BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Microgrids Pursuant to SB 1339	Rulemaking 19-09-009 (Filed September 12, 2019)

OPENING COMMENTS OF THE CLIMATE CENTER ON THE ORDER INSTITUTING RULEMAKING 19-09-009

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October 21, 2019

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I. Introduction

In accordance with Rule 6.2 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure ("Rules"), The Climate Center ("Center") respectfully submits the following opening comments to the Order Instituting Rulemaking 19-09-009 ("OIR"). The development of microgrids on a widespread scale is an essential step toward addressing several important state policy goals, including reducing Greenhouse Gas ("GHG") emissions, improving reliability and expanding the resiliency of the electrical grid. The Center has identified microgrids as critical to advancing its own mission, one shared by many other organizations and individuals, to address climate change expeditiously and in an equitable manner. As such, the Center appreciates the opportunity to respond to the OIR and

urges the Commission to proceed expeditiously in this proceeding due to the fact that microgrids can play an important role in enhancing safety, reliability, and resilience in the electricity system in the face of immediate threats of wildfires and other severe climate-related disruptions. We urge the Commission to view the scope of the Rulemaking as broad in order to maximize the benefits microgrids can bring to communities.

II. Background

The Climate Center (formerly the Center for Climate Protection[1]) ("Center") is a California 501(c)(3) nonprofit organization founded in 2001 with a mission to deliver speed and scale greenhouse gas reductions, starting in California. The Center's first engagement on microgrid development was in the process of crafting the 2008 Sonoma County Climate Action Plan.[2] Between 2009 and 2013 the Center analyzed microgrids as part of its Energy Commission-funded Renewable Energy Secure Communities (RESCO) project. The project included data collection and analysis for designing a prototype portfolio for an integrated renewable energy-based demonstration pilot microgrid project.[3] In 2015 the Center hosted a Microgrid Roundtable to explore microgrid development opportunities in Sonoma County. Between 2014 and 2019 the Center hosted five statewide "Business of Local Energy" events that included in depth discussions of microgrid development. Center activity in the microgrid arena continues to this day with the recent hiring of staff dedicated to advanced community energy development with a specific focus on microgrids.[4]

[1] In September 2019 the Center for Climate Protection, a party to the Commission's PG&E Safety Culture Investigation I.15-08-019, formally changed its name to The Climate Center.
[2] See https://theclimatecenter.org/wp-content/uploads/2019/05/1-Energy.pdf
[3] See https://ww2.energy.ca.gov/2017publications/CEC-500-2017-020/CEC-500-2017-020.pdf
[4] See https://cleanpowerexchange.org/advanced-community-energy/

III. Comments

Senate Bill ("SB") 1339 requires the Commission, in consultation with the State Energy Resources Conservation and Development Commission and the California Independent System Operator ("CAISO"), to facilitate the commercialization of microgrids for distribution customers of large electrical corporations. It also requires the governing boards of local publicly owned electric utilities to develop and make available a standardized process for the interconnection of customer-supported microgrids, including separate electrical rates and tariffs, as necessary.

The Center's concern in this Rulemaking revolves mostly around the Commissions' question posed in the OIR about whether there are additional issues that should be included in the scope of this proceeding. We contend that there are, and they described as follows.

A. The Role of Local Governments in Microgrid Development Must Be Recognized

SB 1339 intends to "facilitate the commercialization of microgrids for distribution customers of large electrical corporations." Many of the customers of large electrical corporations are local governments. Local governments will play an indispensable role in planning and deploying microgrids. Effective decarbonization to achieve California's targets will require local strategies to address the factors that drive fossil-fuel use. Factors such as housing patterns that require lengthy daily commuting, dearth of carbon-free mobility services, and inefficient buildings desperately in need of retrofits. And now resilience — the ability to sustain essential life services when serious disruptions occur — has become another urgent need that requires local measures.

Focusing on the level of local government and community can address local needs more equitably while managing grid impacts to ensure more cost-effective investment in new grid infrastructure. Local government resources and capabilities vary greatly across the state. Technical guidance and other support for local governments to collaborate with electric service providers, distribution utilities, technology companies and diverse local stakeholders to plan and implement energy systems that serve local energy needs, advance state policy goals, and support a safe, reliable and efficient power grid.

Strategies to address these needs are within the traditional scope of city and county planning, so the scope should include consideration of the role of local government, in order to strengthen local government planning and coordinate it with energy system planning.

B. The role of the CEC and CAISO in the Rulemaking

SB 1339 instructs the Commission to facilitate the commercialization of microgrids "in consultation with the State Energy Resources Conservation and Development Commission ("CEC") and the California Independent System Operator ("CAISO")." The Center encourages the Commission to include the CEC in this consultation, and to identify how consultation with these other agencies will be accomplished so that the parties can understand and plan accordingly.

C. Metrics for Microgrids Should Be Adopted to Advance State policy Goals

The OIR asserts that microgrids may play a role in accomplishing the State's broader policy goals, and that the Commission's intent is to go beyond the commercialization goal of SB 1339 and advance broader State policy goals, but the OIR does not explain how commercializing

microgrids helps accomplish these goals. We urge the Commission, in its final scoping ruling, to offer more specifics on the role of commercialized microgrids in advancing the State's broader policy goals of safety, equity, reliability, and decarbonization. We are especially concerned that focusing narrowly on making microgrids a successful commercial product may fall far short of fully realizing the role microgrids can play in advancing the State's social, economic, and energy equity goals. If the benefits of microgrids are limited to that of a commercial commodity, then only those customers and communities that can afford to buy the product will reap the rewards that should be broadly available to all California households and communities. Communities and households vulnerable to life-threatening Public Safety Power Shut-offs ("PSPS") and/or severe climate-related disruptions or communities that are otherwise disadvantaged, may not be able to afford the commercial product this proceeding seeks to advance.

In the face of the broad range of potential major disruptions, an appropriate goal would be for every community to have microgrids that provide resilient electricity service for critical municipal services such as water supply, wastewater pumping and treatment, and telecommunications; first-responder facilities and functions; and community centers that can accommodate and provide medical care, food and shelter to perhaps hundreds of displaced persons.

What are the indicators and metrics that tell us whether, or the degree to which, microgrids have been successfully commercialized? And how will it be ensured that such commercialization does not leave anyone out. We urge the Commission to adopt in its scoping order the additional task of developing criteria for assessing the degree to which socially equitable microgrids have been successfully commercialized.

D. Placing a Monetary Value on Resilience

As part of the proceeding, the Commission should seek to develop an agreed-upon value of resilience (VOR)[5] for any type of loads, including critical loads at facilities that are the most vital: critical community facilities like fire stations, hospitals, emergency shelters, and critical water and communications facilities. A VOR standard is sorely needed, and its absence represents a significant gap in the market for community microgrids. Valuing resilience is not simple, yet may be the primary reason an entity installs a microgrid.

The Center suggests a VOR methodology that would standardize VOR in Tier 1, 2, and 3 loads across all facility types. A standardized VOR would allow all stakeholders to effectively consider VOR when analyzing community microgrid economics.

- **Tier 1** = Critical load, usually 10% of total load: Uninterruptible, life-sustaining or essential to keep operational during a grid outage
- **Tier 2** = Priority load (15%): Important but not absolutely crucial to keep operational during an outage
- **Tier 3** = Discretionary load (75%): Remainder of the total load

E. A Distinction Should Be Made Between Community Microgrids and Other Microgrids

It is important to draw a distinction between microgrids that are entirely on the customer side of the meter with a single grid interconnection, and community microgrids that include utility side of the meter elements and multiple interconnections and utility-side elements of a

[5] For more, see: https://clean-coalition.org/disaster-resilience/

modernized distribution grid.. The distinction is important because customer-side and utility-side resources operate under two completely different sets of laws and regulations, and by extension the design of applicable rates and tariffs. Furthermore, community microgrids have greater potential to achieve state policies of affordability, reliability, decarbonization, and resilience.

Community microgrids can cover an entire substation distribution circuit, benefitting thousands of customers. Such deployments can reduce costs by identifying optimal Distributed Energy Resource ("DER") locations. With adequate storage, community microgrids can also provide indefinite backup power to prioritized loads that are critical to an entire community, especially during any PSPS or other grid disruption event. By deploying DERs more broadly, community microgrids also enable easier replication and scaling across any distribution grid area.

Customer side of the meter microgrids, while important in achieving some of these goals, will not be sufficient to address the broader state policy goals the OIR identifies as within the scope of this proceeding. The Center encourages the Commission to formally recognize this distinction in its scoping memo and to clarify that this proceeding will address both community microgrids and customer-side microgrids, so that the parties can focus their attention and resources effectively.

F. "Commercialization" Should Be Defined and Equity in microgrid deployment should be emphasized

Both SB 1339 and the OIR emphasize commercialization of microgrids as the overarching objective of the policy direction, yet neither document defines it. The Climate Center understands commercialization to mean the process of introducing new technologies and

products into commerce and bringing them to market. In undertaking this proceeding, the Climate Center encourages the Commission to consider equity between communities and ensure that all critical facilities and communities have access and the resources to build microgrids to support their local energy and resiliency needs.

G. Coordination with the Self Generation Incentive Program ("SGIP")

The Commission should recognize that this proceeding must be coordinated with the SGIP proceeding. We urge the Commission to include in its scoping ruling specific provisions for coordination between this proceeding and the SGIP. The SGIP proceeding addresses allocation of funds to develop more resilient electricity supply capabilities at the customer level. Therefore, SGIP would be an appropriate venue to address the cost-related equity concerns raised above. And conversely, the R.19-09-009 proceeding, with its focus on microgrids, can inform the SGIP on the most cost-effective approaches for using the SGIP funds to advance State policy goals for decarbonization and resilience.

H. Expediting the Process of Developing Microgrids

Energy project developers, CCAs, and prospective microgrids customers have repeatedly criticized the slowness, complexity and lack of transparency of the current procurement process. Initially acquiring critical data takes far too long and interconnection approvals are far too slow amid a cumbersome, opaque and overly complex process. Finally, standards are lacking to clearly delineate the steps required to develop a microgrid, including data sharing and interconnections. This proceeding should address how these longstanding problems will be resolved.

I. The Commission should prioritize microgrids that provide resilience to public agencies and critical facilities.

The Center believes that there is significant public value to be derived from the deployment of microgrids that provide resilience services to communities and critical facilities. Public agencies and critical services exist to serve the safety and enhance the quality of life of our communities. Ensuring that public facilities are made more resilient when it comes to maintaining reliable electric service so they can provide critical services to constituents is in the best interest of public health, safety and security for the entire state. This rulemaking provides an opportunity for the creation of a method to facilitate the wide-scale development of microgrids where they are needed most, namely at local public facilities that will serve their communities.

J. A resilience tariff should be developed

The most practical method to facilitate this public investment and development, based on the directives of the SB 1339 statute to facilitate the commercialization of microgrids, as well as address the critical resiliency needs of communities and the public, is for the Commission to direct the IOUs to create a resilience tariff. A resilience tariff is a payment structure that supports cost-effective microgrid development within the utilities' service territories at public facilities that provide critical services or that are essential to public health and safety. The resilience tariff would be available to public agency and critical facility customers that install microgrids that provide grid services to the distribution utility during normal operating conditions and provide resiliency services when grid electric service is disrupted. It could be structured as a resilience capacity payment alongside a grid services agreement or similar concept to be developed within this proceeding. There has already been considerable stakeholder engagement and debate within

the de-energization rulemaking (R. 18-12-005) about what entities and facilities are considered to be critical to public health and safety, so an important part of the work to identify and justify the importance of the customer segment that could take advantage of such a resilience tariff has already been started.

The microgrid resilience tariff will encourage public agencies and microgrid developers to partner to build microgrid projects that will achieve a number of California's policy goals. Resilience is chief among them and the tariff should prioritize that. Microgrids can also support high penetration and integration of more clean energy resources to support the state's climate goals, and more efficient management and optimization of onsite DERs that reduce and shape demand on the grid to reduce the need for new transmission and distribution infrastructure that has a high environmental and financial risk. Providing a structure for public agencies to collaborate with developers will give them flexibility and the ability to preserve local control and autonomy, while ensuring proper due diligence and transparent procurement processes.

Microgrids developed under a resilience tariff will provide a revenue stream for these public agencies to help defray costs and allow microgrids to be more widely adopted. The resilience tariff would also free the utility from any microgrid development role so it can focus on its core distribution service role and prioritize wildfire mitigation efforts, especially important given the current optics and public perception of the IOUs' safety performance at this time.

Resilience is inherently a local attribute and microgrid projects provide the flexibility to be constructed in a manner that fits an individual community's or critical facility's needs. Additionally, they must be constructed using prevailing wage labor, as required by state law. This ensures that all microgrid projects built under the resilience tariff create good-paying quality jobs, and these jobs are located in the local communities where people live and work.

Utilizing a tariff will solicit the most cost-effective solutions for addressing resiliency in our local communities, spurring greater economic growth with a diversity of solutions and market participants.

This will continue driving down costs, accelerate technological advancement in microgrids, and ultimately achieve the goals of the statute to truly facilitate the commercialization of microgrids.

Community-level investment in microgrids for public entities and critical facilities will provide benefits to California that far stretch beyond resiliency and promote true sustainability in our local communities.

K. The Role of CCAs in Microgrid Development Must Be Recognized

Roughly 10 million electricity customers – one quarter of the State's population – receive their electricity service from Community Choice Aggregators or Agencies ("CCAs"). This number is increasing: There are currently nineteen operational CCAs in the State with several expanding their service territories to include new jurisdictions. Additionally, several other jurisdictions are in the process of launching their own CCAs. These expanded and newly formed CCAs are expected to become operational in 2020, 2021, and beyond. CCAs will play an increasingly integral role in local energy resource development, including microgrids. Given that CCAs are agencies created by local governments, they must work closely with local governments and communities. Moreover, in their statutory procurement role the CCAs are uniquely well-positioned to recognize the energy requirements of the communities they serve and to help advance DER and microgrid development as a priority measure in responding to those needs.

The OIR states: "The scope of this proceeding may include all microgrid policy framework issues." CCAs are undoubtedly part of the microgrid policy framework that require attention in this proceeding. In fact, several CCAs are engaged as lead or key participants in microgrid projects within their service territories. Below are two examples of such projects:

- Redwood Coast Energy Authority's "Redwood Coast Airport Renewable Energy Microgrid"[6]
- Lancaster Advanced Energy Community "Avenue I" Microgrid Project[7]

Several other CCAs are in considering microgrid development as part of their program portfolio and/or as part of their Integrated Resource Planning ("IRP") activities.

Although CCAs are limited in creating and/or controlling certain aspects of community microgrids due to control of the distribution grid by incumbent investor-owned utilities, there is a substantial role for CCAs to play in the conception, development, and deployment of microgrids, as well as in related energy resource and procurement decisions. The Center suggests that the Commission include CCA governing boards of CCAs in addition to the governing boards of local publicly owned electric utilities, as specified in SB 1339, in developing and promoting a standardized process, in collaboration with their incumbent distribution utility, for the interconnection of customer-supported microgrids, including separate electrical rates and tariffs, as necessary.

The Center expects that CCAs will necessarily be a part of this proceeding and expects formal participation through the submission of comments and other contributions. However, from the Center's perspective, it is important that the Commission's scoping ruling make note of

[6] *See* https://redwoodenergy.org/community-choice-energy/about-community-choice/power-sources/airport-solar-microgrid/

[7] *See* https://ww2.energy.ca.gov/2018publications/CEC-500-2018-032/CEC-500-2018-032.pdf

the role that CCAs can play in advancing microgrid development due the lack of any reference or mention of CCA participation or function in either the legislation or the OIR.

L. Party Identification

The Party to whom all communications in this Rulemaking should be directed:

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IV. Conclusion

The Center thanks the Commission for its timely and necessary work to address urgent needs for resilient electricity service as we face more severe climate-related disruptions. Addressing the directives of SB 1339 to facilitate microgrid deployment will help advance State goals for safety, equity, affordability, and decarbonization. We appreciate the opportunity to provide comments on the OIR and look forward to participating in this proceeding.

Dated: October 21, 2019

Respectfully submitted,

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