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)

REPLY COMMENTS OF MICROGRID RESOURCES COALITION ON THE TRACK 2 MICROGRID AND RESILIENCY STRATEGIES STAFF PROPOSAL, FACILITATING THE COMMERCIALIZATION OF MICROGRIDS PURSUANT TO SENATE BILL 1339

C. Baird Brown
eco(n)law LLC
230 S. Broad Street
Philadelphia, PA 19102
p. 215-586-6615
m. 267-231-2310
baird@eco-n-law.net

Christopher B. Berendt
Faegre Drinker Biddle & Reath LLP
1500 K Street, N.W.
Washington, DC 20005-1209
p. 202-230-5426
christopher.berendt@faergredrinker.com

Attorneys for
Microgrid Resources Coalition

August 28, 2020
ACTIVE.124901175.03

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)

REPLY COMMENTS OF MICROGRID RESOURCES COALITION ON THE TRACK 2 MICROGRID AND RESILIENCY STRATEGIES STAFF PROPOSAL, FACILITATING THE COMMERCIALIZATION OF MICROGRIDS PURSUANT TO SENATE BILL 1339

Background

The Microgrid Resources Coalition ("MRC") respectfully files its reply comments on the Track 2 Microgrid and Resiliency Strategies Staff Proposal (the "Staff Proposal") issued as a part of the California Public Utility Commission (the "Commission") proceeding instituted in its Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 ("SB 1339") in the above captioned proceeding.

The MRC is a consortium of leading microgrid owners, operators, developers, suppliers, and investors formed to advance microgrids through advocacy for laws, regulations and tariffs that support their access to markets, compensate them for their services, and provide a level playing field for their deployment and operations. In pursuing this objective, the MRC intends to remain neutral as to the technology deployed in microgrids and the ownership of the assets that

form a microgrid.[1] The MRC's members are actively engaged in developing microgrids in many regions of the United States including many who are actively engaged in microgrid development in California.[2] MRC members have also been operating sophisticated microgrids over an extended period of time (some for over 30 years). They are at the cutting edge of microgrid technology.

Introduction

The many reply comments the Commission will receive must be put in context. For two days last week the state experienced brownouts and blackouts as extreme heat increased demand for air conditioning across the western region. It avoided a third day only through citizen's extraordinary voluntary response to the Governor's call for assistance. A new round of wildfires has filled the air with soot that reduced the capacity of solar generation. Imported power limitations once again demonstrated that distant capacity is a poor solution for making communities resilient. While this perfect storm has many causes, CAISO has made clear that a principal shortcoming lies with the Commission's failure to plan for adequate resources.[3]

The need for the Commission to follow the direction of SB 1339 and provide a broad and clear development pathway for the commercialization of customer microgrids that can provide long-duration resiliency and local grid services has never been more evident. Unfortunately, recent events are the latest in a line of tragic results for Californians rooted in the Commission's reluctance to empower customers and communities seeking dynamic solutions out of apparent deference to entrenched interests with simplistic and monopoly solutions. Microgrid "commercialization" does not mean limited pilots and narrow tariffs where a select few get to

---

[1] The mission of the MRC is to promote microgrids as energy resources by advocating for policy and regulatory reforms that recognize and appropriately value the services that microgrids offer, while assuring non-discriminatory access to the grid for various microgrid configurations and business models. We generally support disaggregated, fair pricing for well-defined services both from the grid to microgrids as well as from microgrids to the grid. We promote community-based resilience standards and support utilities that are working toward new business models that value resilient distributed resources. We work for the empowerment of energy customers and communities.

[2] Members of the MRC include: Bloom Energy, Concord Engineering, Eaton, eco(n)law, Emory University, Engie, Faegre Drinker, Icetec, International District Energy Association, Mainspring Energy, Massachusetts Institute of Technology, Princeton University, Reimagine Power, Resilience Plus, Scale Microgrid Solutions, Schneider Electric, Thermo Systems, University of Missouri and the University of Texas at Austin. The MRC's comments represent the perspective of the coalition and should not be construed as speaking for individual members.

[3] *See* Hudson Sangree and Robert Mullin, *CAISO Blames Blackout on Inadequate Resources, CPUC*, RTO Insider, (August 18, 2020), https://rtoinsider.com/caiso-blames-blackouts-inadequate-resources-171040/

develop a microgrid. It means a range of effective microgrid solutions are commercially available to all customers. "Customers" does not mean substations. Customer microgrids directly serve customers. The author of SB 1339 agrees:

> "This past June, as part of Track 1 implementation, the Commission decided to approve the use of temporary large scale diesel generators as a means of providing microgrid ready back-up power during PSPS anticipated this season. I remain very disappointed by this response … Regarding Track 2 it is important for the Commission to focus on facilitating the commercialization of behind-the-meter microgrids by developing separate, standardized rates and tariffs, as is explicitly outlined in [SB 1339], to support wide scale deployment of microgrids…. It appears the Commission may be focusing too much energy providing direction to electrical corporations to utilize temporary diesel back-up generators and creating large scale microgrid pilot programs with limitations, instead of prioritizing the wider deployment of microgrids with new rates and tariffs… Facilitating structural opportunities for the broader development of commercial, customer-owned microgrid projects is more important and beneficial the grid and energy resiliency efforts than creating new utility scale microgrid pilot programs."[4]

The Commission's ongoing use of a restrictive and unduly deferential interpretation of commercialization is preventing Californians from building local resilience and grid support through microgrids.

Recent events have made it perfectly clear that additional controllable, visible, clean and local resources would have great value to the grid and all utility customers. This is true whether those resources can be dispatched by grid operators to export to the grid and/or provide demand response. The legislature has given the Commission a strong tool in the form of SB 1339 and clear direction to move forward with the broad commercialization of microgrids, which would provide exactly what the grid system needs.[5] Instead of grasping that tool and putting it to work,

[4] Letter for Senator Henry Stern to Commissioner Shiroma, dated August 21, 2020, at p. 2.
[5] *Id*.

the Commission has to date avoided the intent of the legislature. Again, SB 1339's author makes clear the intent of the statute:

> "SB 1339 never mentions de-energization events or wildfire mitigation, yet the Commission has included both areas within the scope of implementing SB 1339. I welcome that as it provides the Commission with the flexibility to examine responsive solutions beyond the plain written text of the law, *but the Commission should still adhere to facilitating the commercialization of microgrids as I intended with the legislation*."[6]

If anything is clear from the events of this summer, it is that California will continue to face unforeseen, extreme conditions that test the resilience of its citizens and communities. The situation and the statute call for widespread, permanent, robust, and clean customer microgrid solutions. Temporary solutions, narrow pilot programs, and accretive tariffs built using existing and outdated tools and techniques (e.g. NEM, SGIP, etc.) are insufficient. The Commission must act in accordance with SB 1339 and adopt a new, comprehensive, standalone, microgrid tariff that offers a broad and clear development pathway for the commercialization of customer microgrids. As other commenters have pointed out: "The commercialization mandate is, in effect, a directive to catch up with an unmet need for microgrids."[7]

The comprehensive microgrid tariff that SB 1339 requires the Commission to establish would have been extremely helpful to utilities and CAISO over the past two weeks. Such a tariff should set forth how local microgrids can contribute to, and be compensated for, resource adequacy as well as the specific generation, storage, and load management services that microgrids can provide under a variety of conditions. It should also remove clear regulatory barriers to microgrid commercialization, specifically outdated departing load and standby charges.[8] A comprehensive microgrid tariff is also the only way the Commission can effectively enable grid segmentation powered by clean and resilient local services as the solution. Continuing to allow rolling blackouts and brownouts is a poor substitute. Unfortunately, the Commission is grudgingly considering removing departing load charges from a vanishingly

[6] *Id*. (emphasis added)
[7] *See* Comments by Google LLC at p. 3.
[8] *Id*.

small group of microgrids and will continue to charge other microgrids for the privilege of assisting the grid and other customers. California's citizens deserve better, and SB 1339 requires better.

The ironies of recent weather and grid related events have been compounded by the utilities filing their advice letters in response to Track 1 of this proceeding. The advice letter on interconnection filed by SDG&E illustrates the shortcomings of the Commission's narrow approach. SDG&E processes interconnection applications in commendably short times utilizing the comparatively transparent Distribution Interconnection Information System platform. Their advice letter lists them by category. The vast majority of them are solar only.[9] These are the uncontrollable, non-dispatchable resources that are invisible to the grid operator and cause the duck curve. They make a contribution to the state achieving its renewable energy and carbon goals, but unlike microgrids that do the same, they make the grid harder to manage. Some of the interconnection applications are for solar plus storage, which may at least shift the excess generation toward peak demand hours, though these combined resources are also often invisible to the grid operator and apparently do not have islanding capability.[10] In the entire listing, there is *one* microgrid and *on*e moderately large storage project. Clearly, Track 1 was not designed to, and did not, eliminate barriers to microgrids. Existing narrow programs and tariffs that silo technologies and fail to recognize microgrids and their capabilities as unified aggregations of generation, storage, and load controls will necessarily continue to produce narrow results. They are not a route to microgrid commercialization.

PG&E also filed an advice letter, this one relating to a proposed Community Microgrid Enable Program ("CMEP") Tariff. This narrow proposal, which was not required or suggested by the Track 1 order, represents a blatant attempt to forestall commercialization. We opposed this concept in our initial Track 2 filing. The result was worse than we feared. Not only did PG&E proceed with unilaterally developing a tariff, but PG&E is seeking to act as the developer of community microgrids and to load microgrid construction costs onto ratepayers. They would do the planning and apparently own much of the internal microgrid assets. "Community-proposed" microgrids are not the same as customer microgrids.[11] This is direct ratepayer subsidized competition with private industry – the worst kind of cost shifting.

[9] SDG&E Advice Letter on Interconnection Staffing Pursuant to Decision 20-06-017 at p.3.
[10] *Id*.
[11] PG&E Advice Letter on Implementation Plan for Community Microgrid Enablement Program in Compliance

The scale of California's challenge requires private capital to be brought to bear in the development of microgrids. As we have long stated, utilities can benefit ratepayers via the procurement of local microgrid services. The Microgrids and Resiliency Staff Concept Paper, July 22, 2020 ("Staff Concept Paper") envisions this could be achieved under Distribution Support Service Agreements. The MRC has long supported the creation and use of such agreements. There is no need for utilities and ratepayers to pay for microgrid construction when they can buy the services they need from microgrids. Instead of paying to construct a few microgrids, the same ratepayer funds can be used to procure dynamic local resiliency and grid services from a fleet of microgrids.

Proposing that ratepayers bear microgrid construction costs is a bad idea made worse because there is no evidence that PG&E has the skills and knowledge to do advanced distributed energy resource development. We trust that PG&E understands its system and could potentially be a good partner in the development of a community microgrid. In our initial Track 2 filing we discuss several models of partnership microgrids that we suggest be included in a microgrid tariff. However, these models will only work if the utility approaches them in a spirit of cooperation, and PG&E's advice letter evidences the opposite. In the future, utilities should be delivering smart grid solutions to ratepayers by conducting the dispatchable DER concert. A customer orchestra is much more efficient, affordable, and scalable than the conductor attempting to play the majority of instruments.

Achieving such a concert requires microgrid commercialization and utilities to invest in the distribution grid control technology that enables customer microgrids to be dispatched to provide them local services. To once again quote the author of SB 1339: "The grid is modernizing and we need to encourage technologies like microgrids to provide benefits to all communities for true long term resiliency planning, enabling customer microgrids and encouraging utilities to use these technologies is the right step."[12] Doing so requires a new, comprehensive, standalone, microgrid tariff. Unfortunately, the Commission continues to attempt to address microgrids in an accretive manner using misaligned, existing frameworks. Last week the Commission issued a draft NEM report focused on preserving the integrity of the

with D. 20-06-017 at p. 5 "…CMEP seeks to enable community-proposed microgrids…"
[12] *See* FN 3 at p. 2.

NEM rules and adjustments to NEM 2.0.[13] What the Commission must do is bring integrity to microgrid rules. One of the ways in which the commission has derailed this proceeding is by wrapping microgrids and NEM in a bundle. NEM is its own set of complex rules that address non-dispatchable power export by simple distributed energy resources. Microgrids are highly dispatchable and flexible resources, it is inappropriate for the Commission to address them under a NEM framework designed for non-dispatchable, inflexible resources. Addressing dynamic microgrid exports under a simplistic NEM framework is like regulating an advanced intercept fighter as if it were a paper airplane – you will fail to recognize core capabilities, and completely lose sight of mission capability. Some smaller microgrids may benefit from updated NEM rules and such rules should not discriminate against using combinations of resources unified by a microgrid. However, updated NEM rules are no substitute for a new, comprehensive, standalone microgrid tariff. It is time for the Commission to follow the express direction and intent of SB 1339 and work to create such a tariff.

Resounding Support for a Tariff

The great majority of parties responding to the Track 2 proposals express strong support for moving forward with a real microgrid tariff.[14] Many others effectively support a tariff without putting it in those exact words.[15] The diversity and breadth of public interests represented by the parties that express support for a tariff is impressive and speaks volumes. The Commission should take note that local governments, critical facilities, environmental groups, business interests, and community-based organizations alike from across the state of California support the creation of a separate microgrid tariff.

In particular, environmental and community-based groups express strong support for immediately creating a robust microgrid tariff. We echo their tone of urgency in encouraging the Commission to boldly commercialize the market so that California can make progress on achieving its aggressive decarbonization and clean energy goals. Further, many of these groups

---

[13] *See* CPUC Net Energy Metering (NEM) 2.0 Evaluation, https://www.cpuc.ca.gov/General.aspx?id=6442463430 and NEM Rulemaking (R.) 14-07-002, https://www.cpuc.ca.gov/General.aspx?id=3934.

[14] *See* comments of 350 Bay Area, BAC, Bloom Energy, CCDC, CESA, CALSSA, Center for Sustainable Energy, Clean Coalition, Concentric Power, Doosan Fuel Cells, Fuel Cell Energy, Green Hydrogen Council, Green Power Institute, GRID Alternatives, Joint CCAs, Local Government Sustainable Energy Coalition, National Fuel Cell Research Center, Schneider Electric, SEIA, Sunrun, Tesla, Vote Solar & Climate Center, Wild Tree Foundation

[15] *See* comments of Applied Medical Resources Corporation, County of Los Angeles, Port of Long Beach, CHBC, Enchanted Rock, Sierra Club, and Small Business Utility Advocates.

specifically support the creation of a new tariff that does not assess punitive cost responsibility surcharges on microgrids such as departing load and standby charges. We reproduce only a few of the most eloquent below.

"Wild Tree supports a tariff for microgrid that does not wrongly charge customers for costs they should not bear. For example, self-generation through a microgrid is not departing load, and microgrid customers should not have to pay for departing load surcharges"[16]. Wild Tree Foundation encourages the Commission to "take action to replace this cobbled-together, antiquated "solution" to a PG&E-created problem by meeting the statutory mandate to facilitate the commercialization of microgrids as soon as possible. Pilots programs and overly restrictive, incremental changes to rules are not the way to accomplish this".[17]

350 Bay Area calls on the Commission to focus and prioritize the tariff. "It is paramount that the CPUC establish the separate rates and tariffs as is called for in SB 1339 and we suggest focusing Track 2 exclusively on this effort given the statutory deadline".[18] They go on to state, "We need the "separate rates and tariffs" called for in SB 1339 to be set in a way that incentivizes clean microgrids and provides a monetization pathway that invites private investment in these technologies and ensures developers and customers are not dissuaded by up-front capital costs. The IOUs cannot build microgrids without shifting costs between ratepayers as a result of cost recovery. This creates a financial barrier to private investment. The IOU's need to be willing partners working with local communities on interconnecting these resources and working with all stakeholders to move the state forward into a brighter, climate-friendly and economical future".[19]

The Climate Center emphasizes that "commercialization requires enabling an open marketplace for diverse suppliers of microgrids, DERs and related technologies to transact with customers and communities.[20] "Microgrid operation should be viewed as a critical and extremely valuable service to sustain customers on an otherwise dead portion of the distribution system. Load served by microgrid facilities when grid service is not available is not departing load." On standby charges, they further state that, "by investing in microgrid facilities, end-use customers are providing their own standby service; they are not relying on the utility for standby

[16] *See* Wild Tree Foundation comments at p. 6.
[17] *See* Wild Tree Foundation comments at p. 2.
[18] *See* 350 Bay Area comments at p. 5.
[19] *Id.*
[20] *See* Center/Vote Solar comments at p. 3.

service. And when grid service goes out, the utility has no ability to provide any standby service for which these charges would apply".[21]

The Local Government Sustainable Energy Coalition provides additional context on the current dynamics with the monopoly utility noting that "it is important for the Commission to be mindful that the underlying structure of present investor-owned utility (IOUs) business models does not favor DER development, including microgrids"[22]. LGSEC supports the "development of rate structures or tariffs that benefit both microgrid users and utilities in blue sky and outage conditions should be a central outcome of this proceeding" and that "rate structures that explicitly encourage deployment of clean microgrids over dirty diesel backup generators should be developed."[23]

Moreover, low-income advocates and community-based organizations, such as GRID Alternatives, see the clear benefits of removing these barriers and correctly observe that equity issues are actually exacerbated by the assessment of these antiquated charges on customers. "GRID believes there is room for discussion on how to accurately account for the benefits and costs microgrids can deliver to society other than defining a cost-shift as "preserving bundled customer indifference from new market development"[7] and ending the conversation there. Given this, GRID believes the purported indifference to new market entrants is a primary factor standing in the way of enabling microgrids to reach their full potential to deliver critical benefits to low-income communities"[24].

Finally, the MRC strongly agrees with the Joint CCAs that the Commission should be "1) developing a general microgrids tariff that covers the full range of microgrid types; and 2) further streamlining and standardizing the interconnection process for microgrids… the Commission should take advantage of its current momentum, party focus, and the groundwork laid in the Staff Concept Paper to address these issues as part of, or in parallel to, the work being done in Track 2, with the goal of resolving all critical commercialization issues by the statutory deadline."[25]

[21] *See* Climate Center/Vote Solar comments at p. 11.
[22] *See* LGSEC comments at p.4.
[23] *See* LGSEC comments at p. 11.
[24] *See* GRID Alternatives comments at p. 3.
[25] *See* Joint CCA comments at p. 2.

Resistance to Progress

There are 5 parties that are trying to stand in the way – the utilities, TURN, and the Consumer Advocate. Of these, we are sympathetic to the Consumer Advocate and touch on cost shifting concerns further below. The utilities, however, join in complaining about having to compete with an industry that understands microgrids better than they do. They fail to understand that the way forward that benefits both them and their customers is to empower their customers and communities and collaborate with an industry that is here to help solve the problems. We disagree with TURN's restricted outlook on the future of utility regulation. We respond to only a few of the egregious mischaracterizations of microgrids and tired, unsupported cost-shifting arguments made by the opposing parties below.

The Commission should reject PG&E's assertion that "the Commission need not, and should not, attempt to write a microgrid tariff from the ground up" since that is precisely what the law of SB 1339 directs the Commission to do.[26] PG&E goes on to state that "any such tariff must build upon, if not wholly incorporate, existing tariffs and policies unless the Commission and Legislature are prepared to alter the well-established energy goals of the state".[27] However, PG&E created CMEP from the whole cloth and directly contrary to the goals of the state articulated in SB 1339. Moreover, PG&E by operating its system in a manner that involves deliberately shutting off power to its customers has demonstrated a dangerous inability to meet the fundamental goal of serving its customers . It is in no position to lecture.

In arguing against the creation of a tariff, SCE states, "such cost responsibility surcharges were developed as a result of significant Commission and stakeholder effort as part of formal proceedings in support of California's policy goals".[28] SDG&E states that "cost responsibility surcharges are the result of a well-litigated process in which the Commission has examined the costs associated with departing load, standby service, and new or incremental load service".[29] Cost responsibility surcharges were, indeed litigated extensively in the late 1990's when California was attempting deregulation and again in the 2000's when the CCA movement took shape, but the "significant stakeholder efforts" and "well-litigated process" that led to the decisions to institute and keep these charges (decisions which involved utilities running

[26] *See* PG&E Opening Comments at p. 13.
[27] *See* PG&E comments at p. 13.
[28] *See* SCE comments at p. 19.
[29] *See* SDGE comments at p. 17.

roughshod over other stakeholders[30]) never contemplated a world in which the utilities proactively decided to shut off the power whenever the risk of their poorly maintained infrastructure starting a wildfire was great enough.

Cost responsibility surcharges do not account for the significant and devastating economic and societal costs that customers incur when the utility decides to shield itself from liability by proactively shutting off the power.[31] The Manhattan Institute's excellent in-depth quantitative risk analysis on PSPS events observes quite simply: "From an electric utility's perspective, preemptive shutoffs are economically rational. They reduce the utility's potential liability from a wildfire caused by a failure of, or damage to, electric operations equipment, even if that equipment is working properly, while the utility incurs no costs, other than lost revenues from forgone electricity sales. Hence, preemptive shutoffs are a form of low-cost insurance."[32]

Every outage is a cost shift from the utility shareholders to its customers, and that must be accounted for in the overall calculus when assessing charges on customers for deploying microgrids. Given the current overlapping crises in California and the explicit direction given by the legislature in SB 1339, now is the perfect time in which to make these desperately needed changes. As it stands, the only "well-established goals" being served by the status quo are the utilities'.

SCE implies in its comments that microgrids would not be operating often anyways and therefore should not be granted relief from any cost responsibility surcharges. "Importantly, entities operating a microgrid would only operate during an SCE outages and only when it is safe to do so (e.g. not during a public safety power shutoff).[33] This is absurd, microgrids operate under both blue sky and black sky conditions, and can safely stay islanded and operating during a PSPS event, including through re-energization.[34] Furthermore, SCE purporting to respect customer safety by preventing the operation of a microgrid during a PSPS event (within their arguments on preventing cost shifting) is grimly cynical.

---

[30] *See,* "Deflect, Delay, Defer": Decade of Pacific Gas & Electric Wildfire Safety Pushback Preceded Disasters, Frontline, (August 18, 2020), https://www.pbs.org/wgbh/frontline/article/pge-california-wildfire-safety-pushback/?utm_source=Iterable&utm_medium=email&utm_campaign=ICYMI&utm_content=19xxxx

[31] The Manhattan Institute Study estimates that there is a cost of $160-320 per day shifted onto each residential customer who is subject to a PSPS event. Jonathan A. Lesser and Charles D. Feinstein, *Playing with Fire: California's Approach to Managing Wildfire Risks,* Manhattan Institute (April 7, 2020), https://www.manhattan-institute.org/managing-california-wildfire-risk

[32] *Id.*

[33] *See* SCE comments at p. 19.

[34] *See* our discussion of microgrid service capabilities, MRC comments at p. 9, 12, 28, and 29.

SDG&E assumes that only the utility will operate any in-front-of-the-meter ("IFOM") microgrid and questions the fundamental role of the Commission in providing regulatory oversight of the grid if customers are developing and operating microgrids.[35] The MRC agrees with SDG&E that "there is a philosophical problem with the scoping of this proceeding that must be resolved".[36] The problem, which is philosophical and procedural in nature, is that this proceeding has continued to assume that the utilities should be leading the development of microgrids and that only the utilities are capable of safe and reliable operation of electrical assets. The MRC agrees with the Climate Center that "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."[37]

The MRC further agrees with the Climate Center that "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".[38] We believe that a properly designed, comprehensive microgrid tariff with clear roles and responsibilities of all parties, and thoughtful safety and liability provisions as outlined below will obviate any basis for concerns. Our members include companies that supply equipment that the utilities regularly rely on and institutions that have operated microgrids safely for decades. Unfounded fears regarding microgrid safety and inaccurate assumptions of microgrid capabilities should not forestall this proceeding from following the express direction of SB 1339 to enable microgrid commercialization.

The Tariff We Need

In its initial Track 2 filing the MRC provided an outline of a responsible microgrid tariff. We believe it represents a comprehensive beginning for a non-discriminatory tariff that treats all microgrids equally. That outline is reproduced below with additional discussion based on the

[35] *See* SDGE comments at p. 33.
[36] *See* SDG&E comments at p. 34.
[37] *See* Climate Center at p. 3.
[38] *See* Climate Center at p. 3-4.

comments the Commission has received. While we recognize that some dimensions of the tariff may require further development, we have specifically called out those aspects that we believe can readily be implemented by yearend.

1. *Definitions*:

We offered several definitions and repeat two of them here

a. "Partnership microgrid" means a microgrid involving multiple customers downstream of a point of common coupling with an electric utility that makes use, in whole or in part, of utility distribution wires or other utility infrastructure to link included resources and loads, whether in island mode or when grid connected.

This definition makes clear that there are roles that utilities can play in microgrids if they are willing to become collaborators rather than monopolists standing in the way of commercialization. We see no evidence that utilities have begun to consider what such a role would look like. They need to acknowledge at the outset that they have limited experience and in many respects the industry is far ahead of them. The Commission needs to encourage them in this rather than encourage them to blanket the state with diesel generators. Utilities can and should play a supporting role rather than a lead role. There is much work they need to do on their own systems to accommodate commercialization that they have not yet seriously undertaken.

b. "Microgrid operator" means an entity that (i) is the single point of operational communication and control between a microgrid and the utility grid operator and (ii) except in instances where a utility provides direct energy delivery and metering to customers of a partnership microgrid during grid connected mode, acts as the single point of financial responsibility for purchases and sales of energy and other services on behalf of the microgrid.

This definition is at the heart of the change in approach that is needed. A microgrid is a "single controllable resource." That requires a single operator. The operational goals of the microgrid are the goals of the customer or community that is the owner or host of the microgrid.

A microgrid can serve the needs of the grid by providing services to the grid, and a tariff that pays fair value for those services will give microgrids the incentive to do so.

The critical definitions outlined in our original filing can be a part of the tariff immediately.

2. *Right to establish microgrids*:

   a. Any customer or group of customers or a third-party developer acting on their behalf can form a microgrid subject to the interconnection requirements of the tariff.[39]

   b. Neither the owner nor the operator of a multi-customer microgrid qualified under the tariff is a public utility unless it is a large electric company or a publicly owned utility.[40]

This provision is crucial to real commercialization. The Commission needs to acknowledge that everyone can play and stop toying with pilot programs and caps. If there is no cost shifting, there is no need of caps.
This should be part of the immediate tariff.

3. *Decarbonization Goals:*

   a. Microgrids must advance state decarbonization goals. A microgrid on an average basis, aggregating all internal resources, should meet or exceed state carbon reduction targets on an ongoing basis.

   b. Microgrids can deploy a "mixed resource profile" of DERs, storage and demand management technology that includes renewable energy but is able to provide long-term operation in island mode.

[39] This is currently subject to the availability of Section 218 exemptions, but any other tariff barriers should be removed.
[40] *Id.*

Both halves of this are crucial. Microgrids should be able to deploy all the DER resources contemplated by SB 1339, and they should be designed to make progress toward the state's decarbonization goals.

These can be a part of the tariff immediately.

4. *Sales of Services by Microgrid:*

   a. Microgrids are permitted to provide services on a non-discriminatory basis under any available tariff, market, or procurement process now or hereafter operated by the utility or the RTO. These may include:

      i. Energy generation;

      ii. Energy storage;

      iii. Utility requested islanding;

      iv. Demand management (both directions);

      v. Regulation services;

      vi. Reactive power;

      vii. Reserves;

      viii. Capacity (RA).

      To the extent that utilities do not currently procure these services on a transparent, market-based basis either through short-term market-based pricing or by means of a distribution support service agreement (see our prior filing for more on DSSAs), any microgrid should be able to participate either directly or through an aggregator in CAISO markets.

   b. Islanding at utility direction should be considered as a service separate from demand response. It has different costs than typical demand response and may be provided in more limited circumstances.

c. If the microgrid can export to help support a local portion of the grid during sectionalization, provide rules and compensation.

The key to a meaningful tariff is meaningful markets. Where those markets are competitive or established by cost-based tariffs, there is no cost shifting. The Commission should divorce this proceeding from the NEM tariffs, which have their own unrelated and complex history. Microgrids that are eligible for NEM as it stands should be able to participate on a non-discriminatory basis, and those that are not should not. NEM should not be a basis for participating in a microgrid tariff nor a compensation mechanism in a microgrid tariff.

Until better market mechanisms can be developed, any microgrid that is not NEM eligible should be able to export energy at a tariff rate that encourages load flexibility to compliment the wholesale signals provided by CAISO. The dynamic retail base rates plus location adders adopted by the Commission in in the January 2018 CPUC Decision D.18-01-024 would be a good interim measure. The 18-01-024 process had robust participation by interveners and should satisfy the Commission as to fairness of process.

In addition, the Commission should extend RA eligibility to the aggregate dispatchable output of microgrids.[41] These changes can be accomplished immediately.

Sales of power to the microgrid:

d. A microgrid operator purchasing in bulk for included customers should be eligible for any tariff for which its aggregate purchases qualify.

e. Microgrids should be able to opt-in to a time-of-use tariff for all purchases of energy.

f. In a type 1 partnership microgrid, described below, energy provided to the microgrid is sold to the microgrid operator acting on behalf of included customers in the aggregate.

[41] *See,* Herman K. Trabish, *Ensuring DER inclusion in capacity markets may require a rethink of resource adequacy*, Utility Dive, (August 24, 2020), https://www.utilitydive.com/news/ensuring-der-inclusion-in-capacity-markets-may-require-a-rethink-of-resourc/583590/?utm_source=Sailthru

g. In a type 2 or 3 partnership microgrid, the utility bills its customers in the microgrid at regular tariff rates when grid connected.

h. Charges for standby service should be eliminated or at most should reflect the ability of the microgrid to carry its own load through use of multiple assets and internal load shedding if one of its generation or storage resources is unavailable.

i. Departing Load Charges should be eliminated.

If a microgrid is not NEM eligible, it should purchase power like any other customer. In a multi-customer microgrid the microgrid operator should be able to purchase power and redistribute it within the microgrid without distinction from internally generated power. Except in certain specific partnership arrangements discussed below, the microgrid should be treated like an integrated retail customer with a single meter and single point of financial responsibility.

The five opponents recycle old statements that abolishing DLCs and SBCs for microgrids will shift costs. They do not actually provide any factual or policy basis for their statements. We addressed these arguments in our initial Track 2 comments and rebutted others above. So far as we are aware, no other state imposes a DLC on anyone, as doing so on resources that remain grid connected and are visible to and dispatchable by the grid operator is unproductive and underucuts against grid modernization and competition. The premise of the charge is that utilities have done responsible forward capacity planning and they will have oversupply if load departs. In the wake of last week's shortfalls, this rationale falls apart. . The charge penalizes resources that can help the problem. Responsible forward planning will include planning for substantial increases in DER. Microgrids are the ones that help, not hurt the system.

These changes can be accomplished immediately.

5. *Interconnection:*

a. Utilities need to speed up the process with standard deadlines for all classes of microgrids.

b. Consider a requirement for synchronous connection capability.

c. Treat the microgrid as a single controllable resource; don't require separate standards for each included resource or prevent resource combinations.

d. Address communication capability with the grid operator either here or in connection with sales of particular services to the grid.

Just as NEM is not an appropriate basis for microgrid tariff eligibility, neither NEM nor existing Rule 21 is an appropriate basis for considering microgrid interconnection. As discussed above with respect to SDG&E's advice filing on interconnection, the Track 1 proposal did not produce results. The Commission can either establish new interconnection criteria for microgrids or expand Rule 21 to include all microgrids (so long as that doesn't limit microgrid provision of services to the grid). In particular, NEM policies restricting the sale of grid generated power by battery storage, force complex and unnecessary behind-the-meter architecture for full microgrid functionality. If a microgrid can buy at retail and make money selling at wholesale in response to grid price signals the Commission and utilities should welcome that. A separate microgrid interconnection standard that treats the microgrid as a single controllable resource is our strong preference.

Immediate expansion of Rule 21 combined with eligibility of electing microgrids for the Wholesale Distribution Access Tariff would be good first steps

6. *Partnership Microgrids:*

Partnership microgrids, as the name suggests, represent a "partnership" (contractual and/or tariff based, not a legal entity) between a utility and a group of customers, which will necessarily involve some negotiation. We believe that setting forth guidelines in the microgrid tariff can make such negotiations more straightforward and productive.

a. Partnership microgrid models. There are three broadly possible partnership microgrid types:

i. One, the Microgrid operator, in effect, leases the wires and meters of all included customers from the utility. It is the sole provider of electricity to customers within the microgrid and purchases any

imports to the microgrid at the point of common coupling for its own account for resale to the customers. It would pay distribution charges only on imports. It operates essentially like a multi-customer "Customer Microgrid" but leases the use of the wires from the utility. This is the most straightforward, and it functions as a customer microgrid in most respects. Pricing for the "lease" should be based on cost of service. It is different from "retail wheeling" in that the included wires are not shared with other customers and raises no cost allocation issues.

ii. Two, the microgrid operator plays the roles it would in type one except that the utility retains the billing function. It would deliver a single bill for (x) the power generated within the microgrid payable to the microgrid operator and (y) the power imported to the microgrid payable to the utility. The utility could either impose its distribution charges on all customers for their full electric consumption, or there could be a type one arrangement.

iii. Three, in grid connected mode, the microgrid operator sells all the output of microgrid generation to the grid and the utility provides all electricity to customers. In island mode the microgrid operator operates included generation for the benefit of customers. Customers would pay full wires charges and there would be no further charges in island mode. The microgrid operator manages included generation at all times, so is prepared to operate in island mode.

b. Liabilities in all cases would attach to the responsible party. The utility maintains the infrastructure (unless responsibility is assigned in a type one lease) and would be responsible for failures due to maintenance. In types 1 and 2 the microgrid operator operates behind the point of common coupling and would be responsible for its operational errors. In Type 3,

the microgrid operator only "operates" in island mode (except generation) and would have liability then.

c. Type 1 tariff provisions: Establish the cost basis for "lease" payments for infrastructure.

d. Type 2 tariff provisions:

i. Establish basis for lease payments as with Type 1, if needed.

ii. Establish basis for utility charge for billing services in island mode?

e. Type 3 tariff provisions: Establish basis for billing services in island mode.

These provisions speak for themselves. If utilities provide services to microgrids they should be compensated at the fair cost basis for the services. If they are acting as partners and collaborators without seeking to exclude the industry, there are important roles they can play, especially in larger microgrids developed on behalf of CCAs or communities themselves.

The Commission should encourage utilities to experiment with genuinely collaborative structures through individual filings for particular projects until a broader tariff can be developed.

7. *Disclosure Standards:*

a. Multi-customer microgrids are established by contractual arrangements between the operator and the included customers. (There may be additional arrangements with the owners of generating or storage resources or included infrastructure.)

b. For multi-customer microgrids where the operator bills the customers and that include residential or small business customers, we suggest disclosure standards similar to landlord-tenant requirements for master metering.

The Commission can adopt the master metering standards immediately.

8. *Resilience Payment:*

Consider a public benefit resilience payment to microgrids that:

a. Serve critical infrastructure identified by the local government and approved by state emergency preparedness officials.

b. Serve economic justice areas that may otherwise be underserved.

These payments should not be selective grants but should be made available on a similar basis statewide. They should be at a level to assist in leveraging private funds, not to displace them.

There are suggestions in the record to develop a "value of resilience." While the MRC appreciates the impetus behind these suggestions, we are concerned that resilience is essentially a "product" like insurance. The costs of being without power to businesses and communities, to say nothing of medically at risk patients, in events like wildfires, PSPSs or just hot days can be all out of proportion to the cost of preparation, but it is hard to weigh the risks and know how much to prepare. We have suggested previously in this proceeding[42] that there should be a statewide effort to determine the critical facilities on a comprehensive and evenhanded basis, and likewise an effort to understand the resilience needs of energy justice communities, and the tariff should seek to provide sufficient additional compensation to assure that well planned microgrids can leverage private and local public investment to make economic sense. This is an approach that seeks to provide evenhanded benefits to all customers and communities rather than selecting lottery winners for pilot projects.

We anticipate that this important goal will take longer to achieve, but work should begin immediately and on a disciplined schedule.

9. *Distribution Support Services Agreements;*

This should potentially be a separate tariff open to all distributed energy resources, and there are some existing tariff mechanisms, but this calls attention to

[42] *See* MRC comments at p. 6, 11, and 21.

certain useful features. The Commission's docket relating to Distributed Resources Planning and Integrated Distributed Energy Resources (R. 14-08-003) is considering different non-wires alternatives mechanisms including tariffs under which DSSAs should be a clear option. While we generally support the Staff Concept Paper's discussion of DSSAs under Option 1, Option 2 offers a better procurement process.

a. Reference Integration Capacity Analysis and PV RAM maps of stressed areas of the existing grid where non-wires alternatives may prove valuable. Focus on the ability of advanced, dispatchable DER to locally address constraints, imbalances, and support sectionalization.

b. Establish a procedure for evaluation and possible acceptance of unsolicited proposals to deliver non-wires alternatives similar to Option 2 in the Staff Concept Paper.

This is another way of providing markets for services. It is a different form of utility partnership and can save money on infrastructure as well as on short-term operating costs. As with partnership microgrids, the Commission should encourage application on an individual basis until broader standards can be developed.

10. *Relationship to other processes*

a. The utilities should be planning for expanding levels of dispatchable distributed resources within their Integrated Resource Plans and long-term forecasting activities, including those that have long-duration generation capabilities and can support sectionalization.

b. Other Commission rules and tariff should be revised to reference and avoid conflict with the microgrid tariff.

The Commission must make clear that this proceeding is not a back-door excuse for revisiting utility ownership of generating assets in particular, nor of any behind-the-meter assets. There are no shortage of opportunities for significant utility investment in distribution system assets to support microgrids, increased customer side management, and smart grid operations.

Nor is it about hardening substations independent of customer sited generation, but rather about assuring that utilities can accommodate two-way power flows and enabling substations to function isolated from the rest of the grid taking advantage of customer sited generation to support segmentation. This clarity should be provided immediately.

The Path Forward

We strongly urge the Commission to convert Track 2 into a meaningful effort to create a broad, comprehensive, and functional microgrid tariff that enables microgrid commercialization on a fast track that could meet the statutory deadline. We ask that the Commission take the following actions with respect to the Staff Proposal:

- Require an accelerated interconnection process for *all* microgrids by amending its Track 1 order.
- Eliminate Proposals 1, 4 and 5 as unnecessary and counterproductive.
- Fold Proposal 2 into the microgrid tariff, do away with all limits on microgrids not imposed by Section 218, and ask the legislature to exempt microgrids from Section 218.
- Replace proposal 3 with a process to adopt non-discriminatory microgrid tariff based on the outline above that applies equally to all microgrids, including any combination of technologies contemplated by SB 1339, with the goal of issuing a proposed tariff that meets the immediate goals suggested above by yearend.

We urge the Commission to establish a streamlined process as follows:

- Allow interested parties to submit drafts for consideration and give no priority to utility drafts.
- If the Commission feels that a workshop is a necessary part of the process, it should retain an independent third-party moderator such as Rocky Mountain Institute or Gridworks (who have served this role for the Commission in the past) to assure an open process that is not limited to a utility agenda.
- Propose a pro forma tariff for comment by early December.
- Finalize tariff and require utility adoption, which can then be managed through an advice letter process.

Conclusion

We once again urge the Commission to immediately create a broad-based, comprehensive and inclusive microgrid tariff that creates a pathway to widespread deployment of independently developed and financed microgrids serving the needs of customers and communities and supporting the grid.

August 28, 2020

Respectfully submitted,

C. BAIRD BROWN
CHRISTOPHER B. BERENDT

By: */s/ C. Baird Brown*
C. Baird Brown

Attorneys for
Microgrid Resources Coalition