Proposal's recommendation, should the Commission adopt Option 2? If not, what modifications should the Commission consider?*

The Joint Parties propose that the Commission direct the IOUs to modify their respective Rule 2 language to explicitly limit any added/special facilities related to customer-sited microgrids to only such distribution system equipment as is needed to enable customer-sited microgrids to smoothly and reliably island from and reconnect to the distribution system so as to prevent any adverse grid or customer impacts. Such a limitation would be consistent with the utilities' core functions as operators of the distribution system and providers of electric distribution services to customers, and would maintain an appropriate boundary between regulated monopoly activities and competitive provision of customer-sited microgrid assets and systems.

3. *Is Option 2 reasonably tailored to support the broader statutory goal of SB 1339 to facilitate the commercialization of microgrids*?

No it is not. The Joint Parties believe that installation of microgrid assets and control systems on customer premises should be a competitive activity in which third-party providers compete on a level playing field without having to contend with the anti-competitive advantage inherent in a regulated monopoly utility. If the IOUs want to participate in the market for behind-the-meter microgrid assets such as generation, storage and load/resource control systems, they should do so through separate affiliated companies that are structurally, functionally and financially separate from the regulated monopoly distribution utility.

PROPOSAL 2: Direct Utilities to Revise Rule 18/19 to Allow Microgrids to Serve Critical Customers on Adjacent Parcels

ALJ Questions:

2. *In response to the Staff Proposal's recommendation, should the Commission adopt Option 2? If not, what modifications should the Commission consider?*

The Joint Parties urge the Commission not to adopt Option 2, but instead to revise all three IOU Rules 18/19 to allow any end-use customer with microgrid islanding capability to serve up to two customers on adjacent properties, as allowed by PU Code section 218(b)(2), at least in islanded mode when grid service is out. Such a provision could greatly facilitate the commercialization of microgrids by improving the cost-effectiveness of behind-the-meter microgrids because the microgrid equipment installed on one site could support adjacent customers when the need arises.

We urge the Commission to enable the functionality just described without the applicability restrictions proposed by Staff. Specifically, the Commission should not limit the use of this option to just municipally-owned facilities, adjacent facilities owned by the same party, or critical facilities, and should not apply the quantity limit proposed by Staff.

Beyond the use case just described, it would greatly further commercialization of microgrids, while still complying with PU Code 218, if a customer with microgrid islanding capability could form a permanent behind-the-meter microgrid with up to two adjacent customers and provide 24x7 electric service to those customers. This would be electrically safe and reliable if the receiving customers terminate their electric utility service accounts and interconnections to the grid so power only flows to them through the microgrid interconnections. This would be comparable to a master meter arrangement, which Option 3 of the Staff proposal suggests.

The Joint Parties believe this type of arrangement would be a boon to the goal of community resilience and to the cost-effectiveness of microgrid deployment due to the efficiency of implementing microgrid resources and controls for three adjacent customers, for example by locating solar generation where the solar irradiation is greatest in order to preserve maximum tree canopy, and managing the loads of all three customers in an integrated fashion.

3. *Is Option 2 reasonably tailored to support the broader statutory goal of SB 1339 to facilitate the commercialization of microgrids?*

Staff's options to modify Rules 18/19 are so limited as to be virtually ineffective in advancing commercialization of microgrids. The first point to observe is that Rules 18/19 are far

more restrictive than PU Code 218, which means the Commission has considerable leeway to expand opportunities for customers to serve adjacent properties while still complying with 218. Second, Rules 18/19 did not contemplate current circumstances, including the critical need for resilient electric service when grid service is out, the availability of diverse, scalable and proven DERs that customers can install on-site to produce, store and manage their use of energy, and the ability of a customer to function in islanded mode to maintain electric service when grid service is not available. Given the urgent need for resilient electric service at the customer and community levels, and the wealth of tried and tested technology options available to meet that need, there is no reason to limit the relaxation of Rules 18/19 as Staff proposes.

4. *What other considerations should the Commission give toward revising Rule(s) 18 and 19?*

The proposals offered by the Joint Parties are all permissible under the existing PU Code 218 and the Commission should authorize them in the Track 2 decision. Even so, PU Code 218 will remain a barrier to broader microgrid commercialization, so we urge the Commission to work with the Legislature to modify 218 to enable comprehensive commercial development of community microgrids. The required code change may be as simple as excluding "microgrid" as defined in SB 1339 from the definition of "electrical corporation."

5. *Is a subscription limit of 10 microgrid projects within the three IOU's territory sufficient? If not, what should the limit be? Discuss your reasoning for the new number. Alternatively, if 10 microgrid projects is sufficient, please discuss support.*

There should be no limit.

6. *Currently, the subscription of projects is limited by the number of projects. Is there another unit to consider and if so, what amount of unit? Please justify your answer.*

There should be no limit. There is an inherent guardrail built into this Rule that only allows adjacent facilities. PU Code 218 prevents customers from transmitting power across rights of way. These two regulations combined ensure that microgrids are limited in size, scope, and geography.

PROPOSAL 3: Direct Utilities to Develop a Microgrid Rate Schedule

ALJ Questions:

1. *In response to Proposal 3 to develop a standardized rate schedule for combinations of technologies that are eligible for interconnection under Rule 21 and together comprise a microgrid, please indicate support of or opposition to Option 1, Option 2, Option 3, Option 4, and/or Option 5. Explain your support or opposition.*

With regard to the specific options offered by Staff, by process of elimination the Joint Parties recommend Option 1 with certain modifications. Option 2 should be rejected because there is no justification to prohibit exports or NEM participation. Option 3 should be rejected because there is no justification for the arbitrary 1200 MW enrollment cap. Option 4 should be rejected because it offers no mitigation of the high operating costs barrier, even after Staff's explanation of valid reasons to provide exemptions from certain charges. Option 5 should be rejected because there is no justification for a two-year delay to entertain an unnecessary working group.

2. *In response to the Staff Proposal's recommendation, should the Commission adopt Option 4? If not, what modifications should the Commission consider?*

The Commission should adopt Option 1 with the following modifications. As stated, Option 1 with the exemption scheme described in Table 3-3 will not be sufficient to incentivize commercialization of microgrids to the extent and at the rate needed to meet the urgent needs of California customers for more resilient electric service, especially in disadvantaged communities and high-risk areas vulnerable to wildfires and/or PSPS events.

The Joint Parties therefore recommend the following modifications to Option 1:

(a) Eliminate departing load charges for all customer-sited microgrids that utilize the new rate schedule. Load served by microgrid facilities when grid service is not available is not departing load. Microgrid operation should be viewed as a critical and extremely valuable service to sustain customers on an otherwise dead portion of the distribution system.

(b) Eliminate standby charges for all customer-sited microgrids that utilize the new rate schedule. By investing in microgrid facilities, end-use customers are providing

their own standby service; they are not relying on the utility for standby service. And when grid service goes out, the utility has no ability to provide any standby service for which these charges would apply.

5. *Are Options 1-5 reasonably tailored to support the broader statutory goal of SB 1339 to facilitate the commercialization of microgrids while meeting other statutory requirements, including the requirement to avoid cost shifting?*

The options described by Staff represent a relatively modest contribution toward fulfilling SB 1339's mandate to "develop separate large electrical corporation rates and tariffs, as necessary, to support microgrids." The main deficiencies of Proposal 3 with respect to commercialization of microgrids are: (1) the proposed new rate schedule deals only with single-user or customer-sited microgrids, and offers nothing to support commercialization of community microgrids; and (2) the proposal shows no recognition of and offers no compensation for the value of services microgrids can provide to the grid. A more complete fulfillment of SB 1339's directives would be to create microgrid rates and tariffs that address these areas of deficiency, and also address the resource adequacy value of microgrids.

The Joint Parties urge the Commission to resolve the matter of microgrid rates and tariffs more comprehensively, addressing the varieties of community microgrids as well as customer-sited microgrids, and incorporating provisions that compensate microgrids for their value to the grid. Commission Staff should take up this matter through a workshop process under the present proceeding, with opportunities for parties to present proposals and working group activities that enable parties to collaborate to refine and develop the most effective rates and tariffs that will facilitate widespread microgrid deployment in a manner that advances California's goals for decarbonization, resilience and environmental justice, while maintaining fair allocation of costs and consistency across all three major IOUs.

PROPOSAL 4: Direct Utilities to Develop a Microgrid Pilot Program

ALJ Questions:

1. *In response to Proposal 4 to direct the utilities to develop a microgrid pilot program, please indicate support or opposition to each of the options. Explain your support or opposition.*

The Joint Parties strongly support allocating ratepayer funding to support microgrids to provide resilient electric service for California communities meeting need-based criteria such as those listed on page 19 of the Staff Proposal. We do not believe, however, that Proposal 4 as presented is the optimal use of these funds, which could total $225 million for 15 projects, to achieve the greatest societal benefit.

We have four major concerns with Proposal 4. First, we do not believe that a "pilot" program is needed or appropriate given today's availability of proven microgrid technologies and the number of successful microgrids of various types already in operation in California and around the world. Proposal 4 should be reframed simply as a microgrid program to provide resilient electric service to California communities with the greatest needs.

Second, concentrating funds in only 15 projects that may cost $15 million each is not the most beneficial allocation. This approach will undoubtedly result in significant cost shifting regardless of whether the costs are recovered from the counties in which the projects are located or from all ratepayers in each IOU's service area. The benefits will be too concentrated to justify allocating inordinate cost burdens even to a single county. We recommend instead that the Commission authorize more modest expenditures in the range of $1-3 million per project and allocate up to $225 million to 100 or more different communities that meet specific need-based criteria.

Third, we are concerned with the non-transparent manner in which the Commission is advancing IOU-controlled community microgrids in spite of SB 1339's direction to commercialize microgrids. While Staff's definitions and terminology regarding microgrids deliberately avoids the term "community microgrid" — a position which Staff reiterated and rationalized in the August 5 workshop — Proposal 4 explicitly "requires the IOUs to develop an incentive program to fund clean energy community microgrids …" [emphasis added] It may seem to Commission Staff that this is just a matter of words and has no practical significance for the commercialization objective of this proceeding. We strongly disagree.

Per our discussion in Section A above, we have a serious concern that the Commission has not taken up the subject of creating rates and tariffs for community microgrids in Track 2. As

a result, there is no formal proceeding in which parties can engage with each other and the Commission to develop such rates and tariffs. Instead, we apparently must follow PG&E's implementation of the CMEP provision on community microgrid tariffs while keeping our eyes open for as-yet nonexistent comparable activities that the other two IOUs may initiate at some point. Thus, our concern about the ambiguous and ambivalent language on community microgrids is rooted in a much more serious concern about the Commission's refusal thus far to take up the subject of community microgrid rates and tariffs in an open proceeding that applies to all three major IOUs.

Fourth, the barriers to commercializing community microgrids are more than just financial ones. Other barriers include such matters as: (a) lack of regulatory definition of the respective roles of third-party microgrid developers and operators vis-a-vis the distribution utilities. The Commission did identify this topic in the scoping ruling for Track 2, but it does not appear in the present Staff proposal; and (b) the lack of defined rates and tariffs that would apply to community microgrids. Without addressing the comprehensive set of barriers to community microgrids, there is no obvious path from the proposed pilots to commercialization of community microgrids.

2. *Should the Commission adopt Staff's recommended options? If not, what modifications to Staff's recommended options should the Commission consider?*

If the Commission reframes Proposal 4 as a resilient electric service program for California communities with the greatest needs, and modifies the funding scheme as we suggest above to enable many more communities to benefit, the Joint Parties would be supportive of Proposal 4 subject to the following specific comments on Staff's recommended options:

a. Program administration. The Joint Parties do not object to the IOUs serving as administrators of the program. However, we believe the IOUs should be required to file Tier 2 Advice Letters to implement the program. Given the amount of ratepayer money involved and the urgency of the needs of priority communities, there must be an opportunity for parties to review the Advice Letters and file protests if parties have concerns about the effectiveness or the equity of the implementation proposals.

b. Funding source. The Joint Parties believe that the limitation of 15 projects at a cost of up to $15 million each means that cost shifting from project beneficiaries to non-beneficiaries will be unavoidable, even with county-level cost allocation. Moreover, if selected projects are implemented in counties that are already economically disadvantaged, the program could impose a significant cost burden on county ratepayers, which would be counter to the state's environmental justice goals. Alternatively, if the Commission modifies the program as we suggest to fund projects at $1-3 million each in 100 or more different communities that meet the need-based criteria, then the public-interest benefits of the program would justify cost allocation to all ratepayers in each IOU's service area.

c. Project eligibility. We acknowledge the implementation timeline issue Staff has identified with using a scoring system to select projects. At the same time, a first-come-first-served system will advantage those communities that have the greatest capability to quickly develop a project proposal and application for funding. In addition, the 15-project limit and the potential of receiving $15 million per project will create unnecessary and potentially aggressive and wasteful competition among communities to develop winning high-budget projects with very low certainty that their projects will receive funding. The urgent need for community resilience projects is too great to subject deserving communities to an opaque and fiercely competitive process. If the Commission modifies the program as we suggest to fund projects at $1-3 million each in 100 or more different communities that meet the need-based criteria, and directs the IOUs to provide planning support, technical expertise and relevant data to local governments and tribal authorities to help them submit successful applications, it would dramatically mitigate if not eliminate adverse competitive pressures among communities so that a first-come-first-served allocation process could be workable and reach the communities with the greatest needs.

d. Project subscription limit. For all the reasons stated above, the Commission should adopt our proposal to fund resilience projects in 100 or more different communities statewide at $1-3 million each.

e. Utility infrastructure. The Joint Parties support funding to offset distribution system upgrade costs associated with microgrids, subject to the limitations we proposed above in commenting on Proposal 1. The category of added/special facilities as applied to customer-sited microgrids should be limited to distribution system equipment needed to enable customer-sited microgrids to smoothly and reliably island from and reconnect to the distribution system so as to prevent any adverse grid or customer impacts.

5. *What other considerations should the Commission give to support the development of a utility microgrid pilot program?*

Instead of supporting the development of utility microgrid pilots, the Commission should simply make use of the existing pilots and real-world deployments of microgrids and use the information and lessons learned to design a microgrid tariff in this proceeding per the direction of SB 1339. Examples in California with participation from utilities include the Redwood Coast Energy Authority Airport Microgrid project[3] and the Oakland EcoBlock project.[4]

PROPOSAL 5: Direct Utilities to Conduct Pilot Studies of Low-Cost, Reliable Electrical Isolation Methods

ALJ Questions:

2. *Should the Commission adopt Option 2 under Proposal 5? If not, what modifications should the Commission consider?*

The Joint Parties support Proposal 5 and Staff's recommendation of Option 2. We believe that the majority of residential and small commercial customers who install on-site generation and storage will want those resources to be able to operate in parallel with the macrogrid, so an approach that restricts their use to grid outage conditions would be of very little benefit. Two additional technical performance criteria are warranted, and we recommend that the Commission include these criteria for evaluating alternative isolation mechanisms if it approves Proposal 5:

[3] RCEA Airport Microgrid project: https://redwoodenergy.org/community-choice-energy/about-community-choice/power-sources/airport-solar-microgrid/.

[4] Oakland EcoBlock project: https://ww2.energy.ca.gov/2019publications/CEC-500-2019-043/CEC-500-2019-043.pdf.

(a) During macrogrid outage conditions, electrical isolation and continuous provision of electric service to the customer should be automatic and should not depend on the utility or the customer to take action to effect isolation.

(b) During non-outage macrogrid operating conditions, the customer should have the ability to enter island operation mode at its own discretion. We anticipate that customer islanding will be a valuable service that customers with microgrid islanding capability will be able to provide to the distribution utility in the future, but that will require the customer to have the ability to effect islanded operation without requiring some action by the utility.

II. CONCLUSION

To summarize, in these comments the Joint Parties offer the following proposals and recommendations for the Commission's consideration.

1. We urge the Commission to schedule a workshop in the near future for Staff to present and parties to discuss the Concept Paper, followed by an opportunity for parties to submit comments on the Concept Paper for the Track 2 record.

2. The Commission should explicitly include SB 1339's definition of commercialization as the primary reference for evaluating proposals to facilitate microgrid commercialization.

3. Microgrid commercialization requires a clear boundary between the scope of activities the regulated monopoly distribution utilities perform with regard to microgrids and the activities where competitive third-party provision will be of greatest societal benefit. The regulated monopoly distribution utilities' role with regard to customer-sited microgrids should be limited to those elements required to ensure safe and reliable islanding from and reconnection to the grid. IOU activities in the competitive arena of behind-the-meter microgrid assets and control systems should be offered by a separate affiliate whose relationship with the monopoly distribution utility provides no advantage over any other third-party provider.

4. The Commission must clear up the confusion created by the various uses of the term "community microgrid" in different contexts within different parts of this proceeding and address the development of community microgrid tariffs within this proceeding. To that end we urge the Commission to conduct a working group for parties to collaborate to develop community microgrid definitions and common community microgrid tariffs for the three IOUs.

5. The size criterion should be deleted from the working definition of microgrid.

6. Regarding Proposal 1, we propose that the Commission direct the IOUs to modify their respective Rule 2 language to explicitly limit any added/special facilities related to customer-sited microgrids to only such distribution system equipment as is needed to enable customer-sited microgrids to smoothly and reliably island from and reconnect to the distribution system so as to prevent any adverse grid or customer impacts.

7. Regarding Proposal 2, we urge the Commission not to impose the eligibility restrictions proposed by Staff, and instead to revise IOU Rules 18/19 to allow any end-use customer with microgrid islanding capability to serve up to two customers on adjacent properties, as allowed by PU Code section 218(b)(2).

8. We urge the Commission to commit to work with the Legislature to modify PU Code 218 to enable commercial development of community microgrids. The required code change may be as simple as excluding "microgrid" as defined in SB 1339 from the definition of "electrical corporation."

9. Regarding Proposal 3, we recommend adopting Option 1 with modifications to eliminate all departing load and standby charges for customer-sited microgrids.

10. Regarding Proposal 4, we support the use of ratepayer funds for community resilience microgrid projects, the total amount of available funding proposed, and the requirement that communities meet need-based criteria as proposed by Staff. However, we urge the Commission to modify the funding scheme to fund 100 or

more communities across the state in the cost range of $1-3 million per community, and to reframe the program as a resilient electric service program for California communities with the greatest needs, rather than as a pilot project.

11. Regarding Staff's implementation recommendations for Proposal 4, we have serious concerns if the Commission retains the 15-projects-at-$15-million-per-project funding scheme. Alternatively, if the Commission adopts the changes we propose in the previous item, the Joint Parties support:

    a. The IOUs serving as program administrators, subject to filing Tier 2 Advice Letters that include provisions for the IOUs to provide planning support, technical expertise and relevant data to local governments and tribal authorities to help them submit successful applications;

    b. Cost recovery from all ratepayers within each IOU's service area;

    c. A first-come-first-served awards process, provided the IOUs provide effective planning support to help eligible communities submit successful proposals;

    d. No project subscription limit until the $225 million in funds are fully awarded; and

    e. Additional utility infrastructure funding as proposed for SCE and SDG&E, comparable to what the Commission approved for PG&E's CMEP program, subject to the limitation on "added/special facilities" we recommend with regard to Proposal 1.

12. Regarding Proposal 5, we support Staff's recommendation of Option 2 and recommend including two additional evaluation criteria as stated in Section B above.

The Climate Center and Vote Solar value the Commission's leadership on the important goal of accelerating microgrid commercialization and deployment, and we appreciate the opportunity to submit these comments on the Ruling.

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Respectfully submitted,

By: _____/s/_____

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