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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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

RELIABILITY PROPOSAL OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) IN RESPONSE TO THE RULING ON POTENTIAL MICROGRID & RESILIENCY SOLUTIONS FOR COMMISSION RELIABILITY ACTION TO ADDRESS GOVERNOR NEWSOM'S JULY 30, 2021 PROCLAMATION OF A STATE OF EMERGENCY

ANNA VALDBERG
MABEL TSUI

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-5673
E-mail: Mabel.Tsui@sce.com

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I.

INTRODUCTION

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), Southern California Edison Company (SCE) hereby submits this proposal and response to the questions posed in the August 23, 2021 Administrative Law Judge's E-mail Ruling on Potential Microgrid and Resiliency Solutions for Commission Reliability Action to Address Governor Newsom's July 30, 2021 Proclamation of a State of Emergency (Ruling).

II.

BACKGROUND

On August 17, 2021, the Assigned Commissioner issued an Amended Scoping Memo and Ruling[1] which divided Track 4 of the Microgrid Order Instituting Rulemaking (OIR) proceeding into two phases – an expedited Phase 1 and a non-expedited Phase 2. The Amended Scoping Memo and Ruling initiated Expedited Phase 1 in response to Governor Gavin Newsom's Proclamation of a State of Emergency (Governor's Proclamation).[2] The Governor's Proclamation was issued in response to the significant and accelerating impacts of climate change in California,[3] and addresses new issues for emergency action and electric reliability.[4] The non-expedited Phase 2 addresses a microgrid multi-property tariff and implementation of a Microgrid Incentive Program.[5]

On August 23, 2021 Administrative Law Judge Rizzo issued the Ruling which directed parties to develop proposals for steps and actions the Commission can take by the end of 2021 to expedite or accelerate development of clean energy projects, such that new energy resources can be brought online by the summers of 2022 and 2023.[6] The Ruling further provides questions for party comment to be submitted with proposals.[7] As directed in the Ruling, below is SCE's proposal along with responses to the questions included for comment in the Ruling.

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1 Amended Scoping Memo and Ruling Setting Track 4: Expedited Phase 1, and Phase 2, issued on August 17, 2021 (Amended Scoping Memo and Ruling).
2 *Id.*, pp. 6-7.
3 *Id.*, p. 7 (citing Governor's Proclamation).
4 *See* Gavin Newsom, Proclamation of a State of Emergency, July 30, 2021, *available at* https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf.
5 Amended Scoping Memo and Ruling, pp. 10-11.
6 Ruling, p. 7.
7 *Id.*, pp. 8-10.

III.

PROPOSAL

SCE supports the objective of the Governor's Proclamation, and the Commission's goal to ensure electric reliability during the summers of 2022 and 2023. However, SCE does not believe that expediting current ongoing actions initiated in the Microgrid OIR proceeding, or rushing to address unresolved policy, regulatory, or operational issues in the proceeding, would provide sufficient system relief without compromising the safety and reliability of the grid.

Rather than target larger utility-scale generation projects that take several years to develop and operate, SCE proposes that the Commission focus on expediting smaller-scale single-customer behind-the-meter (BTM) distributed energy resources (DER) or microgrid projects that can be scaled across a larger population of customers to help achieve the capacity shortage mitigation goals of the Governor's Proclamation. Not only are BTM DER technologies currently commercially available and accessible to all customers, but existing Commission-approved investor-owned utility (IOU) programs that incentivize customer-owned generation, such as the Self-Generation Incentive Program (SGIP), can be enhanced to encourage greater customer participation, thereby resulting in additional grid resources to ease capacity stressors. For example, SCE's proposal refers to the recommendations included in its August 23, 2021 Opening Comments on the August 3, 2021 *Assigned Commissioner's Ruling Requesting Comment On Heat Pump Water Heater Contractor Training And Workforce Issues And Methods To Increase Self-Generation Incentive Program Technologies' Contributions To Summer Reliability*, submitted in Rulemaking (R.) 20-05-012, *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the Self-Generation Incentive Program and Related Issues* (SGIP Comments).[8] SCE also provides additional recommended steps for the Commission's

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[8] Opening Comments of Southern California Edison Company On Assigned Commissioner's Ruling Requesting Comment on Heat Pump Water Heater Contractor Training And Workforce Issues And Methods To Increase Self-Generation Incentive Program Technologies' Contributions To Summer Reliability, submitted on August 23, 2021 in R.20-05-012.

consideration that could help expedite implementation of BTM customer microgrid projects that could help address system capacity shortfall.

It must, however, be noted that SCE believes this proposal is only one of several actions that could be taken to support the potential 2022 capacity shortfalls. Given the summer 2022 and 2023 timeline, a multitude of diverse clean energy technologies and strategies will be needed to bring sufficient resources online to address future peak demand, including BTM DERs, IOU-owned storage, and community microgrids.

Proposal:

The Commission should implement the recommendations made in SCE's SGIP Comments, which urge the Commission to promote and enhance SCE's existing SGIP to encourage greater customer participation and incentivize higher implementation of single customer generation projects that could contribute to grid reliability by 2022. SCE refers to those SGIP Comments for the specific recommendations therein.[9] Separately, SCE also provides the following additional recommendations for the Commission's consideration; implementing these requirements for new BTM customer microgrid projects could help streamline their approval and ensure such projects can help address system capacity shortfall:

- Require installation of isolation devices for BTM customer microgrid projects that allow them to separate from the grid and operate as a BTM microgrid with a minimum of 4 hours of support to the host customer critical load.
- Where permitted, require BTM microgrids intended to support capacity shortfall to be interconnection projects approved under SCE's Rule 21 Fast Track Initial Review in order to expedite the interconnection of resources available for 2022 summer peak season.

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[9] *Id.*

- The interconnection of generation resources to support customers' energy needs, distribution energy needs, or grid shortfall capacity needs must first account for safe interconnection of such generation resources. As to accomplish the safe interconnection of generation resources, the Commission has approved SCE's Rule 21 tariff which describes the Interconnection, Operating, and Metering requirements for Generating Facilities to be connected to SCE's Distribution System. Rule 21 has been designed with procedures in place to address the full range of generation interconnection complexities. Noncomplex systems can be studied within SCE Rule 21 Fast Track process within 15 business days or 30 business days if Interconnection Facilities or Distribution Upgrades are required. The study of complex projects requires detailed studies and depending on interdependency with transmission studies, the study of these projects can take from several months to years if the project is interdependent with the California Independent System Operator (CAISO) cluster study process.

- Require microgrid project production profiles for BTM customer microgrid projects to be capable at minimum of 75% of generating nameplate capacity during summer peak periods and require response to CAISO emergency orders within 15 minutes.

IV.

RESPONSES TO QUESTIONS FROM RULING

A. Prevention vs. Mitigation of System Capacity Shortfall

1. Is the proposal intended to help prevent a system capacity shortfall from occurring, or does it help mitigate the impact of rotating outages, should they be needed? Specify how.

SCE's proposal can help address system capacity shortfall by increasing the capacity of generation or storage connected to the system (grid), which can provide system support at the request of CAISO. SCE's proposal would also help in mitigating or reducing the impact of rotating outages (should rotating outages be needed) by allowing the BTM customers to separate from the grid and operate as a BTM microgrid, thereby providing energy resiliency to the host customer's critical load for a minimum of 4 hours while also removing capacity demand from the grid.

2. How does the proposal address the potential conflict between making resources available to the system to help prevent a system capacity shortfall from occurring and reserving resources for private use to mitigate the impacts of a potential outage?

SCE's proposal, specifically SCE's recommendations in addition to its SGIP Comments, prioritizes responses to CAISO to address system capacity shortfalls over host customer reservation of resources for private needs. Because it is critical to maintain system capacity to prevent system rotating outages, SCE's recommends the Commission require that new BTM resources use the at minimum of 75% of generating facility resource capacity to support the overall electric system as to prevent systems rotating outages. However, if a rotating outage occurs, the host customer can separate and use the remainder of the energy to continue to support the host customer's critical loads.

3. If a proposal is intended to prevent system capacity shortfall from occurring and it includes customer-owned or customer-hosted resources, how will availability of those resources to prevent capacity shortfall be guaranteed? Specify how they will be measured and how safety will ensured?

Under SCE's proposal, specifically SCE's recommendations in addition to its SGIP Comments, new BTM resources must meet certain performance requirements to guarantee that such resources follow CAISO emergency instructions in support of grid capacity shortages. These performance requirements include:

- Responding to CAISO within 15 minutes;
- Generating or discharging at a minimum of 75% of approved Generating Facility capacity; and
- Generating or discharging a minimum of 4 hours or until the CAISO terminates the emergency call.

To demonstrate compliance with these proposed requirements, the Commission should require BTM resource owners to provide an attestation to SCE demonstrating how the BTM projects meet the qualifications above. The attestation would include:

- Response time from when the BTM system received instruction from CAISO;
- Percent of generation/discharge level based on approved Generating Facility capacity; and
- Hours of sustained generation/discharge.

B. Islanding

Given that the ability to island is the primary factor distinguishing microgrids from other types of distributed energy resources:

1. **Is islanding, separate from any associated reduction in load or increase in generation, essential to the ability of the proposal to address the system capacity shortfall? If so, please describe in detail how islanding is expected to directly help.**

While islanding is a critical element for microgrid operations, the ability to island does not necessarily support the reduction in load or increase in generation in support of addressing system capacity shortfall. To address system capacity shortfall, it is only necessary to increase the production of energy (generation) and be connected to the system (grid) or reduce the consumption of energy (reduce load) from the system (grid). Having the ability to island only adds the capability to the distributed energy resource to provide localized electrical service (such as backup power to the host customer) in case of a power outage on the area's distribution grid (due to rotating outages, PSPS, or other reason).

2. **Does islanding indirectly supplement or enhance the ability of other resources like storage, generation, or demand response to help prevent a system capacity shortfall from occurring? If so, please describe in detail how islanding is expected to indirectly help. In the response, identify what types of generation or load reduction resources the microgrid would support.**

As indicated in the response to B.1, islanding, itself, does not indirectly supplement or enhance the ability of other resources like storage, generation, or demand response to help prevent a system capacity shortfall from occurring. To help prevent system capacity shortfalls, additional generation needs to be connected to the system (no islanding capabilities required) or system load must be reduced.

C. Leveraging Existing Microgrid & Resiliency Programs

1. How should microgrid projects that participate in the suspension of the capacity reservation component of the standby charge, pursuant to Decision 21-07-011, be required to help address a system capacity shortfall, particularly during the net peak hours?

In Decision (D.) 21-07-011 (the Decision), the Commission adopted the suspension of the capacity reservation component of the standby charge for eligible microgrid projects that meet the California Air Resource Board distributed generation standards and can demonstrate high availability and high reliability.[10] However, the Decision does not require the systems to physically separate from the electric grid, nor does it require any physical assurance that would necessitate the systems to drop load under peak demand conditions. In addition, it is not clear if the suspension will provide any benefits to the public and the Commission will not conduct an evaluation of the suspension's effectiveness until 2026, several years past summer of 2022. While the IOUs are instructed to collect data on the costs associated with participating microgrid systems, they may also be able to evaluate any near-term grid benefits. Further, it is not currently known how many microgrid systems would participate in the suspension program. For these reasons, at this time SCE is not able to determine how these systems could help address system capacity shortfall.

2. How should existing programs like the Make Ready and Temporary Generation program be leveraged to address a system shortfall, particularly in the net peak hours?

The Make Ready and Temporary Generation programs are PG&E programs and therefore this question is not applicable to SCE.

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[10] D. 21-07-011, *Decision Adopting A Suspension of The Capacity Reservation Component Of The Standby Charge For Eligible Microgrid Distributed Technologies*, issued on July 16, 2021.

3. How should existing microgrids that have been awarded grant funds (e.g., projects awarded funding by the California Energy Commission or investor-owned utilities via EPIC) be further leveraged to reduce load, especially during net peak hours?

Resources installed in support of such projects should be eligible for any program(s) resulting from implementing SCE's proposal or a comparable strategy.

4. Approximately how many megawatts could existing programs address during the net peak hours in 2022? Please provide estimates per program.

At this time SCE cannot accurately determine combined capacity of potential new microgrid projects brought online through existing programs by 2022. As discussed in the response to C.1., SCE does not know the number of microgrid systems that will participate in the standby charge suspension program. However, as stated in SCE's SGIP Comments, customers with a high potential for reliability disruption should be targeted for program incentives, and SCE estimated that approximately 4,600 customers would be in this pool, with over 90 percent estimated to have not adopted solar or storage.[11] If 95% of customers in this pool are successfully incentivized to participate in the SGIP program and install storage systems ranging from 5 kW to 10 kW by summer 2022, this would bring approximately 22 MW to 44 MW online.

[11] SGIP Comments, pp. 21-22.

D. Modifications to Existing Microgrid Tariffs

1. Which specific existing tariffs should be modified, or further modified, to enable microgrids to address a system capacity shortfall during net peak hours (e.g., the behind-the-meter microgrid tariffs)?

Because SCE's proposal focuses on encouraging BTM customer generation using existing customer programs as described above, SCE believes it is not necessary to modify its existing tariffs at this time to accommodate the adoption and installation of BTM customer generation including those that are deemed BTM microgrids. Since the inception of the Microgrid OIR, SCE has made modifications to its tariffs to reduce regulatory barriers consistent with the requirements of Senate Bill (SB) 1339 and as ordered by the Commission. Specifically, in compliance with the Microgrid Track 1 decision,[12] SCE modified its net energy metering (NEM) tariffs by (1) allowing energy storage systems, in advance of Public Safety Power Shutoff events, to import from – but not export to – the grid, in support of preparedness in advance of a grid outage, and (2) removed the storage sizing limit for large NEM-paired storage and maintained existing metering requirements. SCE made additional modifications to its existing tariffs to comply with the orders in the Microgrid Track 2 decision.[13] Specifically, SCE revised its (1) Rule 2, *Description of Service*, to permit installation of microgrid control system and equipment as added facilities, and (2) Rule 18, *Supply to Separate Premises and Use by Others*, to explicitly state that microgrids owned by public agencies or a third party that primarily serves facilities owned or operated by, or on behalf of, public agencies are permitted to supply electricity to critical facilities owned or operated by or on behalf of a public agency on an adjacent premises. Moreover, SCE developed a new tariff, Schedule BTMM, *Behind-the-Meter Microgrid*, which refers to SCE's existing tariffs on the installation and use of BTM customer

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[12] D.20-06-017, *Decision Adopting Short-Term Actions to Accelerate Microgrid Deployment and Related Resiliency Solutions*, issued on June 17, 2020.

[13] D.21-01-018, *Decision Adopting Rates, Tariffs, and Rules Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies*, issued on January 21, 2021.

generations or microgrids.[14] The existing tariffs that are referred to in Schedule BTMM include, but are not limited to, tariffs that govern generating facility interconnection, net energy metering, standby, departing load, and nonbypassable charges. In addition to Schedule BTMM, SCE provides information on its website on how customers and third parties can develop and interconnect BTM microgrids based on the current Commission-approved rules and regulation.[15]

Accordingly, SCE believes it is not necessary to make any further modifications to its existing tariffs to accommodate the installation of BTM customer generation, which can expedite or accelerate clean energy project development by the summer of 2022. While tariff modifications are not necessary, SCE notes that there is a need to address and/or clarify the technical requirements under Rule 21 for customer generators that operate as a BTM microgrid. SCE introduced this need when it submitted the advice letter with the proposed Schedule BTMM. Currently, SCE is waiting on authorization and/or guidance from the Commission on whether to proceed with addressing or clarifying these technical requirements in Rule 21. In addition, SCE recognizes that depending on the nature and duration of any additional requirements for BTM microgrids the Commission adopts, new requirements may warrant memorialization in a guidebook, additions to the information presented on SCE's website for microgrids, or ultimately modifications to existing tariffs such as Rule 21.

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[14] SCE proposed Schedule BTMM in Advice 4473-E, *Southern California Edison Company's Proposed Schedule BTMM, Behind-the-Meter Microgrid, Pursuant to Decision 21-01-018*, submitted on April 21, 2021. On September 1, 2021, the Commission issued Draft Resolution E-5162 approving SCE's Schedule BTMM as requested.

[15] *See* Microgrids for Developers *available at* https://www.sce.com/partners/partnerships/Microgrids-for-Developers.

a) **Provide an overview of how the tariffs should be modified.**

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

b) **Describe the outcome that the tariff change is intended to achieve (e.g., accelerate deployment of new microgrids or enhance system benefits of existing microgrids) and an estimate of the megawatt potential, if possible.**

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

c) **Describe how that outcome can help address a system capacity shortfall (e.g., by making additional generation or reducing load during net peak hours, or by reducing the impact of rotating outages) and how the availability of those resources will be ensured**

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

d) **Approximately how many MW could the changes address during the net peak hours in 2022?**

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

e) Name the existing tariffs by identifying the rate schedule, rule, contract, or other document, or combination of documents, that should be modified.

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

f) Describe the specific changes to the document that should be made to achieve the desired outcome.

Not applicable as SCE is not proposing tariff modifications. See response to D.1.

E. Potential New Microgrid Programs and Projects

1. What new microgrid projects, programs, or measures should be developed to address a system capacity shortfall, particularly in the net peak hours?

As discussed above, SCE's proposal focuses on strong promotion of existing customer programs that incentivize expediting smaller-scale single-customer BTM microgrid projects that can be scaled across a broader population of customers. Also as discussed above, implementing the requirements from SCE's recommendations in addition to its SGIP Comments could help streamline approval of new BTM customer microgrid projects and ensure such projects can help address system capacity shortfall. New microgrid projects brought online would increase the capacity of generation or storage connected to the electric grid, which could provide system support at the request of CAISO and help mitigate the risk of potential system capacity shortfall. The increased capacity would also help reduce the impact of rotating outages (should rotating outages be needed) by allowing the BTM customers to separate from the grid and operate as a BTM microgrid.

a) How would the program help address a system capacity shortfall?

Not applicable as SCE is not proposing a new program. See response to E.1.

b) What is the target resource, customer, and/or market participants?

Not applicable as SCE is not proposing a new program. See response to E.1.

c) How should an administrator for the program be chosen?

Not applicable as SCE is not proposing a new program. See response to E.1.

d) Is it feasible to develop, launch, and operate the program in such a way that it can address net peak hours by the summer of 2022? If not, what timeline could the program be launched?

Not applicable as SCE is not proposing a new program. See response to E.1.

e) Approximately how many megawatts could the program address during the net peak hours in 2022?

Not applicable as SCE is not proposing a new program. See response to E.1.

V.

CONCLUSION

SCE appreciates the opportunity to submit its reliability proposal and responses to the questions from the Ruling, and respectfully requests the Commission adopt SCE's recommendations as proposed herein.

Respectfully submitted,

ANNA VALDBERG
MABEL TSUI

/s/ Mabel Tsui
By: Mabel Tsui

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-5673
E-mail: Mabel.Tsui@sce.com

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