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PROPOSED DECISION Agenda ID #18373 (REV. 1)

Ratesetting
6/11/20 Item 28

Decision **PROPOSED DECISION OF ALJ RIZZO** (Mailed 4/29/2020)

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 SHORT-TERM ACTIONS TO ACCELERATE
MICROGRID DEPLOYMENT AND RELATED RESILIENCY SOLUTIONS**

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DECISION ADOPTING SHORT-TERM ACTIONS TO ACCELERATE THE DEPLOYMENT OF MICROGRIDS AND RELATED RESILIENCY SOLUTIONS

Summary

This decision adopts short-term actions related to the acceleration of microgrid deployment and related resiliency strategies for Track 1 of this proceeding, Rulemaking 19-09-009, pursuant to Senate Bill 1339 (Stern, 2018).

First, this decision adopts solutions to accelerate interconnection of resiliency projects in advance of the upcoming wildfire season. Specifically, the large investor-owned utilities must: (a) develop and implement standardized, pre-approved system designs for interconnection of resiliency projects that deliver energy services during grid outages; (b) develop and implement methods to increase simplicity and transparency of the processes by which the utilities inspect and approve a project; and (c) prioritize interconnection of resiliency projects for key locations, facilities, and/or customers.

Second, this decision adopts solutions that modernize tariffs to maximize social resiliency benefits. This includes requiring the large investor-owned utilities to modify their net energy metering tariffs to allow storage devices to charge from the grid during the pre-public safety power shut off window. This decision also requires the large investor-owned utilities to modify their net-energy metering tariffs to remove storage sizing limits.

Third, this decision adopts solutions that promote collaborative engagement between large investor-owned utilities and local and tribal governments. Under this decision, the large investor-owned utilities are required to conduct meetings to educate and inform local and tribal government agencies on vulnerable electric transmission and distribution infrastructure as well as critical operations that service local jurisdictions. This decision also requires the large investor-owned utilities to develop a resiliency project guide, and to assist local and tribal governments in navigating the large investor-owned utilities' interconnection

processes for deploying a resiliency project. Furthermore, this decision directs the large investor-owned utilities to dedicate staff to manage the intake of local and tribal government resiliency projects; as well as create a separate, access-restricted data portal for local and tribal governments to review data essential for microgrid and resiliency project development.

Finally, this decision approves an array of resiliency proposals set forth by Pacific Gas and Electric Company and San Diego Gas & Electric Company.

This proceeding remains open.

1. Background

The California Public Utilities Commission (Commission or CPUC) initiated this rulemaking to develop a policy framework surrounding the commercialization of microgrids and related resiliency strategies and to implement Senate Bill (SB) 1339 (Stern, 2018). SB 1339 requires the Commission, in consultation with the California Energy Commission (CEC), and the California Independent System Operator (CAISO), by December 1, 2020, to take specific actions to facilitate the commercialization of microgrids for distribution customers of large electrical corporations. These actions include developing standards, protocols, guidelines, methods, and if appropriate, separate rates and tariffs that serve to support and reduce barriers to microgrid deployment while prioritizing system, public, and worker safety, and avoiding shifting costs between ratepayers.

1.1. Procedural Background

Upon initiating this Rulemaking,¹ on October 21, 2019, parties to this rulemaking filed opening comments on Rulemaking (R.) 19-09-009. On November 5, 2019, parties filed reply comments.

¹ Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill (SB) 1339 (September 12, 2019).

An Energy Division staff (Staff) workshop (Workshop) was held on December 12, 2019. At the Workshop, Staff and stakeholders discussed short-term actions related to microgrids and other resiliency strategies that could be initiated in early 2020 to reduce the impact of public safety power shutoff (PSPS) outages or other catastrophic events.

Following the staff workshop, a prehearing conference (PHC) was held on December 17, 2019 to discuss the issues of law and fact, determine the need for hearing, and the schedule for resolving the matter.

On December 20, 2019 the assigned Commissioner's Scoping Memo and Ruling was issued, adopting a schedule for this proceeding, divided into three tracks. The first track of this proceeding, Track 1, addresses the Commission's goal of deploying resiliency planning in areas that are prone to outage events and wildfires, with the goal of establishing key microgrid and resiliency strategies as soon as possible.² Track 1 is the focus of this proposed decision. As discussed in the assigned Commissioner's Scoping Memo and Ruling, Track 2 and Track 3 of this proceeding are focused on the more complex issues and contours of SB 1339 implementation.³

1.2. Track 1 Staff Proposal Summary

On January 21, 2020, the assigned Administrative Law Judge (ALJ) issued a ruling with a proposal prepared by the Commission's Energy Division, titled, *Short-Term Actions to Accelerate the Deployment of Microgrids and Related Resiliency Solutions* (Staff Proposal).⁴

² *Id.* at 3.

³ *Id.* at 4-5.

⁴ Administrative Law Judge's Ruling requesting comments on Track 1 Microgrid and Resiliency Strategies Staff Proposal (January 21, 2020).

The Staff Proposal makes recommendations addressing Track 1 issues that help reduce the length of time to interconnect with the utility distribution system, which can be a barrier to deploy distributed energy resources such as microgrids and resiliency projects.⁵ The Staff Proposal recommends that reducing the amount of time required to interconnect distributed energy resources including microgrids for the 2020 fire season and beyond is likely to increase resiliency of electric service during widespread outages while maintaining the safety and reliability of the grid.⁶

Therefore, the Staff Proposal presents the following recommendations for actions to facilitate the deployment of microgrids and other resiliency solutions in 2020, in partnership with local governments and tribal governments:⁷

- Accelerate Interconnection of Resiliency Projects
 - *Use Pre-Approved Designs in Application Process:* develop and institute standardized, pre-approved system designs in interconnection applications for projects that can deliver energy services during broader grid outages.
 - *Expedite Utility Sign-Off on Installed Projects:* (1) publish the specific technical criteria used to determine under which conditions field inspections are necessary for the safety and reliability of the grid; (2) eliminate inspections that are duplicative of those performed by local jurisdictions; and (3) consider “remote inspections” by accepting photos or videos provided by the contractor rather than requiring an in-person inspection.
 - *Prioritize Interconnection of Key Location, Facilities, and/or Consumers:* allow projects that meet certain

⁵ Staff Proposal at 7, stating projects that provide resiliency are more likely to experience interconnection delays than simpler projects that cannot provide resiliency because resiliency-focused projects must have the ability to electronically island distributed generation and energy storage assets. The Staff Proposal also states that projects that island require longer study processes to ensure that there is no inadvertent export of energy to the grid.

⁶ *Id.* at 7-8.

⁷The Staff Proposal considers local governments as cities, counties, and community choice aggregators. (*Id.* at 21.)

resiliency eligibility criteria to bypass the interconnection queue.

- *Expand Interconnection Staffing and Information Technology Resources:* commit additional resources to their interconnection study and distribution upgrade teams, as well as to the information technology solutions that support these teams, in order to facilitate faster processing for all projects.
- Modernize Tariffs to Maximize Resiliency Benefits
 - *Allow Emergency Grid Charging of Net Energy Metering (NEM) Paired Storage:* modify NEM tariffs to allow storage devices to charge from the grid during the pre-PSPS window.
 - *Remove NEM Paired Storage Sizing Limit for Islandable Systems:* modify NEM tariffs to remove storage sizing limit and to require islanding ability for energy storage systems larger than 10 kilowatts (kW).
- Share Information with Local and Tribal Government Agencies
 - *Conduct Outreach on Utility Infrastructure:* conduct meetings to educate and inform local government agencies and tribal governments on vulnerable electric transmission and distribution infrastructure and critical operations that serve the local jurisdictions.
 - *Develop Engagement Guide:* develop a guide to assist and engage local governments and tribal governments in navigating the utilities' interconnection processes for deploying a resiliency project.
 - *Dedicate Staff to Manage Intake:* create a dedicated team of staff to manage the intake of local governments and tribal governments resiliency project inquiries.
 - *Create Separate Data Portal for Local & Tribal Governments:* create a separate access-restricted portal, available only to local governments and tribal governments, containing essential data for microgrid and resiliency project development.

1.3. Utility Proposal Summary

In the assigned Commissioner's Scoping Memo and Ruling, the utilities were required to file and serve proposals for immediate implementation of resiliency strategies, including partnership and planning with local governments and tribal governments:

- Pacific Gas and Electric Company (PG&E): proposes the following three components for its immediate implementation plan for resiliency strategies: (1) a permanently enabled Distribution Generation-Enabled Microgrid Services program (DGEMS); (2) a temporary generation program to provide mobile, temporarily-sited distributed generation at substations, mid-feeder line segments serving commercial corridors and commercial facilities, and single-customer critical facilities during PSPS events; and (3) a Community Microgrid Enablement Program.⁸ PG&E proposes accounting for recording the actual costs of its three proposed programs. Additionally, PG&E seeks to track costs, subject to reasonableness review.⁹
- Southern California Edison Company (SCE): proposes the following resiliency activities in advance of the upcoming wildfire season (1) 2020 PSPS Microgrid Pilot; (2) microgrids and microgrid-related activity currently in development; (3) subsidies for battery back-up solutions for income-eligible, critical care residential customers; and (4) customer resiliency equipment incentive pilot.¹⁰ SCE is not seeking Commission action or cost recovery for these resiliency activities in this proceeding, nor is SCE proposing activity within the context of Track 1.¹¹
- San Diego Gas & Electric (SDG&E): proposes to (1) procure a local area distribution controller (LADC) necessary to

⁸ Track 1 Proposal of PG&E Addressing Immediate Resiliency Strategies for Outages (January 21, 2020).

⁹ *Ibid* at 7-2.

¹⁰ SCE Resiliency Proposal and Response to Administrative Law Judge's Ruling (January 21, 2020)

¹¹ *Id.* at 11.

augment and interoperate with SDG&E's existing Advanced Distribution Management System (ADMS) and Supervisory control and data acquisition (SCADA) system.; and (2) install electric vehicle charging infrastructure at its Cameron Corners microgrid as a pilot project to support customer mobility during disasters.¹² The LADC procurement involves an affiliate transaction for which SDG&E seeks CPUC approval pursuant to the Affiliate Transaction rules. SDG&E is not seeking cost recovery from the Commission for these projects at this time but may do so in a future GRC or other appropriate venue.

1.4. Parties' Response to Staff Proposal and Utility Proposals

Comments were filed on January 30, 2020 by parties. The parties are: (1)Advanced Energy Management (AEMA) ; (2) American Telephone and Telegraph and Frontier (AT&T and Frontier); (3) Bioenergy Association of California (BAC); (4) Bloom Energy Corporation (Bloom); (5) Bright Canyon Energy (BCE); (6) California Independent System Operator (CAISO); (7) California Cable and Telecommunications Association (CCTA); (8) California Clean DG Coalition (CCDC); (9) California Energy Storage Alliance (CESA); (10) California Environmental Justice Alliance (CEJA); (11) California Hydrogen Business Council (CHBC); (12) California Large Energy Consumers Association (CHBC); (13) California Solar & Storage Association (CALSSA); (14) Camptonville Community Partnership (CCP); (15) Center for Accessible Technology (CforAT); (16) Center for Energy Efficiency and Renewable Technologies (CEERT); (17) Clean Coalition; (18) Climate Center; (19) Coalition of California Utility Employees (CCUE); (20) Cogeneration Association of California (CAC); (21) Connect California; (22) CTIA; (23) Doosan Fuel Cell America (Doosan); (24) Enchanted Rock; (25) Enel X North America; (26) Fuel Cell Energy Inc.; (27) Green Power Institute (GPI); (28) Grid Alternatives (GRID); (29) Joint CCA;

¹² Response of SDG&E with Proposals Requested by Scoping Memo and Information Requested by ALJ Ruling (January 21, 2020).

(30) Local Government Sustainable Energy Coalition (LGSEC); (31) City of Long Beach acting by and through its Board of Harbor Commissioners (Long Beach); (32) Mainspring; (33) Marin Clean Energy (MCE); (34) Microgrids Coalition (MRC); (35) National Fuel Cell Research Center (NFCRC); (36) Nevada County Biomass Taskforce (NVBTF); (37) Pacific Gas and Electric Company (PG&E); (38) Placer County Air Pollution Control District (Placer County); (39) Public Advocates Office (Cal Advocates); (40) Rural County Representatives of California (RCRC); (41) San Diego Gas & Electric (SDG&E); (42) Shell Energy; (43) Sierra Club; (44) Small Business Utility Advocates (SBUA); (45) Southern California Gas Company (SoCalGas); (46) Tesla; (47) The Utility Reform Network (TURN); (48) Utilities Consumers' Action Network (UCAN); (49) Vehicle-Grid Integration Council (VGIC); (50) Wild Tree Foundation.

Reply comments were filed on February 6, 2020. Parties that filed reply comments are: (1) BAC; (2) Bay Area Air Quality Management District (BAAQMD); (3) Bloom; (4) CAC; (5) Cal Advocates; (6) CALSSA; (7) CCDC; (8) CTA; (9) CEERT; (10) CEJA; (11) Center for Sustainable Energy (CSE); (12) CESA; (13) CHBC; (14) Clean Coalition; (15) CLECA; (16) Connect California; (17) Counties of Marin, Napa, and Sonoma (Marin, Napa, Sonoma); (18) CUE; (19) Enel X; (20) GPI; (21) GRID; (22) Joint CCA; (23) Mainspring; (24) MRC; (25) NFCRC; (26) PG&E; (27) SBUA; (28) SCE; (29) SDG&E; (30) Sierra Club; (31) SoCalGas; (32) Tesla; (33) TURN; (34) UCAN; and (35) Vote Solar.

2. Issues Before the Commission

Track 1 of this proceeding addresses the Commission's goal of deploying resiliency strategies in areas that are prone to outage events and wildfires by

Summer 2020. With this timeline in mind, the issues within the scope of Track 1 are:¹³

1. Prioritizing and streamlining interconnection applications to deliver resiliency services at key sites and locations;
2. Modifying existing tariffs to maximize resiliency benefits;
3. Facilitating local and tribal government access to utility infrastructure and planning data to support the development of resiliency projects; and
4. Utility proposals for immediate implementation of resiliency strategies, including partnership and planning with local and tribal governments.

Upon issuance of the Assigned Administrative Law Judge's ruling,¹⁴ the following issues were also presented for party comment:

1. How should the utilities track costs associated with the actions the Commission orders utilities to undertake pursuant to the staff proposal?
2. Is Commission direction required for any of the activities that utilities have proposed? If so, should the Commission authorize utilities to undertake any of the actions they propose?
3. Should Commission grant cost recovery sought by PG&E and SDG&E for their proposals?
4. Should Commission approve the affiliate transaction proposed by SDG&E?

We address these issues in our discussion below.

¹³ For each of the identified issues, the Commission will be considering, but not be limited to, the following elements for key sites and locations: (1) customers with access and functional needs; (2) medical baseline customers; (3) police stations; (4) fire stations; (5) schools (*e.g.*, educational facilities); (6) water and waste water facilities; (7) community centers; (8) senior centers; and (9) disadvantaged and hard to reach communities. Additionally, The Commission is mindful that similar targeting criteria have been previously identified in Decision (D.) 19-05-042, Appendix C at C4; in D.19-09-027; and D.20-02-021 (R.12-11-005).

¹⁴ Administrative Law Judge's Ruling requesting comments on Track 1 Microgrid and Resiliency Strategies Staff Proposal (January 21, 2020).

3. COVID 19 and Compliance with Executive Orders

On March 19, 2020, Governor Gavin Newsom signed Executive Order N-33-20¹⁵ requiring Californians to comply with the orders of the California State Public Health Officer and the Director of the California Department of Public Health that all individuals living in the State of California stay home or at their place of residence (Stay-At-Home Order), except as needed to maintain continuity of operation of the federal critical infrastructure sectors, in order to address the public health emergency presented by the COVID-19 disease. The Stay-At-Home order is indefinite, and as of the date of the issuance of this decision, it remains in effect.

In furtherance of Executive Order N-33-20 to protect the public health and safety, we direct PG&E, SCE, and SDG&E to take every reasonable effort to fully comply with the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic when implementing the requirements of this decision.

4. Discussion of Commission Track 1 Initiatives

According to the legislative history of SB 1339, microgrids may help provide communities with additional reliability and resiliency during disasters, like wildfires.¹⁶ Consistent with the legislative history, the Staff Proposal focuses on three broad categories of activity to foster the deployment of microgrids to provide power and support communities and residents during wider grid outages: (1) prioritizing and streamlining interconnection applications to deliver resiliency services at key sites and locations; (2) modifying existing tariffs to maximize resiliency benefits; and (3) facilitating local and tribal government access to utility

¹⁵ Executive Order N-33-20 (March 19, 2020) available at: <https://www.gov.ca.gov/2020/03/19/governor-gavin-newsom-issues-stay-at-home-order/>

¹⁶ SB 1339 Legislative History, August 31, 2018 Senate Floor Analyses.

infrastructure and planning data to support the development of resiliency projects. We discuss the parties' positions with respect to each of these broad issues, below.

4.1. Prioritizing and Streamlining Interconnection Applications to Deliver Resiliency Services at Key Sites and Locations

Consistent with the Scoping Memo and Ruling,¹⁷ an Administrative Law Judge's Ruling¹⁸ asked parties an array of questions regarding the Staff Proposal's recommendations for prioritizing and streamlining interconnection applications to deliver resiliency services at key sites and locations.

4.1.1. Staff Proposal Summary

Staff recommend four pathways to accelerate interconnection of resiliency projects: (1) use pre-approved designs in the application process;¹⁹ (2) expedite utility sign-off on installed projects;²⁰ (3) accelerate interconnections for key locations, customers, and/or facilities;²¹ and (4) allow the use of smart meters for electrical isolation.²²

Proposal 1 - Use Pre-Approved Designs in the Application Process: Staff identified three potential options for the implementation:

- Option 1: require the utilities to informally consult with industry, develop, and publish pre-approved template single line diagrams;
- Option 2: require the utilities, along with stakeholders, to convene an expedited technical working group to develop the single line diagrams; and

¹⁷ Assigned Commissioner's Scoping Memo and Ruling for Track 1 (December 20, 2019).

¹⁸ Administrative Law Judge's Ruling requesting comments on Track 1 Microgrid and Resiliency Strategies Staff Proposal (January 21, 2020).

¹⁹ Staff Proposal at 7.

²⁰ *Id.* at 8.

²¹ *Id.* at 9.

²² *Id.* at 10.

- Option 3: require the utilities to develop a process to receive, review, and approve standard diagrams from individual contractors.²³ The approved templates would be categorized by Contractor or Contractors State Licensing Board Number.

Staff recommends the adoption of Option 1 only.²⁴

Proposal 2 - Expedite Utility Sign-Off on Installed Projects: Staff identified three potential options:

- Option 1: require the utilities publish the specific technical criteria they use to determine where field inspections are necessary for the safety and reliability of the grid;
- Option 2: require the utilities to eliminate inspections that duplicate those conducted by local jurisdictions, if any. This option would prohibit the utilities from carrying out inspections of system elements that have been previously inspected by local jurisdictions unless the inspection is substantively different; and
- Option 3: in cases where an inspection is necessary, require the utilities to consider accepting photos or videos, along with attestations of their accuracy, from the contractor rather than requiring an in-person inspection.²⁵ Additionally, Option 3 requires the utilities to coordinate with local jurisdictions to enforce the same inspection requirements and eliminate duplicative efforts.

Staff recommends the Commission adopt Options 1, 2, and 3.²⁶

Proposal 3 - Accelerate Interconnections for Key Locations, Customers, and/or Facilities: Staff identified three potential options for the implementation:

- Option 1: while the existing queue is formed on a first-come-first-served basis, require the utilities to develop new rules to

²³ *Id.* at 7-8.

²⁴ *Id.*

²⁵ *Id.* at 8-9.

²⁶ *Id.* at 9.

allow eligible projects to move ahead of other projects in the queue (referred to as "queue jumping");

- Option 2: require utilities to develop a second "priority" queue for eligible projects, which effectively works in parallel with the existing queue. This would require the utilities to allocate dedicated staff and information technology resources to this "priority queue;" and
- Option 3: rather than altering the queueing process, require the utilities to commit additional staff and information technology resources to their interconnection study and distribution upgrade teams, as well as to the information technology solutions that support these teams, in order to facilitate faster queue processing for all projects.²⁷

Staff recommends the Commission adopt Option 1 and 3.²⁸

Proposal 4 - Allow the use of Advanced Metering Infrastructure for Electric Isolation: Staff noted the possibility of allowing the use of advanced metering infrastructure (*i.e.*, smart meters) for electrical isolation or islanding.²⁹ However, Staff did not recommend the Commission adopt this approach for Track 1 but advised that the Commission's Energy Division continue to monitor development of this technology for this approach.³⁰

4.1.2. Parties' Positions

Generally, parties support Proposal 1 but had various positions about the options presented by the Staff Proposal. The following list summarizes parties' positions:

- BAC,³¹ supporting Options 2 and Options 3;

²⁷ *Id.* at 9.

²⁸ *Id.*

²⁹ *Id.* at 10.

³⁰ *Id.*

³¹ BAC at 8-9.

- CALSSA,³² supporting Options 1 and Options 2;
- CforAT,³³ supporting Options 1 and 2;
- CEERT,³⁴ Options 1, 2, and 3;
- CESA,³⁵ supporting Option 1;
- Clean Coalition,³⁶ supporting Option 1;
- Climate Center,³⁷ supporting Options 1, 2, and 3;
- CUE,³⁸ supporting Options 1, 2, and 3;
- Enchanted Rock,³⁹ supporting Option 1;
- Enel,⁴⁰ supporting Options 1, 2, and 3.
- Fuel Cell,⁴¹ supporting Option 1
- GPI,⁴² supporting Option 1;
- Joint CCA,⁴³ supporting Option 1;
- PG&E,⁴⁴ supporting Option 1;
- Placer County,⁴⁵ supporting Option 2;

³² CALSSA at 2.

³³ CforAT at 3.

³⁴ CEERT at 2-3.

³⁵ CESA at 9.

³⁶ Clean Coalition at 3-5.

³⁷ Climate Center at 3-4.

³⁸ CUE at 1-2.

³⁹ Enchanted Rock at 2-3.

⁴⁰ Enel at 3.

⁴¹ Fuel Cell Energy at 4.

⁴² GPI at 6.

⁴³ Joint CCA at 8-9.

⁴⁴ PG&E at 5.

⁴⁵ Placer County at 15.

- RCRC,⁴⁶ supporting Option 1;
- SBUA,⁴⁷ supporting Options 1, 2, and 3;
- SCE,⁴⁸ supporting Option 1;
- SDG&E⁴⁹ supporting Options 1, 2, and 3;
- Shell Energy,⁵⁰ supporting Option 1, 2, and 3;
- Sierra Club,⁵¹ supporting Options 1, 2, and 3;
- Tesla,⁵² supporting Option 1;
- TURN,⁵³ supporting Options 1, 2, and 3; and
- Wild Tree Foundation,⁵⁴ supporting Options 1, 2, and 3.

Parties generally support Proposal 2 but had various positions about the options presented by Staff. The following list summarizes parties' positions:

- BAC,⁵⁵ supporting Options 1, 2, and 3;
- Cal Advocates,⁵⁶ supporting Options 1 and 3;
- CALSSA,⁵⁷ supporting Options 1, 2, and 3;
- CforAT,⁵⁸ supporting Options 1 and 2 but opposing Option 3;

⁴⁶ RCRC at 4.

⁴⁷ SBUA at 3.

⁴⁸ SCE at 2-3.

⁴⁹ SDG&E at 5.

⁵⁰ Shell Energy at 2-3.

⁵¹ Sierra Club at 2-3.

⁵² Tesla at 3.

⁵³ TURN at 3.

⁵⁴ Wild Tree Foundation at 7.

⁵⁵ BAC at 11.

⁵⁶ Cal Advocates at 9

⁵⁷ CALSSA at 2-3.

⁵⁸ CforAT at 6 and 9.

- CEERT,⁵⁹ supporting Options 1, 2, and 3;
- CESA,⁶⁰ supporting Options 1,2, and 3;
- Clean Coalition,⁶¹ supporting Options 1, 2, and 3;
- Climate Center,⁶² supporting Options 1, 2, and 3;
- Enchanted Rock,⁶³ supporting Options 1, 2, and 3;
- Enel X,⁶⁴ supporting Options 1, 2, and 3;
- GPI,⁶⁵ supporting Options 1, 2, and 3;
- Joint CCA,⁶⁶ supporting Options 1, 2, and 3;
- PG&E,⁶⁷ supporting Options 1 and 3 but opposing Option 2;
- Placer County,⁶⁸ supporting Options 1, 2, and 3;
- RCRC,⁶⁹ supporting Options⁷⁰ 1, 2, and 3;
- SBUA,⁷¹ supporting Options 1, 2, and 3;
- SCE,⁷² supporting Options 1 and 3 but opposing Option 2;
- SDG&E,⁷³ supporting Options 1 and 3 but opposing Option 2;

⁵⁹ CEERT at 2.

⁶⁰ CESA at 9.

⁶¹ Clean Coalition at 10.

⁶² Climate Center at 3-4.

⁶³ Enchanted Rock at 3-4.

⁶⁴ Enel X at 3.

⁶⁵ GPI at 3.

⁶⁶ Joint CCA at 7.

⁶⁷ PG&E at 6 - 8.

⁶⁸ Placer County at 15-18.

⁶⁹ RCRC at 4.

⁷⁰ Placer County at 15-18.

⁷¹ SBUA at 3.

⁷² SCE at 3-4.

⁷³ SDG&E at 2.

- Shell Energy,⁷⁴ supporting Options 1, 2, and 3;
- Tesla,⁷⁵ supporting Options 1, 2, and 3;
- TURN,⁷⁶ supporting Options 1, 2, and 3; and
- Wild Tree Foundation,⁷⁷ supporting Option 1, 2, and 3.

Parties support Proposal 3, but had various positions about the options presented by Staff. The following list summarizes parties' positions:

- BAC,⁷⁸ supporting Options 2 and 3 but opposing Option 1;
- Cal Advocates,⁷⁹ supporting Option 3 but opposing Options 1 and 2;
- CALSSA,⁸⁰ supporting Option 3 but opposing Options 1 and 2;
- CforAT,⁸¹ supporting Option 3 but opposing Options 1 and 2;
- CEERT,⁸² supporting Options 1, 2, and 3;
- CESA,⁸³ supporting Option 3 but opposing Options 1 and 2;
- Clean Coalition,⁸⁴ supporting Options 1, 2, and 3;
- Climate Center,⁸⁵ supporting Options 1, 2, and 3;

⁷⁴ Shell Energy at 2-3.

⁷⁵ Tesla at 7.

⁷⁶ TURN at 3.

⁷⁷ Wild Tree Foundation at 6-7.

⁷⁸ BAC at 12.

⁷⁹ Cal Advocates at 11.

⁸⁰ CALSSA at 3-4.

⁸¹ CforAT at 12-13.

⁸² CEERT at 2.

⁸³ CESA at 10.

⁸⁴ Clean Coalition at 3-4.

⁸⁵ Climate Center at 3-4.

- Enchanted Rock,⁸⁶ supporting Option 3 but opposing Options 1 and 2
- Enel,⁸⁷ supporting Options 2 and 3 but opposing Option 1.
- Fuel Cell Energy,⁸⁸ supporting Option 1.
- GPI,⁸⁹ supporting Options 1 and 3.
- Joint CCA,⁹⁰ supporting Options 1 and 3;
- Mainspring,⁹¹ supporting Option 3;
- MRC,⁹² supporting Options 1, 2, and 3;
- PG&E,⁹³ supporting Options 1 and 3;
- Placer County,⁹⁴ supporting Options 1, 2, and 3;
- RCRC,⁹⁵ supporting Options 1 and 3;
- SBUA,⁹⁶ supporting Options 1, 2, and 3;
- SCE,⁹⁷ opposing Proposal 3;
- SD&GE,⁹⁸ opposing Proposal 3;
 - Shell Energy,⁹⁹ supporting Option 3;

⁸⁶ Enchanted Rock at 3-4.

⁸⁷ Enel at 4.

⁸⁸ Fuel Cell Energy at 3.

⁸⁹ GPI at 8.

⁹⁰ Joint CCA at 8-9.

⁹¹ Mainspring at 3.

⁹² MRC at 3 and 11.

⁹³ PG&E at 8.

⁹⁴ Placer County at 15.

⁹⁵ RCRC at 4-5.

⁹⁶ SBUA at 3.

⁹⁷ SCE at 6.

⁹⁸ SDG&E at 1.

⁹⁹ Shell Energy at 2.

- Sierra Club,¹⁰⁰ supporting Option 3;
- Tesla,¹⁰¹ supporting Option 3;
- TURN¹⁰² supporting Options 1, 2, and 3;
- Wild Tree Foundation,¹⁰³ supporting Options 1, 2, and 3.

Finally, we turn to Proposal 4. CforAT,¹⁰⁴ CESA,¹⁰⁵ Clean Coalition,¹⁰⁶ ConnCA,¹⁰⁷ SBUA,¹⁰⁸ Sierra Club,¹⁰⁹ and VGIC¹¹⁰ support Proposal 4. PG&E,¹¹¹ SCE,¹¹² and SDG&E¹¹³ oppose Proposal 4.

4.1.3. Analysis: The Utilities Shall Prioritize, Streamline, and Expedite Applications and Approval for Key Resiliency Projects

We discuss our adopted approach, and our reasoning, below.

Proposal 1 requires PG&E, SCE, and SDG&E to work with stakeholders to develop, if not already available, a template-based application process for interconnection of Rule 21 non-export storage, NEM and Paired Storage and NEM solar since utilities require interconnection applications include single line diagrams

¹⁰⁰ Sierra Club at 2.

¹⁰¹ Tesla at 10-11.

¹⁰² TURN at 4.

¹⁰³ Wild Tree Foundation at 7-8.

¹⁰⁴ CforAT at 17.

¹⁰⁵ CESA at 11.

¹⁰⁶ Clean Coalition at 4.

¹⁰⁷ ConnCA at 5-6.

¹⁰⁸ SBUA at 4.

¹⁰⁹ Sierra Club at 2.

¹¹⁰ VGIC at 2.

¹¹¹ PG&E at 9.

¹¹² SCE at 7.

¹¹³ SDG&E at 1.

of the proposed project to determine the safety and effectiveness of the project for the local purposes and within the grid. Staff suggested three options:

- Option 1: require the utilities to informally consult with industry, develop, and publish pre-approved template single line diagrams;
- Option 2: require the utilities, along with stakeholders, to convene an expedited technical working group to develop the single line diagrams; and/or
- Option 3: require the utilities to develop a process to receive, review, and approve standard diagrams from individual contractors.¹¹⁴ The approved templates would be categorized by Contractor or Contractors State Licensing Board Number.

Parties offered varying support and opposition for the each of the options Staff proposed, but generally supported Proposal 1. Staff recommended that the Commission adopt Option 1 only.

We adopt an approach that blends Option 1 and Option 2 to develop single line diagrams for Proposal 1. We are persuaded by the recommendations of SCE and CALSSA,¹¹⁵ who suggest the utilities should first informally consult with key stakeholders to develop acceptable template designs, and then share those designs with stakeholders through a technical meeting to solicit feedback and finalize templates.¹¹⁶ We agree that the utilities should informally consult with industry to develop such preapproved template single line diagrams in order to get a basic set of designs in use as quickly as possible. We direct the utilities to collaborate and develop consistent, single line diagrams across their systems to ensure transparency, continuity, and simplicity. SCE stated that this informal collaboration

¹¹⁴ *Id.* at 7-8.

¹¹⁵ CALSSA at 1-2.

¹¹⁶ SCE at 3.

should take no more than three weeks. However, to ensure timeliness of implementation prior to the upcoming fire season, we direct that this informal consultation should take no more than 10 days.

Then, we direct the utilities and stakeholders to formally engage with each other at technical meetings, sponsored by the Commission's Energy Division following this initial stakeholder work. To ensure speed and efficiency, parties should prepare for participation in at least one, but no more than two Energy Division working technical meetings to complete the formal engagement process. During the technical meetings, we direct the utilities and parties to discuss the single line diagrams proposals, discuss any revisions to existing Interconnection Agreements, as well as any other necessary process modifications such as Commission-approved interconnection applications and related tariffs. In its comments, Tesla asked us to affirm that the template-based approach could be utilized by projects eligible for the fast track interconnection process.¹¹⁷ We affirm that the template-based approach can be utilized by projects eligible for the fast track interconnection process.

In adopting a hybrid of Options 1 and 2, we direct the utilities to create a template-based application process for specific behind-the-meter project types. These behind-the-meter project types are: (1) Rule 21 non-export storage (<10 kw) (2), NEM paired storage (both AC and DC coupled; solar <30 kW and storage <10kW), and (3) NEM Solar (<30kW).. We adopt size restrictions on the eligible projects based on the utilities' reporting that these project types constitute the majority of project applications,¹¹⁸ in order to ensure the safety and reliability of the

¹¹⁷ Tesla at 4.

¹¹⁸ PG&E (PG&E Comments at 17-18) states Stand-alone non-export storage, and NEM Solar + Paired Storage "together with Standard NEM represent approximately 95% of Rule 21 applications and 38.6% of Rule 21 installed MW capacity within PG&E's service territory over the last three years: [(1)] Stand-alone Non-Export Storage less than 10 kW; and [(2)] NEM Solar + Paired Storage

grid, and in the interest of timely implementation of the SLDs before the upcoming fire season.¹¹⁹

The utilities shall develop templates that address 80 percent or more of potential interconnection projects applications in each project category, based on historical interconnection projects, and that are consistent across utilities. The remaining 20 percent or less will continue to be evaluated through existing utility processes. The adoption of an 80/20 guideline approach will limit the complexity of single line diagram designs and shorten the time required to develop and implement them.

Once the utility and stakeholder consultation is completed, the utilities shall file a Tier 1 Advice Letter informing the Commission of the inclusion of the template-based designs as an option within their application process, along with any other modifications to Commission-approved applications and tariffs. Should the utilities see a need for an update to their NEM and Rule 21 interconnection portals, the utilities shall conduct those updates in parallel with the single line diagram development. When implementing these requirements, we remind staff, the utilities and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

with solar less than 30 kW and battery storage less than 10 kW.” For SCE (SCE Comments at 15) based on 2019 historical data “NEM solar \leq 30kW” accounts for 99% of the NEM solar-only projects, NEM solar \leq 30kW with paired storage (\leq 10kW) accounts for 98.5% of the NEM solar - coupled with storage projects; and Rule 21 Non-export ($<$ 10kW) accounts for 34.2% of the Rule 21 storage-only projects.”

¹¹⁹ While we adopt the single line diagrams for these particular behind-the-meter projects, we recognize that fuel-cell installation requirements may need to be considered at a later time, along with other technologies that meet California Air Resources Board distributed generation standards. We also recognize that greater than 10 kW storage must be considered. These considerations may be addressed in subsequent tracks of this proceeding.

In summary, upon date of issuance of this decision, the utilities are directed to submit a Tier 1 Advice Letter(s), within 30 days of this decision's effective date that:

- Indicates when the informal consultation and technical meetings occurred;
- Lists who attended the meetings, and the degree to which there was consensus amongst stakeholders in the informal consultation as well as the technical meetings;
- Provides technical details specific to the single line diagrams, including the types of permitted devices (or information on the pre-approved equipment list), the processes for assessing the devices, and the device certification requirements;
- If any proposals were rejected, the utility shall explain the reasoning for the rejection(s);
- Provides updates to interconnection agreement terms as well as any other Commission-approved forms in order to implement the requirements adopted, here; and
- Provides information on the single line diagrams and discusses any updates required to the interconnection portals, along with a timeline for when the updates will take place.

The utilities' Advice Letters shall be evaluated as compliant based, at a minimum, on showing adherence to these guidelines.

Proposal 2¹²⁰ identifies methods to increase the simplicity and transparency of the process that utilities use to inspect and sign-off on a project to reduce delays

¹²⁰ Proposal 2 included the following: Option 1, require the IOUs publish the specific technical criteria they use to determine where field inspections are necessary for the safety and reliability of the grid; Option 2, require the IOUs to eliminate inspections that duplicate those conducted by local jurisdictions, if any. This option would prohibit the IOUs from carrying out inspections of system elements that have been previously inspected by local jurisdictions unless the inspection is substantively different; and Option 3, in cases where an inspection is necessary, require the IOUs to consider accepting photos or videos, along with attestations of their accuracy, from the contractor rather than requiring an in-person inspection. Additionally, Option 3 requires the IOUs to

arising from utility site inspections.¹²¹ Parties offered varying degrees of support and opposition for each of the options Staff proposed, but generally supported the adoption of Proposal 2. Staff recommended that the Commission adopt Options 1, 2, and 3 for Proposal 2.

We adopt Proposal 2, with Options 1 and 3. PG&E, SCE, and SDG&E shall submit Tier 2 Advice Letters within 30 days of this decision's effective date that: (1) provides specific technical criteria used to determine where field inspections are necessary for grid safety and reliability; and (2) in cases where an inspection is deemed necessary, the process for which utilities will accept videos, photos, and virtual inspection, along with attestations of authenticity and accuracy from the contractor. We direct the utilities to adopt these approaches to the extent that safety and reliability are not compromised.

We note the utilities reservations regarding some application of Options 1 and 3. For example, SCE asserts that projects have diverse and varying characteristics and need to be evaluated on a project-by-project basis to determine if a field inspection is required.¹²² SCE also argues that the utilities should not be required in all instances to accept photos, technical information and other information in lieu of a field inspection.¹²³ We agree. In adopting Proposal 2, Options 1 and 3, our aim is to enhance transparency of technical information that may help developers construct their projects to minimize the need for field inspections while still promoting and ensuring the safety and reliability of the grid.

coordinate with local jurisdictions to enforce the same inspection requirements and eliminate duplicative efforts.

¹²¹ Staff Proposal at 8.

¹²² SCE at 4.

¹²³ *Id.*

Within 60 days upon date of issuance of this decision, Energy Division shall host a meeting where the utilities shall:

- Demonstrate what updates they have made to their technical documents and handbooks to reflect this decision; and
- Provide examples of the project types the utilities expect to accept virtual inspections.¹²⁴

When implementing these requirements, we remind staff, the utilities, and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

Proposal 3 offers Option 1, that allows eligible projects to move ahead of other projects in the queue, Option 2 that requires the utilities to develop a priority queue, and/or Option 3, that requires the utilities to increase staff resources and information technology resources to their interconnection study and distribution upgrade teams in order to facilitate faster queue processing for all projects. Staff recommended that the Commission adopt Options 1 and 3.

We adopt Option 3 with modification. We decline to adopt Option 1, as we agree with parties that queue jumping may result in significant cost allocation and administrative issues that should be dealt with prior to queue jumping implementation.¹²⁵ We agree with parties that each utility's ability to reliably meet the interconnection timelines established in Rule 21 should be used to determine compliance with this order.¹²⁶ Moreover, should new Rule 21 timelines be established or existing timelines adjusted, either in this proceeding or in the

¹²⁴ The utilities should prepare material for this meeting that describes the circumstances where virtual expectations may be reduced, what types of virtual inspections are possible, and under what conditions a field verification is required.

¹²⁵ CESA at 10; Tesla at 10; and SCE at 6.

¹²⁶ CALSSA at 4.

Interconnection Proceeding (R.17-07-007), ongoing compliance should be assessed based on those updated timelines.

Upon the date of issuance of this decision, the utilities are each directed to submit a Tier 2 Advice Letter within - 60 days of this decision's effective date that Proposes plans to acquire additional staff, as needed, or the internal process changes needed, to fulfill the goals of this decision.

Additionally, on February 15, 2021, the utilities shall file a compliance filing in this proceeding, describing the results of the interconnection proposals adopted. The utilities shall also send a copy to the Energy Division.¹²⁷ In this compliance filing, items that shall be reported include, but are not limited to: (1) the number of projects that utilized the interconnection proposals adopted in this decision; and (2) the utility's success in meeting Rule 21 interconnection timeliness. Additionally, prior to submitting the compliance filing, the utilities shall consult Energy Division to determine what additional information is necessary to include in the compliance filing. If a project experienced a delay, the utility shall provide an explanation about why the project was delayed. In addition, the utilities should track the number and type of projects, that use the template-based interconnection process adopted in Proposal 1.

When implementing these requirements, we remind staff, the utilities, and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

Proposal 4 raised the possibility of allowing the use of advanced metering infrastructure for electrical isolation. Ultimately, Staff did not recommend the adoption of this for Track 1. Staff recommended, however, that Energy Division

¹²⁷ The compliance filing copy shall be sent to Energy Division at: energydivisioncentralfiles@cpuc.ca.gov.

continue to monitor the evolving technology and its application for widespread market use and consequently, defer potential Commission action for consideration in the latter portions of this proceeding.

At this time, we decline to adopt Proposal 4. We agree, however, with Staff and parties that allowing advanced metering infrastructure to enable electrical isolation may be a viable, emerging resiliency strategy in the context of public safety power shutoff mitigation. We are persuaded by CESA that a pilot program to use smart meters for intentional islanding should be considered¹²⁸ because it may provide data to determine whether this is a cost-effective but real, resiliency resource that can alleviate reliability concerns.¹²⁹ CforAT and SBUA contend that a pilot project under Proposal 4 should occur as part of Track 2. We agree that Commission attention is warranted in this area prior to adopting a pilot program. Therefore, we defer consideration of Proposal 4 to a later track of this proceeding.

4.2. Tariff Modernization to Maximize Resiliency Benefits

Consistent with the Scoping Memo and Ruling, an Administrative Law Judge's Ruling asked parties an array of questions regarding the Staff Proposal's recommendations for modernizing tariffs to maximize resiliency benefits.

4.2.1. Staff Proposal Summary

The Staff Proposal focuses on two core barriers inherent in current NEM tariff that inhibit broader deployment and use of energy storage systems for resiliency.¹³⁰

¹²⁸ CESA at 4.

¹²⁹ *Id.*

¹³⁰ Staff Proposal at 15; NEM is tariff that allows a customer to received credits for self-generation at one time and use the credit associated with that generation to offset the cost of electric service received from the grid at another time.

The first barrier is the limit on storage charging.¹³¹ The second barrier is the limit on storage sizing and capacity.¹³²

Limits on Storage Charging (Tariff Problem 1): To resolve the first barrier for broader deployment and use of energy storage systems for resiliency in the NEM tariff, the Staff Proposal recommended two solutions. To help reduce Tariff Problem 1 (limited storage charging), utilities could be required to allow energy storage systems to, in advance of a PSPS event, import power from and export power to the grid.¹³³

Alternatively, to address storage charging limits, staff suggests requiring the utilities to, in advance of PSPS events, to allow energy storage systems to import from the grid, but not to export to the grid.¹³⁴ This would be effectuated by transitioning storage systems into non-export mode ahead of PSPS events.

To help ameliorate the effects of storage charging limits Staff recommends we adopt the latter proposal, to allow energy storage systems to import from but not export to the grid in advance of PSPS events because this would improve the ability of energy storage systems to provide backup power while preserving the NEM tariff's prohibition on compensation for exporting stored energy that originated from the grid.¹³⁵

Limits on Storage Sizing and Capacity (Tariff Problem 2): To allow broader deployment and use of energy storage systems for resiliency in the NEM tariff, the Staff Proposal recommended two options. The Staff Proposal proposes to modify

¹³¹ *Id.*

¹³² *Id.*

¹³³ *Id.* at 16.

¹³⁴ *Id.* at 15-16.

¹³⁵ *Id.* at 16

the NEM tariff to remove storage sizing limits and to require islanding ability for energy storage systems larger than 10 kW.¹³⁶

Alternatively, the Staff proposes to modify NEM rules to remove storage sizing limits.¹³⁷ Staff recommends the adoption of Tariff Problem 2, Proposal 1, summarized above.¹³⁸

4.2.2. Parties' Positions

Generally, parties support Staff's recommendation to remove storage sizing limits and to require islanding ability for energy storage systems larger than 10 kW, but held various positions regarding the options presented by the Staff Proposal. The following list summarizes parties' positions:

Generally, in response to Staff Tariff Problem 1, Proposal 1, the following parties are in support:

- CALSSA,¹³⁹
- CESA,¹⁴⁰ and
- Tesla.¹⁴¹

However, in response to Staff Tariff Problem 1, Proposal 2, the following parties supported Proposal 2:

- CALSSA,¹⁴²
- Cal Advocates,¹⁴³

¹³⁶ *Id.* at 17.

¹³⁷ *Id.* at 18.

¹³⁸ *Id.* 19.

¹³⁹ CALSSA at 6.

¹⁴⁰ CESA at 23, Reply at 6.

¹⁴¹ Tesla at 13, Reply at 3.

¹⁴² CALSSA at 6.

¹⁴³ Cal Advocates at 2.

- CAISO,¹⁴⁴
- CESA,¹⁴⁵
- Clean Coalition,¹⁴⁶
- GPI,¹⁴⁷
- GRID,¹⁴⁸
- Joint CCA,¹⁴⁹
- PG&E,¹⁵⁰
- SCE,¹⁵¹
- Shell Energy,¹⁵²
- Sierra Club,¹⁵³
- Tesla,¹⁵⁴
- TURN,¹⁵⁵ and
- Vote Solar.¹⁵⁶

Generally, in response to Staff Tariff Problem 2, Proposal 1, the following parties are in support:

¹⁴⁴ CAISO at 3.

¹⁴⁵ CESA at 23, Reply 6.

¹⁴⁶ Clean Coalition at 5.

¹⁴⁷ GPI at 18.

¹⁴⁸ GRID at 5.

¹⁴⁹ Joint CCA at 13.

¹⁵⁰ PG&E at 2, Reply at 24.

¹⁵¹ SCE at 34, Reply at 8.

¹⁵² Shell Energy at 3.

¹⁵³ Sierra Club at 3.

¹⁵⁴ Tesla at 13, Reply at 3.

¹⁵⁵ TURN at 4, Reply at 2.

¹⁵⁶ Vote Solar at 9.

- Cal Advocates,¹⁵⁷
- CEERT,¹⁵⁸
- Clean Coalition,¹⁵⁹
- GPI,¹⁶⁰
- Grid,¹⁶¹
- PG&E,¹⁶²
- SCE,¹⁶³
- SDG&E,¹⁶⁴
- Shell Energy,¹⁶⁵
- Sierra Club,¹⁶⁶
- Tesla,¹⁶⁷
- TURN,¹⁶⁸ and
- Vote Solar.¹⁶⁹

¹⁵⁷ Cal Advocates at 2.

¹⁵⁸ CEERT at 2, Reply 2.

¹⁵⁹ Clean Coalition at 10.

¹⁶⁰ GPI at 18.

¹⁶¹ Grid at 5.

¹⁶² PG&E at 2, Reply 24.

¹⁶³ SCE at 44.

¹⁶⁴ SDG&E at 13.

¹⁶⁵ Shell Energy at 3.

¹⁶⁶ Sierra Club at 3.

¹⁶⁷ Tesla at 20.

¹⁶⁸ TURN at 4, Reply at 4.

¹⁶⁹ Vote Solar at 9.

In response to Staff Tariff Problem 2, Proposal 2, the following parties are in support: CALSSA,¹⁷⁰ CESA,¹⁷¹ and Climate Center.¹⁷² SDG&E¹⁷³ and CUE¹⁷⁴ oppose Proposal 2 for Proposal 2.

4.2.3. Analysis: The Utilities Shall Allow Energy Storage Systems, in advance of Announced PSPS Events, to Import from but not Export to the Grid and the Utilities Shall Modify the NEM Tariff to Remove Storage Sizing Limits

Tariff Modernization Problem 1: The question presented to the Commission is how to resolve barriers to broader deployment and use of energy storage systems for resiliency caused by the NEM tariff limit on storage charging. To remove the barrier for broader deployment and use of energy storage systems, Staff recommends that the Commission adopt Tariff Modernization Problem 1, Proposal 2 – to allow temporary transition to non-export mode during the pre-PSPS window. Most parties agree with Staff’s recommendation that the Commission should adopt Tariff Modernization Problem 1, Proposal 2. We agree.

We adopt Tariff Modernization Problem 1, Proposal 2 and direct the utilities to allow energy storage systems that are interconnected under the condition that they charge from solar to import from – but not export to – the grid upon receiving advanced notification by the utility of an upcoming PSPS event.. Tariff Modernization Problem 1, Proposal 2 supports the Commission’s goal of preparedness in advance of a grid outage, which may occur rapidly. Furthermore, we find Tariff Modernization Problem 1, Proposal 2 enables existing solar-plus-

¹⁷⁰ CALSSA at 11.

¹⁷¹ CESA at 29.

¹⁷² Climate Center at 2.

¹⁷³ SDG&E at 13 of Attachment A.

¹⁷⁴ CUE at 3.

storage¹⁷⁵ systems to better provide backup power during PSPS events while preserving NEM program goals by limiting the ability to charge from the grid to only during pre-PSPS periods. Preserving NEM's integrity ensures that individuals are only receiving NEM bill credits for the electricity being produced on site by a NEM eligible generator. This prevents individuals from receiving NEM credits for electricity imported from the grid.

We agree with Staff and parties that Proposal 2, unlike Proposal 1, prevents energy storage systems that are not properly reset after PSPS events to continue exporting energy derived from the grid in violation of NEM requirements.

As Staff and many parties argue, the full value of this proposal – for example, the benefits to the NEM customer (*i.e.*, critical facilities such as grocery stores) of having fully charged on-site energy storage at the start of a planned PSPS event – has yet to withstand the test of implementation during the actual PSPS events. Therefore, the Commission's Energy Division, in consultation with the utilities and stakeholders, shall monitor and gather information arising from pre-PSPS energy storage from the grid for oversight for the next two years. If necessary, the Commission may revisit this storage charging proposal for modifications.

In summary we direct the utilities to take the following action. First, the utilities shall coordinate with developers and aggregators to form a process that allows energy storage systems that are interconnected under the condition that they charge from solar to import from (but not export to) the grid in advance of an announced PSPS event. Second, the utilities shall present the processes to the Smart Inverter Working Group. This will ensure transparency as well as a meaningful opportunity for the utilities and stakeholders to build consensus so that specific design proposals are vetted by stakeholders in another forum outside of the formal

¹⁷⁵ D.19-01-030 defines "solar-plus-storage" as: "generating facilities with NEM-paired storage."

Commission processes. Once these proposed processes have been presented to the Smart Inverter Working Group, the utilities shall file, within 30 days of this decision's effective date, Tier 2 Advice Letters that propose the necessary modifications to their NEM tariffs.

When implementing these requirements, we remind staff, the utilities, and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

Tariff Modernization Problem 2: Solving Tariff Modernization Problem 2 centers on realizing the potential for locally generated renewable energy paired with storage to provide backup power in the event of a grid outage. We consider two proposals from Staff: removing the storage sizing limit for large NEM-paired storage, maintaining existing metering requirements, and requiring large NEM-paired storage be designed to operate independently from the grid in the event of a grid outage. Alternatively, Staff propose removing the storage sizing limit for large NEM-paired storage and maintaining existing metering requirements. Staff, along with most parties, recommend that the Commission adopt Proposal 1.

We note that Proposal 1 is identical to Proposal 2 with the exception that Proposal 1 requires systems to be capable of islanding. We depart from Staff's and parties' recommendation and adopt Proposal 2 on a trial basis. In adopting Proposal 2, we reduce the risk of implementation complexity that the islanding requirement presents. At this point in time, the islanding requirement presents a potential risk of causing undue delays in providing resiliency in the face of the upcoming wildfire season and potential grid outage events. For the long-term, adding the islanding requirement appears to be appropriate for Commission consideration with further development of implementation details. In order to balance the risk of undue delays against the possibility of adverse long-term consequences, we find that it would be appropriate for the changes to the NEM tariff

be in effect for three years while additional information about the impacts of the change can be collected and evaluated. We may further consider this topic in Track 2 or Track 3 of this proceeding.

Within 30 days upon date of issuance of this decision, the utilities are directed to submit Tier 2 Advice Letters proposing the necessary modifications to their NEM tariffs to make the changes described in Tariff Modernization Problem 2, Proposal 2 (removing the storage sizing limit for large NEM-paired storage and maintaining existing metering requirements). The Advice Letter should clearly state that the change would remain in effect for three years.

When implementing these requirements, we remind staff, the utilities, and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

4.3. Information Sharing with Local and Tribal Governments

Consistent with the Scoping Memo and Ruling, an Administrative Law Judge's Ruling asked parties an array of questions regarding the Staff Proposal's recommendations for increased access for local and tribal governments to electric distribution and infrastructure information to facilitate deployment of resiliency projects.

4.3.1. Staff Proposal Summary

The Staff Proposal identified five options to increase local and tribal government access to data. These proposals are intended to foster collaborative problem solving by utilities, local agencies, tribal governments, and state government and build upon existing emergency planning exercises already conducted pursuant to General Order (GO) 166:¹⁷⁶

¹⁷⁶ Staff Proposal at 22.

1. Develop and ensure effective outreach and communication between the utilities, local, and tribal governments through workshops;¹⁷⁷
2. Require the utilities to develop a resiliency project engagement guide;¹⁷⁸
3. Require the utilities to dedicate an internal team for local and tribal government projects;¹⁷⁹
4. Require the utilities to develop an interconnection orientation training program for vendors and developers operating in California;¹⁸⁰ and
5. Require the utilities to create a separate access-restricted portal, available only to local and tribal governments, containing essential data for identification of in-front of the meter microgrid development opportunities.¹⁸¹

Staff recommends the adoption of Proposals 1, 2, 3, and 5.¹⁸² Staff also recommends that the implementation of Proposals 1, 2, 3 and 5 occur concurrently and in coordination with the Commission's Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions, R.18-12-005.¹⁸³

4.3.2. Proposal 1, Outreach and Communication

In large part, parties supported Proposal 1, which requires utilities to conduct outreach and engagement on utility infrastructure. Parties in support of Proposal 1

¹⁷⁷ *Id.* at 22-24.

¹⁷⁸ *Id.* at 24.

¹⁷⁹ *Id.* at 24-25.

¹⁸⁰ *Id.* at 25.

¹⁸¹ *Id.* at 25-26.

¹⁸² *Id.* at 26.

¹⁸³ *Id.* at 26.

are: BAC;¹⁸⁴ CALSSA;¹⁸⁵ CCTA;¹⁸⁶ CEERT;¹⁸⁷ CEJA;¹⁸⁸ CESA;¹⁸⁹ Climate Center;¹⁹⁰ Joint CCAs;¹⁹¹ GPI;¹⁹² LGSEC;¹⁹³ MRC;¹⁹⁴ PG&E;¹⁹⁵ Placer County;¹⁹⁶ RCRC;¹⁹⁷ SCE;¹⁹⁸ SDG&E;¹⁹⁹ and Wild Tree Foundation.²⁰⁰

4.3.2.1. Analysis: The Utilities Shall Effectively Collaborate with Local Jurisdictions to Support Community Resiliency Efforts and Pre-PSPS Event Planning

Proposal 1 considers how to best address the interest from local and tribal government agencies – including cities and counties, tribal governments, and community choice aggregators (CCAs) – in microgrid and resiliency project planning as part of a larger community resiliency strategy to minimize the impact of grid outages.

¹⁸⁴ BAC at 15.

¹⁸⁵ CALSSA at 12.

¹⁸⁶ CCTA at 5.

¹⁸⁷ CEERT at 3.

¹⁸⁸ CEJA at 11.

¹⁸⁹ CESA at 32.

¹⁹⁰ Climate Center at 6.

¹⁹¹ Joint CCA at 14.

¹⁹² GPI at 10.

¹⁹³ LGSEC at 8.

¹⁹⁴ MRC at 16.

¹⁹⁵ PG&E at 43.

¹⁹⁶ Placer County at 9.

¹⁹⁷ RCRC at 5.

¹⁹⁸ SCE at 48, Reply at 10.

¹⁹⁹ SDG&E at Appendix A, 17.

²⁰⁰ Wild Tree Foundation at 5.

In order to address such interest, engagement between the utilities and local and tribal government agencies and CCAs is critical. Staff proposes that the utilities : (1) develop or ensure effective internal processes to interact with local and tribal governments; (2) inform local and tribal governments about electric transmission and distribution investment and operational plans that would help minimize the use of PSPS events; and (3) hold face-to-face workshops²⁰¹ to educate local jurisdictions on electric transmission and distribution infrastructure serving their communities. An array of parties' support Proposal 1, with either recommendations or modifications that we discuss below.

We adopt Proposal 1 with modification. Our goal is to empower local jurisdictions with a better understanding of utility infrastructure, weather events, grid operations, and PSPS mitigation initiatives. In this way, local jurisdictions will be positioned to make informed decisions on where to focus their resiliency planning efforts, capital investments, and pre-event operations. The information provided by the utilities will also improve local and tribal governments' ability to make both operational (short-term) and investment (long-term) planning decisions regarding how to protect the safety of their residents during grid outages. Adoption of this proposal will ensure that the utilities are taking local and tribal government perspectives into account when making operational and investment decisions. Although local jurisdictions are pre-empted from regulating electric facilities subject to the Commission's jurisdiction, consulting with local agencies regarding land use matters is required by Commission GO 131-D.²⁰²

For implementation of Proposal 1, we direct the utilities to conduct semi-annual face-to-face county-level workshops to ensure the utilities and local entities are sharing valuable information and taking a collaborative approach to

²⁰¹ Meetings should be held virtually if required by public health directives.

²⁰² CPUC GO 131-D, Section XIV – Complaints and Pre-emption of Local Authority.

planning grid resiliency measures that are responsive to local needs. In order to make these face-to-face workshops productive and useful for all parties involved, the utilities shall first develop or ensure effective internal communication processes exist for managing the interface with local and tribal governments. This may include, but should not be limited to: (1) designating utility interface roles and responsibilities; (2) managing engagement with local and tribal government and building and sustaining effective relationships; (3) establishing and maintaining open, accurate, and consistent lines of communication; (4) involving local and tribal government in planning and vetting of utility actions impacting local and tribal government; and (5) executing and following-through on agreements impacting local and tribal government. Setting clarity, expectations for roles within the utilities, and having effective and coordinated processes in place will give the face-to-face workshops the best chance of success.

Furthermore, we direct the utilities to incorporate their electrical and distribution investment and operation plans into the semi-annual workshops. This will ensure that the utilities fully communicate and solicit input from local and tribal governments about their portfolio of projects intended to minimize the use of PSPS events. The information communicated should include, but should not be limited to: (1) identifying the projects (as applicable to each utility, *i.e.*, reconductoring, transmission line exclusion, transmission line switching, distribution segmentation, distributed generation enabled microgrids, temporary generation, and substation make-ready); (2) identifying projects by county and providing geographic location; (3) describing scope, schedule, cost, and number of customers impacted by the project; and (4) confirming potential for minimizing customer outages due to PSPS events.

We believe that these semi-annual workshops are the best venue for the utilities to present this information to local and tribal governments. As a central venue, it will ensure that the local entities obtain the data they need to craft

community resiliency strategies. We agree with the Joint CCAs that these conversations are essential to efficient resiliency resource planning and deployment.²⁰³ Having a transparent understanding of the utilities' planned resiliency upgrades and projects may reduce or eliminate the need for local and tribal government or CCA resiliency projects in some areas. Additionally, these workshops provide a forum where the local and tribal governments may provide input and feedback to the utilities based on localized community needs and perspectives, prior to the utilities' plans becoming finalized.

Next, we discuss how the content of these workshops should be framed. The content of these workshops should broadly follow the requirements as set forth in the staff proposal with the inclusion of the requirement that the utilities inform local and tribal governments about their electric transmission and distribution investment and operational plans. Thus, the workshop agenda should include, but is not limited to, the following items: (1) explanations of how the electric transmission system and distribution system operates in the area; (2) explanations of local grid topology and circuit configuration; (3) information about the utility's electric transmission and distribution infrastructure investment and operational plans; (4) discussion and visualization, for context purposes, of prior PSPS events; (5) weather and climatology analysis predictions for future PSPS events; (6) case studies of outage scenarios a county may experience based on predicted weather events; (7) granular, local reporting of reliability statistics; and (8) how the utility plans incorporate and reflect local and tribal government input. Consistent with the Staff Proposal, the workshop should conclude with a collaborative planning session about enhancing grid resilience within a subject county, in and across all local and

²⁰³ Joint CCAs at 15.

tribal government agency jurisdictions. The utilities should refer to the guidance in the Staff Proposal to set requirements for collaborative planning session.²⁰⁴

Ideally, the workshops should be facilitated and/or moderated by county emergency services (County OES) or other organizations created by county governments to carry out the State Emergency Plan, consistent with the requirements codified in the California Emergency Services Act Section 8568. We believe that the local jurisdictions have the best understanding of local issues and response capabilities and are, therefore, best able to facilitate the discussion of such coordination. Should the County OES or other county emergency organization, as defined above, decline to take on the role of moderator and facilitator, they should have the option to either designate another government organization to moderate, or have the utility perform those functions for the meeting.

We believe inclusivity is essential to enhancing the value of the joint County OES and utility meetings. We support effective communication and collaboration between local and tribal governments, their County OES counterparts, and utilities. To that end, we direct the utilities to invite any tribal government agencies as well as CCAs in their service territories to these discussions. We direct the utilities to contact any other community organization – such as those that represent and support vulnerable populations like disadvantaged communities and access and function needs populations²⁰⁵ – that could provide input to enhance engagement on effective selection and implementation of community resiliency for context discussion at these meetings.

The utilities should ensure that operational and technical subject matter experts are available at these workshops to answer questions for and engage with

²⁰⁴ Staff Proposal at 23-24.

²⁰⁵ Counites of Marin, Napa, and Sonoma Reply at 3; CforAT at 19; and CEJA at 10.

local and tribal government representatives. Additionally, these experts need to be skilled in communicating complex technical concepts to a general audience.

Due to overlap in scope and complimentary purpose, these face-to-face workshops to educate local jurisdictions in utility territory should be coordinated with PSPS working group meetings required in R.18-12-005, and any subsequent guidance arising from that proceeding.²⁰⁶ These workshops should also coordinate with the disaster response plan requirements of GO-166. Additionally, Section 956.5²⁰⁷ requires natural gas utilities to hold annual workshops for local fire departments regarding emergency planning. We recommend the utilities and their local and tribal government counterparts to refer to Section 956.5 meetings for reference in forming the first of these mandated workshops. These workshops should also be coordinated with utilities' annual reliability reporting obligations as required by D.16-01-008, pursuant to Section 2774.1. Finally, these workshops should be coordinated with land use consultation requirements set forth in GO 131-D, Section XIV. This decision does not preclude the utilities from consolidating these workshops with other existing workshops or working groups as appropriate.

To ensure accountability and effectiveness in execution of these meetings, Commission staff shall audit compliance with the workshop requirements adopted here. Staff audits shall hold the utilities accountable for the quality and content of the meetings.²⁰⁸ To this end, the utilities shall notify Energy Division staff at least one (1) month in advance of upcoming meetings and provide attendees with any presentations or other materials at least twenty-four (24) hours in advance of the meeting. Additionally, the utilities must submit after meeting reports to ensure the following goals and outcomes were achieved at each meeting: (1) local and tribal

²⁰⁶ Administrative Law Judge's Ruling, January 30, 2020.

²⁰⁷ All subsequent references are to the Public Utilities Code unless otherwise specified.

²⁰⁸ Counties of Marin, Napa, and Sonoma Reply at 5.

government inputs were considered when planning resiliency measures; (2) current resiliency and hardening projects plans/active project statuses were shared; (3) data was made available to local and tribal governments about projects and efforts; and (4) technical staff were made available to answer questions and engage with local and tribal governments.

In summary, upon date of issuance of this decision, the utilities are directed to submit Tier 2 Advice Letters within 30 days of this decision's effective date. In each utility advice letter, the utilities shall document their plans to conduct semi-annual workshops that will help empower local jurisdictions with a better understanding of grid operations, utility infrastructure, and the nature of weather events alongside utilities' PSPS mitigation initiatives in order to make informed decisions on where to focus their resiliency planning efforts, capital investments, and pre-PSPS event operations. This advice letter should specifically address how the utilities plan to develop or ensure that effective internal communication processes exist for managing the interface with local and tribal government by enumerating how they will achieve the outcomes below:

- Designating utility interfaces roles and responsibilities;
- Managing engagement with local and tribal government and building and sustaining effective relationships;
- Establishing and maintaining open, accurate, and consistent lines of communication;
- Involving local and tribal government in planning and vetting of utility actions impacting local and tribal government; and
- Executing agreements with local and tribal government.

Additionally, in this same Advice Letter filing, the utilities are directed to include draft agendas for local and tribal government engagement meetings and discuss how they plan to meet the specific content requirements of the workshops through examples of draft agenda items. Agenda items shall include, but not be limited to:

- Explanations of how the electric transmission system and distribution system operates in the area;
- Explanations of local grid topology and circuit configuration;
- Informing local and tribal governments about electric transmission and distribution infrastructure investment and operational plans;
- Discussion and visualization, for context purposes, of prior PSPS events;
- Weather and climatology analysis predictions and scenarios for future PPS events;
- Case studies of outage scenarios a county may experience based on predicted weather events;
- Granular, local reporting of reliability statistics; and
- How the utility plans incorporate and reflect local and tribal government input.

Furthermore, the utilities shall use this advice letter filing to enumerate how they plan to coordinate the workshop collaborative planning session about enhancing grid resilience within the county. The utilities shall discuss how this planning session will reflect:

- Outreach to County OES or other, similar county organizations responsible for implementing the State Emergency Plan;²⁰⁹
- Moderated by county OES administrator (unless administrator specifically declines invitation to do so, and either designates another government organization or has the utility moderate);
- Outreach to community organizations, including representation of disadvantaged communities and access and functional needs populations;
- Considers relevant elements of a community-based collaborative planning framework as suggested by the Staff

²⁰⁹ California Emergency Services Act Section 8568.

Proposal²¹⁰ (*i.e.*, as the National Institute of Standards and Technology Community Resilience Planning Guide or its Resilient Communities Toolkit);²¹¹ and

- Predicated upon best practices such as SDG&E community engagement.²¹²

The utilities shall use this advice letter to discuss how they intend to coordinate and harmonize these workshops with existing requirements and how they could incorporate Section 956.5 to implement the requirements of this decision. The utilities shall discuss the following existing requirements:

- PSPS working group meetings, as required by R.18-12-005;
- Disaster response plan requirements pursuant to GO 166;
- Annual reliability reporting obligations pursuant to D.16-01-008 and Section 2774.1; and
- Land use consultation requirements as laid out in GO 131-D, Section XIV.

In a separate informational filing, the utilities shall submit after-meeting reports, no later than five business days after the meeting was held. These after meeting reports shall demonstrate:

- CPUC staff were notified at least one (1) month prior to meeting date;
- Presentations and other materials were distributed to attendees at least twenty-four (24) hours in advance;
- Contact information was solicited for meeting attendees, with copies of any sign-in sheet circulated;
- Workshop agenda;
- Workshop minutes or transcript;

²¹⁰ Staff Proposal at 23.

²¹¹ <https://www.nist.gov/topics/community-resilience/planning-guide> The planning guide recommends methods for forming collaborative planning teams to help a community improve their resilience by setting priorities and allocating resources to manage risks for their prevailing hazards.

²¹² Staff Proposal at 24.

- Any presentations shown at the workshop; and
- Any data provided to stakeholders at the workshop.

Finally, the utilities shall file a Tier 1 Advice Letter on the first day of each yearly quarter, that compiles all of the after-meeting reports. This requirement will have an end date after three years. In the event of conflict between requirements laid out in the staff proposal and this decision, the language of this decision shall control.

When implementing these requirements, we remind staff, the utilities, and stakeholders to adhere to the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

4.3.3. Proposal 2, Resiliency Project Engagement Guide

Generally, the following parties supported requiring utilities to develop a resiliency project management guide. The parties that support Proposal 2 are: BAC;²¹³ CEERT;²¹⁴ CEJA;²¹⁵ CforAT;²¹⁶ Climate Center;²¹⁷ GPI;²¹⁸ MRC;²¹⁹

²¹³ BAC at 14.

²¹⁴ CEERT at 3.

²¹⁵ CEJA at 11.

²¹⁶ CforAT at 23.

²¹⁷ Climate Center at 5.

²¹⁸ GPI at 10.

²¹⁹ MRC at 16.

Placer County;²²⁰ RCRC;²²¹ SCE;²²² and Wild Tree Foundation.²²³ SDG&E opposed Proposal 2.²²⁴

4.3.3.1. Analysis: The Utilities Shall Prepare a Resiliency Project Engagement Guide that Assists Local Jurisdictions with Selecting Resiliency Project Designs and Implementation

Proposal 2 addresses the lack of information from utilities regarding front-of-the-meter projects. Local governments, CCAs, and tribal governments have expressed interest in obtaining this information to further distributed energy resources, including microgrids, that interconnect both behind and in-front of the customer meter. Staff suggests each utility develop a resiliency project engagement guide which focuses on these key elements to resolve this problem: (1) developing a flowchart depicting how to engage the utilities on resiliency projects; and (2) listing a set of best practices for successful project implementation. An array of parties supports this proposal, with modifications that we discuss below.

We adopt Staff's Proposal 2, with some of the parties' additional recommendations. In adopting Proposal 2 with modification, we assist local and tribal governmental entities and their community members in the early stages of resiliency project planning to better prepare for emergencies, including wildfires, and PSPS outages. While historically, in-front-of-the-meter projects were primarily implemented as part of the utilities' own grid management practice or pilot project, the time is ripe to revisit that approach. In this way, local jurisdictions will be enabled to identify potential in-front-of-the-meter resiliency solutions. That said,

²²⁰ Placer County at 9.

²²¹ RCRC at 6.

²²² SCE at 50.

²²³ Wild Tree Foundation at 5.

²²⁴ SDG&E at 17.

in-front-of-the-meter resiliency solutions can range widely in complexity from multi-customer in-front-of-the meter microgrids to individual distribution switches. Hence, it is in the public interest to require utilities to prepare a guide to help local and tribal governments navigate such complexity.

We direct the utilities to develop a written guide to help local and tribal governments navigate the utilities' interconnection and other, relevant processes, for deploying a resiliency project. Specifically, we direct the utilities to develop a guide for local and tribal governments that includes, but is not limited to: (1) flowcharts depicting how to engage with the utility depending on the type of resiliency project being planned, such as whether it is an in-front-meter or behind-the-meter project; (2) best practices for successful implementation; and (3) a list of data required by the utilities from local and tribal governments and tribal governments at each step of the utility's process.

Within 30 days upon the date of issuance of this decision, the utilities are directed to submit Tier 2 Advice Letter(s) for the resiliency project engagement guide. The advice letter must, at least, include the following: (1) mockup showing how data will be presented (flow chart, list, etc.); (2) list of precisely what data will be in the guides, including but not limited to: (a) the types of resiliency projects appropriate for the guide as well as a description of the types of projects not appropriate for the guide; (b) draft flowcharts for the project types including project/interconnection milestones and timelines; (c) list of data required by utilities from local and tribal governments at each step in the process; and (d) current list of engagement best practices; (3) a plan for how the guides will be made available to the public; (4) a description of how the guides will be kept current with program modification(s); and (5) a timeline for release of the guides. The resiliency project engagement guide should enable communities to have not only a partnership with the utilities but also, tools to make informed decisions for reducing risk and enhancing resiliency.

We anticipate benefits of a resiliency project engagement guide to be at least threefold: (1) assisting local and tribal governments with selecting configurations and project designs that are as economic as possible; (2) reducing interconnection delays associated with behind-the-meter projects by helping interested agencies identify locations where it is feasible to interconnect; and (3) minimizing costs and delays by pre-screening projects for issues that require substantial redesign or cancellation.

In summary, within 30 days upon the date of issuance of this decision, the utilities are directed to submit Tier 2 Advice Letters for their resiliency project engagement guide. In this filing, the utilities shall demonstrate their plan for developing an effective guide to enable communities to make informed decisions about future resiliency project investments. At minimum, this advice letter shall include:

- Mockup showing how data will be presented (flow chart, list, etc.);
- List of precisely what data will be in the guides, including but not limited to:
 - Listing of the types of resiliency projects covered by the guide and not covered by the guide;
 - Draft flowcharts for the above project types including project/interconnection milestones and timelines;
 - List of specific data required by utilities from local and tribal governments at each step in the process; and
 - Current list of engagement best practices.
 - Plan for how the guides will be made available to the public;
 - How the guides will be kept current with program modification(s); and timeline for release of guides in compliance with this decision.

4.3.4. Proposal 3, Dedicated Utility Team for Local and Tribal Government Projects

Generally, the following parties supported Proposal 3: BAC;²²⁵ CALSSA;²²⁶ CEERT;²²⁷ CEJA;²²⁸ CESA;²²⁹ Climate Center;²³⁰ GPI;²³¹ LGSEC;²³² Long Beach;²³³ MRC;²³⁴ Placer County;²³⁵ RCRC;²³⁶ SCE;²³⁷ TURN;²³⁸ and Wild Tree Foundation.²³⁹ SDG&E opposes Proposal 3.²⁴⁰

4.3.4.1. Analysis: The Utilities Shall Dedicate Staff to their Distribution Planning Teams that Specialize in Resiliency Project Development for Local Jurisdictions

Proposal 3 provides a one-stop resource for reliable guidance and expertise for microgrid and resiliency project development and implementation at the local and tribal level. Staff's Proposal 3 focuses on two key elements: (1) create a dedicated team of utility staff to manage intake of local and tribal government

²²⁵ BAC at 14.

²²⁶ CALSSA at 12.

²²⁷ CEERT at 3.

²²⁸ CEJA at 10.

²²⁹ CESA at 32.

²³⁰ Climate Center at 6.

²³¹ GPI at 10.

²³² LGSEC at 8.

²³³ Long Beach at 4.

²³⁴ MRC at 16.

²³⁵ Placer County at 9.

²³⁶ RCRC at 6.

²³⁷ SCE at 50.

²³⁸ TURN at 7.

²³⁹ Wild Tree Foundation at 5.

²⁴⁰ SDG&E at 17.

resiliency projects; and (2) provide a single point of contact for local and tribal governments to receive pre-application consulting services. An array of parties support this proposal, with additions, while SDG&E opposes²⁴¹ Proposal 3.

We adopt Proposal 3 with modification for SCE and SDG&E. We decline to adopt Proposal 3 for PG&E because of the significant overlap, and potential for duplication, between Staff Proposal 3 and PG&E's proposed Community Microgrid Enablement Program. We discuss PG&E's Community Microgrid Enablement Program in greater detail, later in this decision. We direct SCE and SDG&E to file Tier 2 Advice Letters for implementation of a dedicated utility team for local and tribal government projects within 30 days of the date of issuance of this decision. The advice letter shall discuss how SCE and SDG&E intend to implement compliance with Proposal 3 or how current organizational structures comply with requirements. Both SDG&E and SCE's advice letter must detail how each utility will implement the following:

- Providing advice and guidance before planning and proposal development begins;
- Prioritizing projects to ensure that resources are directed to the most urgent for public health, safety, and public interest;
- Assisting the local jurisdictions with consulting advice on the types of resiliency projects that can be expedited through the permitting and interconnection process;
- Providing pre-project information about load points, customer connectivity, load profiles, and the relevant maps and infrastructure data to facilitate local jurisdiction planning;
- What, if any, staffing requirements are necessary to establish such a team;

²⁴¹ SDG&E at 17.

- What, if any, training requirements are necessary to train the team;
- Organizational structure of the team; and
- Operational plan of the team including, but not limited to:
 - How the team will intake and process applications;
 - How the team will engage local and tribal governments; and
 - Timeline for full implementation.

Establishing a dedicated team builds specialized expertise within each utility and provides organizational stability to support community resiliency projects on an ongoing basis. This, in turn, should improve the confidence of local and tribal governments and market providers to explore and develop microgrid and resiliency projects. A dedicated team with specialized expertise may enable processing of a larger volume of projects with greater rapidity. The cost associated with establishing dedicated teams should be achievable within existing general rate case funding levels. In subsequent general rate cases, the utilities may request augmentation to these resources.

In summary, within 30 days upon the date of issuance of this decision, SCE and SDG&E are directed to submit Tier 2 Advice Letter(s), where SCE and SDG&E shall demonstrate how they intend to implement compliance with the requirements of Section 4.3.4.1 of this decision or how current organizational structures comply with requirements. Both SDG&E and SCE's Advice Letter(s) must detail how the utility will implement the following in compliance with this decision:

- Providing advice and guidance before planning and proposal development begins;
- Prioritizing projects to ensure that resources are directed to the most urgent for public health, safety, and public interest;
- Assisting the local jurisdictions with consulting advice on the types of resiliency projects that can be expedited through the permitting and interconnection process;

- Providing pre-project information about load points, customer connectivity, load profiles, and the relevant maps and infrastructure data to facilitate local jurisdiction planning;
- What, if any, staffing requirements are necessary to establish such a team;
- What, if any, training requirements are necessary to train the team;
- Organizational structure of the team; and
- Operational plan of the team including, but not limited to:
 - How the team will intake and process applications;
 - How team will engage local and tribal governments; and
 - Timeline for full implementation.

4.3.5. Proposal 5, Separate Portal for Local and Tribal Governments

Generally, the following parties supported Proposal 5: BAC;²⁴² CEERT²⁴³; CEJA;²⁴⁴ CESA;²⁴⁵ CforAT;²⁴⁶ Climate Center;²⁴⁷ GPI;²⁴⁸ LGSEC;²⁴⁹ MRC;²⁵⁰

²⁴² BAC at 13.

²⁴³ CEERT at 3.

²⁴⁴ CEJA at 10.

²⁴⁵ CESA at 32.

²⁴⁶ CforAT at 24.

²⁴⁷ Climate Center at 5.

²⁴⁸ GPI at 10.

²⁴⁹ LGSEC at 9.

²⁵⁰ MRC at 16.

Cal Advocates;²⁵¹ PG&E;²⁵² Placer County;²⁵³ RCRC;²⁵⁴ and Wild Tree Foundation.²⁵⁵ CUE;²⁵⁶ CCTA;²⁵⁷ SCE;²⁵⁸ and SDG&E²⁵⁹ oppose Proposal 5.

4.3.5.1. Analysis: The Utilities Shall Develop a Separate, Access-Restricted Portal for Local Jurisdictions that Gives Information to Support Local Community Resiliency Projects

Proposal 5 supports the ability of local and tribal governments to design microgrid and related resiliency projects on their own prior to engaging directly with utilities. Proposal 5 requires the utilities to develop a separate, access-restricted portal for local and tribal governments to access utility data to help identify microgrid and resiliency project development opportunities. The information provided through the portal should enable the development of higher quality interconnection applications that take less process cycle time for the utilities to approve. An array of parties supports this proposal, with additions or modifications, while CUE,²⁶⁰ SCE,²⁶¹ and SDG&E²⁶² oppose Proposal 5.

We adopt Proposal 5 with modification. While party comments highlight no broad consensus on what data should be made available through such a portal, we

²⁵¹ Cal Advocates at 13.

²⁵² PG&E at 47.

²⁵³ Placer County at 9.

²⁵⁴ RCRC at 6.

²⁵⁵ Wild Tree Foundation at 5.

²⁵⁶ CUE at 3.

²⁵⁷ CCTA at 4.

²⁵⁸ SCE at 51.

²⁵⁹ SDG&E Comments at Appendix A, 18.

²⁶⁰ CUE at 3.

²⁶¹ SCE at 51.

²⁶² SDG&E Appendix A, at 18.

adopt some data requirements with the anticipation that either Track 2 or Track 3 will further develop supplementary parameters for the platform's growth. For Track 1 purposes, the utilities are directed to create a separate, access-restricted portal for local and tribal governments to access utility data to help identify microgrid development opportunities. For the near-term, access to the portal should not require the execution of a non-disclosure agreement, but should still be subject to confidential treatment and shall be restricted to tribal governments, County OESs, or organizations created by political subdivisions to carry out provisions of the State Emergency Plan.²⁶³

The tool at a minimum must include:

- A layer showing utility planned work and grid investments in both tabular and geographic information system (GIS) format (pursuant to utility obligations contemplated in GO 131-D [Standard XI] and GO-166 [Standard 1, Section E].);
 - Data about individual projects should include at a minimum:
 - Location of the project;
 - Project description (what is being upgraded/built, why it is being upgraded/built);
 - Project timeline; and
 - Project completed.
- Layer showing High Fire Threat Districts;
- Layer(s) showing electrical infrastructure:
 - All substations and distribution circuits, including subtransmission lines and stations; and
 - All transmission lines feeding distribution; subtransmission substations.
- Layer showing weather polygons or other key weather-related determining factors that led to the decision to de-

²⁶³ California Emergency Services Act section 8568.

energize from each prior PSPS event and resulting distribution and transmission line outages (transmission line de-energization visualizations should only be included to the extent that they resulted in distribution outages)

Within 30 days upon the date of issuance of this decision, the utilities are directed to submit Tier 2 Advice Letter(s) discussing their plan for developing a separate, access-restricted data portal for sharing information with local and tribal governments. This Advice Letter shall include an implementation plan for the requirements from Section 4.3.5.1 of this decision, as well as: (1) a work plan and budget estimate for developing a data portal that provides all the data and meets all the requirements listed in this section; and (2) a narrative description of how the work plan relates to any other planned work on related systems. The work plan shall include a list of tasks, a schedule for each task, any interdependencies among tasks, and key milestones Use of the existing Distribution Resources Plans (DRP) Data Portals should be carefully considered by the utilities.²⁶⁴ PG&E and SDG&E require registration and a login to access data on their DRP Data Portals, for example. This approach could be used to restrict access to certain data while making the same data available to specific users. Additionally, use of PG&E's PSPS portal should also be considered due to significant overlap in scope of information,

²⁶⁴ Pursuant to proceeding R.14-08-013, the DRP Data Portals hosted by the three utilities provide Integrated Capacity Analysis, Locational Net Benefit Analysis, Grid Needs Assessment/Distribution Deferral Opportunity Report, and other data to the public to support, among other goals, the siting and sizing of customer-owned DERs, public vetting of the utilities filings, and third-party bidding on distribution deferral opportunities as part of the Distribution Investment Deferral Framework. The portals are available as follows: SCE at <https://ltmdrpep.sce.com/drpep>; PG&E at https://www.pge.com/en_US/for-our-business-partners/distribution-resource-planning/distribution-resource-planning-data-portal.page; and SDG&E at <https://www.sdge.com/more-information/customer-generation/enhanced-integration-capacity-analysis-ica>.

and for the fact that it is access restricted which allows local government users to access confidential customer data after vetting applicants for access.²⁶⁵

5. Discussion of Utility Initiatives

In the Scoping Memo and Ruling, and Administrative Law Judge's Ruling the utilities were directed to submit proposals for immediate implementation of resiliency strategies, including partnerships and planning with local and tribal governments.

In response, PG&E and SDG&E submitted such proposals for stakeholder review and subsequent Commission approval. SCE did not request such relief from the Commission for Track 1. Nevertheless, we will obtain lessons learned from SCE – as well as PG&E and SDG&E – to inform Track 2 and Track 3 of this proceeding. Next, we discuss each of the utilities proposals, in turn, below.

5.1. PG&E Proposal Summary

PG&E seeks authorization and incremental cost recovery for three components of a larger strategy for addressing grid outage events by deploying Distributed Generation Enabled Microgrid Services (DGEMS) at PG&E substations. The three components for which PG&E has requested authorization and rate recovery are: (1) Make-Ready Program; (2) Temporary Generation Program; and (3) Community Microgrid Enablement Program (CMEP).

The following chart illustrates PG&E's total forecasted costs (in thousands) by each program:

PG&E Total DGEMS Forecasted Costs

| Description | 2020 (\$000) | 2021 (\$000) | 2022 (\$000) | Total (\$000) |
|----------------------|--------------|--------------|--------------|---------------|
| Make-Ready Program | \$ 135,975 | - | - | \$135,975 |
| Temporary Generation | \$ 173,300 | - | - | \$173,300 |
| Community Microgrids | \$ 9,750 | \$ 30,000 | \$ 30,000 | \$ 69,750 |
| Enablement Program | \$ 19,025 | \$ 30,000 | \$ 30,000 | \$ 79,025 |
| Total forecasted | \$ 319,025 | \$ 30,000 | \$ 30,000 | \$ 379,025 |

PG&E's PPS data portal is available as follows: <https://pspsportal.pge.com/>. Users are requested to sign up for an account, choose a level of access, and applications are vetted by PG&E to allow only authorized users access to confidential customer data.

Make-Ready Program: The DGEMS Make-Ready Program involves engineering and constructing additional infrastructure, with \$136 million in estimated costs. PG&E argues that the Make-Ready Program enables each of the prioritized substations to operate in islanded mode when the transmission line serving the substation is de-energized, such as during a PSPS event or other loss of transmission line (*i.e.*, severe weather, earthquake, physical or cyber security event). The component facilities that PG&E would equip at the prioritized substations may include ground grids, circuit breakers or line reclosers with sync scope capability, fuse disconnect switchgear, additional substation bus infrastructure and other electrical infrastructure.

Temporary Generation Program: PG&E proposes to lease mobile generators for temporary use during the 2020 wildfire season. The Temporary Generation Program proposes to deploy temporary mobile distributed generation as a critical near-term stop-gap solution for serving three PSPS mitigation use cases. The use cases and estimated MWs to reserve are based in part on PG&E's 2019 PSPS event experience during which PG&E deployed temporary generation to re-energize safe-to-energize substations, temporary microgrids such as mid-feeder line segments serving commercial corridors and critical facilities (*i.e.*, "resilience zones" similar to the pilot at Pacific Union College in Angwin, California), and societal continuity sites which would be single-customer critical facilities where existing backup power supplies have failed or were insufficient for prolonged unplanned outages (*i.e.*, hospitals, transmission-level customers, major transportation, water and wastewater treatment facilities).

The Temporary Generation Program requires PG&E to pay an annual reservation fee quoted at \$94 million to provide certainty that the generators (typically 2 MW in size) will be available on standby for use when required during a PSPS event. In addition to the standby rate, implementing the program involves a

third-party rental contract to procure equipment and services such as temporary infrastructure, a temporary ground grid, step-up transformer, temporary cabling, operations personnel, California Air Resources Board (CARB) permitting application process, fuel and mobilization costs.

Community Microgrids Enablement Program (CMEP): Finally, PG&E's proposed CMEP provides incremental technical and financial support on a prioritized basis for community requested microgrids for PSPS mitigation purposes. Generally, the proposed eligibility criteria for this program includes community proposed microgrids serving multiple critical facilities located in Tier 2 or Tier 3 high fire threat districts as well as written support of local and tribal government. The CMEP contemplates utility technical support, such as project scoping, pre-application technical project design guidance, and a dedicated PG&E project management office to provide support for CMEPs projects. One-time matching funds of up to \$60.75 million would be made available as matching grants to defray the cost of special facilities or distribution system upgrades. PG&E proposes that eligibility criteria and detailed program implementation details should be made available after PG&E refines this program with input from local and tribal governments and communities, followed by an implementation Advice Letter 60 days following Commission approval.

5.1.1. Parties Positions

Generally, the following parties support PG&E's Make-Ready program proposal, with modification or upon condition:

- AT&T and Frontier,²⁶⁶
- Bright Canyon,²⁶⁷

²⁶⁶ AT&T and Frontier at 3-4.

²⁶⁷ Bright Canyon at 4.

- CCDC,²⁶⁸
- CLECA,²⁶⁹
- CUE,²⁷⁰
- Doosan,²⁷¹
- Enchanted Rock,²⁷²
- GPI,²⁷³
- Joint CCAs,²⁷⁴
- LGSEC,²⁷⁵
- MCE,²⁷⁶
- NFCRC,²⁷⁷
- Placer County,²⁷⁸
- Cal Advocates,²⁷⁹
- RCRC,²⁸⁰
- SBUA,²⁸¹
- TURN,²⁸² and

²⁶⁸ CCDC at 7.P

²⁶⁹ CLECA at 4.

²⁷⁰ CUE at 4.

²⁷¹ Doosan at 11.

²⁷² Enchanted Rock at 6.

²⁷³ GPI at 11.

²⁷⁴ Joint CCAs at 4.

²⁷⁵ LGSEC at 4.

²⁷⁶ MCE at 3.

²⁷⁷ NFCRC at 13.

²⁷⁸ Placer County at 11 and 15-16.

²⁷⁹ Cal Advocates at 16.

²⁸⁰ RCRC at 10.

²⁸¹ SBUA at 9.

²⁸² TURN at 7.

- Wild Tree Foundation.²⁸³

The following parties are opposed to PG&E's Make-Ready program proposal:

- CEERT,²⁸⁴
- CESA,²⁸⁵
- Clean Coalition,²⁸⁶
- CC,²⁸⁷
- Shell Energy,²⁸⁸
- Sierra Club,²⁸⁹ and
- Tesla.²⁹⁰

Temporary Generation Program: With respect to the Temporary Generation Program, the following parties are in support, with modification or upon condition:

- AT&T and Frontier,²⁹¹
- Bright Canyon,²⁹²
- CCDC,²⁹³
- CESA,²⁹⁴

²⁸³ Wild Tree Foundation at 5-6.

²⁸⁴ CEERT at 4.

²⁸⁵ CESA at 35.

²⁸⁶ Clean Coalition at 10.

²⁸⁷ CC at 11.

²⁸⁸ Shell Energy at 5.

²⁸⁹ Sierra Club at 4.

²⁹⁰ Tesla at 25.

²⁹¹ AT&T and Frontier at 3-4.

²⁹² Bright Canyon at 4.

²⁹³ CCDC at 7.

²⁹⁴ CESA at 36.

- CLECA,²⁹⁵
- CUE,²⁹⁶
- Enchanted Rock,²⁹⁷
- LGSEC,²⁹⁸
- MCE,²⁹⁹
- MRC,³⁰⁰
- Placer County,³⁰¹
- Cal Advocates,³⁰²
- RCRC,³⁰³
- Tesla,³⁰⁴
- TURN,³⁰⁵ and
- Wild Tree Foundation.³⁰⁶

While the following parties are opposed:

- CEERT,³⁰⁷
- CEJA,³⁰⁸

²⁹⁵ CLECA at 4.

²⁹⁶ CUE at 4.

²⁹⁷ Enchanted Rock at 6.

²⁹⁸ LGSEC at 5-6.

²⁹⁹ MCE at 8-9.

³⁰⁰ MRC at 20.

³⁰¹ Placer County at 13, and 15-16.

³⁰² Cal Advocates at 15-16.

³⁰³ RCRC at 10.

³⁰⁴ Tesla at 27.

³⁰⁵ TURN at 7.

³⁰⁶ Wild Tree Foundation at 5-6.

³⁰⁷ CEERT at 4.

³⁰⁸ CEJA at 12.

- Clean Coalition,³⁰⁹
- GPI,³¹⁰
- Shell Energy,³¹¹ and
- Sierra Club.³¹²

Community Microgrids Enablement Program: With respect to the Temporary Community Microgrids Enablement Program, the following parties are in support, with modification or upon condition:

- AT&T and Frontier,³¹³
- BAC,³¹⁴
- CALSSA,³¹⁵
- CEJA,³¹⁶
- CESA,³¹⁷
- CC,³¹⁸
- Doosan,³¹⁹
- Enchanted Rock,³²⁰
- GPI,³²¹

³⁰⁹ Clean Coalition at 10.

³¹⁰ GPI at 11.

³¹¹ Shell Energy at 5.

³¹² Sierra Club at 8-9.

³¹³ AT&T and Frontier at 3-4.

³¹⁴ BAC at 15.

³¹⁵ CALSSA at 13.

³¹⁶ CEJA at 18.

³¹⁷ CEA at 37.

³¹⁸ CC at 13.

³¹⁹ Doosan at 12.

³²⁰ Enchanted Rock at 6.

³²¹ GPI at 11.

- GRID,³²²
- LGSEC,³²³
- NFCRC,³²⁴
- Placer County,³²⁵
- Cal Advocates,³²⁶
- RCRC,³²⁷
- SBUA,³²⁸ and
- TURN.³²⁹

The following parties are opposed:

- CforAT³³⁰ and
- Vote Solar.³³¹

5.1.2 Analysis: PG&E's Make-Ready Program and Community Microgrid Enablement Program are Approved Subject to Full Commission Reasonableness Review; and PG&E's Temporary Generation Program is Authorized for Interim, Short-Term Use Only

Section 451 requires us to regulate public utilities to ensure that customers receive safe and reliable service at just and reasonable rates. With Section 451 in mind, we highlight that PG&E's 2019 PSPS events were the largest in California

³²² GRID at 10.

³²³ LGSEC at 4-5.

³²⁴ NFCRC at 16.

³²⁵ Placer County at 13, and at 15-16.

³²⁶ Cal Advocates at 20.

³²⁷ RCRC at 11.

³²⁸ SBUA at 10-11.

³²⁹ TURN at 10-11.

³³⁰ CforAT at 30.

³³¹ Vote Solar at 12.

history. This deliberate action shut-off power for extended periods to approximately 738,000 PG&E customers in 35 counties, impacting more than two million people. The scope, scale, and complexity of these events affected people's lives, business, and the economy.

Yet, during the 2019 PG&E PSPS events, some PG&E customers in Angwin, Grass Valley, Calistoga, and Placerville, were served by resiliency solutions including temporary microgrids or resilience zones that kept these customers in service, avoiding outages that averaged 4.8 days elsewhere.

We directed PG&E to submit resiliency strategies in this rulemaking to mitigate the impact of PSPS events. We did not direct PG&E to file supplemental testimony on April 1, 2020 and therefore, do not consider the content of that supplemental testimony for purposes of this decision.

Through Section 451 and with the backdrop of the 2019 PG&E PSPS events, we discuss PG&E's proposed DGEMS Make-Ready Program, Temporary Generation, CMEP, in turn below.

Make-Ready Program: PG&E seeks Commission approval of its plan to make infrastructure upgrades to its distribution system. Having the functionality to island a substation and serve it by temporary or permanent generation provides continuous service to significantly larger populations of customers (thousands to tens of thousands). The Make-Ready Program would establish substation infrastructure to support the proposed PG&E Temporary Generation Program. The Temporary Generation Program anticipates maintaining service continuity for customers and would be enabled to potentially avoid outage durations for up to 96 hours.

PG&E argues that these upgrades will enable candidate substations to utilize temporary generation or permanently-sited distributed generation to stay in service

during a PSPS event.³³² Generally, parties are supportive of PG&E's proposal, but only on a limited or conditional basis.

We authorize PG&E to implement the Make-Ready Program component of its DGEMS Proposal, from 2020 to 2022.³³³ We agree with CforAT that PG&E has not substantially justified the extent to which its portfolio of PSPS mitigations would reduce the utility's reliance on shutting off the power to its customers and/or reduce the numbers of customers affected.³³⁴ Furthermore, we agree with TURN that PG&E's costs for the Make-Ready program should be subject to reasonableness review.³³⁵ Therefore, we do not approve PG&E's request to recover the forecasted costs of this program in rates through a balancing account.

Instead, we will conduct a reasonableness review, in an upcoming track of this proceeding, to determine whether the costs for PG&E's Make-Ready Program should be recovered in rates. To assist us in determining whether it is reasonable to allow PG&E to recover the costs for its Make-Ready Program, we may consider the results of PG&E's Transmission Line Assessment.³³⁶ The Transmission Line Assessment may provide relevant information regarding transmission infrastructure asset health, including ability to withstand wind events. We direct

³³² PG&E-1,- Chapter 1 at 6.

³³³ In response to D.19-11-016, PG&E issued a 2019 System Reliability RFO on December 11, 2019. The RFO scope was to procure resources to provide distributed generation enabled microgrid services. PG&E indicated it was pursuing solutions to narrow the scope of future PSPS events and reduce customer impacts from PSPS outages. PG&E's intent was to equip targeted substation locations with DGEMS to have them online preferably by June 1, 2020, but no later than September 1, 2020. The RFO conducted under D.19-11-016 because PG&E sought to qualify the capacity towards the minimum 716.9 MW of additional procurement.

³³⁴ Center for Assistive Technology at 27.

³³⁵ TURN at 2.

³³⁶ In PG&E 2020 Wildfire Mitigation Plan Report Updated Rulemaking R.18-10-007 dated February 28, 2020 at section 5.3.3.8, it states that PG&E will be evaluating all 552 transmission lines in HFTD areas to determine which lines can be removed from future PSPS Event scope.

PG&E to limit the scope of its Make-Ready Program to include the number of substations necessary to keep customers energized during a PSPS event or other loss of transmission line, as consistent with goals to minimize impact of PSPS. For requesting rate recovery, PG&E shall submit information to the Commission to aid its reasonableness review including, but not limited to, testimony, workpapers, and bill impact statements. The scope addressed in this decision does not include connecting permanent distributed generation solutions at substations.

PG&E shall track the Make-Ready Program costs, expenses, and capital expenditures in a new Microgrids Memorandum Account. PG&E shall submit, within 30 days upon the date of issuance of this decision, a Tier 2 advice letter that modifies its Electric Preliminary Statement to create the Microgrids Memorandum Account to track the costs associated with this decision's approval of its Make-Ready Program. PG&E shall record the Make-Ready program costs as a separate subaccount in this memorandum account. The costs recorded in the Microgrids Memorandum Account for the PG&E Make-Ready Program shall be subject to a full reasonableness review by the Commission during an upcoming track of this proceeding. During this reasonableness review, we will ensure that: (1) PG&E makes an affirmative showing that the relevant work did not fall within the scope of previously authorized revenue requirements; and (2) PG&E provides an update on recorded spending relative to general rate case authorized forecasts for related scope of work.

Finally, we direct PG&E to collaborate with the CCAs in its service territory for planning and procurement processes for Make-Ready resources that may be deployed in the CCA's service territory.

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Temporary Generation Program: Cal Advocates argues that temporary generation may be a viable solution in the short term and may be a bridge, until PG&E provides a transmission and distribution system that is hardened and does

not present a de-energization risk.³³⁷ We agree. We approve PG&E's Temporary Generation Program for interim, short-term use for the upcoming 2020 wildfire season. This interim approval is subject to the following requirements.

We begin with general parameters. First, the Temporary Generation Program shall use mobile, temporarily-sited distributed generation at substations, mid-feeder line segments serving commercial corridors and commercial facilities, and backup power support for societal continuity during PSPS events, including backup power for Community Resource Centers.. Second, costs for the Temporary Generation Program shall be tracked in a new Microgrids Memorandum Account subject to a full reasonableness review, in an upcoming tack of this proceeding, prior to recovery of costs into rates. . This review will determine whether the relevant Microgrids Memorandum Account balance should be amortized into rates, and the appropriate effective date for such amortization into rates. For requesting rate recovery, PG&E shall submit information to the Commission to aid its reasonableness review including, but not limited to, testimony, workpapers, and bill impact statements.

Now, we must turn to concerns raised by parties regarding the use of temporary diesel generation for customers impacted by PSPS outages. PG&E's use of temporary diesel generation for customers impacted by PSPS outages must be limited to one year from execution of vendor agreements enacted within 2020 – it is not a long-term resiliency strategy. Indeed, large diesel generators – even when localized in select areas – present potential health risks for individuals who live or work near a temporary generation site. We weigh this risk presented by limited, localized use of temporary diesel generation against the near-term impact of the upcoming wildfire season and potential PSPS outage events as we calibrate a

³³⁷ Cal Advocates at 17.

balanced approach to ensure electrical service necessary for public health, safety, welfare and societal continuity in times of crises.

On balance, for the upcoming fire season, it is necessary to allow the use of targeted, temporary diesel generation to ensure the public is prepared for both the 2020 wildfire season and the potential dangers associated with potential PSPS outages, including potential loss of, or damage to, life, health, property, or essential public services. With this short-term, interim and targeted use only, electrical service will be preserved for some ratepayers while transmission lines are de-energized due to a PSPS event. We believe this temporary resiliency measure will support those who are disproportionately affected by disasters, such as individuals with access and functional needs and hard-to-reach customers.

Again, diesel generation cannot be a long-term resiliency strategy. Therefore, upon the effective date of this decision, this proceeding shall initiate activity to shape a transition to alternative, clean backup power generation away from diesel generation. To date, the record in this proceeding shows that while there is much opposition to the use of diesel generation, no party has proposed a specific alternative solution that is off the shelf-ready for use during the upcoming wildfire season. Therefore, we invite stakeholders in this proceeding to engage with us on this matter and bring their foresight into the mainstream on this topic to enhance our long-term resiliency initiatives.

For purposes of transparency, PG&E shall file a compliance filing by March 11, 2021 in this proceeding, containing a report detailing the use of temporary emergency generators during the 2020 fire season. This report shall detail: (a) the total number of diesel generators employed; (b) each deployment location and run time of generators by date and time; (c) the use case, including substations, mid-feeder line segments serving commercial corridors and commercial facilities, backup power generation for societal continuity purposes, including backup power for Community Resource Centers; (d) the reasons why the use of diesel backup

power was needed; (e) Cal EnviroScreen percentile for the generator location;³³⁸ (f) number of customers served; (g) fuel types used and extent of use by fuel types; (g) a summary of emissions by greenhouse gas (GHG) and criteria air pollutant emissions factors; (h) lessons learned from an after-event analysis of the 2020 wildfire season experience; and (i) recommendations for continuous improvement based on experience from the 2020 wildfire season.

PG&E shall submit, within 30 days upon the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to establish a separate subaccount in the new Microgrids Memorandum Account for the costs associated with this decision's approval of its Temporary Generation Program. PG&E shall record the Temporary Generation Program costs in a separate subaccount in this memorandum account. The costs recorded in Microgrids Memorandum Account for PG&E's Temporary Generation Program shall be subject to a full reasonableness review by the Commission in an upcoming track of this proceeding. During this reasonableness review, we will ensure that: (1) PG&E makes an affirmative showing that the relevant work did not fall within the scope of previously authorized revenue requirements; and (2) PG&E provides an update on recorded spending relative to general rate case authorized forecasts for related scope of work.

CMEP: PG&E also seeks Commission approval for its community-proposed microgrid program to enhance resilience for critical facilities and vulnerable customer groups.³³⁹ The four main components of its CMEP are: (1) enhanced utility technical support to local and tribal governments to support critical facility microgrid projects; (2) enhanced customer-facing microgrid implementation

³³⁸ <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

³³⁹ PG&E-1, Chapter 5 at 2.

information and project tools; (3) one-time matching funds to offset some portion of the costs associated with upgrades to PG&E's distribution system and ensure safe operations; and (4) working with stakeholders to draft proposed community microgrid tariffs, subject to Commission review and approval.³⁴⁰ Generally, most parties support PG&E's proposed community level approach for PSPS mitigation.

We approve PG&E's CMEP subject to certain requirements. We agree with CEJA that eligibility for CMEP should be expanded to all areas prone to all outage events,³⁴¹ not just Tier 2 and 3 HFTDs. PG&E shall also incorporate criteria for its CMEP to prioritize vulnerable communities and customers with access and function needs that apply for CMEP funds. We approve the CMEP program for years 2020-2022, after which PG&E shall provide a program evaluation to the Commission in its 2023 GRC application.³⁴² The GRC evaluation shall enable the Commission to evaluate the efficacy of the program and determine whether the program should continue beyond 2022. Second, we approve PG&E to expand the scope of its CMEP proposal to include technical support and guidance for local and tribal governments as well as CCAs to design and engineer behind-the-meter microgrids, in preparation for the upcoming 2020 fire season and beyond. Community microgrids can be complex to develop and interconnect. The technical support and guidance for local and tribal governments and CCAs is essential for collaborative success.

Third, and more broadly, we believe the CMEP program will foster collaboration in a manner that supports local and tribal governments and CCA development of microgrid project to support community resilience. In approving the CMEP, we support communities and critical facilities – such as police stations, schools/education facilities, water and wastewater facilities, community centers,

³⁴⁰ *Id.* at 3-4.

³⁴¹ CEJA at 18-19.

³⁴² Cal Advocates Reply Comments at 7.

and senior centers - located in areas impacted by outages. PG&E shall give strong consideration for CMEP proposals that serve and keep energized disadvantaged communities, customers with access and functional needs, medical baseline customers, and hard to reach customers located in remote areas. We agree with NFCRC that the CMEP may provide the impetus for microgrids as resiliency solutions for PSPS mitigation purposes. In approving the CMEP we further our intent for Track 1 of this proceeding to deploy microgrids as resiliency solutions for 2020 and beyond.

PG&E shall meet and confer with stakeholders, while minding the State of California's rules and guidelines concerning the COVID-19 pandemic, to solicit input from local and tribal governments as well as CCAs to refine the CMEP's scope, eligibility, and fund matching applicability.

This meet and confer between PG&E and the local and tribal governments as well as CCAs shall also serve as a forum to develop a scoring or prioritization system for fund matching applicability for disadvantaged, low-income, and vulnerable populations as well as populations with access and functional needs. In addition, PG&E is directed to inform the development of CMEP implementation details by addressing the following questions, including, but not limited to:

- Should CMEP apply to both behind-the-meter (BTM) and in-front-of-the-meter (IFM) projects? Does CMEP apply to remote grids³⁴³?
- Should CMEP apply if a local and tribal government promotes a project that uses private sector assets?
- Should technical support and matching funds be made available on a first-come, first-served basis based on specific eligibility criteria?

³⁴³ PG&E Track 1 Proposal at A-9.

- If requests exceed funding, should there be criteria for which applicants will be served?
- Should there be any limitation to types of projects that can be included?
- Should projects be limited to certain kinds of resiliency projects, microgrids, and technologies using renewable distributed energy resources or fuels?
- Should projects be prioritized based on feasibility to get online in time for 2020 fire season?
- Should projects be limited to those needed to address near-term fire season priorities and in sites based on fire prevention within HFTDs?
- Should eligibility be expanded to include areas that experienced one or more PSPS events and are prone to outage events due to PSPS although they may be located outside of Tier 2 and Tier 3 HFTDs?
- Applicability for Matching Funds: How should the level of matching funds dedicated to the CMEP Program be determined? Can matching funds be used for any project costs or should matching funds be restricted to funding distribution system upgrades including a cap or threshold?

Within 60 days upon the date of issuance of this decision, PG&E shall submit a Tier 2 Advice Letter that describes: (1) how PG&E will implement the same content required by the Local Governments Proposal 3 in section 4.3.4.1 of this decision; (2) include CMEP implementation details regarding the program scope, project applicability and eligibility criteria; (3) report out on the meet and confer/workshop outreach conducted to solicit input/feedback from local and tribal governments, as well as CCAs, to refine the program scope, project eligibility, and matching fund applicability; and (4) provide agendas, attendees lists, and meeting minutes for the meet and confer sessions held with parties to solicit input/feedback from local and tribal governments, as well as CCAs.

Finally, PG&E shall submit, within 30 days upon the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to

create a new Microgrids Memorandum Account subaccount to track costs associated with this decision's approval of its CMEP. PG&E shall record all CMEP costs in a separate subaccount in this memorandum account. The costs recorded in the Microgrids Memorandum Account for PG&E's CMEP shall be subject to a full reasonableness review by the Commission either by way of a separate application or in its General Rate Case before the Commission.

5.2. SDG&E Proposal Summary

SDG&E highlights the ongoing and authorized projects that it has implemented since the 2007 wildfires that affected its service territory. The summarized list of projects that follows represent SDG&E's ongoing efforts to mitigate the use of PSPS and wildfire events:

- Hired subject matter experts in firefighting, fire science and meteorology who have developed and implemented programs to enhance situational awareness;
- Established customer and local agency outreach programs to educate customers and stakeholders on the wildfire risk and maintain open lines of communication during hazardous conditions;
- Formalized a Fire Science and Climate Adaption department comprised of meteorologists, community resiliency experts, fire coordinators and project management personnel. The focus of this department is to respond to and plan for SDG&E's fire preparedness activities and programs;
- Focused on hardening its electric transmission and distribution systems particularly in rural areas where vegetation, weather conditions and topography often align to increase the potential for catastrophic wildfires;
- Worked to improve its sectionalizing capability enabling it to segment targeted system outages in a more granular fashion, thereby reducing the number of customers affected by PSPS or other events.

In its Track 1 proposal, SDG&E seeks Commission approval for the following:

- Electric vehicle (EV) charging infrastructure to be installed at Cameron Corners microgrid (Cameron Corners Microgrid) to support customer mobility including evacuation as necessary; and
- Procurement of a local area distribution controller – a proprietary software/hardware solution that can enhance microgrid operation;

5.2.1. Parties Positions

In general, the following parties are in support of both SDG&E's proposed EV Cameron Corners Microgrid and local area distribution controller, with qualifications and/or desire for more information:

- AT&T and Frontier,³⁴⁴
- CforAT,³⁴⁵
- CCDC,³⁴⁶
- CEERT,³⁴⁷
- CEJA,³⁴⁸
- CESA,³⁴⁹
- Clean Coalition,³⁵⁰
- CLECA,³⁵¹
- Climate Center,³⁵²

³⁴⁴ AT&T and Frontier at 3.

³⁴⁵ CforAT at 31-33.

³⁴⁶ CCDC at 7.

³⁴⁷ CEERT at 3, Reply at 4.

³⁴⁸ CEJA at 24.

³⁴⁹ CESA at 38, Reply at 1-4.

³⁵⁰ Clean Coalition at 16.

³⁵¹ CLECA at 7.

³⁵² Climate Center at 15.

- CTIA,³⁵³
- Doosan,³⁵⁴
- Enchanted Rock³⁵⁵
- GPI,³⁵⁶
- GRID,³⁵⁷
- Cal Advocates,³⁵⁸
- SBUA,³⁵⁹
- Tesla,³⁶⁰ and
- UCAN.³⁶¹

In general, the following parties are opposed to SDG&E's proposed EV Cameron Corners Microgrid and local area distribution controller:

- EnelX,³⁶²
- Joint CCAs³⁶³ and
- TURN.³⁶⁴

³⁵³ CTIA at 4.

³⁵⁴ Doosan at 11.

³⁵⁵ Enchanted Rock at 7.

³⁵⁶ GPI at 10, 24, and 25-27.

³⁵⁷ GRID at 5-7.

³⁵⁸ Cal Advocates at 3, and 38-45.

³⁵⁹ SBUA at 9, Reply at 6.

³⁶⁰ Tesla at 23-24, and 29.

³⁶¹ UCAN at 2-7.

³⁶² EnelX at 2, 7.

³⁶³ Joint CCAs at 28-29.

³⁶⁴ TURN at 2-7.

5.2.2. Analysis: SDG&E's Request for a Local Area Distribution Controller is Granted, Conditioned Upon Subsequent Affiliate Transaction Compliance, but SDG&E's Request for Electric Vehicle Charging Infrastructure is Denied Without Prejudice.

We discuss SDG&E's proposals, as viewed through the Section 451 requirement to regulate public utilities to ensure that customers receive safe and reliable service at just and reasonable rates, in turn below.

Local Area Distribution Controller: SDG&E seeks approval for procurement of a proprietary software and hardware technology called a local area distribution controller (LADC). SDG&E asserts that the LADC will: (1) enhance microgrid operation; and (2) augment and interoperate with SDG&E's existing advanced distribution management system and its Wildfire Mitigation Plan (WMP) microgrid projects and related activities. SDG&E's request must be analyzed under the scrutiny of the Commission's Affiliate Transaction Rules because the winning bidder of the LADC procurement, PXiSE, is a subsidiary of SDG&E's parent company, Sempra Energy.

The Commission adopted its Affiliate Transaction Rules to mitigate the potential for transfer of market power and cross-subsidy of its regulated entities with their unregulated affiliates.³⁶⁵ As is relevant to this discussion, a key goal of the Affiliate Transaction Rules is to ensure that the regulated utilities do not favor or otherwise engage in preferential treatment of their affiliates in energy resource procurement.³⁶⁶ These rules help the Commission assure that utility affiliates do not gain an unfair advantage over other market players, and to prevent ratepayers from subsidizing unregulated activities, such as by overpaying for products or

³⁶⁵ The Affiliate Transaction Rules were adopted in D.06-12-029, *Adopting Revisions to (1) the Affiliate Transaction Rules and (2) General Order 77-L, as Applicable to California's Major Energy Utilities and their Holding Companies*, at Appendices A-3 and B-3.

³⁶⁶ See Affiliate Transaction Rule III, subd. B, 1.

services that are otherwise available from non-affiliate providers. An affiliate transaction may be approved by the Commission if the procurement process and agreement comply with the Affiliate Transaction Rules.³⁶⁷ We subject SDG&E's LADC to the affiliate transaction rules below.

Affiliate Transaction Rule III (Rule III) regarding Nondiscrimination provides that "Transactions between a utility and its affiliates shall be limited to . . . products or services made generally available by the utility or affiliate to all market participants through an open, competitive bidding process . . ." (Rule III, subd. B.) SDG&E's filing in this proceeding included the Independent Evaluator's (IE) report regarding the LADC solicitation. An unredacted version of the IE report was filed on March 5, 2020. SDG&E appears to have undertaken significant outreach to potential bidders for the LADC development. In this RFP process, the most economic bidder that met selection criteria and demonstration testing was the SDG&E affiliate, PXiSE. We agree with the IE's analysis that the RFP appears to have provided a neutral, transparent process, and contract negotiations were overseen by the IE, all of which indicate ratepayers would not be prejudiced by approval of this particular affiliate transaction. Thus, Rule III, subdivision B is satisfied.

We approve the LADC project. To be clear, the LADC project is subject to future audit to assure adherence to contracted terms, including compensation rates previously disclosed in this proceeding. Within 30 days of finalizing a contract schedule, we direct SDG&E to send the updated, final contract schedule to the Commission through a compliance filing. This compliance filing shall be sent to this proceeding's docket number as well as to Energy Division.

We note that, the approval of the LADC system is separate and distinct from, and does not in any way, predispose Commission resolution of policy questions

³⁶⁷ Rule III, subd. B, 1.

related to third-party integration, operation, and control of a microgrid. These topics, and others, may be discussed further in this proceeding's Track 2 or Track 3. Finally, within 30 days of accepting Task 6 of the 4th and final project site of the contract's project schedule and milestones, SDG&E shall submit a compliance filing to the service list of this proceeding and to Energy Division,³⁶⁸ describing adherence or any deviations to cost or timing of the LADC project.EV-Enhanced Cameron Corners Microgrid: We decline to adopt SDG&E's proposed EV charging infrastructure at Cameron Corners without prejudice. At this time, SDG&E's proposal lacks a complete description of this project's scope. In order to approve a project, we require, at a minimum, the following information which was not included: (1) total project cost; (2) specification of how many electric vehicle supply equipment (EVSE, *i.e.*, charging stations) SDG&E will need to install and at what charging level (*i.e.*, fast charging, Level 2); (3) workpapers; (4) a description of the targeted vehicle sector (*e.g.*, light-duty, medium-duty, heavy-duty); (5) the project's operation and data reporting duration; (6) a justification that demonstrates this EV charging infrastructure is not duplicative to other EV charging infrastructure initiatives; and (7) the EV-Time of Use rate within the context of mitigating the adverse effects of a PSPS event. Additionally, SDG&E's proposal lacks a discussion of whether it considered the option for site host ownership of this EV infrastructure.

However, EV charging appears to augment resiliency if the Cameron Corners microgrid is built. Therefore, we encourage SDG&E to timely file a complete proposal for the Cameron Corners microgrid project in this proceeding, that also resolves the electric vehicle infrastructure ambiguity that was presented before us.

³⁶⁸ *Id.*

In this way, we can timely consider the Cameron Corners microgrid and project as well as the proposed EV charging station.

6. Conclusion

In conclusion, this decision adopts short-term actions related to the acceleration of microgrid deployment and related resiliency strategies for Track 1 of this proceeding, R.19-09-009, pursuant to SB 1339 (Stern, 2018).

First, this decision adopts solutions to accelerate interconnection of resiliency projects in advance of the upcoming wildfire season. Specifically, this decision requires the large investor-owned utilities to: (a) develop and implement standardized, pre-approved system designs for interconnection resiliency project applications that deliver energy services during broader grid outages; (b) develop and implement methods to increase simplicity and transparency of the processes by which the utilities inspect and approve a project; and (c) prioritize interconnection of resiliency projects for key locations, facilities, and/or customers.

Second, this decision adopts solutions that modernize tariffs to maximize social resiliency benefits. This includes requiring the large investor-owned utilities to modify their net energy metering tariffs to allow storage devices to charge from the grid during the pre-PSPS window. This decision also requires the large investor-owned utilities to modify their net energy metering tariffs to remove the storage sizing limit.

Third, this decision adopts solutions that promote collaborative engagement between large investor-owned utilities and local and tribal governments. Under this decision, the large investor-owned utilities are required to conduct meetings to educate and inform local and tribal government agencies on vulnerable electric transmission and distribution infrastructure as well as critical operations that service local jurisdictions. This decision also requires the large investor-owned utilities to develop a resiliency project guide, and to assist local and tribal governments in navigating the utilities' interconnection processes for deploying a

resiliency project. Furthermore, this decision directs the large investor-owned utilities to dedicate staff to manage the intake of local and tribal government resiliency projects; as well as create a separate, access-restricted data portal for local and tribal governments to review data essential for microgrid and resiliency project development.

Finally, this decision approves an array of resiliency proposals set forth by PG&E as well as SDG&E.

7. Comments on Proposed Decision

The proposed decision of ALJ 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. Comments were filed on May 19, 2020 by the following parties: (1) Bioenergy Association of California; (2) Bloom Energy Corporation; (3) California Clean DG Coalition; (4) California Efficiency + Demand Management Council; (5) California Energy Storage Alliance; (6) California Environmental Justice Alliance; (7) California Large Energy Consumers Association; (8) California Solar & Storage Association; (9) Center for Accessible Technology; (10) Center for Energy Efficiency and Renewable Technologies; (11) Center for Sustainable Energy; (12) Clean Coalition; (13) Coalition of California Utility Employees; (14) Connect California LLC; (15) CTIA; (16) Doosan Fuel Cell America, Inc.; (17) Enchanted Rock LLC; (18) Enel X North America, Inc.; (19) Green Power Institute; (20) GRID Alternatives; (21) Marin County, Sonoma County, Napa County; (22) Microgrid Resources Coalition; (23) National Fuel Cell Research Center; (24) New Cingular Wireless PCS, LLC, AT&T Corp, AT&T Mobility Wireless Operations Holdings, Inc., Pacific Bell Telephone Company, San Barbara Cellular Systems, Ltd.; (25) Lancaster Choice Energy, Sonoma Clean Power Authority, East Bay Community Energy, Marin Clean Energy, San Jose Clean Energy, Clean Power Alliance, Peninsula Clean Energy Authority, Monterey Bay Community Power, Redwood Coast Energy Authority, Pioneer Community

Energy; (26) Pacific Gas and Electric Company; (27) Public Advocates Office; (28) San Diego Gas & Electric Company; (29) Sierra Club; (30) Small Business Utility Advocates; (31) Southern California Edison Company; (32) Southern California Gas Company; (33) Tesla, Inc.; (34) The Climate Center, Vote Solar; (35) The Utility Reform Network; and (36) Utility Consumers' Action Network.

Reply comments were filed on May 26, 2020 by: (1) Bloom Energy, Inc; (2) California Cable and Telecommunications Association; (3) California Energy Storage Alliance; (4) California Environmental Justice Alliance; (5) California Hydrogen Business Council; (6) California Large Energy Consumers Association; (7) California Solar & Storage Association; (8) Center for Energy Efficiency and Renewable Technologies; (9) Center for Sustainable Energy; (10) Clean Coalition; (11) Lancaster Choice Energy, Sonoma Clean Power Authority, East Bay Community Energy, Marin Clean Energy, San Jose Clean Energy, Clean Power Alliance, Peninsula Clean Energy Authority, Monterey Bay Community Power, Redwood Coast Energy Authority, Pioneer Community Energy; (12) Pacific Gas and Electric Company; (13) Marin County, Napa County, Sonoma County; (14) National Fuel Cell Research Center; (15) Pacific Gas and Electric Company; (16) Public Advocates Office; (17) San Diego Gas & Electric Company; (18) Small Business Utility Advocates; (19) Southern California Edison Company; (20) Southern California Gas Company; (21) Tesla, Inc.; (22); The Utility Reform Network; (23) Utility Consumers' Action Network; (24) Vote Solar, The Climate Center.

We have carefully considered the suggested changes proposed by parties in their comments and their reply comments to this decision. The suggested changes that we have accepted are reflected in this revised version of the decision.

8. Assignment of Proceeding

Genevieve Shiroma is the assigned Commissioner and Colin Rizzo is the assigned ALJ in this proceeding.

Findings of Fact

1. The Commission initiated R.19-09-009 to design a framework surrounding the commercialization of microgrids pursuant to SB 1339, as well as to account for the Commission's commitment toward utilizing additional technologies and activities to achieve resiliency goals.

2. Public Safety Power Shutoffs (PSPS) events severely impact customer safety, comfort, convenience and commercial concerns.

3. Experience from recent fire seasons indicate some areas are more frequently impacted by PSPS events than others.

4. Experience from recent fire seasons indicate power outages such as PSPSs at certain key types of critical facilities and infrastructure, such as hospitals, safety-related facilities, and suppliers of basic life necessities may create especially adverse impacts on local and regional communities during energy outages, such as PSPSs.

5. Commercializing microgrids, utilizing other resiliency technologies, and related utility activities is likely to mitigate the negative impacts of PSPS outage events and wildfires.

6. Properly designed and configured systems of distributed energy resources (DERs), including microgrids, can provide energy services during widespread outages such as PSPS events.

7. The length of time to interconnect with the utility distribution system can be a barrier to deploying DERs.

8. Projects that provide resiliency are more likely to experience interconnection delays than simpler projects that cannot provide resiliency because resiliency-focused projects must have the ability to island distributed generation and energy storage assets.

9. Projects that island require longer study processes to ensure that there is no inadvertent export of energy to the grid.

10. Reducing the amount of time required to interconnect DERs including microgrids for the 2020 fire season and beyond, is likely to increase resiliency of electric service during widespread outages while maintaining the safety and reliability of the grid.

11. Utility development of single-line diagram templates for Rule 21 non-export storage, net energy metering (NEM), Paired Storage, and NEM solar is likely to facilitate a project's eligibility for expedited interconnection.

12. Utility site inspections may lead to interconnection delays for resiliency projects.

13. Informal consultation between industry and the utilities may facilitate the development of single-line diagram templates for Rule 21 non-export storage, NEM paired storage, and NEM solar to aid a project's eligibility for a simpler interconnection process.

14. Simple and transparent utility site inspection processes may facilitate expedited utility approval for a resiliency project.

15. Requiring the utilities to describe specific technical criteria the utility uses to determine conditions under which inspections are necessary for grid safety and reliability will likely promote transparency and speed of interconnection for resiliency project developers.

16. Requiring the utilities to implement a system that facilitates accepting videos, photos, and/or virtual inspections in cases where the utility asserts a necessary site inspection may expedite approval for and interconnection of a resiliency project as long as it does not compromise the safety and reliability of the grid.

17. The time required for microgrid developers to move through the utility interconnection queue could significantly delay a new project's ability to reduce the impact of a PSPS event or other outage in 2020.

18. Requiring the utilities to transparently describe project type eligibility for relatively simple projects to interconnect will likely accelerate interconnections at key locations, for key customers, and for key facilities.

19. Properly designed and configured solar-paired energy storage systems are examples of DERs that may provide energy services during a wider grid outage for customer-specific resiliency.

20. The NEM tariff, as modified, may facilitate broader deployment of resiliency solutions and use of energy storage systems for resiliency.

21. Maintaining the integrity of existing tariffs that are intended to reward production of on-site renewable energy is critical for public health, safety, and welfare.

22. Maintaining the safety and reliability of the electric grid is critical.

23. Providing flexibility to customers to improve their own resiliency may mitigate the adversity arising from a public safety power shutoff event or other outage.

24. Allowing energy storage systems that are interconnected, under the condition that they only charge using solar-power, in advance of an announced PSPS event, to import from – but not export to – the grid, may facilitate interconnection of energy storage systems to provide resiliency benefits.

25. Removing the storage sizing limit for large NEM-paired storage while maintaining existing metering requirements may also facilitate interconnection of energy storage systems to provide resiliency benefits.

26. As demonstrated by the performance of local microgrids such as Pacific Union College in Angwin, California during the 2019 PG&E PSPS events, DERs, including microgrids, can be community resiliency solutions that minimize the impact of PSPS events.

27. Local and tribal governmental collaboration with the utilities could lead to the development of additional community resiliency solutions that minimize the impact of PSPS events.

28. Effective outreach and communication from the utilities to local and tribal governments will foster collaborative problem solving for community resiliency planning, facilitate the ability of local and tribal governments to protect the safety, quality of life and health of their communities, and support equitable access to utility information across local and tribal governments.

29. A utility resiliency project engagement guide may assist local and tribal governments in development of successful microgrid projects.

30. Adding additional utility staff to utility distribution planning teams that specialize in resiliency project development for local jurisdictions could help local and tribal governments deploy community resiliency microgrids.

31. Creating a separate access-restricted portal, available only to local and tribal governments, containing essential data for identification of microgrid development opportunities, may support community resiliency projects and planning.

32. PG&E's Make-Ready Program, Temporary Generation Program, and Community Microgrid Enablement Program (CMEP), based on the available information to date, are reasonable and necessary to reduce the impact of any PSPS events on customers in communities previously impacted by PSPS events.

33. PG&E's Make-Ready Program will help the utility reduce PSPSs in duration and/or reduce the numbers of customers affected where the candidate substation is safe to energize during a PSPS event and where there are no feasible and cost-effective alternatives.

34. PG&E's Temporary Generation Program is necessary to support community resiliency in the utility's service territory during likely PSPS events

35. PG&E's Community Microgrid Enabled Program may help community-proposed microgrids to enhance resiliency for critical facilities and vulnerable populations.

36. SDG&E's Local Area Distribution Controller may enhance microgrid operations and augment and interoperate with the utility's existing advanced distribution management system, as well as its Wildfire Mitigation Plan related projects.

37. SDG&E complied with the Affiliate Transaction Rules, which assures the Commission that its affiliates did not gain an unfair advantage over other market participants and San Diego ratepayers are not subsidizing unregulated activities.

38. The outcomes of this decision are necessary to maintain electric service essential to public health, safety, and welfare, as well as to prevent and mitigate emergencies created by both the 2020 wildfire season and potential PSPS events.

39. This decision does not approve any projects within the meaning of the California Environmental Quality Act (CEQA) because the outcomes of this decision are necessary to prevent and mitigate emergency conditions at existing utility transmission and distribution facilities arising from imminent, severe wildfire conditions within the meaning of CEQA Guidelines, Section 15269.

40. On March 19, 2020 Governor Gavin Newsom signed Executive Order N-33-20 in response to COVID 19.

41. Executive Order N-33-20 requires all individuals living in the State of California to stay home or stay at their place of residence, except as needed to maintain continuity of operation of the federal critical infrastructure sectors, in order to address the public health emergency presented by COVID-19.

42. The stay-at-home order is indefinite, and as of the date of the issuance of this decision it remains in effect.

Conclusions of Law

1. It is reasonable to consider strategies in Track 1 of R.19-09-009 that support the commercialization of microgrids pursuant to SB 1339, as well as to account for the Commission's commitment toward utilizing additional technologies and activities to maintain energy grid resiliency at just and reasonable rates.

2. It is reasonable for the Commission to consider the use of DERs, including microgrids, to increase energy service reliability during widespread outages anticipated during the 2020 fire season.

3. It is reasonable to require PG&E, SCE, and SDG&E to collaborate and develop consistent, single line diagrams to ensure transparency, continuity, and simplicity for Rule 21 non-export storage, NEM Paired Storage, and NEM solar interconnection procedures.

4. It is reasonable for PG&E, SCE, and SDG&E to informally consult with key stakeholders to develop template designs and then share those designs through a technical meeting to finalize the templates.

5. It is reasonable for PG&E, SCE, and SDG&E's informal consultation with key stakeholders to take no more than ten days to ensure timeliness of implementation for the 2020 wildfire season.

6. It is reasonable to require the Commission's Energy Division to facilitate no more than two working technical meetings where PG&E, SCE, SDG&E, and stakeholders discuss the single line diagrams as well as any other forms applicable to Commission-approved interconnection applications and related tariffs.

7. It is reasonable to require PG&E, SCE, and SDG&E to create a template-based application process for specific behind-the-meter project types, such as:

- (a) Rule 21 non-export storage (<10 kW);
- (b) NEM Paired storage (AC Coupled and DC coupled) (with <30 kW solar and <10 kW storage); and
- (c) NEM Solar (<30 kW).

8. It is reasonable to direct PG&E, SCE, and SDG&E to approach the template design with a goal that the template serves 80 percent or more of potential interconnection projects, and that those template designs be consistent across the utilities.

9. It is reasonable to require PG&E, SCE, and SDG&E to each submit a Tier 2 Advice Letters, within 30 days upon the date of issuance of this decision that:

- (a) Indicates when the informal consultation and technical meetings occurred;
- (b) Lists who attended the meetings and the degree to which there was consensus amongst stakeholders in the informal consultation as well as the technical meetings;
- (c) Provides technical details specific to the single line diagrams, including the types of permitted devices (or information on the pre-approved equipment list), the processes for assessing the devices, and the device certification requirements;
- (d) If any proposals were rejected, explains the reasoning for the rejection;
- (e) Provides updates to interconnection agreement terms as well as any other Commission-approved forms in order to implement the requirements adopted, here; and
- (f) Provides information on the single line diagrams and discusses any updates required to the interconnection portals, along with a timeline for when the updates will take place.

10. It is reasonable to reduce delays arising from utility site inspections to support the deployment of resiliency projects where those site visits are not required for grid safety and reliability.

11. It is reasonable to enhance transparency of utility technical standards for interconnection that may help developers design projects and minimize the need for field inspections.

12. It is reasonable to require PG&E, SCE, and SDG&E to each submit Tier 1 advice letter within 30 days of the date of issuance of this decision that:

- (a) Provide specific technical criteria used to determine where field inspections are necessary for grid safety and reliability; and
- (b) In cases where an inspection is deemed necessary, the process for which utilities will accept videos, photos, and virtual inspection, along with attestations of authenticity and accuracy from the contractor.

13. It is reasonable for Energy Division, within 60 days of the date of issuance of this decision, to host a meeting where the utilities demonstrate that they have updated their technical documents and handbooks to reflect this decision and provide examples of the project types for which the utilities expect to accept virtual inspections.

14. It is reasonable to require PG&E, SCE, and SDG&E to accelerate the interconnection process by requiring the utilities to increase staff resources and information technology resources to their interconnection study and distribution upgrade teams, in order to facilitate faster queue processing for all projects.

15. It is reasonable to require PG&E, SCE, and SDG&E to each submit Tier 2 advice letter(s) within 60 days upon the date of issuance of this decision that:

- (a) Proposes plans to acquire additional staff, as needed, or the internal process changes needed, to fulfill the goals of this decision;

16. It is reasonable to require PG&E, SCE, and SDG&E on February 15, 2021 to file a compliance filing in this proceeding, describing the results of the interconnection proposals adopted, including:

- (a) Describing the number of projects that utilized the interconnection proposals adopted;
- (b) Describing the utility's success in meeting Rule 21 interconnection timelines; and

- (c) If a project experienced a delay, the utility shall provide an explanation about why the project was delayed.
- (d) Track the number and type of projects that used the template-based interconnection process adopted in Interconnection Proposal 1.

17. It is reasonable to allow qualifying energy storage systems that are interconnected under the condition that they exclusively charge from solar, upon receiving advance notification from a utility of an upcoming PSPS event, to import from but not export to the grid to enhance resiliency during a PSPS event or other grid outages.

18. It is reasonable to require PG&E, SCE, and SDG&E to modify their NEM tariffs, to allow energy storage systems that are interconnected under the condition that they exclusively charge from solar to temporarily import from the grid, but not to export to the grid upon receiving advanced notification from a utility of an upcoming PSPS event.

19. It is reasonable to require PG&E, SCE, and SDG&E to coordinate with developers and aggregators to formulate a process that allows energy storage systems that are interconnected under the condition that they exclusively charge from solar to temporarily import from (but not export to) the grid upon receiving advanced notification from the utility of an upcoming PSPS event. .

20. It is reasonable to require PG&E, SCE, and SDG&E to present to the Smart Inverter Working Group, the proposed processes for allowing energy storage systems that are interconnected under the condition that they exclusively charge from solar to temporarily import from but not export to the grid upon receiving advanced notification from the utility of an upcoming PSPS event.

21. It is reasonable to require PG&E, SCE, and SDG&E each to file, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letters that propose the necessary modifications to their NEM tariffs to allow energy storage facilities that

are interconnected under the condition that they exclusively charge from solar to temporarily import from (but not export to) the grid upon receiving advanced notification from the utility of an upcoming PSPS event. Such Advice Letters shall be served on current and prior NEM proceeding Service Lists.

22. It is reasonable to require PG&E, SCE, and SDG&E to modify their NEM tariffs to temporarily remove the storage sizing limit for large NEM-paired storage for a period of three years and maintain existing metering requirements.

23. It is reasonable to require PG&E, SCE, and SDG&E, within 30 days of the date of issuance of this decision, each to submit a Tier 2 Advice Letters proposing the necessary modifications to their NEM tariffs to make the changes that temporarily remove the storage sizing limit for large NEM-paired storage for a period of three years and maintain existing metering requirements. Such Advice Letters shall be served on current and prior NEM proceeding Service Lists.

24. It is reasonable to support local and tribal government investment in distributed energy resources, including microgrids, as a community resiliency solution to minimize the impacts of PSPS events by permitting those governments to have access to various types of utility information in order to plan, design, budget, and implement cost-effective and operative community resiliency solutions through a secure internet portal.

25. It is reasonable to require PG&E, SCE, and SDG&E to engage with local and tribal governments through effective and collaborative outreach and communication to support community resiliency efforts and pre-PSPS event planning by conducting workshops to educate local entities in their respective service territories about PSPS event outage coordination and opportunities for investment.

26. It is reasonable to require PG&E, SCE, and SDG&E, to each submit Tier 2 Advice Letters within 30 days of the date of issuance of this decision, that explains their plans to conduct semi-annual workshops designed to effect the following:

- (a) Designation of utility/local and tribal government interface roles and responsibilities;
- (b) Engagement with local and tribal governments to build and sustain effective relationships;
- (c) Establishing and maintaining open, accurate, and consistent lines of communication with local and tribal governments;
- (d) Including local and tribal government input in planning and vetting of utility actions that are anticipated to impact local and tribal government concerns;
- (e) Executing agreements impacting local and tribal governments;
- (f) Describing draft agendas for local and tribal government engagement meetings that include education about, at a minimum, how the electric transmission system and distribution system operates in the area, local grid topology and circuit configuration, electric transmission and distribution infrastructure investment and operational plans, weather and climatology analysis predictions for future PSPS events, predictive scenarios, and a reflection on local and tribal government input.

27. It is reasonable to require PG&E, SCE, and SDG&E to convene additional coordination meetings under the direction of local and tribal governments and county emergency services.

28. It is reasonable to require PG&E, SCE, SDG&E to develop a resiliency project engagement guide to help local and tribal governments navigate the utilities' interconnection processes for design and deployment of a resiliency project that includes, but is not limited to:

- (a) Flowcharts depicting how to engage with the utility depending on the type of resiliency project being planned;
- (b) Best practices for successful implementation;
- (c) A list of the types of resiliency projects appropriate for inclusion in expedited processes; and

- (d) A list of data required by the utilities from local and tribal governments and/or tribal governments at each step of the utility's interconnection process.

29. It is reasonable to require PG&E, SCE, and SDG&E each to submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter for the resiliency project engagement guide that:

- (a) Describes how information shall be presented in the resiliency guide;
- (b) Describes various types of resiliency projects a community could implement, including flowcharts for resiliency project types including milestones and timelines;
- (c) Lists requiring data and information for successful project implementation;
- (d) Describes the utility's plan to effectively publicize the resiliency engagement guide to target local and tribal governments; and
- (e) Describes the process for updating or modifying the resiliency guide.

30. It is reasonable to require SCE and SDG&E to add additional positions to their distribution planning teams that specialize in resiliency project development for local and tribal jurisdictions.

31. It is reasonable to require SCE and SDG&E to each submit a Tier 2 Advice Letters within 30 days of the date of issuance of this decision, that describes how the utility will implement the requirement to create dedicated local and tribal government team(s).

32. It is reasonable to require PG&E, SCE, and SDG&E each to develop a separate access-restricted portal, available only to local and tribal governments, containing essential data to identify in front of the meter microgrid development opportunities that may support community resiliency projects and planning.

33. It is reasonable to require PG&E, SCE, and SDG&E to each submit Tier 2 Advice Letters that describe their plan for developing a separate, access-restricted

data portal for sharing information with local and tribal governments. This Advice Letter shall include, at a minimum:

- (a) A work plan (including a list of tasks, a schedule for each task, any interdependencies among tasks, and key milestones) and budget estimate for developing a data portal that provides all the data and meets all the requirements listed in this section; and
- (b) A narrative description of how the work plan relates to any other planned work on related systems.

34. It is reasonable to limit the scope of PG&E's Make-Ready Program to the number of substations necessary to keep customers energized during PSPS events or other loss of transmission line events, consistent with the goal to minimize the impact of PSPS.

35. It is reasonable to require PG&E to submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to create a new Microgrids Memorandum Account to track the costs associated with this decision's approval of its Make-Ready Program.

36. It is reasonable for PG&E to record the Make-Ready cost in a subaccount of the Microgrids Memorandum Account, which will be subject to review in an upcoming track of this proceeding. .

37. It is necessary to approve PG&E's Temporary Generation Program to maintain services essential for the public health, safety, and welfare for the 2020 wildfire season only, subject to the following requirements:

- (a) The Temporary Generation Program shall use mobile, temporarily-sited distributed generation at substations, mid-feeder line segments serving commercial corridors and commercial facilities, and backup power support for societal continuity during PSPS events, including backup power for Community Resource Centers ;
- (b) PG&E shall submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to establish a new

Microgrids Memorandum Account to track the costs associated with this decision's approval of its Temporary Generation Program; and

- (c) PG&E shall record the Temporary Generation Program costs in a Temporary Generation Program subaccount in this memorandum account. The costs recorded in the Microgrids Memorandum Account, sub-account for PG&E's Temporary Generation Program shall be subject to review in an upcoming track of this proceeding.

38. It is reasonable to require PG&E to submit a compliance filing that contains a report of PG&E's use of temporary generators during the 2020 wildfire season, including:

- (a) The total number of diesel generators employed and hours operated;
- (b) by date and time;
- (c) Use cases including mobile, temporarily-sited distributed generation at substations, mid-feeder line segments serving commercial corridors and commercial facilities, and backup power support for societal continuity during PSPS events, including backup power for community resource centers;
- (d) Reasons the diesel backup power was needed;
- (e) CalEnviroScreen percentile for the generator(s) location;
- (f) Number of customers served, nominal load served, and location of customers served;
- (g) Fuel types used and extent of use by fuel type;
- (h) A summary of emissions by greenhouse gas and criteria air pollutant emissions factors;
- (i) Lessons learned from an after-event analysis of the 2020 wildfire season experience; and
- (j) Recommendations for continuous improvement based upon experience gathered from the 2020 wildfire season.

39. It is reasonable to approve PG&E's Community Microgrid Enabled Program for enhanced resiliency for critical facilities and customer groups for all areas prone to outage events through 2020-2022.

40. It is reasonable to require PG&E, within 60 days of the date of issuance of this decision, to submit a Tier 2 Advice Letter that includes the Community Microgrid Enablement Program implementation plan regarding the program scope, project applicability and eligibility criteria as directed in Section 5.1.2 of this decision and the content required by Section 4.3.4.1 of this decision.

41. It is reasonable to require PG&E to submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies the electric preliminary statement to allow PG&E to record the Community Microgrid Enablement Program cost associated with this decision in a new Microgrids Memorandum account within a new Community Microgrid Enablement Program subaccount subject to a full reasonableness review either in a separate application or in its General Rate Case before the Commission.

42. It is reasonable to approve SDG&E's acquisition of a Local Area Distribution Controller (LADC) from an affiliate, which is subject to future audit to assure adherence to contract timelines and contracted terms, including compensation rates.

43. It is reasonable to require SDG&E to submit a compliance filing within 30 days of confirming the settlement of the final, contract schedule consistent with its project schedule and project milestones.

44. It is reasonable to direct SDG&E to submit a compliance filing in the docket of this proceeding, as well as to Energy Division, within 30 days after acceptance of Task 6 of the 4th project site on the contract's project schedule and milestone, demonstrating progress on the LADC project including:

- (a) Any deviations from project schedule included in the LADC's Project Schedule and Milestones of the contract;;

- (b) Any deviations from compensation schedule or total costs included in the compensation rates of the contract;
- (c) ; and
- (d) Detailed narrative explanation of any deviations described pursuant to a) or b) above.

45. The approval of the LADC system is separate and distinct from and does not in any way predispose Commission resolution of policy questions related to third-party integration, operation and control of a microgrid, which may be explored further in Tracks 2 and/or 3 of this proceeding.

46. The actions directed in this decision constitute emergency repairs necessary to maintain service essential to the public health, safety, and welfare that require a reasonable amount of planning to address an anticipated emergency, and/or specific actions necessary to prevent and/or mitigate the effects of imminent, widespread wildfires and potential PSPS events and are, therefore, statutorily exempt from the requirements of CEQA pursuant to Section 15269, Title 14 of the California Code of Regulations.

47. The actions directed in this decision require PG&E, SCE, and SDG&E to comply with the Governor's Executive Order N-33-20, the orders of the California State Public Health Officer and the Director of the California Department of Public Health that all individuals living in the State of California stay home or at their place of residence, except as needed to maintain continuity of operation of the federal critical infrastructure sectors, in order to address the public health emergency presented by the COVID-19 disease.

48. It is reasonable to require PG&E, SCE, SDG&E, and stakeholders, when implementing the requirements of this decision, to comply with the direction from public health officials regarding shelter-in-place, social distancing, or other measures that may need to be taken in response to the COVID-19 pandemic, consistent with Executive Order N-33-20.

O R D E R**IT IS ORDERED** that:

1. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit Tier 1 Advice Letters within 30 days of the date of issuance of this decision, that informs the Commission of inclusion of pre-approved template single-line diagrams for the interconnection application process. Each utility shall demonstrate in its advice letter that the pre-approved template single line diagrams were designed in compliance with Section 4.1.3 of this decision and shall report: (a) both that the utility informally consulted with stakeholders and vetted the diagrams through technical meetings and the degree to which attendees at the technical meetings reached consensus; (b) must provide a list of who attended the meetings; and (c) technical details specific to the single line diagrams, including the types of permitted devices (or information on the pre-approved equipment list), the processes for assessing the devices, and the device certification requirements. If any proposals were rejected, the utility shall: (a) explain the reasoning for the rejection; (b) provide updates to interconnection agreement terms as well as any other Commission-approved forms in order to implement the requirements adopted, here; (c) provides information on of the single line diagrams; and (d) discuss any updates required to the interconnection portals, along with a timeline for when the updates will take place. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 1.

2. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter within 30 days of the date of issuance of this decision that demonstrates their compliance with Section 4.1.3 of this decision by: (a) providing specific technical criteria used to determine where field inspections are necessary for grid safety and reliability; and (b) in cases where an inspection is deemed

necessary, the process by which utilities will accept videos, photos, and virtual inspection, along with attestations of authenticity and accuracy from the contractor. We direct the utilities to adopt these approaches to the extent possible while assuring that safety and reliability are not compromised. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 2.

3. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter within 60 days of the date of issuance of this decision, that demonstrates their compliance with the interconnection staffing requirements described in Section 4.1.3 of this decision. Each Advice Letter shall specifically propose plans to acquire additional staff as needed, or the internal process changes needed, to fulfill the goals of Section 4.1.3 of this decision. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 3.

4. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit compliance filing on February 15, 2021 in this proceeding and to Energy Division at energydivisioncentralfiles@cpuc.ca.gov, that describes the results of the required actions described under Section 4.1.3. The utilities are ordered to discuss, with Energy Division, what specific information is necessary before filing the compliance filing. Nevertheless, items that must be reported in this compliance filing shall include: (a) description of the number of projects that utilized the interconnection proposals adopted in this decision;; (b) the success in meeting Rule 21 interconnection timeliness; (c) if any project experienced a delay, the utility shall provide an explanation about why the project was delayed; and (d) the utilities shall track the number and type of projects that use the template-based interconnection process adopted in Interconnection Proposal 1. In this advice letter submittal,

PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 4.

5. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter within 30 days of the date of issuance of this decision that: (1) proposes the necessary modifications to their Net Energy Metering tariffs to allow energy storage systems that are interconnected under the condition that they charge from solar to temporarily import from (but not export to) the grid upon receiving advanced notification from the utility of an upcoming Public Safety Power Shutoff (PSPS) event consistent with Section 4.2.3 of this decision; (2) discuss how the utility coordinated with developers and aggregators to create a process that allows energy storage systems that are interconnected under the condition that they charge from solar to temporarily import from (but not export to) the grid upon receiving advanced notification from the utility of an upcoming PSPS event; and (3) summarize how the utility consulted on this process with the Smart Inverter Working Group. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 5.

6. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter within 30 days of the date of issuance of this decision, that propose necessary modifications, in compliance with Section 4.2.3 of this decision, to their Net Energy Metering (NEM) tariffs that temporarily remove the storage sizing limit for large NEM-paired storage for a period of three years while maintaining existing metering requirements. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 6.

7. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a

Tier 2 Advice Letter within 30 days of the date of issuance of this decision, that document their plans to conduct semi-annual workshops designed to help empower local and tribal jurisdictions with a better understanding of grid operations, utility infrastructure, and the nature of weather events alongside utilities' Public Safety Power Shutoff (PSPS) mitigation initiatives in order to make informed decisions on where to focus their resiliency planning efforts, capital investments, and pre-PSPS event operations consistent with Section 4.3.2.1 of this decision. This Advice Letter should specifically address how the utilities plan to develop and ensure that effective internal communication processes exist for managing interface with local and tribal government by enumerating how they will achieve the outcomes below:

- a) Designating utility interface roles and responsibilities;
- b) Managing engagement with local and tribal government and building and sustaining effective relationships;
- c) Establishing and maintaining open, accurate, and consistent lines of communication;
- d) Involving local and tribal government in planning and vetting of utility actions impacting local and tribal government; and
- e) Executing agreements impacting local and tribal governments.

Additionally, in this advice letter filing, the utilities are directed to include draft agendas for local and tribal government engagement meetings and discuss how they plan to meet the specific content requirements of the workshops through examples of draft agenda items. Agenda items shall include, but not be limited to:

- a) Explanations of how the electric transmission system and distribution system operates in the area;
- b) Explanations of local grid topology and circuit configuration;
- c) Informing local and tribal governments about electric transmission and distribution infrastructure investment and operational plans;
- d) Discussion and visualization for context purposes of prior PSPS events;

- e) Weather and climatology analysis predictions for anticipated PSPS events;
- f) Case studies of outage scenarios a county is likely to experience based on predictable weather events;
- g) Granular, local reporting of reliability statistics; and
- h) How the utility plans to incorporate and reflect community and local and tribal government input.

Furthermore, the utilities shall use these Advice Letter filings to explain how they plan to coordinate the collaborative planning session about enhancing grid resilience within the local and tribal government area (*i.e.*, a county). This explanation should include how this planning session will achieve the following:

- a) Outreach to county office of emergency services or other, similar government organizations responsible for implementing the State Emergency Plan;³⁶⁹
- b) Moderated by county office of emergency services administrator, or other similar government organization, (unless administrator specifically declines invitation to do so, and either designates another government organization or has the utility moderate);
- c) Outreach to community and tribal organizations, including representation of disadvantaged communities and access and functional needs populations;
- d) Incorporate relevant elements of a community-based collaborative planning framework as suggested by the Energy Division Staff Proposal (*i.e.*, as the National Institute of Standards and Technology Community Resilience Planning Guide or its Resilient Communities Toolkit); and
- e) Based on best practices such as San Diego Gas & Electric Company's community engagement.

The utilities shall use this Advice Letter to discuss how they intend to coordinate and harmonize these workshops with existing requirements and how

³⁶⁹ California Emergency Services Act, Section 8568.

they could incorporate Public Utilities Code Section 956.5-type parameters to implement the requirements of this decision. The utilities shall discuss how they plan to effectuate the following requirements:

- a) Public Safety Power Shutoff working group meetings, as required by Rulemaking 18-12-005 and any subsequent requirements arising from that proceeding;
- b) Disaster response plan requirements pursuant to General Order (GO) 166;
- c) Annual reliability reporting obligations pursuant to Decision 16-01-008 and Public Utilities Code Section 2774.1; and
- d) Land use consultation requirements as laid out in GO 131-D, Section XIV.

In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 7.

8. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit informational filings in this proceeding, no later than five business days after the local and tribal government semi-annual meetings are held. These after-meeting reports shall demonstrate compliance with Section 4.3.2.1 of this decision by showing:

- a) Commission staff were notified at least one (1) month prior to the meeting date;
- b) Presentations and other materials were distributed to attendees at least twenty four (24) hours in advance;
- c) Contact information for meeting attendees, with a copies of a sign-in sheet;
- d) Workshop agenda;
- e) Workshop minutes or transcript;
- f) Any presentations shown at the workshop; and
- g) Any data formally provided to stakeholders at the workshop.

PG&E, SCE, and SDG&E shall each file a Tier 1 Advice Letter on the first day of each yearly quarter, that compiles all after-meeting reports. This requirement will have an end date after 3 years. In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 8.

9. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter within 30 days of the date of issuance of this decision, showing how they plan to develop a resiliency project engagement guide consistent with Section 4.3.3.1 of this decision. This Advice Letter shall include, at minimum:

- a) Mockup showing how data will be presented (flow chart, list, etc.);
- b) List of what data will be in the guides, including but not limited to:
 - i. listing of the types of resiliency projects;
 - ii. draft flowcharts for the above project types including project/interconnection milestones and timelines;
 - iii. lists of data required by utilities from local and tribal governments at each step in the process; and
 - iv. lists of engagement best practices.
- c) Plans for how the guides will be made available to the public; and
- d) How the guides will be kept current with new modifications; and
- e) Timeline for release of guides in compliance with this Decision.

In this Advice Letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 9.

10. Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) shall each submit a Tier 2 Advice Letter for implementation of a dedicated staff team for local and tribal government projects within 30 days of the

date of issuance of this decision. The Advice Letters shall discuss how SCE and SDG&E plan to implement compliance with Proposal 3, or how current organizational structures comply with such requirements. SDG&E and SCE's Advice Letters must detail how the utility will each implement the following:

- a) Providing advice and guidance before proposal development begins;
- b) Prioritizing projects to ensure that resources are directed to the most urgent needs of public health, safety, and public interest;
- c) Assisting local jurisdictions with consulting advice on the types of resiliency projects that can be expedited through the permitting and interconnection processes;
- d) Providing pre-project information about load points, customer connectivity, load profiles, and the relevant maps and infrastructure data to facilitate local jurisdiction planning;
- e) Describing what, if any, staffing requirements are necessary to establish and complete such a team;
- f) Describing what, if any, training requirements are necessary to prepare the team;
- g) Describing organizational structure of the team; and
- h) Describing operational plans of the team including, but not limited to:
 - i. How the team will intake and process applications,
 - ii. How team will engage local and tribal governments,
 - iii. Timelines for implementation.

In this Advice Letter submittal, SCE and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 10. The cost associated with establishing dedicated teams should be achievable within existing general rate case (GRC) funding levels. In subsequent GRCs, the utilities may request augmentation to these resources.

11. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall each submit Tier 2 Advice Letters within 30 days of the date of issuance of this decision, providing their plan for developing a separate, access-restricted data portal for sharing information with local and tribal governments. This Advice Letter shall include, at a minimum: (1) a work plan and budget estimate for developing a data portal that provides appropriate information and meets the requirements listed in section 4.3.5.1 of this decision; and (2) a narrative description of how the work plan relates to any other planned work on related systems. The work plan shall include a list of tasks, a schedule for each task, any interdependencies among tasks, and key milestones. These Advice Letters shall demonstrate compliance with Section 4.3.5.1 of this decision, which requires the access-restricted portal for local and tribal governments to include:

- a) Access to the tool available to restricted to tribal governments, County OES, or organizations created by political subdivisions to carry out the provisions of the State Emergency Plan(California Emergency Services Act Section 8568);
- b) Local and tribal government access to this tool should not require the execution of a non-disclosure agreement, but should be subject to confidential treatment;
- c) The portal at a minimum should include:
 - i. Layer showing utility planned work/grid investments in both tabular and geographic information system format, pursuant to utility obligations under General Order GO) 131-D, Standard 1 Section E and GO-166, Section XI..
 - a. Data about individual projects should include at a minimum:
 - 1. location;
 - 2. project descriptions (what is being upgraded/built, why is it being upgraded/built);
 - 3. project timelines; and

4. projected completion date.
 - i. Layer showing High Fire Threat Districts;
 - ii. Layer(s) showing electrical infrastructure;
 - a. substations and distribution circuits, including subtransmission lines and stations;
 - b. transmission lines feeding distribution; subtransmission substations
 - iii. Layer showing weather polygons or other key weather-related determining factors that led to the decision to de-energize from each prior public safety power shutoff event and resulting distribution and transmission line outages (transmission line de-energization visualizations should only be included to the extent that they will result in distribution outages).

In this advice letter submittal, PG&E, SCE, and SDG&E shall reference compliance with this decision pursuant to Ordering Paragraph 11.

12. Pacific Gas and Electric Company's (PG&Es) Make-Ready Program is approved from 2020-2022. PG&E shall submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies the electric preliminary statement to establish a new Microgrids Memorandum Account to track costs associated with this decision's approval of its Make-Ready Program. PG&E shall record the Make-Ready costs in a separate subaccount in the Microgrids Memorandum Account. The costs recorded in the Microgrids Memorandum Account for PG&E's Make-Ready Program shall be to review in an upcoming track of this proceeding. In this advice letter submittal, Pacific Gas & Electric shall reference compliance with this decision pursuant to Ordering Paragraph 12.

13. Pacific Gas and Electric's Temporary Generation Program is approved for interim, short-term use for the 2020 wildfire season only.

14. Pacific Gas & Electric Company (PG&E) shall submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to establish a new Microgrids Memorandum Account to track the costs associated with this decision's approval of its Temporary Generation Program. PG&E shall record the Temporary Generation Program cost in a separate subaccount in this memorandum account. The costs recorded in the Microgrids Memorandum Account for PG&E's Temporary Generation Program shall be subject to review through an upcoming track of this proceeding. In this Advice Letter submittal, PG&E shall reference compliance with this decision pursuant to Ordering Paragraph 14.

15. Pacific Gas and Electric Company (PG&E) shall submit a compliance filing by March 11, 2021 in this proceeding, and provide a copy to Energy Division at EnergyDivisionCentralFiles@cpuc.ca.gov, containing a report detailing the use of temporary emergency generators during the 2020 wildfire season. This compliance filing shall detail: (a) the total number of diesel generators deployed; (b) each deployment location and run time of generators by date and time; (c) the use case including substations, mid-feeder line segments serving commercial corridors and commercial facilities; (d) backup power to maintain societal continuity include Community Resource Centers; (e) the reason diesel backup generation was needed; (f) the Cal EnviroScreen percentile for the generator location; (g) the number of customers served; (h) nominal load served, location of customers served, and fuel types used and extent of use by fuel types; (i) a summary of emissions by greenhouse gas and criteria air pollutant emissions factors; (j) lessons learned from an after-event analysis of 2020 fire season experience; (k) and recommendations for continuous improvement based on experiences during the 2020 wildfire seasons. In this compliance filing submittal, PG&E shall reference compliance with this decision pursuant to Ordering Paragraph 15.

16. PG&E's Community Microgrid Enablement Program is approved from 2020-2022 for use to all areas prone to outage events, not just Tier 2 and 3 high fire threat districts and subject to program evaluation. PG&E shall submit, within 30 days of the date of issuance of this decision, a Tier 2 Advice Letter that modifies its electric preliminary statement to create a new Microgrid Memorandum Account subaccount to track the costs associated its Community Microgrid Enablement Program. PG&E shall record the Community Microgrid Enablement Program costs as a separate subaccount in this memorandum account. The costs recorded in the Microgrids Memorandum Account for PG&E's Community Microgrid Enablement Program shall be subject to a full reasonableness review either through a separate application or in its General Rate Case before the Commission. In this Advice Letter submittal, PG&E shall reference compliance with this decision pursuant to Ordering Paragraph 16.

17. Pacific Gas and Electric Company (PG&E) shall submit a Tier 2 Advice Letter, within 60 days of the date of issuance of this decision, that includes Community Microgrid Enablement Program implementation details regarding the program scope, project applicability and eligibility criteria including, but not limited to the content included in section 4.3.4.1 and all of the requirements listed in Section 5.1.2 of this decision. In this Advice Letter submittal, PG&E shall reference compliance with this decision pursuant to Ordering Paragraph 17.

18. San Diego Gas & Electric Company (SDG&E) local area distribution controller (LADC) project is approved but subject to a future Commission Affiliate Transaction Audit to assure adherence to contracted terms, including compensation rates previously disclosed in this proceeding. Approval of SDG&E's LADC does not predispose Commission resolution of policy questions related to third-party integration, operation, and control of a microgrid.

19. San Diego Gas & Electric (SDG&E) shall, within 30 days of finalizing its contract schedule, submit a compliance filing confirming the settlement of an

updated, final contract schedule and final contract milestones to this proceeding's service list, to be filed on this proceeding's docket card, and to the Energy Division's at: EnergyDivisionCentralFiles@cpuc.ca.gov..

20. San Diego Gas & Electric (SDG&E) shall, within 30 days of accepting Task 6 of the 4th and final project site of the contract's project schedule and milestones, submit a compliance filing describing adherence to or any deviation from cost or timing of the LADC project to this proceeding's service list, to be filed on this proceeding's docket card, and to the Energy Division's at: EnergyDivisionCentralFiles@cpuc.ca.gov.

21. Utilities are permitted to consolidate Advice Letter filings related to information sharing as directed in Ordering Paragraphs 7-11 to aid efficient processing.

22. Pacific Gas and Electric Company is permitted to consolidate Advice Letter filings in Ordering Paragraphs 12-19 to aid efficient processing.

23. Upon the effective date of this decision, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company, when implementing the requirements of this decision, shall comply with the orders of the Governor's Executive Order N-33-20, the California State Public Health Officer, and the Director of the California Department of Public Health shelter-in-place directives, social distancing directives, and/or other measures that may need to be taken in response to the COVID-19 pandemic.

24. Rulemaking 19-09-009 remains open.

This order is effective today.

Dated _____, at San Francisco, California.