PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

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Ratesetting

TO PARTIES OF RECORD IN RULEMAKING 19-09-009:

This is the proposed decision of Administrative Law Judge Rizzo. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's December 2, 2021 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision in accordance with Section 311. The comment period is shortened pursuant to Commission Rule of Practice and Procedure 14.6(c)(10) on the ground of public necessity, such that opening comments are due on November 10, 2021, and reply comments are due on November 16, 2021.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4).

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:mph
Attachment

Decision **PROPOSED DECISION OF ALJ RIZZO (Mailed 10/29/2021)**

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

DECISION ADOPTING MICROGRID AND RESILIENCY SOLUTIONS TO ENHANCE SUMMER 2022 AND SUMMER 2023 RELIABILITY

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DECISION ADOPTING MICROGRID AND RESILIENCY SOLUTIONS TO ENHANCE SUMMER 2022 AND SUMMER 2023 RELIABILITY

Summary

This decision adopts enhanced summer 2022 and summer 2023 requirements for Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E). First, PG&E shall file a Tier 2 Advice Letter, within 45 days of the effective date of this decision, to expand its Temporary Generation Program for filling the system capacity shortfalls anticipated in the summer of 2022 and 2023.

Second, SDG&E may procure up to four circuit-level energy storage microgrid projects that may provide a total of 160 megawatt-hours of capacity to fill system capacity shortfalls anticipated in the summers of 2022 and 2023. The procurement of these four circuit-level energy storage microgrid projects is conditioned upon these resources providing peak and net peak grid reliability benefits in the summers of 2022 and 2023. SDG&E shall file a Tier 2 Advice Letter, within 30 days of the effective date of this decision, seeking implementation authorization for procurement of these four circuit-level energy storage microgrid projects. SDG&E shall comply with the Cost Allocation Mechanism for utility owned generation previously adopted in Rulemaking 20-11-003. Furthermore, SDG&E shall comply with any subsequent modifications to the Cost Allocation Mechanism adopted in Rulemaking 20-011-003.

We suggest Los Angeles County propose its Eastern Avenue Emergency Operations Battery Storage Microgrid Project, a Los Angeles Department of Public Health Solar and Battery Storage Project, and Pitchess Detention Center Solar and Battery Storage Project in the Microgrid Incentive Program for

consideration, subject to the overall eligibility, cost and budget constraints of the Microgrid Incentive Program.

This proceeding remains open.

1. Background

In September 2019, the California Public Utilities Commission (Commission) opened this rulemaking[1] to facilitate the commercialization of microgrids and adopt resiliency strategies pursuant to Senate Bill (SB) 1339 (Stern, Stats. 2018, Ch. 566). SB 1339 requires the Commission, in consultation with the California Energy Commission (CEC), and the California Independent System Operator (CAISO), to take action to facilitate the commercialization of microgrids for distribution customers of large electrical corporations.

Components of microgrid commercialization are set by SB 1339, and must include rates, tariffs, and rules, as necessary, that (1) remove barriers for deploying microgrids across the large investor-owned utility service territories; (2) do not shift costs onto non-benefiting customers; and (3) prioritize and ensure worker, public, and the electric system's safety and reliability.

In response to SB 1339's mandates the Commission issued two decisions facilitating the commercialization of microgrids: (1) Decision (D.) 20-06-017; and (2) D.21-01-018.

1.1. Track 1

Track 1 of this proceeding began in December 2019, with an Energy Division workshop.[2] This workshop facilitated discussion between stakeholders, focusing on short-term actions related to microgrids and resiliency strategies for

[1] Order Instituting Rulemaking (OIR) Regarding Microgrids Pursuant to SB 1339 and Resiliency Strategies, September 12, 2019.

[2] December 4, 2019, Administrative Law Judge's Ruling Noticing Microgrid Workshop.

Summer 2020 implementation. Following this workshop, a prehearing conference was held on December 17, 2019. The Track 1 Scoping Memo and Ruling (Scoping Memo) was issued on December 20, 2019.[3]

Through Track 1 of this proceeding, the Commission adopted D.20-16-017. D.20-16-017 satisfied many of SB 1339's requirements by requiring the following:

1. Permitting Requirements: Public Utilities Code §[4] 8371, subdivision (a)
    a) Required the development of a template-based application process for specific behind-the-meter project types to prioritize, streamline, and expedite applications and approvals for key resiliency projects.
2. Barrier Reduction § 8371, subdivision (b)
    a) Required the development of a template-based application process for specific behind-the-meter project types to prioritize, streamline, and expedite applications and approvals for key resiliency projects.
    b) Added dedicated staff to the utilities' distribution planning teams that specialize in resiliency project development for local jurisdictions.
    c) Allowed energy storage systems, in advance of Public Safety Power Shutoff (PSPS) events, to import from – but not export to – the grid, in support of preparedness in advance of a grid outage.
    d) Removed the storage sizing limit for large net energy metering (NEM)-paired storage and maintained existing metering requirements.
    e) Required the development of a separate access-restricted portal for local jurisdictions that gives information to support local community resiliency projects.

[3] Assigned Commissioner's Scoping Memo, December 20, 2019.

[4] Unless otherwise specified, all section references are to the Public Utilities Code.

f) Approved the Pacific Gas and Electric Company's (PG&E) Community Microgrid Enablement Program which provides incremental technical and financial support on a prioritized basis for community requested microgrids for PSPS mitigation purposes.

g) Approved PG&E's Make-Ready Program for the period of 2020 through 2022 which includes enabling each of the prioritized substations to operate in islanded mode.

h) Approved PG&E's Temporary Generation Program which involves leasing mobile generators for temporary use during the 2020 wildfire season.

i) Approved San Diego Gas & Electric Company's (SDG&E) request to procure a local area distribution controller.

3. Rates and Tariffs § 8371, subdivision (d)

   a) Allowed energy storage systems, in advance of PSPS events, to import from – but not export to – the grid in support of preparedness in advance of a grid outage.

   b) Removed the storage sizing limit for large NEM-paired storage and maintained existing metering requirements.

4. Standards and Protocols § 8371, subdivision (e)

   a) Developed a template - based application process for specific behind-the-meter project types to prioritize, streamline, and expedite applications and approvals for key resiliency projects.

   b) Approved SDG&E's request to procure a local area distribution controller.

1.2. Track 2

Following the adoption of D.20-06-017 on June 17, 2020, the Track 2 Amended Scoping Memo was issued on July 3, 2020.[5] The Track 2 Amended

[5] Assigned Commissioner's Amended Scoping Memo, July 3, 2020.

Scoping Memo focused on the continued implementation of SB 1339 through the statutory contours of §8371.

On July 23, 2020, the Administrative Law Judge (ALJ) issued a ruling[6] with a proposal prepared by the Energy Division, titled, *Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339* (Staff Proposal). Parties attended an August 2020 workshop to discuss the Staff Proposal. Following the workshop, parties submitted comments in response to the Staff Proposal.

On August 25, 2020, Energy Division held another all-day online public workshop discussing the challenges and demands associated with energizing safe-to-energize substations during PSPS events. Officials from the Commission as well as the California Air Resources Board (CARB) and the CEC were present. On September 4, 2020, following the Energy Division workshop, the assigned Commissioner and ALJ issued a ruling[7] seeking comment on policy questions and proposed an interim approach for minimizing emissions from generation during transmission outages with a process for transition to clean temporary generation in 2022 and beyond.

On January 21, 2021, the Commission issued D.21-01-018 that adopts rates, tariffs, and rules for facilitating the commercialization of microgrids pursuant to SB 1339. This decision continues the Commission's goal of commercializing microgrids and reduces barriers for microgrid deployment across California. D.21-01-018 also adopts an interim approach for minimizing emissions from

[6] ALJs Ruling, July 23, 2020.

[7] Assigned Commissioner and ALJ's Ruling Seeking Comment on Policy Questions and an Interim Approach for Minimizing Emissions from Generation During Transmission Outages, September 4, 2020.

generation during transmission outages and a process for transitioning to clean temporary generation in 2022 and beyond.

Specifically, D.21-01-018 orders the following primary actions from the state's large IOUs:

1. Southern California Edison Company (SCE) to revise its Rule 2 to permit installing added or special facilities microgrids.
2. SCE and PG&E to revise their Rules 18 and SDG&E to revise its Rule 19, to allow local government microgrids to service critical customers on adjacent parcels.
3. SCE, PG&E, and SDG&E to each create a renewable microgrid tariff that prevents cost shifting for their territories.
4. SCE, PG&E, and SDG&E to jointly develop a statewide Microgrid Incentive Program with a $200 million budget to fund clean energy microgrids to support the critical needs of vulnerable communities impacted by grid outages and test new technologies or regulatory approaches to inform future action.
5. SCE, PG&E, and SDG&E to develop pathways for the evaluation and approval of low-cost, reliable electrical isolation methods to evaluate safety and reliability.

D.21-01-018 also formalized a Resiliency and Microgrids Working Group to facilitate thoughtful and informed discussions to continue to support the goal of resiliency and the commercialization of microgrids within Track 3 and beyond.

1.3. Track 3

Less than a month after the adoption of D.21-01-018, the assigned Commissioner issued another Amended Scoping Memo for Track 3 on February 9, 2021. The Amended Scoping Memo for Track 3 focused on whether to waive or reduce standby service charges in exchange for the value that

resiliency microgrids may offer. Parties filed opening comments on March 3, 2021, and reply comments on March 10, 2021, in response to the Amended Scoping Memo for Track 3 scoping issues on standby service charges.

On July 15, 2021, the Commission adopted D.21-07-011, which suspended the capacity reservation component of the standby charge for eligible microgrid distributed technologies.

1.4. Track 4

On July 30, 2021, Governor Gavin Newsom issued a Proclamation of a State of Emergency (Proclamation) in response to the significant and accelerating impacts of climate change in California.[8] Governor Newsom declared that drought conditions coupled with record-breaking extreme heat events have hit California and other Western states hard, increasing residents' electrical demand and putting significant strain on California's energy grid.[9] Among other things, the Proclamation directed:[10]

> 2. The California Energy Commission is directed, and the California Public Utilities Commission and the CAISO are requested, to work with the State's load serving entities on accelerating plans for the construction, procurement, and rapid deployment of new clean energy and storage projects to mitigate the risk of capacity shortages and increase the availability of carbon-free energy at all times of day.
>
> 13. The Commission is requested to exercise its powers to expedited Commission actions, to the maximum extent necessary to meet the purposes and directives of this proclamation, including by expanding and expediting

[8] Gavin Newsom, Proclamation of a State of Emergency, July 30, 2021, available as of October 12, 2021 at: https://www.gov.ca.gov/wp-content/uploads/2021/07/Energy-Emergency-Proc-7-30-21.pdf.

[9] *Id.*

[10] *Id.*

> approval of demand response programs and storage and clean energy projects, to ensure that California has a safe and reliable electricity supply through October 31, 2021, to reduce strain on the energy infrastructure, and to ensure increased clean energy capacity by October 31, 2022.
>
> 15. The California Energy Commission, in consultation with the California Air Resources Board, the CAISO, and the California Energy Commission, shall identify and prioritize action on recommendations in the March 2021 SB 100 Joint Agency Report, and any additional actions, that would accelerate the State's transition to carbon-free energy.

In response to the Governor's Proclamation, on August 17, 201, the assigned Commissioner issued another Amended Scoping Memo and Ruling for Track 4. The Amended Scoping Memo and Ruling for Track 4 initiated an expedited Phase 1 of Track 4 and set a non-expedited Phase 2 of Track 4 to develop a microgrid multi-property tariff to facilitate the commercialization of microgrids.

Subsequent to the assigned Commissioner's August 17, 2021 Amended Scoping Memo and Ruling for Track 4, the assigned Administrative Law Judge issued a ruling on August 23, 2021, directing parties to submit microgrid and resiliency proposals (Proposals) for Commission reliability action to address Governor Gavin Newsom's July 30, 2021 Proclamation. This ruling solicited Proposals and comments from interested parties that could result in resiliency and microgrid projects installed and delivering reliability benefits by summer 2022 and summer 2023. Specifically, this ruling directed parties to propose resiliency and microgrid solutions oriented toward solving the following issues:

a. prevention versus mitigation of system capacity shortfall;
b. leveraging existing microgrid and resiliency programs;
c. modifications to existing microgrid tariffs; and

d. proposals for new microgrid programs and projects.

This ruling also directed parties to give consideration toward how islanding could assist with reduction in load or increase in generation, among other things.

Proposals in response to the Administrative Law Judge's ruling were filed on September 10, 2021. Parties then served opening and reply comments to the Proposals on September 24 and October 1, 2021, respectively.

1.5. Proposals in Response to the Administrative Law Judge's Ruling and the Amended Scoping Memo and Ruling for Track 4

Proposals were filed on September 10, 2021, by: (1) Applied Medical Resources Corporation (AMR); (2) Bloom Energy Corporation (Bloom Energy); (3) Bright Canyon Energy Corporation (Bright Canyon); (4) Public Advocates Office (Cal Advocates); (5) California Energy Storage Alliance (CESA); (6) City of Long Beach (Long Beach); (7) County of Los Angeles (Los Angeles County); (8) Center for Sustainable Energy (CSE); (9) Enchanted Rock, LLC (Enchanted Rock); (10) FuelCell Energy (FCE); (11) Green Power Institute (GPI); (12) Microgrid Resources Coalition (MRC); (13) PG&E; (14) PowerSecure, Inc. (Power Secure); (15) SCE; (16) SDG&E; (17) Southern California Gas Company (SoCalGas); (18) Unison Energy, LLC (Unison); and (19) Vote Solar.

All Proposals submitted by parties were considered, but given the large number of parties and issues, some Proposals may receive little to no discussion in this decision. Issues within the scope of this proceeding that are not addressed here, or only partially addressed, may be addressed in subsequent tracks of this proceeding.

Additionally, some parties' Proposals covered a broad array of topics, some of which are unrelated to microgrids providing summer 2022 and summer

2023 reliability. These parties may find proper venue in other proceedings which may include the following: the Integrated Resource Planning and Related Procurement Processes Proceeding (R.20-05-003); the Resource Adequacy proceeding (R.21-10-002); the High Distributed Energy Resources Future proceeding (R.21-06-017); the Energy Efficiency proceeding (R.13-11-005); the Self-Generation Incentive Program proceeding (R.20-05-012); the Transportation Electrification proceeding (R.18-12-006); and the Net Energy Metering proceeding (R.20-08-020). For those parties focused on processes that apply to distributed energy resources, we invite you to participate in the Rule 21 Reform proceeding on the distribution-level interconnection of distributed energy resources (R.17-07-007).

For purposes of this decision, we summarize the proposals below that will help us achieve enhanced summer 2022 and 2023 reliability benefits that directly relate to microgrids and resiliency strategies. In Section 4.2 of this decision, we discuss the some of the proposals we did not adopt, along with our rationale.

1.5.1. SCE

SCE recommends that we promote and enhance SCE's existing Self-Generation Incentive Program (SGIP) to encourage greater customer participation and incentivize higher implementation of single customer generation projects that could contribute to grid reliability by 2022.[11] SCE also recommends the following for new behind-the-meter (BTM) customer microgrid projects that could help streamline their approval and ensure such projects can help address system capacity shortfall:[12]

[11] SCE Proposal at 4.

[12] *Id.* at 4.

- 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 to expedite the interconnection of resources available for 2022 summer peak season.
- Where permitted, require BTM microgrids intended to support capacity shortfall to be interconnection projects approved under SCE's Rule 21 Fast Track Initial Review to expedite the interconnection of resources available for 2022 summer peak season.

1.5.2. PG&E

PG&E proposes a study to potentially expand its Temporary Generation Program. The Temporary Generation Program procures temporary generation to mitigate PSPS impacts. PG&E states its Temporary Generation Program can contribute additional capacity to the CAISO controlled system during system shortfall events.[13] Originally proposed in this proceeding and adopted in D.20-06-017, PG&E's Temporary Generation Program involves procurement of temporary generation for four primary PSPS mitigation purposes: (1) substation microgrids; (2) distribution microgrids; (3) critical backup power support; and (4) community resource centers.[14] PG&E states that it utilized some of its temporary generation to parallel into its system in August 2020 and September 2020 in response to emergency declarations and CAISO declared capacity shortfall events. PG&E proposes to build upon these efforts by studying

[13] PG&E Proposal at 12.

[14] *Id.* at 8.

the potential to use additional temporary generation that will already be procured for PSPS events at either or both substation and distribution microgrid sites, if necessary, in a 2022 system capacity shortfall event.[15]

1.5.3. SDG&E

SDG&E proposes two circuit-level energy storage microgrid projects and two additional projects for enhanced summer reliability. First, SDG&E recommends an energy storage microgrid located at SDG&E's Boulevard Substation.[16] Boulevard is a rural desert community located along the Mexican border near the southeastern edge of San Diego County.[17] SDG&E states that the Boulevard facility will be able to island preselected load including the County Sheriff's Department, San Diego County Fire Station 47, Boulevard Border Patrol Station, Campo Reservation Fire Station, and California Department of Forestry and Fire Protection's White Star.[18] The energy storage system will be able to absorb and store excess solar generation and provide that energy back to the grid when needed.[19] The Boulevard energy storage microgrid has a proposed on-line date of 2023.[20]

Second, SDG&E recommends building an energy storage microgrid at an SDG&E owned property at the Paradise Substation located in Skyline, San Diego, California.[21] The Paradise facility will have the capability to island critical

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[15] *Id* at 9.

[16] SDG&E Proposal at 3.

[17] *Id.*

[18] *Id.*

[19] *Id.*

[20] *Id.*

[21] *Id.* at 4.

pre-determined load including Fire Station 51, Southeast Division Police department, and Fire Station 32.[22] The energy storage system will be able to absorb and store excess solar generation and provide that energy back to the grid when needed.[23] Finally, the Paradise energy storage microgrid has a proposed on-line date in the second half of 2023.[24]

Next, SDG&E proposes two more potential projects for 2024. SDG&E states these projects require more development and therefore, have longer lead times.[25] These two projects are for an in-service date of 2024 at the Clairemont and Elliot circuit energy storage microgrids, which would be located at an SDG&E owned property.[26]

1.5.4. Los Angeles County

Los Angeles County proposed four microgrid projects in the Expedited Phase 1 of this Track 4. The projects are: (1) Regional Public Agency Microgrid Program; (2) Eastern Avenue Emergency Operations Battery Storage Microgrid Project; (3) a Los Angeles Department of Public Health Solar and Battery Storage Project; and (4) Pitchess Detention Center Solar and Battery Storage Project.[27]

1.6 Parties' Response to the Proposals

Opening comments in response to the September 10, 2021, proposals were filed on September 24, 2021, by: (1) AMR; (2) Bloom Energy; (3) Cal Advocates; (4) CESA; (5) Doosan Fuel Cell America, Inc (Doosan); (6) Enchanted Rock;

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[22] *Id.*

[23] *Id.*

[24] *Id.*

[25] *Id.*

[26] *Id.*

[27] Los Angeles County Proposal at 22-45.

(7) FCE; (8) MRC; (9) National Fuel Cell Research Center (NFCRC); (10) Power Secure; (11) Rural County Representatives of California (RCRC); (12) SCE, SDG&E and PG&E, jointly; (13) Small Business Utility Advocates (SBUA); (14) SoCalGas; and (15) Vote Solar and GRID Alternatives.

Reply comments were filed on October 1, 2021, by: (1) AMR; (2) Bioenergy Association of California (BAC); (3) Bloom Energy; (4) Cal Advocates; (5) CESA; (6) Clean Coalition; (7) Enchanted Rock; (8) GPI; (9) Long Beach; (10) Los Angeles County; (11) MRC; (12) NFCRC; (13) PG&E; (14) Redwood Coast Energy Authority (Redwood Coast); (15) SCE; (16) SoCalGas; and (17) Vote Solar and Grid Alternatives.

2. Issues Before the Commission for Track 4, Expedited Phase 1

The issues to be determined or otherwise considered are:

1. Suspension of the Capacity Reservation Component of the Standby Charge
   (a) How should microgrid projects that participate in the suspension of the capacity reservation component of the standby charge, pursuant to D.21-07-011, be required to help address a system capacity shortfall particularly in the summer net peak hours of 4:00 p.m. – 9:00 p.m.?
2. Islanding
   (a) Does islanding help address a system capacity shortfall?
   (b) Does islanding supplement or enhance the ability of other resources like storage, generation, or demand response to address a help address a system capacity shortfall, particularly in summer net peak hours?
3. Potential New Microgrid Programs and Projects
   (a) Could potential new microgrid programs or projects help address a system capacity shortfall, particularly in summer net peak hours?

4. Modifications to Existing Tariffs

   (a) Excluding the modifications already proposed and adopted in this proceeding (*i.e.,* modifications to PG&E Electric Rule 18, SCE Electric Rule 18, and SDG&E Electric Rule 19), are there other modifications to existing tariffs that would enable microgrids to help a system capacity shortfall, particularly in summer net peak hours?

   (b) Excluding modifications that have already been proposed and adopted in this proceeding (*i.e.*, modifications to PG&E Electric Rule 18, SCE Electric Rule 18, and SDG&E Electric Rule 19), what rules or requirements may create barriers to expedited or accelerated deployment of microgrid or resiliency projects that can help address a system capacity shortfall, particularly in summer net peak hours?

5. Leveraging Existing Microgrid and Resiliency Programs

   (a) How should existing Commission microgrid and resiliency regulatory programs, like the Make Ready Program and Temporary Generation Program, be leveraged to reduce load during peak and net peak hours?

6. Leveraging EPIC Programs

   (a) How can existing microgrids that have been awarded grant funds (*i.e.*, projects awarded funding by the California Energy Commission via EPIC) be further leveraged to reduce load, especially during peak and net peak hours?

7. Cost Recovery

   (a) How should the Commission structure cost recovery for the activities contemplated in Expedited Phase 1?

3. Jurisdictional and Statutory Obligations

Pursuant to Article XII, Sections one through six of the California Constitution, the Commission "has broad authority to regulate utilities."[28] The California Legislature enacted the Public Utilities Act which authorized the Commission to supervise and regulate every public utility in California and to do all things which are "necessary and convenient in the exercise of such power and jurisdiction."[29] Specifically, Article XII, Section 3 of the California Constitution provides that "the production, generation, transmission, or furnishing of heat, light, water, power" fall under the jurisdiction of the legislature. California Public Utilities statutes are enforced by the Commission.[30]

Section 451 requires that rates, terms, and conditions of utility service must be just and reasonable.[31] Further, under Section 454.51, the Commission is entrusted with assuring that public utilities develop a portfolio of energy resources that assure the reliability of the state's long-term electric supply.[32] Section 8371 requires the Commission to facilitate the commercialization of microgrids.

For this decision, we adopt actions that will result in resiliency and microgrid projects installed and delivering reliability benefits by summer 2022 and summer 2023 that also conform to the statutory requirements under SB 1339 which includes a prohibition on cost shifting. All resources adopted by

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[28] *Ford v. Pacific Gas & Electric Company* (1997) 60 Cal. App.4th 696, 700, citing to *San Diego Gas & Electric Company v. Superior Court*, (1996) 13 Cal. 4th 893, 914-915.

[29] Section 701.

[30] Article XII, Section 5.

[31] Sections 451, 454 and 728.

[32] Section 454.51, subds. (a) and (b).

this decision must provide peak and net peak grid reliability benefits for the summers of 2022 and 2023.

Section 8371(b) requires the Commission to, without shifting costs between ratepayers, develop methods to reduce barriers for microgrid deployment. Section 8371(d) also requires the Commission to, without shifting costs between ratepayers, develop separate large electrical corporation rates and tariffs, as necessary, to support microgrids, while ensuring that system, public, and worker safety are given the highest priority.

Section 8371(d) further states that the separate rates and tariffs shall not compensate a customer for the use of diesel backup or natural gas generation, except as either of those sources is used pursuant to Health and Safety Code § 41514.1, or except for natural gas generation that is a distributed energy resource.

To comply with § 8371(d), we must protect customers from inequitable cross-subsidies by separating customers' fair-share responsibility for a utility's cost of service from those who do not benefit from a resiliency technology, like a microgrid. Thus, our goal under § 8371(d) is to ensure that non-participating microgrid customers remain indifferent while setting parameters to support enhanced reliability for summer 2022 and 2023 in the wake of extreme weather due to climate change.

4. Resiliency & Microgrid Summer 2022 and Summer 2023 Reliability Enhancement

Generally, in the Amended Scoping Memo and Ruling for Track 4[33] and the subsequent Administrative Law Judge's Ruling,[34] parties were asked to focus on several subject areas:

- Prevention vs. Mitigation of System Capacity Shortfall
  - 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.
  - 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?
  - 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 be ensured?
- Islanding
  - Given that the ability to island is the primary factor distinguishing microgrids from other types of distributed energy resources:
    - 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,

[33] Assigned Commissioner's Amended Scoping Memo and Ruling, August 17, 2021.

[34] Assigned Administrative Law Judge's Ruling, August 23, 2021.

please describe in detail how islanding is expected to directly help.

- 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.

- Leveraging Existing Microgrid & Resiliency Programs
  - 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?
  - 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?
  - 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?
  - Approximately how many megawatts could existing programs address during the net peak hours in 2022? Please provide estimates per program.
- Modifications to Existing Microgrid Tariffs
  - 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)?

- Provide an overview of how the tariffs should be modified.
- 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.
- 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.
- Approximately how many MW could the changes address during the net peak hours in 2022?
- Name the existing tariffs by identifying the rate schedule, rule, contract, or other document, or combination of documents, that should be modified.
- Describe the specific changes to the document that should be made to achieve the desired outcome.

- <u>Potential New Microgrid Programs and Projects</u>
  - What new microgrid projects, programs, or measures should be developed to address a system capacity shortfall, particularly in the net peak hours? How would the program help address a system capacity shortfall?
  - What is the target resource, customer, and/or market participants?
  - How should an administrator for the program be chosen?

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

4.1. Parties' Positions

Generally, the parties varied in their positions to the Proposals. We summarize the parties' positions below.

Power Secure recommends deploying mobile or stationary generators fueled by renewable diesel fuel or generators fueled by renewable natural gas.[35] Cal Advocates recommends that the Commission should: (1) review how existing microgrids have contributed to system reliability events prior to creating new incentives; (2) prioritize resiliency for microgrid planning while maintaining a clear distinction between reliability and resiliency; (3) direct PG&E to study export constraints and opportunities from permanent resources rather than leverage the Temporary Generation Program to address system reliability needs; (4) not reverse or hinder State decarbonization actions; and (5) increase the Demand Assurance Amount paid by microgrids that exceed contracted demand during the summer net-peak.[36]

SBUA disagrees with Cal Advocates opposition to PG&E's proposal and reliance on non-clean technology.[37] SBUA asserts that the looming capacity shortage for next summer represents a last-resort situation where all options

[35] Power Secure Opening Comments at 2-4.

[36] Cal Advocates Opening Comments at 3-11.

[37] Cal Advocates Comments to Scoping Memo and Ruling at 3.

should be on the table.[38] SBUA also recommends expediting the development of front-of-the meter (FOM) microgrids for co-located customers (*i.e.*, buildings and strip malls) were storage and solar connect.[39] SBUA also asserts that the SDG&E circuit level storage proposals have been previously rejected and cautions that these proposals should not be viewed as competitive with real microgrids that could reduce system loads.[40]

In response to some proposals presented by some microgrid developers, SCE, SDG&E, and PG&E jointly: (1) caution against the cost-shift the proposals would trigger, which is prohibited by SB 1339; and (2) oppose the risk of double compensation the proposals would trigger, leading to unduly burdening ratepayers.[41] Additionally, SCE, SDG&E, and PG&E jointly assert that some proposals are duplicative or similar to existing programs for behind the meter distributed energy resources.[42]

CESA argues that islanding is one, but not the only means by which microgrids can support capacity needs.[43] CESA claims capacity payments or programs including compensation are needed to position microgrids for emergency reliability.[44]

RCRC supports the Commission's efforts to utilize renewable energy, but argues that the priority should be to keep the lights on no matter the resource.[45]

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[38] SBUA Opening Comments at 3.

[39] *Id* at 2.

[40] *Id.* at 3.

[41] SCE, SDG&E, and PG&E Opening Comments at 7.

[42] *Id.* at 10.

[43] CESA Opening Comments at 2, 6-8.

[44] *Id.*

[45] RCRC Opening Comments at 6.

RCRC supports the use of non-renewable energy for microgrids to improve individual and system electrical reliability and resiliency.[46] RCRC disagrees with Cal Advocates that the use of non-renewable generators is inconsistent with the state's clean energy goals.[47] RCRC argues these assets are stop-gap solutions to address overall system safety and reliability until adequate storage can be brought online.[48] RCRC recommends that the microgrids should be deployed by leveraging existing substations and that the Commission should prioritize such projects that have the greatest risk of being de-energized during a PSPS event or with a history of unplanned outages.[49] Finally, RCRC supports SDG&E's proposals, recommends SCE and PG&E consider similar opportunities within their service territories.[50]

Enchanted Rock recommends the Commission explore policies that encourage the utilities to use dispatchable microgrid technologies that support net peak load conditions and system emergencies.[51] Vote Solar and Grid Alternatives do not support PG&E's proposal to rely on temporary fossil fuel generation.[52] Additionally, Vote Solar and Grid Alternatives support the development of the Boulevard and Paradise microgrids by SDG&E but oppose

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[46] *Id.* at 6.

[47] *Id.* at 7.

[48] *Id.*

[49] *Id.* at 4.

[50] *Id.*at 4.

[51] Enchanted Rock Opening Comments at 4.

[52] Vote Solar and Grid Alternatives at 7.

the development of additional microgrids by IOUs without first going through a competitive solicitation.[53]

4.2 Electric Reliability is a Priority Objective for Community Continuity in the Wake of Extreme Weather and a Strained Electrical Grid.

We are living in a world already affected by climate change caused by human-induced concentrations of greenhouse gases in the atmosphere. Year after year, we have seen the physical effects of a changing climate gradually intensifying into catastrophic events across our state. From wildfire events to extreme summer heat, no one is immune from the effects of climate change and environmental degradation. Indeed, the physical impacts of a warmer world will lead to increased challenges, compounding one another – and as extreme events become more intense and more frequent, we must recover by building greater reliability and greater resiliency.

Electric reliability is a priority objective to preserve the public health, wealth, and safety for all Californians as we experience extreme weather because of climate change. To minimize the number of customers affected by a planned or unplanned electrical outage because of extreme weather and a strained electrical grid, we adopt PG&E and SDG&E's proposals, subject to the requirements set forth below. We decline to adopt SCE's proposal because it is likely to impact the SGIP program in ways that should be addressed within the SGIP proceeding. However, we suggest SCE present this proposal within the SGIP proceeding.

Finally, Los Angeles County proposed four projects in the Expedited Phase 1 of this Track 4 that merit attention. The projects are: (1) Regional Public

[53] *Id.* at 8.

Agency Microgrid Program; (2) Eastern Avenue Emergency Operations Battery Storage Microgrid Project; (3) a Los Angeles Department of Public Health Solar and Battery Storage Project; and (4) Pitchess Detention Center Solar and Battery Storage Project.[54] In D.21-01-018, we adopted a Microgrid Incentive Program[55] to fund clean community microgrids that support critical needs of vulnerable populations most likely impacted by grid outages. We also adopted a $200 million budget for the Microgrid Incentive Program.[56] We suggest Los Angeles County propose its Eastern Avenue Emergency Operations Battery Storage Microgrid Project, a Los Angeles Department of Public Health Solar and Battery Storage Project, and Pitchess Detention Center Solar and Battery Storage Project in the Microgrid Incentive Program for consideration, subject to the overall eligibility, cost and budget constraints of the Microgrid Incentive Program.

Microgrids and resiliency technologies may help California mitigate the energy supply shortage the state faces in 2022 and 2023 as well as reduce strain on the grid. For example, the expansion of PG&E's Temporary Generation Program can serve as a stop-gap solution to address system capacity shortfalls, enhance overall system safety and reliability, and serve as a transitional mechanism until other cleaner and reliable resources can be brought online to address broader system capacity problems.

Likewise, SDG&E's four circuit-level energy storage microgrid projects may address both local reliability and grid resiliency to address overall system capacity shortfalls. For example, SDG&E's four circuit-level energy storage microgrid projects will facilitate the islanding of local critical facilities like law

[54] Los Angeles County Proposal at 22-45.

[55] D.21-01-018 at 61-70.

[56] *Id.* at 66.

enforcement and fire stations during system disturbances. Additionally, SDG&E's four-circuit level energy storage microgrid projects may enable storage of excess solar generation which can be fed back to the grid to address system capacity shortfalls. Collectively, PG&E and SDG&E's proposals will support the state's broader goal of ensuring electric reliability to preserve community continuity.

First, we direct PG&E to file a Tier 2 Advice Letter requesting authorization for reservation of temporary generation for 2022 to address system capacity shortfall, within 45 days of the effective date of this decision, that:

- Identifies the number of sites studied for potential parallel connection of temporary generation;
    - Identifies sites, and megawatts per site, where temporary generation could be safely interconnected to address a system capacity shortfall;
    - Identifies sites, if any, for which additional temporary generation is requested specifically for addressing a system capacity shortfall rather than PSPS mitigation purposes;
    - Identifies sites where temporary generation reserved for PSPS purposes could also be used to address a system capacity shortfall;
    - Identifies, for each site requiring modifications to safely and reliably accommodate temporary generation for addressing a system capacity shortfall, the following:
        - The costs necessary to upgrade the site;
        - Timeframe necessary to complete the make-ready upgrades;
        - Estimated incremental operating and maintenance costs for temporary generation for utilization during a system capacity shortfall;
        - Recommendation whether make-ready upgrades should be pursued; and
        - Date when parallel connection of temporary generation is expected to be available for

utilization during a system capacity shortfall (make ready upgrades complete and temporary generation available).
    - Identifies megawatts that could be feasibly transported to an appropriate site to address a system capacity shortfall.
- Ensures redundancy of resources so that the physical location of mobile generation and an adequate fuel supply is available for both a simultaneous PSPS event and a system capacity shortfall;
- Discusses expected availability of renewable diesel and/or hydrotreated vegetable oil for 2022/2023; and
- Describes how PG&E will utilize renewable diesel and hydrotreated vegetable oil to the maximum extent possible if temporary generation is made available to maintain reliability during a system capacity shortfall.

If PG&E chooses to reserve temporary generation for 2022 to mitigate the impacts of public safety power shutoffs, it may include the information described above in the Tier 2 Advice Letter required by D.21-01-018 in lieu of filing a separate advice letter but PG&E must adhere to the same deadline.

Second, subject to approval of PG&E's Tier 2 Advice Letter, see above, we direct PG&E to file a Tier 1 Advice Letter within 30 days upon the approval date of this Tier 2 Advice Letter. This Tier 1 Advice Letter shall update PG&E's existing Microgrids Memorandum Accounts with a new subaccount titled, "Microgrid Summer 2022 and Summer 2023 Reliability Sub-Account" for the purpose of recording the costs associated with the requirements adopted in Section 4.2 of this decision. PG&E's Tier 1 Advice Letter shall also include the applicable tariff language, as necessary. For cost recovery, we direct PG&E to file an application or include these costs as part of its upcoming general rate cases.

Finally, upon approval of PG&E's Tier 2 Advice Letter, above, we direct PG&E to collaborate with the Energy Division to establish a regular reporting

schedule that illustrates the progress PG&E is making to enhance reliability starting in summer 2022 and for reliability in 2023. We direct PG&E to include the megawatts PG&E is making available to address a capacity shortfall under its expanded Temporary Generation Program for enhanced summer 2022 and summer 2023 in this report.

Next, we direct SDG&E to procure up to its four circuit-level energy storage microgrid projects. This procurement is conditioned upon the requirement that these projects provide peak and net peak grid reliability benefits during the summers of 2022 and 2023. Furthermore, these projects must demonstrate islanding and resiliency capabilities through the Tier 2 Advice Letter, below, in addition to reliability benefits. Additionally, we direct SDG&E to comply with the Cost Allocation Mechanism for utility owned storage previously adopted in R.20-11-003. SDG&E shall comply with any subsequent modifications to the Cost Allocation Mechanism adopted through R.20-11-003.

Now, we direct SDG&E to submit a Tier 2 Advice Letter, within 30 days upon the effective date of this decision, discussing the following information on the resiliency capabilities each of these four procured projects will produce for enhanced summer reliability in 2022 and 2023:

- What portions of the circuit(s) would receive a resiliency benefit? For example, would the entire circuit be covered or would it only cover pre-determined or pre-selected critical load customers?
    - If less than the entire circuit is covered, discuss:
        - Customer counts by rate class for the circuit, separately identifying the number which are critical loads and which are non-critical loads;
        - Estimate of percentage of load on circuit for each represented rate class of customers, separately identifying the percentage for critical loads and non-critical loads; and

        - Identify if there are critical loads on the circuit that would not be provided with resiliency from the proposed projects.
- Estimate the outage duration for which resiliency could be provided to critical loads at a minimum of the following states of charge of the batteries: 100 percent; 75 percent; 50percent; and 20 percent.
    - Describe what, if any, minimum state of charge SDG&E would maintain to ensure that a level of resiliency is available for critical loads during unplanned outages; and
- Discuss the emergency reliability needs provided as well as describe the critical facilities that would be provided with resiliency.

Proposals Not Adopted: Next, we describe some of the proposals the Commission is not approving in this decision and our reasoning for declining to do so.

Many proposals proffered by parties in response to the assigned Administrative Law Judge's Ruling addressed policy changes that were not directly related to microgrid and resiliency strategies to enhance summer 2022 and summer 2023 reliability. Many of these proposals have broad policy implications beyond the scope of this Expedited Phase 1 of Track 4. These proposals also touch upon subject matter of other ongoing Commission proceedings. We decline to adopt a proposal that is beyond the scope of Expedited Phase 1 of Track 4 or may result in conflicting with an outcome of another ongoing Commission proceeding. Additionally, we decline to adopt proposals that effectually result in cost-shifting, which is prohibited by Section 8371.

Cost-Shifting Proposals Prohibited by Section 8371: Generally, AMR recommends that we modify D.21-01-018 to allow natural gas generation to

qualify for behind-the-meter microgrid rate and tariff schedules.[57] We decline to adopt this recommendation because D.21-01-018 does not change compensation that would otherwise incentivize any megawatts. We also remind AMR to mind the cost-shifting prohibition of Section 8371.

Next, Bloom Energy recommends that we adopt a "capacity services tariff" and payment that identifies specific performance and eligibility criteria.[58] We decline to adopt this recommendation because it is out of scope for the purposes of the Expedited Phase 1 of Track 4. Additionally, we are not adopting new subsidies that would result in a cost-shift prohibited by Section 8371.

Proposals Potentially Affecting Outcomes in Other Proceedings: Generally, CSE recommends that we adopt parameters to maintain an inventory of CEC-administered microgrid projects and other projects with peak load reduction capabilities.[59] CSE also recommends that we permit dual participation in the Emergency Load Reduction Program and existing Demand Response programs. We decline to adopt these recommendations because an inventory of microgrid projects will not contribute immediately to summer 2022 and summer 2023 enhanced reliability. Additionally, modifying the Emergency Load Reduction Program and/or any Demand Response programs will interfere with activity occurring outside the contours of this proceeding.

CESA offered an array of proposals[60] that are being considered in R.20-11-003. We decline to adopt any proposals that could or will affect

[57] AMR Proposal at 5.

[58] Bloom Proposal at 6-7.

[59] CSE Proposal at 3.

[60] CESA Proposal at 2-4, 6-8, and 8-10.

outcomes in other proceedings, or that are outside the scope of the Expedited Phase 1 of Track 4 to this proceeding.

Long Beach recommends that we modify Rule 18 to allow the resale of electricity.[61] We decline to adopt Long Beach's recommendation because it conflicts with the settled requirements the Commission adopted when it modified Rule 18 in D.21-01-018.

GPI proposes that we adopt an automated and streamlined Rule 21 interconnection process for front-of-meter and large-NEM projects to add time certainty under the interconnection process.[62] We reject this proposal because the proper venue for it is R.17-07-007.

MRC proposes that we adopt a new emergency services tariff for behind-the-meter microgrids eligible to interconnect under Rule 21.[63] We decline this proposal because it may affect outcomes in other proceedings.

5. Conclusion

This decision adopts enhanced summer 2022 and summer 2023 requirements for Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E). First, PG&E shall file a Tier 2 Advice Letter, within 45 days of the effective date of this decision, to expand its Temporary Generation Program for filling the system capacity shortfalls anticipated in the summer of 2022 and 2023.

Second, SDG&E may procure up to four circuit-level energy storage microgrid projects that may provide a total of 160 megawatt-hours of capacity to fill system capacity shortfalls anticipated in the summers of 2022 and 2023. The

[61] Long Beach Proposal at 4.

[62] GPI Proposal at 3-4.

[63] MRC Proposal at 2-5.

procurement of these four circuit-level energy storage microgrid projects is conditioned upon these resources providing peak and net peak grid reliability benefits in the summers of 2022 and 2023. SDG&E shall file a Tier 2 Advice Letter, within 30 days of the effective date of this decision, seeking implementation authorization for procurement of these four circuit-level energy storage microgrid projects. SDG&E shall comply with the Cost Allocation Mechanism for utility owned generation previously adopted in Rulemaking (R.) 20-11-003. Furthermore, SDG&E shall comply with any subsequent modifications to the Cost Allocation Mechanism adopted in R.20-011-003.

We suggest Los Angeles County propose its Eastern Avenue Emergency Operations Battery Storage Microgrid Project, a Los Angeles Department of Public Health Solar and Battery Storage Project, and Pitchess Detention Center Solar and Battery Storage Project in the Microgrid Incentive Program for consideration, subject to the overall eligibility, cost and budget constraints of the Microgrid Incentive Program.

6. Comments on Proposed Decision

The proposed decision of Administrative Law Judge Colin Rizzo in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. The comment period was shortened pursuant to Commission Rule of Practice and Procedure 14.6(c)(10) on the ground of public necessity, such that opening comments were due on November 10, 2021, and reply comments were due on November 16, 2021.

7. Assignment of Proceeding

Genevieve Shiroma is the assigned Commissioner and Colin Rizzo is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. Human-induced concentrations of greenhouse gases in the atmosphere are intensifying and accelerating climate change and catastrophic events across California.

2. On July 30, 2021, Governor Gavin Newsom issued a Proclamation of a State of Emergency in response to the significant and accelerating impacts of climate change in California.

3. Governor Newsom declared that drought conditions coupled with record-breaking extreme heat events have hit California and other Western states hard, increasing residents' electrical demand and putting significant strain on California's energy grid.

4. Expansion of Pacific Gas and Electric Company's Temporary Generation Program to address system capacity shortfalls is a necessary, stop-gap solution to address overall system safety and reliability until other cleaner and reliable resources can be brought online.

5. San Diego Gas & Electric Company's four circuit-level energy storage microgrid projects may address both local reliability and grid resiliency to address overall system capacity shortfalls.

6. San Diego Gas & Electric Company's four circuit-level energy storage microgrid projects will facilitate the islanding of local critical facilities like law enforcement and fire stations during system disturbances.

7. San Diego Gas & Electric Company's four circuit-level energy storage microgrid projects may enable storage of excess solar generation which can be fed back to the grid to address system capacity shortfalls.

8. To effectively address anticipated system capacity shortfalls, resources adopted by this decision must provide peak and net peak grid reliability benefits starting in the summer of 2022 and the summer of 2023.

Conclusions of Law

1. It is reasonable to require resources adopted under this decision to provide peak and net peak grid reliability benefits starting in the summer of 2022 and summer 2023 to ensure these resources provide a meaningful contribution to maintaining reliability.

2. It is reasonable to require PG&E to file a Tier 2 Advice Letter, within 45 days upon the issuance of this decision, requesting authorization for reservation of temporary generation for 2022 to address system capacity shortfall needs consistent with the requirements set forth in Section 4.2 of this decision.

3. It is reasonable for PG&E to each create a new subaccount of its existing Microgrid Memorandum Accounts, should it demonstrate that temporary generation can safely interconnect to address system capacity shortfalls starting in the summer of 2022 and summer of 2023, for the purpose of recording the costs associated with the requirements set forth in Section 4.2 of this decision.

4. It is reasonable for PG&E to collaborate with the Commission's Energy Division to establish a regular reporting schedule that illustrates the progress PG&E is making to enhance reliability starting in summer 2022 and in 2023.

5. It is reasonable for PG&E to, in its reporting schedule with the Commission's Energy Division, include the megawatts PG&E is making available to address a capacity shortfall under its expanded Temporary

Generation Program for enhanced reliability starting in the summer of 2022 and in summer 2023 in this report.

6. It is reasonable to require SDG&E to procure up to four circuit-level energy storage microgrid projects conditioned upon the requirement that these resources provide peak and net peak grid reliability benefits starting in the summer of 2022 and summer of 2023 to addresses local reliability, grid resiliency, and overall system capacity shortfalls consistent with the requirements adopted in Section 4.2 of this decision.

7. It is reasonable to require SDG&E to demonstrate that its four circuit-level energy storage projects can island and provide resiliency capabilities, in addition to reliability benefits.

8. It is reasonable to require SDG&E to file a Tier 2 Advice Letter, within 30 days upon the issuance of this decision, seeking authorization to implement the four circuit-level energy storage microgrid projects that may address both local reliability, grid resiliency, and overall system capacity shortfalls consistent with the requirements set forth in Section 4.2 of this decision.

9. It is reasonable to require SDG&E to comply with the Cost Allocation Mechanism adopted, and/or subsequently modified in, Rulemaking 20-11-003.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company shall file a Tier 2 Advice Letter, within 45 days upon the effective date of this decision, requesting authorization for reservation of 2022 temporary generation for the purposes of filling system capacity shortfalls. This Tier 2 Advice Letter shall discuss the following:

- Identify the number of sites studied for potential parallel connection of temporary generation;

  - Identify sites, and megawatts per site, where temporary generation could be safely interconnected to address a system capacity shortfall;
  - Identify sites, if any, for which additional temporary generation is requested specifically for addressing a system capacity shortfall rather than Public Safety Power Shutoff (PSPS) mitigation purposes;
  - Identify sites where temporary generation reserved for PSPS purposes could also be used to address a system capacity shortfall;
  - Identify, for each site requiring modification to safely and reliably accommodate temporary generation for addressing a system capacity shortfall, the following:
    - The costs necessary to upgrade the site;
    - Timeframe necessary to complete the make-ready upgrades;
    - Estimated incremental operating and maintenance costs for temporary generation for utilization during a system capacity shortfall;
    - Recommendation whether make-ready upgrades should be pursued; and
    - Date when parallel connection of temporary generation is expected to be available for utilization during a system capacity shortfall (make ready upgrades complete and temporary generation available).
  - Identify temporary generation, and the temporary generation's total megawatts, that could be feasibly transported to an appropriate site to address a system capacity shortfall.
- Ensure redundancy of resources so that the physical location of mobile generation and an adequate fuel supply is available for both a simultaneous PSPS event and a system capacity shortfall;
- Discuss expected availability of renewable diesel and/or hydrotreated vegetable oil for 2022/2023; and
- How PG&E will utilize renewable diesel and hydrotreated vegetable oil to the maximum extent possible if temporary

generation is made available to maintain reliability during a system capacity shortfall.

2. If Pacific Gas and Electric Company chooses to reserve temporary generation for 2022 to mitigate the public safety power shutoffs, it may include the information described above in the Tier 2 Advice Letter required by Decision 21-01-018 in lieu of filing a separate advice letter. However, this advice letter must be filed within 45 days upon the issuance of this decision.

3. Pacific Gas and Electric Company (PG&E) shall file a Tier 1 Advice Letter within 30 days upon the approval of its Tier 2 Advice Letter from Ordering Paragraph 1. In this Tier 1 Advice Letter, PG&E shall update its existing Microgrids Memorandum Accounts with a new subaccount titled, "Microgrid Summer 2022 and Summer 2023 Reliability Sub-Account" for the purpose of recording the costs associated with the requirements adopted in Section 4.2 of this decision. PG&E's Tier 1 Advice Letter shall also include the applicable tariff language, as necessary. For cost recovery, we direct PG&E to file an application or include these costs as part of its upcoming general rate cases.

4. Pacific Gas and Electric Company (PG&E) shall, upon approval of PG&E's Tier 2 Advice Letter from Ordering Paragraph 1, collaborate with the Commission's Energy Division to establish a regular reporting schedule that illustrates the progress PG&E is making to enhance summer 2022 and 2023 reliability. PG&E shall include the megawatts PG&E is making available to address a capacity shortfall under its expanded Temporary Generation Program for enhanced reliability starting in the summer 2022 and summer 2023 in this report.

5. San Diego Gas & Electric Company (SDG&E) shall file a Tier 2 Advice Letter, within 30 days upon the effective date of this decision, discussing the

following information on the resiliency capabilities that each of its four circuit-level energy storage microgrid projects will produce for enhanced reliability starting in the summer of 2022 and in 2023:

- What portions of the circuit(s) would receive a resiliency benefit? For example, would the entire circuit be covered or would it only cover pre-determined or pre-selected critical load customers?
    - If less than the entire circuit is covered, discuss:
        - Customer counts by rate class for the circuit, separately identifying the number which are critical loads and which are non-critical loads;
        - Estimate of percentage of load on circuit for each represented rate class of customers, separately identifying the percentage for critical loads and non-critical loads; and
        - Identify if there are critical loads on the circuit that would not be provided with resiliency from the proposed projects.
- Estimate the outage duration for which resiliency could be provided to critical loads at a minimum of the following states of charge of the batteries: 100 percent; 75 percent; 50percent; and 20 percent.
    - Describe what, if any, minimum state of charge SDG&E would maintain to ensure that a level of resiliency is available for critical loads during unplanned outages; and
- Discuss the emergency reliability needs provided as well as describe the critical facilities that would be provided with resiliency.

6. SDG&E may procure only up to its four circuit-level energy storage microgrid projects. This procurement is conditioned upon the requirement that these projects provide peak and net pea grid reliability benefits starting in the summers of 2022 and 2023. Furthermore, these projects must demonstrate islanding and resiliency capabilities through this Tier 2 Advice Letter, in addition

to reliability benefits. SDG&E shall comply with the Cost Allocation Mechanism for utility owned storage previously adopted in Rulemaking 20-11-003. SDG&E shall comply with any subsequent modifications to the Cost Allocation Mechanism adopted in Rulemaking 20-11-003.

7. Rulemaking 19-09-009 remains open.

This order is effective today.

Dated _____, at San Francisco, California.