



PUBLIC REPORT ON THE LATE 2019 PUBLIC SAFETY POWER SHUTOFF EVENTS

Safety and Enforcement Division

APRIL 30, 2020




Table of Contents

I. Executive Summary.....	2
A. Background	3
B. Overview of Areas of Improvement and Recommendations	4
C. Analysis Approach and Scope of Review	6
D. Potential Further Assessment and Analysis.....	7
II. Non-Event Specific Guideline Requirements and Utility Preparation	8
A. Identification of Customer Groups, Critical Facilities and Infrastructure, and Establishment of Points of Contact.....	8
B. Notifications, Coordination, Outreach and Education.....	14
C. Information Sharing	23
III. Utility Event-Specific Implementation	25
A. Coordination with Emergency Operations Centers and Incident Command Systems	25
B. Notification Efforts.....	28
C. Information Sharing	45
D. Post-Event Required Reporting.....	54
IV. Analysis of Effectiveness of IOUs’ Conduct of PSPS in 2019 and Recommendations	65
A. Reporting Issues that Impeded Analysis	65
B. Effectiveness of Notifications and Communications	66
C. Effectiveness of Efforts to Minimize Public Impact and Ensure Public Safety (IOUs and other Entities)	71
D. Late 2019 PSPS Event Challenges Due to Delays in Guideline Implementation	81
E. Recommendations	83
V. Supporting Documents Available Upon Request.....	88

This is a report prepared by Commission staff in response to the Commission's Order Instituting Investigation 19-11-013 (2019 Cal.PUC LEXIS 752).

This report is intended to be advisory in nature, subject to modification, and not intended to serve as an adjudicatory-staff investigatory pre-enforcement report. This report is also not intended to provide an evidentiary record basis to support or countermand any Commission action in this or any related proceeding, including but not limited to the review and revision of PSPS Guidelines which will happen pursuant to a public process.

I. Executive Summary

On November 13, 2019, the California Public Utilities Commission (CPUC, or Commission) instituted an investigation to determine if California's electric investor-owned utilities (IOU or utility) prioritized safety and complied with the regulations and requirements established by the CPUC with respect to their Public Safety Power Shutoff (PSPS or de-energization) events in late 2019. The named Respondents in the OII included Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company, (SDG&E), Liberty Utilities/CalPeco Electric (Liberty), Bear Valley Electric Service, a division of Golden State Water Company (Bear Valley), and Pacific Power, a division of PacifiCorp (PacifiCorp).

This staff report (Report), produced by the Safety and Enforcement Division (SED or staff) of the Commission, focuses on PSPS events conducted by PG&E, SCE, and SDG&E; the other Respondents did not conduct PSPS events in 2019.¹ SED reviewed five PG&E events, six SCE events, and two SDG&E events that occurred in late 2019. Table 1 summarizes the post-event reports that are within the scope of this Report.

SED's Report describes the manner and extent to which each electric IOU implemented the PSPS Guidelines (Guideline(s)) attached as Appendix A to Decision (D.) 19-05-042 (Decision). It provides an initial assessment of electric IOU performance regarding the issues presented in the preliminary scoping memo, including the effectiveness of notifications and communications, effectiveness of efforts to minimize the impact of PSPS events, effectiveness of actions taken to ensure public safety, whether electric IOU delays in implementing any of the Guideline requirements presented challenges, and whether a lack of preparation or coordination interfered with an electric IOU's ability to properly conduct PSPS during the late 2019 PSPS events.²

It is important to note that this Report does not present findings of non-compliance with any statute, Commission order, or regulation; it is not a pre-enforcement document. If SED were asked to undertake a compliance investigation, more extensive information collection and verification would be required. The concerns identified in this initial assessment and SED's proposed recommendations for future PSPS Guidelines and reporting are presented in Section I.B below.

¹ I.19-11-013, Joint Response of Bear Valley, Liberty, and PacifiCorp to the OII, December 13, 2019, p.2

² SED did not have enough information to properly address Issues 5 and 6 in the preliminary scoping memo.

Table 1- Events reviewed by SED staff.

IOU	Event Start Date in 2019 (MM/DD)	Event End Date in 2019 (MM/DD)	Number of Counties Affected	Number of Customer Accounts Affected
PG&E	10/5	10/6	3	11,609
PG&E	10/9	10/12	35	735,440
PG&E	10/23	10/25	17	178,800
PG&E ¹	10/26	10/29	30	967,700
PG&E ²	11/20	11/21	15	49,000
SCE ¹	10/2	10/12	5	23,824
SCE ¹	10/12	10/21	4	444
SCE ¹	10/21	10/26	6	31,386
SCE ¹	10/27	11/4	10	126364
SCE ²	11/15	11/17	3	49
SCE ²	11/23	11/26	5	1,192
SDG&E ²	10/10	10/11	1	395
SDG&E ¹	10/20	11/1	1	27,703

Note 1 - PSPS event dates revised based on IOU post-event reports.

Note 2 - Added events to include all PSPS events for October 2019 and November 2019.

The PSPS events in Table 1 differ in some respects from the list in the OII.³ Because the OII was issued on November 13, 2019, SED staff included a review of PSPS events that occurred later in November to ensure that this Report is comprehensive.

A. Background

The Commission issued an Order Instituting Investigation on the Late 2019 Public Safety Power Shutoff Events (I. 19-11-013 (OII) on November 13, 2019. The OII directed SED to “assess the electric utilities’ implementation of the Public Safety Power Shutoff (PSPS) Guidelines during the late 2019 PPS events and to identify areas where the PSPS Guidelines and/or utility actions must be improved.”⁴ The Commission directed that SED’s assessment should be contained in a consultant’s report, to be provided to the assigned Commissioner and the assigned Administrative Law Judge (ALJ).⁵

Because of resource and timing issues related to execution of a contract to address the issues presented in I.19-11-013 and the need for expediency to complete this assessment in advance of the 2020 fire season, this Report was prepared by SED staff rather than a consultant. The Report focuses on the issues presented in the OII’s preliminary scoping memo, with the exception of issues 5 and 6, which SED did not have sufficient information to properly address.

³ OII, p.4

⁴ I.19-11-013, November 13, 2019, Ordering Paragraph (OP) 4, p.12

⁵ I.19-11-013, November 13, 2019, Ordering Paragraph (OP) 4, p.12

B. Overview of Areas of Improvement and Recommendations

i. Challenges During the Late 2019 PSPS Events

SED's review of late 2019 PSPS events found that the challenges faced by each electric IOU included:

All Electric IOUs

1. Ineffective coordination with public safety partners.
2. Inadequate consideration of people/communities with access and functional needs (AFN communities).
3. Lack of comprehensive consideration of public safety risks caused by de-energization.

Pacific Gas & Electric

1. Communication network outages and lack of coordination of appropriate backup power.
2. Inadequate notification efforts pursuant to the Guideline requirements.
3. Inadequate outreach and education to identify additional resources available to the public.
4. Lack of outreach regarding Community Resource Centers (CRC), quantities of CRCs, and resources provided at each CRC.
5. Critical facilities and infrastructure providers experienced outages without an alternative source of power.
6. Delays in coordinating with entities to identify locations of critical facilities and infrastructure.
7. Difficulty providing Geographic Information System (GIS) shapefiles depicting PSPS information.

Southern California Edison

1. Excessive or burdensome notifications provided to public safety partners.
2. Illegible maps depicting PSPS event boundaries provided to the public.⁶
3. Lack of outreach regarding CRCs, quantities of CRCs, and resources provided at each CRC.
4. Critical facilities and infrastructure providers experienced outages without an alternative source of power.
5. Lack of communication of PSPS information in languages other than English.
6. Difficulty providing GIS shapefiles depicting PSPS information.

San Diego Gas & Electric

1. Excessive or burdensome notifications provided to the affected customers.

ii. Recommendations

SED proposes the following two sets of recommendations for the Commission's consideration. If the Commission would like to explore these recommendations further, that could be done in a public

⁶ This issue was later corrected beginning with SCE's November 15 event.

forum. The first set is recommendations for future Guidelines, and the second set is recommendations for content and data to be submitted as part of the SED proposed PSPS Annual Report:

Staff recommendations for future Guidelines:

1. Within the Guidelines, provide clarifications to address appropriate public safety partner identification.
2. Within the Guidelines, provide clarification regarding comprehensive consideration of lessons learned.
3. Within the Guidelines, clarify required timing versus recommended timing of notifications.
4. Require IOU notification of cancellation of a PSPS event.
5. Require IOU priority notification to transmission-level customers.
6. Require IOU EOC staff to have emergency management experience or receive emergency management training.
7. Require IOU coordination with local and tribal governments to proactively identify and share and receive lists of medical baseline customers, including persons reliant on electricity-dependent life-sustaining equipment, and persons who may qualify for low-income assistance programs. The lists should be maintained and annually updated.
8. Require partnerships with CBOs to improve outreach and assistance for AFN communities.
9. Require coordination with public safety partners, including first/emergency responders, local jurisdictions, e.g., counties, cities and tribes, and critical facilities and infrastructure providers, to comprehensively identify critical facilities and infrastructure.
10. Require coordination with local jurisdictions and CBOs to implement CRCs and mobile assistance vehicles.
11. Require reporting of project status updates targeted at improving situational awareness (weather stations, high-resolution cameras, etc.) in proximity to electric facilities in High Fire Threat Districts (HFTD).
12. Require all non-event specific Guideline requirements to be addressed in an annual report served on service lists for PSPS-related proceedings and the Director of SED. This new annual report would be in addition to the 10-day after-event report already required by Commission rules.
13. Explore allowing public safety partners to opt out of notifications.

Recommendations for submission of content and data in post-event reporting to the CPUC:

1. Establish metrics for notification to AFN communities and require reporting that compares IOU notification to those metrics.
2. Report additional information on effectiveness of Customer Resource Center/Assistance locations.
3. Include maps depicting actual PSPS event impacts. Report the number of customers notified in comparison to the number of customers actually de-energized.
4. Report on PSPS-related electric infrastructure projects, such as, system hardening and sectionalization, completed before the PSPS events in question, and the resulting impacts, if any, on the size and scope of each PSPS event.

iii. Procedural Options for Further Consideration

There may be value in examining some of the issues raised in this Report in a broader and public context, and not limited to the late 2019 PSPS events. Other open proceedings addressing issues related to proactive de-energization may be an appropriate vehicle to consider one or more issues raised in this report. Those include:

Disaster Relief Program Rulemaking	R.18-03-011
De-energization Rulemaking	R.18-12-005
Wildfire Mitigation Plan Rulemaking	R.18-10-007
Microgrid Rulemaking	R.19-09-009
Self-Generation Incentive Program	R.12-11-005
Climate Change Adaptation Rulemaking	R.18-04-019

C. Analysis Approach and Scope of Review

To execute the Commission’s directive to assess the nature and extent of electric IOU implementation of the PSPS Guidelines, SED staff reviewed the Guidelines in effect in 2019, as well as similar Commission guidance provided in earlier decisions, specifically, Resolution ESRB-8 and D.12-04-024.⁷ The additive nature of these Guidelines and the earlier Commission requirements, coupled with formatting and structural differences among the various guidance documents, made it difficult to assemble cohesive requirements with which to assess electric IOU implementation of the Guidelines.⁸

In general, staff determined that the Guidelines can be bifurcated into two distinct types of requirements: (1) Event-Specific requirements and (2) Non-Event-Specific requirements.

Event-Specific requirements include elements that must be done or reported on an event-by-event basis (e.g., sending notifications, identifying number and types of affected customers, reporting lessons learned, etc.).

Non-Event-Specific requirements are one-time or programmatic/systemic efforts (e.g. statewide public education campaign, identification of customer groups, development of scripts and templates, etc.). As explained above, this report only focuses on PG&E, SCE, and SDG&E because those companies executed PSPS events in late 2019, which is the time frame covered by this report.

SED used several sources of information to evaluate the utilities’ performance regarding PSPS, as described below.

⁷ The PSPS Guidelines, are Attachment A to D.19-05-042.

⁸ Issue 1 in the preliminary scoping memo specifically indicates that electric IOUs are to be evaluated on the extent to which they implemented PSPS Guideline **requirements**. In general, staff identified those requirements where PSPS Guideline language indicated electric utilities “shall” or “must” perform a given action.

Post-Event Reports: To evaluate the extent of electric IOU implementation of Event-Specific requirements, SED staff utilized the post-event reports submitted to the Director of SED. Please see Table 1 for a list of events for which SED reviewed post-event reports.

Progress Reports: To evaluate the extent of electric IOU implementation of Non-Event-Specific requirements, staff utilized IOU Progress Reports submitted pursuant to ordering paragraph (OP) 3 of D.19-05-042.⁹

Data Requests: Staff issued two data requests¹⁰ to the respondent IOUs to fill gaps and obtain the needed information that could not be identified in the Post-event reports and Progress Reports.

Party and Stakeholder Comments on the OII: In response to the issuance of the OII, parties provided comments detailing their experiences during the 2019 PSPS events. SED staff reviewed those responses to compare on-the-ground experiences against the IOUs' reports and to gather insight into the effectiveness of communications and notification during the events. In this context, staff defines effectiveness as success in producing a desired or intended result, and so stakeholder and party comments noting unsuccessful or undesirable results provide helpful context. Where relevant, the stakeholder and party comments are cited.

Party and Stakeholder Comments on the Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions, R.18-12-005 (OIR): Staff also relied on comments filed in the broader PSPS rulemaking that relate to the scope of events addressed in this report.

In the interest of brevity, the Report discusses areas in which an electric IOU did not meet the expectations set out in the Guidelines. The Report does not discuss electric IOU performance where staff found that the IOU had met the requirements in the Guidelines.

D. Potential Further Assessment and Analysis

As discussed in a previous section, because of resource and timing issues and the need to complete this phase of the investigation in advance of the 2020 wildfire and PSPS season, this Report was prepared by SED staff, relying on the documentation listed above.

However, in the absence of the need for expediency, staff notes that a third-party consultant could assist the Commission in better quantifying the effectiveness of the utilities' performance in preparing for and conducting PSPS events.

For example, a consultant could research, develop, and incorporate probabilistic wildfire spread and consequence modeling into an analysis of each PSPS event. Such an analysis would inform the Commission about the likelihood of a wildfire igniting and the direction and scope of its spread if the PSPS event had not been conducted. A separate consultant engagement could develop a tool to perform an assessment of the public safety risks and economic impacts resulting from each PSPS event.

⁹ OP 3 of D.19-05-042 mandated the filing of two progress reports. For the purposes of this report, Staff assigned more weight to the first progress report, as it was filed on September 4, 2019, approximately one month prior to the PSPS events under investigation, whereas the second progress report was filed on March 4, 2020.

¹⁰ Data Request SED-001 (dated March 12, 2020) and Data Request SED-002 (dated March 27, 2020) are provided as Attachment D.

Both analyses would potentially be germane to questions of prudent management and cost recovery, and identification of any other issues need to be considered before engaging a consultant to perform additional analyses.

II. Non-Event Specific Guideline Requirements and Utility Preparation

This section assesses each electric IOU's implementation of the Commission's non-event-specific requirements as set out in the Guidelines. This assessment focuses on areas of concern to SED.

A. Identification of Customer Groups, Critical Facilities and Infrastructure, and Establishment of Points of Contact

The Guidelines provide the following definition for public safety partners:

"The term 'public safety partners' refers to first/emergency responders at the local, state and federal level, water, wastewater and communication service providers, affected community choice aggregators and publicly-owned utilities/electrical cooperatives, the Commission, the California Governor's Office of Emergency Services and the California Department of Forestry and Fire Protection. Public safety partners will receive priority notification of a de-energization event."¹¹

Pacific Gas & Electric

In its response to SED's first data request, PG&E stated that it was in regular contact with its public safety partners leading up to, during, and immediately following the late 2019 PSPS events discussed in this report.¹² PG&E noted that it engaged with telecommunications providers to provide feedback after the late 2019 PSPS events on January 31, 2020, and February 27, 2020.¹³ However, according to comments filed by California Cable & Telecommunications Association (CCTA), some of its members were not notified in a similar manner as other public safety partners.¹⁴

In an attempt to verify that PG&E identified CCTA members as public safety partners, SED requested a list of all affected public safety partners contacted regarding feedback for de-energization events, but PG&E did not provide a list identifying specific communications service providers.¹⁵ Also, in response to SED's first data request, PG&E provided a list of its "public safety answer points" in which the cable companies were not listed.¹⁶ It is unclear whether PG&E considered CCTA members as public safety partners.

Southern California Edison

In a response to SED's first data request, SCE acknowledged that communications service providers and water treatment facilities are public safety partners and explained their outreach efforts to those entities. "SCE has hosted resiliency workshops specifically for water agencies to discuss best practices and resources available to assist these agencies with resiliency planning, has participated in

¹¹ D.19-05-042 in R.18-12-005, Appendix A, p. A4

¹² PG&E Response to SED-001, Question 2, dated March 24, 2020

¹³ *Id.*

¹⁴ R.18-12-005, CCTA Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.2

¹⁵ PG&E Response to SED-001, Question 2, dated March 24, 2020

¹⁶ *Id.*, Question 26, dated March 24, 2020

events hosted by various water agencies and associations, and hosts tours of SCE's Emergency Operations Center."¹⁷ In this same data request response, SCE stated, "SCE has also worked closely with telecommunications customers to improve communication methods during PSPS events, such as ensuring they are subscribed to SCE's Representational State Transfer service."¹⁸

Although SCE performed outreach to these two sectors of its public safety partners, it is unclear whether this outreach was successful. In their response to SED's first data request, SCE provided a list of all the public safety partners that they had contacted after each PSPS event to gain feedback on how the event was handled. "SCE account managers from its Business Customer Division also contacted public safety partners individually after the 2019 PSPS events, via phone and in-person meetings, to understand the impacts of events on the public safety partners and to take feedback on how to improve the PSPS process."¹⁹ SCE did not include water service providers or communications service providers in their data request response regarding the public safety partners contacted for feedback.

When SED asked SCE, in its second data request, for results on feedback, SCE responded that "[w]here appropriate, SCE incorporated the feedback from its public safety partners and critical infrastructure providers into its PSPS protocols, but does not have detailed records that describe the specific feedback received."²⁰ Although SCE has provided evidence that the company recognizes water and communications service providers as public safety partners, it does not appear that such entities were engaged in the same manner as the other identified public safety partners when asking for feedback on events.

Although SCE identified the City of Riverside (Riverside) as a public safety partner, Riverside stated that SCE provided generic notifications to its representatives during the late 2019 PSPS events:

*"These notifications merited greater detail; specific, focused coordination, and pre-planning should have occurred in advance. In particular, SCE's generic recommendation for 'an outage plan and an emergency kit' does not suffice for the water accounts located in San Bernardino. Again, these water accounts represent approximately 60 percent of Riverside Public Utilities' water supply and power 4[sic] regional water treatment plants that are necessary to meet State and Federal drinking water standards."*²¹

In response to SCE's November 23 PSPS event, CCTA stated:

*"While Appendix B of SCE's Report provides copies of 'Public Safety Partner Notifications' where an entity could ostensibly determine whether it is receiving Public Safety Partner notifications,[ftn omitted] the notifications in Appendix B are specific to local officials and 'for official use by local government officials'[ftn omitted] and, therefore, not useful in determining whether all communications providers within SCE's PSPS areas are receiving the required priority notification."*²²

It is unclear if SCE considered CCTA members as public safety partners.

¹⁷ SCE Response to SED-001, Question 2, dated March 25, 2020

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ SCE Response to SED-002, Question 11, dated April 7, 2020

²¹ I.19-11-013, Response of Riverside to the OII, dated January 10, 2020, p.5

²² R.18-12-005, CCTA Comments on SCE's Post-PSPS Event Reports for October 2-12, 2019 and November 23-26, 2019, Attachment dated December 26, 2019, pp.2-3

i. Critical Facilities and Infrastructure Providers

- a. Coordinate with First/Emergency Responders and Local Governments to Identify Critical Facilities and Infrastructure

The Guidelines require that electric investor-owned utilities:

“...must, in addition to developing their own list of critical facilities and critical infrastructure based on the adopted definition, work in coordination with first/emergency responders and local governments to identify critical facilities within the electric investor-owned utilities’ service territories.”²³

Pacific Gas & Electric

PG&E stated in its September 2019 Progress Report on Implementation of De-Energization Guidelines that the company coordinated with local governments to identify critical facilities and infrastructure; however, PG&E did not discuss whether it coordinated with first/emergency responders to identify critical facilities & infrastructure.²⁴

In PG&E’s response to SED’s second data request regarding this requirement, it stated that the “outreach included direct coordination with first/emergency responders through county emergency managers via email and phone calls to gather their suggestions regarding which facilities they believe PG&E should consider classifying as critical and be included in PG&E’s critical facilities and infrastructure list.”²⁵

PG&E should have documented in its Progress Report that it coordinated with both first/emergency responders and local governments to identify critical facilities within its service territory.

Although PG&E stated that it coordinated with local governments and first/emergency responders about critical facilities and infrastructure providers, affected entities experienced the following issues:

- For PG&E’s October 9 PSPS event, San Jose reported discrepancies between San Jose’s and PG&E’s lists of critical facilities. San Jose stated that PG&E’s list of critical facilities did not include a school and medical facility that was on San Jose’s list of critical facilities.²⁶
- AT&T identified an issue for the October 9 PSPS event in which direct contact with a PG&E Critical Infrastructure Liaison was not established until October 10, 2019.²⁷ Prior to establishing this contact, the communication protocol between parties impaired the ability to coordinate appropriately in response to the evolving conditions.

Southern California Edison

²³ D.19-05-042 in R.18-12-005, Appendix A, p.A11

²⁴ PG&E’s Progress Report on Implementation of De-Energization Guidelines, dated September 4, 2019.

²⁵ PG&E Response to SED-002, Question 1, dated April 7, 2020

²⁶ R.18-12-005, City of San Jose’s Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, dated November 19, 2019, filed January 7, 2020, p.8

²⁷ R.18-12-005, Comments of AT&T on Amended PG&E Report for October 9-12 PPS, dated November 19, 2019, filed January 7, 2020, p.10

Public Report on the Late 2019 Public Safety Power Shutoff Events

In September 2019, SCE acknowledged, in its September 2019 Progress Report, the requirement to work with public safety partners to identify critical facilities and infrastructure: “SCE has been actively engaging our Public Safety Partners to not only identify those critical facilities and infrastructure that may be impacted by a PSPS event as outlined in the Commission guidance, but also those facilities that our Public Safety Partners feel are important but are not currently categorized as ‘critical facilities’ within Rulemaking R.18-12-005. Once completed, SCE will add these additional facilities to the current protocols for regularly identifying and updating primary, secondary and tertiary contacts.”²⁸

However, as described above in Riverside’s response to the OII, SCE did not coordinate power outages with Riverside’s critical water facilities. even though they are a “local government.”²⁹

The Center for Accessible Technology (CforAT) also highlighted that for the October 2 PSPS event, SCE reported that it unknowingly de-energized a hospital in Ventura County and was not aware until it was notified by emergency management personnel.³⁰

SCE needs to provide information on their discussions with its public safety partners and document the results of these discussions concerning critical facilities and infrastructure operators in their jurisdictions.

b. Identify 24-hour Point of Contact (POC) and Secondary POC

The Guidelines state that electric investor-owned utilities:

“...must identify 24-hour points of contact and, at a minimum, secondary points of contact. The electric investor-owned utilities must work together with operators of critical facilities and critical infrastructure to identify preferred points of contact (the billing contact may not be the appropriate de-energization contact) and preferred methods of communication.”³¹

Southern California Edison

In SCE’s March 2020 Progress Report, SCE discussed in more detail how they are identifying their critical infrastructure customers:

“SCE developed a standard process to identify Critical Infrastructure providers by referencing the North American Industry Classification System codes for businesses... As of February 10, 2020, a total of 15,345 service accounts have been identified as Critical Infrastructure providers SCE considers the following customer categories as C[ftn omitted], Government Facilities, Healthcare and Public Health Sector, Hospitals, Energy Sector, Inter-connected Publicly Owned Utilities, Water and Wastewater System Sector, Communication Sector, Chemical Sector and Transportation Sector... SCE has identified that

²⁸ SCE’s Progress Report on the Implementation of De-energization Guidelines set forth in Appendix “A” of D.19-05-042, dated September 4, 2019, p.17

²⁹ I.19-11-013, Response of Riverside to the OII, dated January 10, 2020, p.5

³⁰ R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.3

³¹ D.19-05-042 in R.18-12-005, Appendix A, p.A11

approximately 80% of the Critical Infrastructure service accounts fall into the assigned category. Of these assigned customers, currently 99% of the service accounts have two or more methods of contact.”³²

Although SCE has made a good effort in identifying all their critical infrastructure customers, they need to verify that this method of identifying all the customers in this category is 100% accurate.

SCE also stated in its March 2020 Progress Report that “SCE has primary, secondary, and tertiary contacts on record for PSPS notifications for its CCAs.”³³ In this same report, SCE also stated that:

“SCE account managers assigned to its water and telecommunication providers have actively worked to keep their customer contact information updated. For small customers without an assigned account manager, SCE Hydraulic Services Team conducted and completed an outreach to update primary, secondary and tertiary contacts, where possible. Venues for this outreach include leveraging SCE’s Annual Water Conference, associations, vendor fairs, and industry specific PowerTalks workshops.”³⁴

Since SCE does not have account managers assigned to smaller customers, having primary, secondary, and tertiary contacts need to be verified for this customer group.

San Diego Gas & Electric

In SDG&E’s September 2019 Progress Report on Implementation of De-Energization Guidelines, SDG&E does not indicate whether primary and secondary POCs were established for all critical facilities. SDG&E only indicates that POCs were established for "public safety partners," but that does not cover the suite of facilities/sectors defined as "critical facilities."

In its data request response for this requirement, SDG&E stated that “prior to the start of the 2019 wildfire season, SDG&E reached out to all identified critical facilities and infrastructure businesses in good faith to establish 24-hour primary and secondary points of contact with a focus on those in Tier 2 and Tier 3 of the high fire threat district (HFTD). There were, however, instances when SDG&E employees reached the critical facility/infrastructure customers, but they were unable to obtain the required information.”³⁵

SDG&E should make repeated efforts to attain the required information from operators of critical facilities and critical infrastructure--at a minimum, primary and secondary points of contacts. SDG&E should have documented in its Progress Report whether or not it obtained primary, secondary, or even tertiary points of contacts and identified preferred methods of communication.

ii. Medical Baseline Customers and People/Communities with Access and Functional Needs

a. Update Contact Information for Medical Baseline Customers

The Guidelines state that electric investor-owned utilities:

³² SCE’s Second Progress Report on the Implementation of De-energization Guidelines set forth in Appendix “A” of D.19-05-042, dated March 4, 2020, p.24

³³ *Id.*, p.22

³⁴ *Id.*, p.23

³⁵ SDG&E Response to SED-002, Question 1, dated April 7, 2020

“...must update contact information for medical baseline customers and provide an opportunity for such customers to select alternative means of contact beyond their preferred means of contact from the utility for billing and other information.”³⁶

Pacific Gas & Electric

In PG&E’s September 2019 Progress Report, PG&E does not mention that they provided medical baseline customers an opportunity to select alternative means of contact beyond preferred means for utility billing. In its response to SED’s second data request for this requirement, PG&E stated that “[i]n the Medical Baseline Program application, customers are provided the option to list additional contacts, including phone and email options. PG&E has made significant efforts to educate customers, including Medical Baseline customers, on how to update their contact information.”³⁷

PG&E should have documented in its Progress Report that it provided an opportunity for medical baseline customers to select alternative means of contact. In addition, it should elaborate on the options provided and the steps taken to communicate with medical baseline customers to update and how to update their contact information.

iii. All Other Customers

- a. Work with Local Jurisdictions to Identify and Communicate with All People within a De-energized Area, Including Visitors

The Guidelines state that electric investor-owned utilities:

“...must work with local jurisdictions to leverage all means of identifying and communicating with all people within a de-energized area, including people who may be visiting the area or not directly listed on utility accounts.”³⁸

Pacific Gas & Electric

In PG&E’s September 2019 Progress Report, PG&E did not mention that they worked with local jurisdictions to leverage all means of identifying and communicating with all people within a de-energized area, including visitors. In its response to SED’s second data request for this requirement, PG&E stated that it:

“...conducted or participated in more than 1,000 meetings and events with various local and tribal government agencies, as well as stakeholders across its service area, including at least one meeting with every county government. One of the areas of focus for these meetings was to discuss ways to improve communication and information sharing with stakeholders in advance of and during a PSPS event. PG&E provided event-specific information to state and local emergency responders through a variety of channels as early in the process as possible. This included public alert systems, highway signs, Nixle and public radio broadcasts.”³⁹

³⁶ D.19-05-042, Appendix A, p.A13-14

³⁷ PG&E Response to SED-002, Question 2, dated April 7, 2020

³⁸ D.19-05-042, Appendix A, p.A14

³⁹ PG&E Response to SED-002, Question 3, dated April 7, 2020

PG&E should have documented in its Progress Report that it worked with local jurisdictions to leverage all means of identifying and communicating with all people within a de-energized area, including people who may be visiting the area or not directly listed on their accounts. Additionally, PG&E should elaborate on the recommendations made as result of these meetings and what actions PG&E took to incorporate these recommendations.

San Diego Gas & Electric

In its September 2019, Progress Report, SDG&E indicated that it was working with local jurisdictions to further develop notification and communication efforts for de-energization events. In its response to SED's first data request, SDG&E described its self-registration portal for SDG&E's Emergency Notification Systems.⁴⁰ While this tool may prove useful, visitors may not know of the existence of this notification system and therefore additional outreach to raise awareness prior to each event may be necessary for the opt-in notification system to be effective.

In addition, SDG&E responded to SED's second data request, regarding leveraging all means of communicating with all people in a de-energized area, as follows:

"SDG&E established a system with the County of San Diego Office of Emergency Services (County OES) to leverage the following systems to share SDG&E's PSPS notification messaging:

- *Partner Relay – County OES working group of Community Based Organizations (CBOs) that take messages and translate them into their languages and cultures and distribute the translated messaging to their networks*
- *Access and Functional Needs (AFN) Working Group – County OES working group of CBOs that serve the AFN populations, SDG&E PSPS Notification messages are forwarded to the working group members for distribution to their constituent groups*
- *Messages and CRC locations are included in the SD County Emergency phone app*
- *Social media posts are retweeted/reposted to amplify the messages"⁴¹*

SDG&E should have documented in its Progress Report the details of all efforts coordinated and implemented with communicating PSPS information to all people within a de-energized area.

B. Notifications, Coordination, Outreach and Education

i. **Develop Notification and Communication Protocols and Systems**

a. Reach Customers No Matter Where the Customer is Located

The Guidelines require the following of electric investor-owned utilities:

"Customers should understand the purpose of proactive de-energization, the electric investor-owned utilities' process for initiating it, how to manage safely through a de-energization event, and the impacts if deployed. To accomplish this, the electric investor-owned utilities must: ...develop notification and communication protocols and systems that reach customers no matter where the customer is located and deliver messaging in an understandable manner."

⁴⁰ SDG&E Response to SED-002, Question 11, dated April 7, 2020

⁴¹ SDG&E Response to SED-002, Question 10, dated April 7, 2020

San Diego Gas & Electric

As described in the previous section, SDG&E has put forth a strong effort in leveraging relationships and using social media to reach all populations in their territory. However, SDG&E did not state in its response anything about working with city officials or county officials that are not associated with the emergency operation offices. There are other local offices that could help the company identify all customers within its service territory who need to be notified of a PSPS event. SDG&E should expand its investigation for identifying hard to reach customers to all the local government agencies and tribal community representatives to help them complete their notification database.

ii. Develop Notification Strategies

a. Consideration of Geographic and Cultural Demographics

The Guidelines state that electric investor-owned utilities:

“...must develop notification strategies for all customer groups affected by de-energization, and the electric investor-owned utilities must partner with local and state public safety partners, whenever possible, to develop notification strategies. ...Communication methods must consider the geographic and cultural demographics of affected areas, e.g. some rural areas lack access to broadband services.”⁴²

Pacific Gas & Electric

In PG&E’s September 2019 Progress Report, PG&E does not mention consideration of geographic and cultural demographics of affected areas in development of communication methods. In the data request response for this requirement, PG&E stated that it:

“...prioritizes outreach to customers in High Fire Threat Districts (HFTDs), and uses local community based organizations (CBOs) as well as California Alternate Rates for Energy (CARE) / Family Electric Rate Assistance (FERA) program outreach partners as an opportunity to augment standard PSPS outreach for customers that participate and/or qualify for CARE/FERA programs and fall within these low-income demographics. PG&E also makes certain communications available in multiple languages, and coordinates with multi-cultural news organizations to provide in-event translations to customers.”⁴³

PG&E should have documented in its Progress Report whether consideration of geographic and cultural demographics of affected areas were made in the development of communication methods. They should elaborate on specific steps taken to address concerns affected by both geographic and cultural diversity. For example, PG&E states that it makes certain that communications are available in multiple languages, but it is unclear how PG&E determined the prevailing languages in the affected area, including whether it coordinated with local governments to determine the most prevalent languages. Adding greater context to PG&E’s activities related to this requirement would provide the Commission clarity on the steps taken by PG&E to meet this requirement.

Southern California Edison

To measure the effectiveness of their notification strategy, SCE provided SED, in a data request response, the following information:

⁴² D.19-05-042 in R.18-12-005, Appendix A, p.A18-19

⁴³ PG&E Response to SED-002, Question 7, dated April 7, 2020

“SCE conducted post-wildfire season surveys with both residential and business customers from December 2019 – March 2020, which included demographics questions about customers with disabilities and medical equipment needs.”⁴⁴

SCE added the following to SED in a data request response:

“SCE’s Residential survey addressed awareness of SCE’s PSPS communication, with roughly half of respondents in the four sample sub-groups saying they were aware of SCE’s PSPS-related communications. In addition, the survey asked respondents to assess the effectiveness of SCE’s PSPS-related communications in terms of SCE ‘communicating their efforts using advanced technology to mitigate the risk of wildfires’ (with 63%-67% scoring them as ‘Very’/‘Somewhat’ effective) and ‘helping you and your family create a safety preparedness plan’ (with 47%-58% scoring them as ‘Very’/‘Somewhat’ effective).”⁴⁵

SCE also shared that they asked their customers about the frequency of the alerts they received. Here is their response to SED’s data request:

“Additionally, survey respondents who were either notified and de-energized OR notified only, were asked their opinion of the number of PSPS alerts/notifications. Of those that were notified and deenergized, 28% thought the communications were ‘too many’ and 64% thought they were ‘about right.’ Of those customers that were notified only, 15% thought the communications were ‘too many’ and 80% thought they were ‘about right.’ SCE also asked respondents about their satisfaction with the information in the alerts, with 60% of those that were de-energized saying they were ‘Very’/‘Somewhat’ satisfied and 73% of those that were notified only saying they were ‘Very’/‘Somewhat’ satisfied. In addition, 75% of de-energized respondents found the alerts to be helpful and clear/easy to understand while 84% of those that were notified found them helpful and 80% found them clear/easy to understand.”⁴⁶

SCE did not provide detailed information on how they considered the geographic and cultural demographics of affected areas in their surveys. Additionally, there are no details on how customers in rural areas, who may lack access to broadband or wireless connectivity, responded to the surveys. More information is needed on the distribution of the surveys and the results of the surveys to fully measure the effectiveness of SCE’s 2019 notification strategy.

San Diego Gas & Electric

In its second data request, SED asked how SDG&E considers geographic and cultural demographics in its communication methods and which factors it considers.⁴⁷ SED also asked how these factors were measured and evaluated.⁴⁸ SDG&E’s response to this question was:

⁴⁴ SCE Response to SED-002, Question 10, dated April 7, 2020

⁴⁵ SCE Response to SED-002, Question 11, dated April 7, 2020

⁴⁶ *Id.*, Question 11

⁴⁷ Data Request SED-002-SDG&E, Question 14, dated March 27, 2020

⁴⁸ *Id.*, Question 14

“SDG&E’s public education campaign measures include evaluating publication viewership and CBOs provide information to SDG&E on the populations they reach. SDG&E can also view the consumer traffic that request PSPS notifications in various languages.”⁴⁹

Although this information would provide some helpful data to evaluate the success of their notification strategy for these hard to reach populations, it can be incomplete or misleading. SDG&E should consider conducting customer surveys, in multiple languages, to get a better idea of the effectiveness of their notification strategies with consideration to the geographic and cultural demographics of affected areas.

b. Consideration of Restrictions on Communication Channels Due to De-energization

The Guidelines require that electric investor-owned utilities:

“...develop a strategy for how communication will occur with affected customers once de-energization has begun and during re-energization, recognizing that communication channels may be restricted due to the loss of power. The electric investor-owned utilities should develop this strategy in coordination with public safety partners.”⁵⁰

Pacific Gas & Electric

In PG&E’s September 2019 Progress Report, PG&E does not discuss a strategy for how communication will occur with affected customers once de-energization has begun and during re-energization. In its response to SED’s second data request for this requirement PG&E stated that they:

“...recognize that communication channels may be restricted due to power loss during a PSPS event, PG&E developed a multi-pronged communication strategy for notifying potentially affected customers by utilizing multiple channels of communication.”⁵¹

This included notifying individuals through automated phone calls, text messages, and emails. PG&E also encouraged individuals to obtain event information from other communication channels such as:

- PG&E’s website
- Call center support
- Media engagement
- Coordination with Public Safety Partners and Community Based Organizations

PG&E should have documented in its Progress Report all the steps it took to develop a strategy pursuant to this requirement, taking into consideration communication channels may be restricted due to the loss of power. PG&E should also discuss the coordination effort with public safety partners, their participation in the development of this strategy, and public safety partners’ roles in communication during de-energization.

PG&E’s response leaves unclear whether PG&E has examined all possible restrictions to communication during de-energization. For example, PG&E points to phone calls, text messages, emails, PG&E’s website, call center, and media engagement as sources of communication during de-

⁴⁹ SDG&E Response to SED-002, Questions 14, dated April 7, 2020

⁵⁰ D.19-05-042 in R.18-12-005, Appendix A, p. A19

⁵¹ PG&E Response to SED-002, Question 8, dated April 7, 2020

energization. Yet if the affected area is in the foothills or mountainous areas with limited cell phone reception, then all of those sources of communication could potentially be unavailable to a household. If a de-energization event is prolonged because of weather conditions, those affected individuals would not be able to access updated information. Although PG&E mentions coordination with public safety partners and Community Based Organizations (CBO) as communication channels, PG&E's steps and the responsibilities it assumes during a de-energization event are unclear.

San Diego Gas & Electric

In SDG&E's September 2019, Progress Report,⁵² SDG&E does not explicitly discuss a strategy for how communication will occur with affected customers once de-energization has begun and during re-energization. In response to SED's second data request, SDG&E provided information regarding how it considered potential restrictions on communication channels due to de-energization.⁵³ The various channels SDG&E listed that apply once de-energization begins include:

- Broadcast (radio and TV)
- Social Media
- Website (sdge.com)
- PSPS notifications via SDG&E's Enterprise Notifications System (email, text and voice messaging)⁵⁴

SDG&E should include in its reporting, a clear strategy for how communication will occur when de-energization begins and during re-energization.

iii. Provide Operational Coordination with Public Safety Partners Upon Request

The Guidelines state that:

*"Coordination in preparation for de-energization is a shared responsibility between the electric investor-owned utilities, public safety partners, and local governments; however, the electric utilities are ultimately responsible and accountable for the safe deployment of de-energization."*⁵⁵

The Guidelines also require:

*"In addition, the utilities must provide, if requested, operational coordination with public safety partners to ensure such partners have not only the information but also the coordination with the utilities necessary to prepare for de-energization."*⁵⁶

Southern California Edison

In response to SED's second data request, SCE stated that:

"SCE conducted after-action reviews with impacted emergency management agencies, who are Public Safety Partners, to solicit feedback on its PSPS implementation, including SCE's notification and outreach

⁵² SDG&E Company's Progress Report on Implementation of De-Energization Guidelines, dated September 4, 2019

⁵³ SDG&E's Response to SED-002, Question 15, dated April 7, 2020

⁵⁴ *Id.*, Question 15

⁵⁵ D.19-05-042 in R.18-12-005, Appendix A, p.A2

⁵⁶ *Id.*, p.A15

efforts. Although these meetings were held on an ad hoc basis in 2019, SCE intends to conduct them in a more structured way in 2020. In addition to the after-action review meetings, SCE held routine calls with county emergency management agencies to coordinate planning and response efforts, including how we notify and engage customer groups.”⁵⁷

Documentation of the feedback received in these meetings needs to be shared with the other IOUs and the CPUC. Expansion of operational coordination would help develop more effective PSPS programs.

Based on the Joint Local Government’s⁵⁸ experience with the late 2019 PSPS events, SCE may have missed opportunities to coordinate with some local government entities:

“Going into 2019, SCE appeared to have a better understanding of the government- and critical facility-side impacts and logistical issues created by de-energization, but the utility did not engage in any operational planning with its local public safety partners or critical facilities. This failure to coordinate did not, surprisingly, cripple SCE’s lines of communication with local governments...”⁵⁹

iv. Work with Public Safety Partners in Advance of Fire Season to Develop Preliminary Plans for Emergency Situations

The Guidelines require that electric investor-owned utilities:

“...must work with public safety partners in advance of the wildfire season to develop preliminary plans for addressing emergency situations that may arise during de-energization, such as a non-utility caused wildfire that occurs in a de-energized area that necessitates the use of water for firefighting purposes. Although not a request to delay de-energization, such a situation could result in the public safety being better served by utility lines being re-energized.”⁶⁰

Southern California Edison

During the PSPS event that took place October 21-26, SCE realized it needed to do a better job of coordinating with firefighting departments and agencies before de-energization events are activated:

“SCE received a request from the San Bernardino County Fire Department for re-energization of the Calstate and Club Oaks Circuits in San Bernardino County, which were de-energized at 5:33 a.m. that morning due to fire activity in the area to power additional water pumps to assist firefighting efforts. SCE, working with field crews, meteorologists, and the Incident Commander, determined that public safety concerns still existed due to sustained winds around 43 mph, wind gusts up to 58 mph, and high fire potential index in the area. Based on these real-time observations, it was determined that re-energization of the Calstate and Club Oaks Circuits posed a public safety risk, and the circuits were left de-energized.”⁶¹

⁵⁷ SCE Response to SED-002, Question 10, dated April 7, 2020

⁵⁸ Counties of Kern, Marin, Mendocino, Napa, Nevada, San Luis Obispo, Santa Barbara, and Sonoma, and the City of Santa Rosa.

⁵⁹ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.2

⁶⁰ D.19-05-042 in R.18-12-005, Appendix A, p.A12

⁶¹ SCE Post-Event Report October 21-26, p.17

“SCE’s Fire Management Officer confirmed that alternate water sources were available at the time of the request, which fire personnel utilized for their firefighting efforts. SCE remained in direct contact with firefighting authorities throughout the fire to respond quickly to any additional emergent needs. Situations such as the one described above reinforce the necessity for SCE to continue coordination efforts with Public Safety Partners ahead of a PSPS event.”⁶²

When SCE received this request, the utility realized that it needed to be aware of which water facilities might be needed to provide water for firefighting effort. SCE needs to coordinate more closely with local fire departments and CAL FIRE before activating a PSPS within its service territory because of the direct impacts on firefighting efforts if a fire is ignited.

San Diego Gas & Electric

Based on its response to SED’s second data request, SDG&E has not demonstrated sufficient effort to work with public safety partners for developing preliminary plans for addressing emergency situations that may arise during de-energization.⁶³ SDG&E explained that it participates in the San Diego Operation Area’s regional emergency planning process which covers all-hazard or complex incidents.⁶⁴ It did not address other public safety partners other than San Diego. In addition, SDG&E explained that its:

“...emergency planning is also all-hazard and includes planning for an incident within an incident. SDG&E most widely considers a wildfire scenario concurrent with a PSPS but due to the fact that its plans are all-hazard, they would be appropriate for any emergency situation that may arise.”⁶⁵

SDG&E provided copies of its Company Emergency Response Plan and Concept of Operations -- Wildfire. The Company Emergency Response Plan is updated annually, with a major revision every 3 to 5 years. The response provided is unclear if and to what level the public safety partners have participated in SDG&E’s emergency planning process. Without additional information, it is hard to assess if SDG&E’s current effort can replace the required wildfire preliminary planning with public safety partners in advance of the wildfire season. However, additional expansion of this effort to include all public safety partners may help to address emergency situations unknown to SDG&E.

v. Proactively Partner with Critical Facility and Infrastructure for Backup Generation Assessment: Need for Providing Generators for Facilities or Infrastructure Not Well Prepared for De-energization

The Guidelines require that electric investor-owned utilities:

“...pursuant to Resolution ESRB-8 and in advance of the wildfire season, must proactively partner with critical facility and critical infrastructure representatives to assess the ability of each critical facility to maintain operations during de-energization events of varying lengths. The electric investor-owned utilities must help critical facility and critical infrastructure representatives assess the need for backup

⁶² SCE Post-Event Report October 21-26, p.17

⁶³ SDG&E Response to SED-002, Question 17, dated April 7, 2020

⁶⁴ *Id.*, Question 17

⁶⁵ *Id.*, Question 17

generation and determine whether additional equipment is needed, including providing generators to facilities or infrastructure that are not well prepared for a power shut off.”⁶⁶

Pacific Gas & Electric

PG&E reported in its September 2019 Progress Report that it:

“...initiated an outreach campaign to cities and counties to confirm and verify critical facilities and infrastructure within their jurisdiction. The campaign also requested each jurisdiction identify additional facilities and infrastructure they deem to be critical and believe ought to be included in PG&E’s critical facilities and infrastructure list. To date, PG&E has received input from over 70 cities and counties and has reviewed and updated records with a critical facility identifier based on feedback received.”⁶⁷

Although PG&E initiated outreach, the following comments highlight the need for improved coordination and planning efforts regarding backup power for facilities or infrastructure that are not well-prepared for de-energization.

The Joint Local Governments reported that “PG&E failed to help critical facilities assess the need for backup generation and determine whether additional equipment was needed.”⁶⁸ The Joint Local Governments referenced hospitals, water facilities and correctional facilities. As the events progressed through October, the Joint Local Governments noticed an improvement during the October 26 PSPS Event where PG&E provided backup generation for Marin and Napa counties.⁶⁹

In another instance, the City and County of San Francisco (San Francisco), noted that the Castlewood Reservoir and the Pleasanton Well in Contra Costa County did not have backup power but were impacted by PG&E’s October 26 PSPS event. As a result of the event, San Francisco lost tens of thousands of gallons of water.⁷⁰ If proper coordination had been performed between PG&E and San Francisco, the critical water facilities should have had a contingency plan in the event of power loss.

Southern California Edison

SCE has explained their approach to helping critical facility and critical infrastructure owners with backup generation as follows:

“SCE takes a two-step approach to determining when to provide backup power to local counties and cities. First, SCE seeks to educate local governments, first responders, and essential service providers on the importance of developing a resiliency plan that addresses backup power needs for their facilities which provide critical life and safety functions. Second, if essential service providers are unable to sustain critical life/safety operations during an extended power outage, SCE’s Incident Commander will consider and prioritize requests to provide temporary mobile backup generation.”⁷¹

⁶⁶ D.19-05-042 in R.18-12-005, Appendix A, p.A12

⁶⁷ PG&E Company Progress Report on Implementation of De-Energization Guidelines, dated September 4, 2019, p.9

⁶⁸ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.27

⁶⁹ R.18-12-005, Joint Local Governments’ Comments on PG&E Post-PSPS Event Report for October 26 and 29, 2019, filed January 3, 2020, Attachment dated December 13, 2019, p.3

⁷⁰ I.19-11-013, Response of the City and County of San Francisco, dated January 10, 2020, p.2-3

⁷¹ SCE Response to SED-001, Question 43

Public Report on the Late 2019 Public Safety Power Shutoff Events

More information is needed about SCE's mobile backup generator program, such as the number of mobile backup generators available and how SCE determined which facilities received them for each PSPS event. This information should be provided in each of its post-event reports.

The Acton Town Council (Acton) provided some insight into its experience during the late 2019 PSPS events:

*"Many rural residents of Acton and other communities in North Los Angeles County lost power for more than 24 hours several times during the October PSPS events, so they had no land lines or cable service or satellite dish service, and hence no internet. And, because the back-up batteries which serve the local cell phone towers are depleted in as little as 12 hours after power is cut off, these rural residents lost all contact with the outside world during several of SCE's PSPS events in October."*⁷²

In an emergency event, such as a wildfire igniting during a PSPS event, backup power is vital when communicating a notice of evacuation. SCE should properly assess the needs of its affected communities to identify specific locations where it can provide backup power.

San Diego Gas & Electric

In response to SED's second data request, SDG&E provided the following information regarding its actions to access critical facilities' ability to operate and their need for additional equipment:

*"SDG&E took actions to understand critical facilities' ability to operate during an emergency with direct conversations, and information about back-up generation provided in both the email and direct mail piece to newly identified critical customers. In some instances, additional equipment and processes were discussed to help strengthen a customer's resiliency and reliability for any emergency."*⁷³

Although SDG&E provided an overall description of its efforts, it did not specify what actions took place and the level of detail included in the email and direct mail piece. In addition, SDG&E only notes that it "incorporates workshops, presentations, and direct meetings to address and assess backup generation needs for critical facilities."⁷⁴ SDG&E did not provide any additional details that would identify the effectiveness of the assessments for backup generation. Further, SDG&E did not state in its Progress Reports or data request responses whether it will provide any generators to facilities or infrastructure that are not well prepared for de-energization after undertaking the assessment. Therefore, SED is concerned that SDG&E has not met the expectation of the Guideline regarding assessing the critical facilities' need for backup generation.

vi. Conduct Communication Exercises Prior to Wildfire Season

The Guidelines state:

"To ensure accuracy of contacts, the electric investor-owned utilities are required to update lists [Public Safety Partners points of contact] annually at least two months in advance of the start of the wildfire

⁷² I.19-11-013, Acton Response to OII of Power Shutoff Events, dated January 10, 2020, p.10

⁷³ SDG&E Response to SED-002, Question 6, dated April 7, 2020

⁷⁴ SDG&E's Progress Report on Implementation of De-energization Guidelines, September 4, 2019, p.8

season and conduct communication exercises prior to wildfire season to confirm their ability to rapidly disseminate information.”⁷⁵

Pacific Gas & Electric

In PG&E’s September 2019 Progress Report, PG&E does not discuss that they have conducted communication exercises prior to wildfire season to confirm their ability to rapidly disseminate information. In response to SED’s second data request, PG&E stated that its March 2020 Progress Report (section 4.1.6 Notification System Test) summarizes the notification testing that took place in 2019.⁷⁶ “Additionally, PG&E used a messaging platform capable of pushing as many as 900,000 phone, text, and email communications, or 2.7 million communications in total, per hour, to customers.”⁷⁷ PG&E noted in its March 2020 Progress Report that it conducted notification testing in the Fall of 2019 and prior to the PSPS events, also noting improvements made in May 2019.⁷⁸ PG&E should have documented, in its September 2019 Progress Report, that it conducted communication exercises prior to wildfire season to confirm its ability to rapidly disseminate information.

C. Information Sharing

i. **Dedicated PSPS Webpage**

The Guidelines require that:

“The electric investor-owned utilities must provide up-to-date information, including a depiction of the boundary of the de-energization event, on their websites’ homepage and a dedicated Public Safety Power Shut-off webpage regarding the de-energization event.”⁷⁹

The three utilities met the basic requirement of creating a dedicated PSPS webpage. However, Section III of this report describes the shortcomings of some of the webpages. At least two issues that occurred include inundated webpages due to overwhelming web traffic and accessibility concerns for people/communities with access and functional needs.

ii. **Sharing Geographic Information System (GIS) data with Public Safety Partners**

The Guidelines require that:

“For the 2019 wildfire season, the electric investor-owned utilities must, at the time of first notification preceding a de-energization event, make available a Geographic Information System shapefile via a secure data transfer.”⁸⁰

As part of the required GIS data, electric IOUs “must also show affected circuits and any other information that is requested by public safety partners and can reasonably be provided by the utility.”⁸¹

Pacific Gas and Electric

⁷⁵ D.19-05-042 in R.18-12-005, Appendix A, p.A11

⁷⁶ PG&E Response to SED-002, Question 9, dated April 7, 2020

⁷⁷ *Id.*, Question 9

⁷⁸ PG&E Progress Report, dated March 4, 2020, p.23

⁷⁹ D.19-05-042 in R.18-12-005, Appendix A, p.A18

⁸⁰ *Id.*, p.16-17

⁸¹ *Id.*, p.A17

Public Report on the Late 2019 Public Safety Power Shutoff Events

PG&E utilized its secure portal to provide GIS data to public safety partners. However, PG&E admitted in its March 2020 Progress Report that it has not yet provided access for its critical facilities and infrastructure customers to their secure data transfer portal yet:

“Based on feedback received from Public Safety Partners, PG&E is reevaluating its secure information sharing portal processes and protocols. Example changes that are being considered include broadening the access to other public safety partners, such as telecommunications providers and/or water agencies, and updating the portal to be more intuitive for users.”⁸²

PG&E needs to provide access to their information sharing portal or make GIS data available to their critical facilities and infrastructure customers prior to the start of the 2020 wildfire season.

Regarding PG&E’s October 9 PSPS event, San Jose stated the following about PG&E’s maps:

“Overly-broad polygon maps, inaccuracies in the address lookup app, and denial of circuit maps to City staff contribute to the problem.”⁸³

The maps made available may not have depicted circuit information for every event. PG&E has the circuit information available and should be able to overlay circuit information on PSPS maps and provide them to its public safety partners. PG&E must make circuit information available when requested by public safety partners.

iii. Thresholds that Define Strong Wind Events and “Extreme Fire Hazards”

The Guidelines require that electric investor-owned utilities:

“...must clearly articulate thresholds for strong wind events as well as the conditions that define ‘an extreme fire hazard’ (humidity, fuel dryness, temperature) that the electric investor-owned utility evaluates in considering whether to de-energize.”⁸⁴

Southern California Edison

SCE looks at two threshold parameters for each circuit in their system when evaluating whether a circuit should be de-energized: forecasted wind speeds, including wind gust speeds, and SCE’s unique Fire Potential Index (FPI). SCE defines its FPI as follows:

“The FPI is an internal tool used to define, estimate and articulate wildfire potential based on actual weather and fuel conditions. Weather inputs include not only wind, but the dryness of the air near the ground and how receptive existing fuels are to fire with specific inputs involving the moisture content of the vegetation.”⁸⁵

Following is a typical statement SCE provided in its post-event reports:

⁸² PG&E Progress Report, dated March 4, 2020, p. 24

⁸³ R.18-12-005, City of San Jose’s Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.2

⁸⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A14

⁸⁵ SCE Progress Report, dated September 4, 2019, p.13.

“SCE meteorologists forecasted FPI and wind speed conditions to exceed PSPS criteria beginning on Tuesday, October 15, with both gusty winds and low relative humidity. Wind speeds were forecasted to reach up to 50 mph with gusts up to 70 mph, and SCE’s FPI was forecast to exceed individual circuit thresholds.”⁸⁶

SCE also states, for example, that “SCE meteorologists are continuously monitoring for elevated fire conditions and will alert the Business Resiliency Duty Manager when they identify weather and fuel conditions that are forecast to exceed wind and Fire Potential Index (FPI) thresholds for each circuit.”⁸⁷

Although SCE provided the anticipated wind speed information for de-energized circuits, it did not provide the specific FPI numbers for each de-energized circuit in its post-event reports. Additionally, SCE did not provide thresholds for wind speed or wind speed ranges for each circuit. These two threshold parameters for each circuit that are used for SCE’s PSPS criteria, and the actual numbers recorded at the time of de-energization, need to be included in its post-event reports.

III. Utility Event-Specific Implementation

This section assesses each electric IOU’s implementation of event-specific requirements set out in the Guidelines. This assessment focuses on areas of concern to SED.

A. Coordination with Emergency Operations Centers and Incident Command Systems

i. Embedded Utility Liaison Officer at Local Emergency Operations Centers (EOC)

The Guidelines require electric investor-owned utilities:

“... to embed a liaison officer at a local county EOC upon request of the local jurisdiction.”⁸⁸

The IOU liaison’s role is further described in the Decision requiring the liaison to be *“empowered to provide rapid and accurate information from the utilities.”⁸⁹*

Pacific Gas & Electric

PG&E embedded a liaison officer at local EOCs as requested,⁹⁰ however, despite efforts made by the IOU’s liaison, the information conveyed to the local jurisdictions was not adequate and for one event, the sharing of information was limited.

For PG&E’s October 9 PSPS event, the Joint Local Governments reported the following regarding PG&E’s presence at local county EOCs:

⁸⁶ SCE PSPS Post-event Reporting in Compliance with Resolution ESRB-8 and D.19-05-042 October 12 to October 21, 2019, dated November 1, 2019, p.12

⁸⁷ SCE Progress Report, dated Sept 4, 2019, p.12

⁸⁸ D.19-05-042 in R.18-12-005, Appendix A, p. A21

⁸⁹ *Id.*, p.A21

⁹⁰ PG&E Response to SED-001, Question 4, dated March 24, 2020

Public Report on the Late 2019 Public Safety Power Shutoff Events

“...the liaisons are only as effective as PG&E’s responsiveness to local concerns, and there were instances where the liaisons’ best efforts did not produce information from PG&E’s EOC that was more accurate, more helpful, or more timely.”⁹¹

For the October 9 PSPS event, the Joint Local Governments also noted that:

“Napa, Sonoma, and Santa Rosa’s points of contact have been present in their EOCs and have been incredibly helpful; Marin County’s point of contact, by contrast, has been unavailable, unresponsive, and/or uninformed, likely because that person is covering multiple counties and is unable to obtain correct and up-to-date information.”⁹²

“Napa, Sonoma, and Santa Rosa have nothing but praise for their PG&E liaisons, who went above and beyond the call of duty to attempt to get the information or action that the local governments needed. But the liaisons are only as effective as PG&E’s responsiveness to local concerns, and there were instances where the liaisons’ best efforts did not product information from PG&E’s EOC that was more accurate, more helpful, or more timely.”⁹³

The California State Association of Counties⁹⁴ (CSAC) provided the following comment about the November 20 PSPS event:

“CSAC supports the Joint Local Governments’ Response to PG&E’s After-Action Report for the November 20, 2019 PSPS Event wherein they state: ‘[i]ndividual local governments are constantly left out of communications, left without outage map or impacted customer information, and left with single points of contact who are unable to extract the necessary information from PG&E’s EOC.’”⁹⁵

Southern California Edison

In SCE’s September 2019 Progress Report,⁹⁶ it did not clearly state that a liaison from their company would be placed in a local EOC if requested. SCE also did not provide any information on whether a liaison had been requested or provided in any of their post-event reports. However, in a response to SED’s Data Request 001, SCE provided the following information:

“On October 11, 2019, SCE did receive a request to provide a liaison officer to the Los Angeles County EOC primarily as a result of multiple fires (there were PSPS circuits being monitored at the time). SCE fulfilled this request and sent a liaison officer to the Los Angeles County EOC.”⁹⁷

In this same data request response, SCE provided the following additional information regarding providing a liaison to the local EOCs: “During PSPS events SCE maintains regular communication with

⁹¹ R.18-12-005, Joint Local Governments’ Comments on PG&E Post-PSPS Event Report for October 9, 2019, filed January 3, 2020, Attachment dated November 19, 2019, p.6

⁹² *Id.*, p.2

⁹³ *Id.*, p.6

⁹⁴ CSAC is a lobbying, advocacy and service organization which represents all 58 counties of the State of California.

⁹⁵ I.19-11-013, Response of CSAC to OII, dated January 10, 2020, p.4-5

⁹⁶ SCE’s Progress Report on the Implementation of De-energization Guidelines set forth in Appendix “A” of Decision 19-05-042, dated September 4, 2019

⁹⁷ SCE Response to SED-001, Question 4, dated March 24, 2020

emergency officials and local government officials through the Business Resiliency Duty Manager and Liaison Officer positions on its Incident Management Team.”⁹⁸

ii. Invitation of Water and Communications Infrastructure Providers to IOU’s EOC

The Guidelines require that:

“...electric investor-owned utilities must invite representatives from the California Office of Emergency Services, water infrastructure providers, and communication service providers. In the alternative, the utilities may develop a mutually agreeable communications structure with water infrastructure providers and communication service providers in lieu of holding seats in its emergency operations center.”⁹⁹

Pacific Gas & Electric

For PG&E’s post-event reporting in October and November, PG&E did not discuss if it had invited representatives from water and communications infrastructure to their EOC. Nor did PG&E discuss any mutually agreed upon communication structure with the representatives from water and communications infrastructure providers. In the data request response for this requirement, PG&E stated that it:

“...directly engaged with water agencies and telecommunications in the lead-up to the Fall 2019 PSPS events. That engagement was well underway by the time that PG&E’s EOC activated for the September 2019 event, and PG&E did not extend a formal invitation to all water agencies and telecommunications service providers in writing. PG&E plans to engage in outreach to critical facility customers during the of Spring 2020. As currently planned, those efforts can include sharing the option for water agencies and telecommunications provider representatives to have a seat at PG&E’s headquarters in the EOC’s Joint Information Center (JIC) and/or confirming mutually agreeable alternative arrangements for communication.”¹⁰⁰

PG&E should take the necessary steps prior to the 2020 wildfire season to identify all water and communications service providers that could be impacted by de-energization and either invite them to PG&E’s EOC or alternatively establish a mutually agreed communication structure.

Southern California Edison

In SCE’s September 2019 Progress Report, it makes the following statement:

“SCE also makes every effort to provide space in its Emergency Operations Center for representatives from the Cal OES, Public Safety Partners, and water and communications infrastructure providers when requested.”¹⁰¹

SCE did not state in its PSPS post-event reports that it had invited representatives from the California Office of Emergency Services (Cal OES), water infrastructure providers, or communications service providers to their EOC. SED was able to obtain information from SCE on this guideline requirement

⁹⁸ *Id.*, Question 4

⁹⁹ D.19-05-042 in R.18-12-005, Appendix A, p.A21

¹⁰⁰ PG&E Response to SED-001, Question 7, dated March 24, 2020

¹⁰¹ SCE Progress Report on Implementation of De-energization Guidelines, dated September 4, 2019, p.6

through the data request process and received the following information from SCE in their response to Data Request 001. SCE states in its response that:

“SCE maintains an open invitation for CalOES to send a representative to SCE’s EOC when activated for PSPS. SCE has communicated this open invitation to CalOES on several occasions, including verbally during State Executive Briefings (conducted daily during PSPS activations), verbally during the weekly Cal OES / Cal Fire / CPUC Weekly meeting with Utilities to discuss PSPS / PSPS Ops Group Meeting, and informally in numerous conversations between SCE’s Director of Business Resiliency and CalOES and conversations between SCE’s Business Resiliency Duty Managers and CalOES. These conversations have occurred through conference calls and in person conversations. SCE does not have written documentation of these invitations. CalOES sent a representative to the SCE EOC during Event 1 (October 2, 2019) and Event 10 (October 27, 2019).”¹⁰²

Additionally, SCE did not clearly state in its post-event reports that it had invited representatives from the water infrastructure providers and communications service providers customer groups. In response to SED Data Request 001, SCE states:

“SCE has not formally invited any water infrastructure or communications service providers to its EOC during PSPS events. Rather, SCE has conducted workshops with these entities informing them of PSPS processes, procedures, guidelines, and two-way communications before, during and after events. This communications structure consists of communication through PSPS notifications, SCE account managers, and County EOCs. SCE has not received any complaints or requests to change this structure from water infrastructure or communications service providers. During the larger PSPS events in 2019, SCE also coordinated with the California Utilities Emergency Association (CUEA) to conduct daily operational briefings with critical infrastructure providers. SCE will continue to evaluate request for representation in the EOC on a case-by-case basis.”¹⁰³

B. Notification Efforts

The Guidelines require, pursuant to Resolution ESRB-8, electric IOU notification efforts before, during and after a PSPS event to the Director of SED, public safety partners, and all other customers. The Guidelines also require specific notification content and timelines. This section lists each requirement and describes concerns about each electric IOU’s implementation of the requirement.

SED organizes the many notification Guidelines into seven areas, and some of these areas contain several sub-guidelines. For example, SED-specific notifications is an umbrella Guideline that has five specific actions that an electric IOU must take to fully implement SED-specific notification requirements.

SED found it difficult to assess implementation of many of the Guideline requirements. The post-event reports did not consistently present information clearly, and each electric IOU presented the information in a unique manner. Adding to the difficulty of the assessment was the organization of the notification information; some of the information appeared to be an unorganized mass of data presented in Excel format.

¹⁰² SCE Response to SED-001, Question 6, dated March 25, 2020

¹⁰³ SCE Response to SED-001, Question 7, dated March 25, 2020

i. Safety and Enforcement Division Director Notification

Resolution ESRB-8 includes five requirements for the electric IOUs to notify the Director of SED prior to, during, and after each PSPS event. Every effort must be made by the electric investor-owned utilities to provide notice of potential de-energization as early as the electric investor-owned utilities reasonably believe de-energization is likely.

a. SED Director Notified Prior to Shutoff

Resolution ESRB-8 states that:

*“The IOU shall notify the Director of SED, as soon as practicable, once it decides to de-energize its facilities. If the notification was not prior to the de-energization event, the IOU shall explain why a pre-event notification was not possible.”*¹⁰⁴

The IOUs notified the Director of SED prior to de-energization, except for SCE during its October 27 PSPS event. Although SED was not notified for SCE’s October 27 PSPS event, SCE provided an explanation in its post-event report stating that failure to notify was caused by “sudden appearance of extreme winds around particular circuits.”¹⁰⁵

b. Notification to SED Director Included Area Affected (or Director is Embedded at EOC)

The notification to the SED Director prior to de-energization must include the area affected by the PSPS event.¹⁰⁶ If the SED Director is embedded at the electric IOU’s EOC, it is assumed that the Director would have this information. However, some of the electric IOU reports did not clearly state whether the Director of SED was embedded at its EOC. In addition, some PSPS post-event reports did not report this information.

Pacific Gas & Electric

During the October 5 PSPS Event, PG&E notified the CPUC/SED Director via email and phone upon activation of its EOC on October 4, 2019, at 1200 hours.¹⁰⁷ PG&E’s post-event report gives no further information about what the notification contained. In contrast, PG&E reported that during its October 9 PSPS event, the CPUC embedded at the EOC with Cal OES and CAL FIRE though PG&E provided no date.¹⁰⁸

Southern California Edison

¹⁰⁴ Resolution ESRB-8, dated July 12, 2018, p.6

¹⁰⁵ SCE PSPS Post-Event Report Regarding Pro-active De-energization Event October 27 to November 4, 2019, dated November 19, 2019, p.17

¹⁰⁶ Resolution ESRB-8, dated July 12, 2018, p.6

¹⁰⁷ Corrected Amended PG&E PSSP Report to the CPUC October 5-6, 2019 De-energization Event, dated November 13, 2019, p.12

¹⁰⁸ Amended PG&E PSSP Report to the CPUC October 9-12, 2019 De-energization Event, November 19, 2019 p.18

In SCE's post-event reports for its October 27¹⁰⁹ and November 23¹¹⁰ PSPS events, SCE did not provide notification content that was sent to the SED Director upon activation of its EOC. However, SCE did notify the CPUC since it was listed in Appendix D of the November 23 post-event report.¹¹¹

c. Notification to SED Director Included Customer Impact Estimate

The notification to the SED Director prior to de-energization must include an estimate of the number of customers that may be impacted by a PSPS event.¹¹²

Pacific Gas & Electric

PG&E did not provide an estimate of total customers impacted to the SED Director for the October 5 PSPS event.

Southern California Edison

Based on the information in the post-event reports, SCE did not provide this information to SED's Director for all six events. SED notes that SCE's Executive Summary section in its post-event reports contained extensive information about an event, but it was difficult to follow the timeline of events and notifications. For example, SCE stated that it deployed two representatives to the State Operations Center but gave no date, as well as other examples of notification times listed with no corresponding date.¹¹³ SED attempted to find dates with times of notification in Appendix C¹¹⁴ of SCE's post-event report, but it contained script templates with no means to determine times or dates, or whether SCE notified SED or any other customers.

d. Notification to SED Director Included Estimated Restoration Time

The notification to the SED Director prior to de-energization must include when an electric IOU estimates it will restore power.¹¹⁵

Pacific Gas & Electric

PG&E did not clearly provide this information in its post-event report for the October 5 PSPS event.

Southern California Edison

SCE did not clearly provide this information in its post-event reports for all six of its PSPS events.

e. SED Director Notified of Full Restoration Within 12-hours from Last Service Restored

¹⁰⁹ SCE October 27 Post-Event Report, p.1

¹¹⁰ SCE November 23 Post-Event Report, p.12

¹¹¹ SCE November 23 Post-Event Report, p.41

¹¹² Resolution ESRB-8, dated July 12, 2018, p.6

¹¹³ SCE October 27 Post Event Report, p.4

¹¹⁴ SCE October 27 Post Event Report, Appendix C

¹¹⁵ Resolution ESRB-8, dated July 12, 2018, p.6

Resolution ESRB-8 requires that “[t]he IOU shall also notify the Director of SED of full restoration within 12 hours from the time the last service is restored.”¹¹⁶

Pacific Gas & Electric

SED could not verify that PG&E provided full restoration notification to the SED Director for its October 5 PSPS event.

Southern California Edison

SED could not verify that SCE provided restoration notification to the SED Director for the following three PSPS events:

- October 2-12, 2019
- October 12-21, 2019
- November 23-26, 2019

ii. Advanced Notification Provided to California Independent System Operator (CAISO)

If an electric IOU decides to de-energize a transmission line for a PSPS event, it is required to notify the California Independent System Operator.¹¹⁷

Pacific Gas & Electric

In its post-event reports, PG&E states that it “coordinates with CAISO” when considering to de-energize.¹¹⁸ In a response to SED’s first data request, PG&E reports that its protocols call for a “Transmission Total Impact Study” and coordination with the CAISO for potentially impacted transmission lines.¹¹⁹ It is unclear whether CAISO notification occurred prior to de-energization since SED could not verify that PG&E actually notified CAISO based on the PG&E post-event reports reviewed.

During the October 9 PSPS event, PG&E notified transmission customers on October 7, with a notice to additional customers after conducting its transmission study. PG&E sent a shut-off notice on October 8; however, SED did not find information in the PG&E post-event report to verify that PG&E communicated with CAISO for this event, even though transmission lines were de-energized.

Southern California Edison

SCE failed to notify CAISO during the October 27 PSPS event. In Appendix D of SCE’s post-event report, “Date of Initial Notifications to Public Safety/Local Government/Partners and Critical Infrastructure Providers,”¹²⁰ CAISO was not listed nor was it mentioned in the post-event report. SCE noted seven transmission lines as under consideration for de-energization, and ultimately three lines were de-energized.¹²¹

¹¹⁶ *Id.*, p.6

¹¹⁷ D.19-05-042 in R.18-12-005, Appendix A, p.A46

¹¹⁸ PG&E October 9 Post-Event Report (Amended), P. 7; October 27-Nov 1, 2019 Report, p.9

¹¹⁹ PG&E Response to SED-001, Question 37, dated March 24, 2020

¹²⁰ SCE October 27 Post Event Report, Appendix D

¹²¹ SCE October 27 Post Event Report, p.1

San Diego Gas & Electric

SDG&E did not provide notification to CAISO for its October 20 PSPS event. However, in its October 20 post-event report, SDG&E lists actions it takes to restore power, including “Full patrol of the de-energized distribution circuit or transmission tie-line to inspect for damages;...”¹²² In addition, SDG&E’s Appendix 3 contains emails that stated, “[w]e are currently starting to patrol transmission circuit 625 for potential re-energization...”¹²³ SDG&E sent this email to public safety partners on Friday, October 25, 2019, which implies that transmission lines were de-energized. However, SDG&E did not provide a copy of a notification sent to CAISO. SED did not find emails regarding transmission line inspections in SDG&E’s October 10 post-event report.

iii. Content of Notifications to Public Safety Partners

The Guidelines state:

“The electric investor-owned utilities must convey to public safety partners at the time of first notification preceding a de-energization event information regarding the upcoming de-energization, including estimated start time of the event, estimated duration of the event, and estimated time to full restoration.” “...The electric investor owned utilities must provide the number of medical baseline customers in the impacted area to first/emergency responders and/or local jurisdictions.”¹²⁴

The following discusses each electric IOU’s compliance with each of the four Public Safety Partner notification content requirements.

SED notes that “public safety partners” is a broad term that the Commission defined in Appendix A of the Decision.¹²⁵ In their PSPS post-event reports, the three IOUs presented lists of public safety partners in different ways. For example, in one of its post-event reports, SCE listed public safety and local government partners together on lists in an Appendix D, titled “Date of Initial Notifications to Public Safety/Local Government/ Partners and Critical Infrastructure Providers.”¹²⁶ PG&E’s Appendix D, Section 7, listed 34 pages of “Local Community Representatives Contacted,” which included public safety partners by County and City.¹²⁷ SDG&E combined public safety partners and Community Partners when describing notifications but did not define each group.¹²⁸

a. Public Safety Partners’ Notifications Included Estimated Start Time

At the time of first notification preceding a de-energization event, the electric IOUs must include an estimated start time of the event.¹²⁹

Pacific Gas & Electric

¹²² SDG&E October 20 Post-Event Report, p. 39.

¹²³ SDG&E October 20 Post-Event Report, Appendix 3.

¹²⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A16

¹²⁵ D.19-05-042 in R.18-12-005, Appendix A, p.A4

¹²⁶ See Appendix D in SCE October 27-November 4, 2019 Post Event Report

¹²⁷ See Appendix D in PG&E November 20-21, 2019 Report.

¹²⁸ SDG&E October 10 Post-Event Report, p.12

¹²⁹ D.19-05-042 in R.18-12-005, Appendix A, p.A16

Public Report on the Late 2019 Public Safety Power Shutoff Events

PG&E did not provide public safety partners an estimated start time of the event in its first notifications for its October 9 and October 26 PSPS events.

The scripts in Appendix E, Table 1-2, of its post-event report for October 9 provides email, voice, and text notification of potential PSPS events. In the text notification, the PG&E script provides an estimated start date but not an estimated start time.¹³⁰

The scripts in Appendix D, Table 1-2, of its post-vent report for October 26 also provides an estimated start date but not an estimated start time. The voice and email messages refer the public safety partner to PG&E's website for more information.¹³¹

Southern California Edison

SCE's Appendix B¹³² of its October 2 post-event report contains templates of scripts that state that SCE is "exploring options" for a potential PSPS and "monitoring weather conditions" and gives an "as early as [DATE]" in the Sample Script but SED could not verify that SCE included an estimated PSPS start time. A similar script was used in all events and SED did not find that SCE provided an estimated start time of any event.

San Diego Gas & Electric

SDG&E did not provide public safety partners with an estimated start time in its initial notifications. The notification email stated "This is an important safety message from SDG&E. Forecasted weather conditions could affect the power lines that serve local communities. In response, SDG&E may activate its Emergency Operations Center to monitor adverse weather conditions throughout the duration of the event. These conditions may require us to turn off the power for public safety."¹³³ SED did not find that SDG&E provided an estimated start time of any event.

b. Public Safety Partners' Notifications Included Estimated Duration of Event

At the time of first notification preceding a de-energization event, the electric IOUs must include an estimate of how long the PSPS event could last.¹³⁴ None of the electric IOUs provided such notifications.

c. Public Safety Partners' Notifications Included Estimated Time to Full Restoration

At the time of first notification preceding a de-energization event, the electric IOUs must include an estimate regarding when the electric IOU would have its system fully restored.¹³⁵ None of the electric IOUs provided such estimates.

d. First/Emergency Responder and/or Local Jurisdiction Notifications Included Number of Medical Baseline Customers

¹³⁰ PG&E October 9 Post-Event Report, Appendix E, Table 1-2

¹³¹ PG&E October 26 Post-Event Report, Appendix D, Table 1-2

¹³² SCE October 2 Post-Event Report, Appendix B, Public Safety Partner Notifications

¹³³ SDG&E October 10 Post-Event Report, Appendix 2

¹³⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A16

¹³⁵ *Id.*, p.A16

The Guidelines require electric IOUs to provide the number of medical baseline customers in the impacted area to first/emergency responders and/or local jurisdictions.¹³⁶ None of the IOUs provided this information.

iv. Content of Notifications to All Other Customers

The Guidelines state:

“The electric investor-owned utilities must partner with local public safety partners to communicate with all other customers that a de-energization event is possible, the estimated start date and time of the de-energization event, the estimated length of the de-energization event, which may be communicated as a range, and the estimated time to power restoration, which again, may be communicated as a range.”¹³⁷

The content of this notification is divided into three separate pieces of information: estimated event start-time, estimated duration of the event, and estimated time to power restoration.

The content of notifications varied among the utilities. However, none of the three electric IOUs demonstrated that it provided estimated duration of event and estimated time to power restoration in its notifications.

a. All Other Customers Notification Included Estimated Start Time

Pacific Gas & Electric

PG&E did not provide an estimated event start time to All Other Customers for any of its five PSPS events.

PG&E’s October 9 post-event report contains template scripts for First Notification and Second Notification that includes language “Gusty winds and dry conditions, combined with a heightened fire risk, are forecasted in the next 36 to 48 hours and may impact electric service.”¹³⁸ SED does not consider this to be notification of an estimated start time for a PSPS event.

PG&E’s October 23 post-event report indicates that, 2,100 total customers were not notified at all, including 22 medical baseline customers.¹³⁹ PG&E reasons included: no customer information on file, and; customer’s service point identification ID # (SPID) not mapped to local transformer.

In its October 26 post-event report, PG&E presented Customer Notification data in a confusing format. It contained too many time periods in one table with various notifications and the labeling of some time periods was missing. SED could not determine the location of customers who received the notification.¹⁴⁰ PG&E’s format prevented SED from assessing PG&E’s performance in this regard.

Southern California Edison

¹³⁶ *Id.*, p.A16

¹³⁷ D.19-05-042 in R.18-12-005, Appendix A, p.A17

¹³⁸ Table 1-2, Appendix E, Section 6 – Customer Notifications, PG&E Oct 9-12 Report.

¹³⁹ PG&E October 23 Post-Event Report, p.17

¹⁴⁰ PG&E October 26 Post-Event Report, Appendix D, Section 6.

SCE provided estimates of the PSPS start times for its October 2, October 12, and October 21 PSPS events as identified via script templates in Appendix C of its post-event reports for each respective event. SCE's notifications in its November 15 post-event report did not provide an estimated start time.

San Diego Gas & Electric

SDG&E's post-event report for October 20, 2019, consolidated three de-energization events. SED could not match the events and the notification times for each event and therefore could not assess SDG&E performance regarding this requirement.

b. All Other Customers Notification Included Estimated Duration of Event

None of the IOUs provided an estimated duration in its notifications to all other customers.

c. All Other Customers Notification Included Estimated Time to Full Restoration

None of the IOUs provided an estimated time to full restoration in its notifications to all other customers.

v. Notification Timelines

The Guidelines state:

"The electric investor owned utilities should, whenever possible, adhere to the following minimum notification timeline:

- *48-72 hours in advance of anticipated deenergization: notification of public safety partners [Consistent with Resolution ESRB-8, the electric investor- owned- utilities must provide notice to the Commission's Director of the Safety and Enforcement Division.] priority notification entities*
- *24-48 hours in advance of anticipated deenergization: notification of all other affected customers/populations*
- *1-4 hours in advance of anticipated deenergization, if possible: notification of all affected customers/populations[The Commission appreciates that it may not be possible at this juncture to know exactly when a de-energization will occur and to provide this level of advanced notification. However, the electric investor-owned utilities should strive to communicate that de-energization is imminent.]"¹⁴¹*

a. Public Safety Partners Notified in Advance of De-energization

Additionally, the Guidelines require:

¹⁴¹ D.19-05-042 in R.18-12-005, Appendix A, p.A8

“At a minimum, notification to public safety partners must occur when a utility activates its Emergency Operations Center in anticipation of a de-energization event or whenever a utility determines that de-energization is likely to occur, whichever happens first.”¹⁴²

The Guidelines state that an electric IOU should, whenever possible, notify public safety partners 48-72 hours in advance of anticipated de-energization. However, at a minimum, an electric IOU must notify when a utility activates its Emergency Operations Center (EOC) or whenever a utility determines that de-energization is likely to occur, whichever happens first.

Pacific Gas & Electric

PG&E met the recommended timeline for notification for one of its five events, the November 20 PSPS Event.

However, for the October 9 PSPS event, CCTA members, Comcast and Charter stated that they were not notified at the onset of PG&E’s EOC opening.¹⁴³

Verizon Wireless (Verizon) noted that for the October 9 PSPS Event:

“Moreover, Verizon did not always receive notice within the required timeframe of 48 hours or 72 hours per the Commission’s decision. In some cases, due to additions on the list, Verizon received only 8 hours’ notice for certain sites or did not receive notices for some sites at all.”¹⁴⁴

Also, for PG&E’s October 9 PSPS event, the Northern California Power Agency (NCPA) stated:

“However, during the PSPS events of October 9 and 10, PG&E did not provide any direct notification to NCPA through the Grid Control Center. Instead, NCPA learned that PG&E planned to de-energize 12 to 20 transmission-level customers during a Cal OES update call.”¹⁴⁵

For PG&E’s October 26 PSPS Event, the NCPA noted that:

- The City of Ukiah (POU) received notice of de-energization on October 24. However, subsequent discussions lead Ukiah to believe that the two transmission lines serving Ukiah would not be de-energized until that afternoon of October 25, at 1700 hours, when Ukiah’s police department received a call from PG&E that the transmission line would be de-energized at 1400 hours on October 26. It seems that because of the changing content of notifications, Ukiah stated that it did not receive advance notification.¹⁴⁶

¹⁴² *Id.*, p. A8.

¹⁴³ R.18-12-005, CCTA Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, dated November 19, 2019, filed January 7, 2020, p.2-4

¹⁴⁴ R.18-12-005, Cellco Partnership d/b/a Verizon Wireless (U 3001 C) Comments on PG&E Post-PSPS Event Report for October 9-10, 2019, filed January 7, 2020, letter dated November 12, 2019, p.2

¹⁴⁵ R.18-12-005, NCPA Comments on PG&E Post-PSPS Event Report for October 9 to October 12, 2019, filed December 31, 2019, letter dated November 19, 2019, p.4

¹⁴⁶ R.18-12-005, NCPA Comments on PG&E Post-PSPS Event Report for October 26 to November 1, 2019, filed December 31, 2019, letter dated December 13, 2019, p.5

Public Report on the Late 2019 Public Safety Power Shutoff Events

- The City of Healdsburg (POU) was not included in the first notification or the subsequent notification on October 25 at 1230 hours.¹⁴⁷

Regarding PG&E events in general, the California Large Energy Consumers Association (CLECA) stated that:

“PG&E gave members lists of their accounts that would be impacted by a PSPS event; several of these lists were wrong and failed to include the actual transmission-level accounts that were shut-off, some of which accounts were shut off with no notice.”¹⁴⁸

Although PG&E is not required to notify public safety partners 48-72 hours in advance, PG&E must at a minimum notify its public safety partners at the onset of opening its EOC in anticipation of a potential PSPS event. As described above, PG&E was unable to do this in several instances.

Southern California Edison

SCE’s October 21 post-event report does not contain verifiable information on when it first notified public safety partners. SCE states that “[a]dvanced notification of this Public Safety Power Shutoff event was communicated to all affected counties, CalOES, and the CPUC approximately 72 hours before any forecasted weather was scheduled to impact the SCE service territory.”¹⁴⁹ However, there is no script or description of this notification in the post-event report. SED could not determine when SCE expect the forecasted weather event to impact its territory.

In its October 27 post-event report, SCE states it always wishes to notify public safety partners 72 hours in advance but SCE was not able to notify some customers and local public officials in advance because of “the exigency of pro-active de-energization resulting from the sudden appearance of extreme winds around particular circuits.”¹⁵⁰ Therefore, SCE did not meet the recommended notification timeframe.

SCE explains in its November 15 post-event report, that “[d]ue to this uncertainty in the timing of the incoming weather, advanced notification of this PSPS event was communicated to all affected counties, CalOES, and the CPUC approximately 24 hours before the forecasted weather was scheduled to impact the SCE service territory, rather than 48-72 hours prior.”¹⁵¹

SCE had similar issues during the November 23 PSPS Event. SCE stated that “[a]dvanced notification of this Public Safety Power Shutoff event was communicated to all affected counties, CalOES, and the CPUC approximately 48 hours before any forecasted weather was scheduled to impact the SCE service territory.”¹⁵² SCE did not provide any other documentation of this notification.

The Joint Local Governments explained:

¹⁴⁷ *Id.*, p.4

¹⁴⁸ I.19-11-013, Response by the CLECA to the OII, dated January 10, 2020, p.4

¹⁴⁹ SCE October 21 Post-Event Report, p. 14.

¹⁵⁰ SCE October 27 Post-Event Report, p. 17

¹⁵¹ SCE November 15 Post-Event Report, p. 11

¹⁵² SCE November 23 Post-Event Report, p.13

Public Report on the Late 2019 Public Safety Power Shutoff Events

“SCE also had issues with its order of notifications throughout 2019. On a number of occasions, SCE sent notifications to elected officials, state agencies, and the public, before or at the same time as it notified local public safety partners.”¹⁵³

b. Adjacent Local Jurisdictions Notified 48-72 hours in Advance of De-energization

The Guidelines state:

“Consistent with the principles of the State Emergency Management System, whenever possible, priority notification should occur to the following entities, at a minimum: public safety partners, as defined herein, and adjacent local jurisdictions that may lose power as a result of de-energization.”¹⁵⁴

None of the IOUs’ PSPS Reports included discussion of “Adjacent Local Jurisdictions” or notification scripts to the adjacent jurisdictions.

c. All Other Affected Customers Notified 24-48 hours in Advance of De-energization

Southern California Edison

SCE did not provide notification 24-48 hours in advance of de-energization for three of its six events.

As stated in its October 27 post-event report, SCE was not able to notify some customers and local public officials in advance because of “the exigency of pro-active de-energization resulting from the sudden appearance of extreme winds around particular circuits.”¹⁵⁵

For the November 15 PSPS Event, SCE “identified” 31,975 customers. It is unclear whether they were notified in advance.¹⁵⁶ SCE referenced difficulties with weather models.

For the November 23 PSPS Event, SCE stated:

“Once the circuit was identified as under consideration for PSPS, initial notifications were sent to potentially affected customers at 6:45 p.m., and pro-active de-energization of 36 customers on the circuit occurred at 7:23 p.m. This rapid change in the weather forecast and real-world conditions occurred quickly, preventing more advanced notice from going out to these potentially affected customers.”¹⁵⁷

d. All Affected Customers Notified 1-4 hours in Advance of De-energization

Each IOU met this notification timeline for one of its PSPS events.

Pacific Gas & Electric

The Guidelines recommend a notification of a PSPS event 1-4 hours before the shut-down, however, PG&E stated that in order to avoid violating the Telephone Consumer Protection Act’s (TCPA) curfew hours, in some instances, it notified customers more than 4 hours in advance.

¹⁵³ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.21

¹⁵⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A7

¹⁵⁵ SCE October 27 Post-Event Report p.17

¹⁵⁶ SCE November 15 Post-Event Report, p.17

¹⁵⁷ SCE November 23 Post-Event Report, p.6

PG&E notified customers 1-4 hours in advance during the October 5 PSPS Event.

During the October 23 PSPS Event, PG&E stated that the PSPS event started at 0100 hours but PG&E did not want to violate curfew for medical baseline customers except on a case by case basis.¹⁵⁸ PG&E did not explain the exception for notifying medical baseline customers during curfew hours other than “suddenly changing conditions.”

PG&E’s October 26 PSPS Event included more than eight “Time Periods”¹⁵⁹ that PG&E designated as de-energization phases. SED could not verify notification timing because PG&E included one table of notifications for more than eight Time Periods during this event. In the table, the final advance notification was a 12-hour notification, followed by a shut-off notification that told customers that power would be shut off soon or was already shut off. The presentation of the notifications made it difficult for SED to identify notification within the 1-4 hour timeframe.¹⁶⁰

The November 20 PSPS Event included 10 Time Periods and had similar data presentation issues that prevented SED from verifying that notifications were conducted within the one to four-hour window.¹⁶¹

Southern California Edison

SCE was able to provide notification to customers 1-4 hours in advance during its October 12 PSPS Event. SCE did not notify customers in the same timeframe for its other five events because of “weather issues.”

For the October 27 PSPS Event, SCE had notification difficulties with “rapidly changing weather conditions.”¹⁶²

During the November 13 PSPS Event, SCE stated that weather changes prevented it from providing customers advance notice.¹⁶³

During the November 23 PSPS Event, 1,192 customers were de-energized without notice and 36 customers were proactively de-energized with less than 45 minutes of notice because of changing weather conditions.¹⁶⁴

San Diego Gas & Electric

¹⁵⁸ “Curfew hours are between 2100 and 0800, whereby TCPA (under the rules of the Federal Communications Commission (FCC)), requires no automated calls or texts be made to customers during this window for telemarketing and advertisements. While PSPS notices do not fall under this prohibition, PG&E aims to align with these guidelines. However, PG&E will consider notifications during curfew hours on a case by case basis (e.g., calls to medical baseline customers during curfew hours due to suddenly changing conditions).” PG&E Oct 23-25, 2019 Event, p.16, fn 9

¹⁵⁹ PG&E October 26 Report, p.1. “Within these offshore wind events, PG&E planned de-energization times specific to different geographic areas based on their unique weather timing to minimize outage durations. These unique de-energization phases are referred to as Time Periods...”

¹⁶⁰ PG&E October 26 Post-Event Report, Appendix D

¹⁶¹ PG&E November 20 Post-Event Report, Appendix C

¹⁶² SCE October 27 Post-Event Report, p.4

¹⁶³ SCE November 23 Post-Event Report, p.6

¹⁶⁴ SCE November 23 Post-Event Report, p.6

Public Report on the Late 2019 Public Safety Power Shutoff Events

SDG&E did not notify customers 1-4 hours in advance during its October 10 PSPS Event. SDG&E stated, “This notification was not made in order to prevent waking up customers in the middle of the night. These customers were notified of the potential of PSPS on the evening on October 10, 2019.”¹⁶⁵

For the October 20 PSPS Event, SDG&E notified customers of an expected overnight PSPS the afternoon/evening before, more than 4 hours before the event, out of concern for waking customers up.¹⁶⁶

e. All Affected Customers Notified When De-energization is Initiated

The Guidelines require that electric IOUs “must provide notice...at the beginning of a de-energization event.”¹⁶⁷

Pacific Gas & Electric

Based on its post-event reports, PG&E met this requirement for three of five of its PSPS events. The comments below provide more details into PG&E’s inability to notify at the beginning of a de-energization event:

For the October 9 PSPS Event, AT&T claims to have received notification hours after the de-energization occurred.¹⁶⁸

The Joint Local Governments on the October 23 PSPS Event:

*“Santa Rosa was de-energized approximately 60 minutes before PG&E told the city to expect to lose power, and provided no warning.”*¹⁶⁹

Southern California Edison

Based on SCE’s post-event reports, SCE met this requirement for three of its six events. The comments below indicate problems with SCE’s ability to notify at the beginning of other de-energization events:

For the October 12 PSPS Event, the Acton Town Council (Acton) reported an instance when SCE de-energized the Shovel circuit on October 20 at 1021 hours and sent notice at 1113 hours.¹⁷⁰

For the October 21 PSPS Event, Acton reported an instance when SCE de-energized the Shovel circuit on October 24 at 0907 hours and SCE sent an “activation shut down notice” at 0945 hours.¹⁷¹

Acton further describes additional instances of delayed notification in its Response to this OII.¹⁷²

¹⁶⁵ SDG&E October 10 Post-Event Report, p. 8.

¹⁶⁶ SDG&E October 20 Post-Event Report, p.29-30.

¹⁶⁷ D.19-05-042 in R.18-12-005, Appendix A, p. A8

¹⁶⁸ R.18-12-005, AT&T Comments on PG&E’s Amended Post-PSPS Event Report for October 9 to October 12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.10

¹⁶⁹ R.18-12-005, Joint Local Government’s Comments on PG&E Post-PSPS Event Report for October 23, 2019, filed January 3, 2020, Attachment dated December 3, 2019, p.2

¹⁷⁰ I.19-11-013, Acton Town Council Response to OII of Power Shutoff Events, dated January 10, 2020, p.3

¹⁷¹ *Id.*, p.3

¹⁷² *Id.*, p.3-4

San Diego Gas & Electric

SDG&E did not meet this requirement to notify customers when de-energization is initiated for both its events.

In the October 10 post-event report, SDG&E includes a message it sent at 5:15 pm to more than 17,000 customers warning that power may be shut off overnight. This was followed by a message an hour later (6:30 pm) to approximately 440 customers that the power was shut off.¹⁷³ However, only 395 customers were de-energized during this Event. SDG&E's notifications do not meet the requirement of notification upon initiation of de-energization.

Similar to the above event, SDG&E's October 20 post-event report contains scripts warning customers of an overnight shutoff and follows with the notification that the power is shut off. This event contained notifications from several events that SDG&E consolidated into one table, which confused the ordering of notifications and made it difficult for SED to verify if customers impacted by all events received at least these two notices.¹⁷⁴

f. All Affected Customers Notified Immediately Before Re-energization Begins

The Guidelines require electric IOUs to provide notice when re-energization begins.¹⁷⁵

It appears that the IOUs had trouble meeting this requirement for their events.

Pacific Gas & Electric

For the October 9 PSPS Event, AT&T stated that it received notification hours after power was restored.¹⁷⁶

In response to the October 23 PSPS Event, California Community Choice Association (CalCCA) reports that Marin Clean Energy received numerous reports of customers being notified that their power would be restored 24 to 48 hours after power had in fact been restored.¹⁷⁷

For the October 26 PSPS Event, AT&T noted that the issues regarding untimely notification upon re-energization remain from the October 9-12 PSPS Event. AT&T mentioned that "PG&E provided one power restoral notice per day, in a single email summarizing all restorals for the day."¹⁷⁸ The Guidelines clearly require a notification at the onset of re-energization and not a consolidated notification for all re-energizations implemented by the end of the day.

g. All Affected Customers Notified When Restoration is Complete

¹⁷³ SDG&E October 10 Post-Event Report, Appendix 1, pp. A1-5, A1-6

¹⁷⁴ SDG&E October 20 Post-Event Report, Appendix 1, p.48

¹⁷⁵ D.19-05-042 in R.18-12-005, Appendix A, p.A8

¹⁷⁶ R.18-12-005, AT&T Comments on PG&E's Amended Post-PSPS Event Report for October 9 to October 12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.10

¹⁷⁷ R.18-12-005, CalCCA's Submission of Comments on IOU Post-Event Reports, Appendix A, filed January 7, 2020, Attachment dated December 3, 2019, p.12

¹⁷⁸ R.18-12-005, AT&T Comments on PG&E's Post-PSPS Event Report for October 26 to November 1, 2019, filed January 7, 2020, attachment dated December 13, 2019, p.11

The Guidelines require electric IOUs to provide notice when re-energization is complete.¹⁷⁹

Pacific Gas & Electric

PG&E did not provide any “Restoration Complete” data in its October 23 post-event report, and therefore, it is unclear if PG&E met this requirement for this event.

Southern California Edison

In SCE’s October 2 post-event report, SED found no information regarding notification of customers when power was restored.

In its October 12 post-event report, SCE stated that it notified all customers when power was restored, but Appendix B did not contain documentation of such notifications.¹⁸⁰

Similarly, SCE did not provide documentation of notification of restoration following the October 27 PSPS Event, the November 15 PSPS Event, or the November 23 PSPS Event.

Based on the above, it is unclear if SCE met this requirement.

San Diego Gas & Electric

Three separate weather events occurred during SDG&E’s October 20 PSPS Event. After the first weather event, which lasted from October 20 to 22, SDG&E did not send a “power is restored” notification. Because the three weather events were consolidated into tables, SED could not verify whether SDG&E sent such notification to customers following the next two weather events.¹⁸¹ It is unclear whether SDG&E met this requirement.

h. Explanation if 2-hour Prior Notice Not Provided

Resolution ESRB-8 requires an electric IOU to include in its post-event report:

“If an IOU is not able to provide customers with notice at least 2 hours prior to the de-energization event, the IOU shall provide an explanation in its report.”¹⁸²

Pacific Gas & Electric

PG&E failed to give some customers a two-hour notice for all five of its PSPS events.

October 5 PSPS Event: PG&E failed to notify 1,400 customers to meet the 2-hour requirement and explained the failure was due to an absence of customer information on file, or that the customer’s service point identification (SPID) number was not mapped to the local transformer. PG&E stated that it is “taking action to ensure that customers update their contact information and to resolve SPIDs not mapped to transformers.” PG&E did not explain the barriers, what process it would utilize to alleviate these barriers, or a timeline to correct these issues.¹⁸³

¹⁷⁹ D.19-05-042 in R.18-12-005, Appendix A, p. A8.

¹⁸⁰ SCE October 12 Post-Event Report, p. 10

¹⁸¹ SDG&E October 20 Report, Appendix 1, p.46-47

¹⁸² Resolution ESRB-8, p.5

¹⁸³ PG&E October 5 Post-Event Report, p.10-11

Public Report on the Late 2019 Public Safety Power Shutoff Events

October 9 PSPS Event: PG&E did not notify 23,000 customers of which 600 were medical baseline. Reasons included no contact information on file; circuit configurations not related to notification information; and manual steps used to translate high-risk areas into assets and correlate to customers.¹⁸⁴

October 23 PSPS Event: PG&E did not provide notice to 2,100 customers, of which, 22 were medical baseline customers. PG&E explained it had no customer information on file; and that the customers' service point identification (SPID) number was not mapped to local transformer.¹⁸⁵

October 26 PSPS Event: Approximately 22,000 customers out of the total 967,700 customers de-energized did not receive advanced notification and experienced an outage longer than one hour. Approximately 400 were medical baseline customers.

PG&E's reasons for no notification include:

- No customer contact information on file;
- Locations with customer's SPID number was not mapped to the local transformer;
- Abnormal switching configurations whereby customers could be operationally tied to one circuit that was impacted by the PSPS event, but their notifications were sent based on the normal circuit configurations which were not impacted; and,
- Challenges related to the process of taking the areas identified as high-risk by meteorology, translating the areas into assets on the electric grid, and correlating to impacted customer which currently requires manual steps.

Additionally, PG&E provided the following explanation for its October 26 PSPS Event:

*"Some PG&E customers experience short outages associated with switching operations required to implement PSPS. Implementation or restoration of a PSPS event may be due to work procedure errors, switching customers to a microgrid or operational limitations of switching devices. These operations are executed to maintain service to customers and therefore reduce overall customer impact. Because these customers are not expected to experience the PSPS outage, they may not receive advanced PSPS notifications. During this event, approximately 11,300 customers, including approximately 400 medical baseline customers, experienced outages of one hour or less and were not notified as a part of the PSPS advanced notifications."*¹⁸⁶

November 20 PSPS Event: 800 customers not notified. Approximately 500 customers had no customer contact information on file and PG&E had challenges related to translating the meteorology polygons into assets on the electric grid and correlating those assets to impacted customers which currently requires manual steps.¹⁸⁷

Southern California Edison

¹⁸⁴ PG&E October 9 Post-Event Report, p.16

¹⁸⁵ PG&E October 23 Post-Event Report, p.17

¹⁸⁶ PG&E October 26 Post-Event Report, p.14

¹⁸⁷ PG&E November 20 Post-Event Report, p.18

SCE met this requirement to notify customers at least 2 hours in advance for one of its six events, the October 12 PSPS Event. SCE explained that most of the failures to notify customers were because of an “unexpected change in the weather.”

October 2 PSPS Event: 2,167 customers out for two hours because a palm frond caused an outage. In addition, a failed jumper loop caused an outage for 15,000 customers for 36 hours.¹⁸⁸ SCE was not able to notify these customers two hours in advance.

October 21 PSPS Event: Seven or eight circuits de-energized for other reasons than the PSPS event with no notification of the 865 customers.¹⁸⁹ SCE gave no explanation for the outage and not providing the notification.

October 27 PSPS Event: 16,000 customers were not notified. SCE cites a:

“Santa Ana wind event, sudden extreme wind conditions developed in local areas (as reported by real-time weather data and/or field observations) as the explanation. This dynamic wind event necessitated immediate pro-active de-energization of some circuits before their forecasted period of concern. In these instances, de-energization protocols and all notifications were initiated simultaneously, and as a result, some customers did not receive at least 2 hours’ notice before de-energization.”¹⁹⁰

November 15 PSPS Event: 49 customers were not notified due to wind conditions. SCE explains that:

“SCE Happy Camp Road weather station near the Anton Circuit recorded sustained wind speeds of 24 mph and gusts of 38 mph, which was within two mph of the thresholds for that circuit. Based on the real-time weather data, which indicated upward trending wind speeds and rapidly changing weather conditions, the PSPS IMT Incident Commander (IC) initiated de-energization protocols, and 49 customers on a portion of the Anton Circuit in Ventura County were pro-actively de-energized at 5:18 a.m.”¹⁹¹

November 23 PSPS Event: 36 customers were given less than one-hours’ notice. SCE explained that those customers on the Energy circuit experienced de-energization because of change in the weather forecast and real-world conditions occurred quickly, preventing more advanced notice.¹⁹²

San Diego Gas & Electric

SDG&E did not meet this requirement for one of its two PSPS events.

October 20 PSPS event: Between October 22-24, 2019, 495 customers were not notified (40 medical baseline, five PSPS Critical Facilities); during the October 28 – November 1, 2019, 1,412 customers were not notified (57 medical baseline, 54 PSPS Critical Facilities).¹⁹³

vi. Notification Languages

¹⁸⁸ SCE October 2 Post-Event Report, p.1,3

¹⁸⁹ SCE October 21 Post-Event Report, p.1

¹⁹⁰ SCE October 27 Post-Event Report, Chart on p.12

¹⁹¹ SCE November 15 Post-Event Report, p.1,6

¹⁹² SCE November 23 Post-Event Report, p.6

¹⁹³ SDG&E October 20 Post-Event Report, p.30

The Guidelines state:

“The electric investor owned- utilities must coordinate with California Governor’s Office of Emergency Services and the California Department of Forestry and Fire Protection to engage in a statewide public education and outreach campaign. The campaign must effectively communicate in English, Spanish, Chinese (including Cantonese, Mandarin and other Chinese languages), Tagalog and Vietnamese as well as Korean and Russian where those languages are prevalent within the utilities’ service territories.”¹⁹⁴

Southern California Edison

SCE did not provide information in the required eight languages for the first event. For SCE’s October 10 PSPS event, it provided information in English and Spanish only.

For the remaining events, SCE did not provide information in Russian and did not explain why it did not.¹⁹⁵

C. Information Sharing

i. Consistent Information

The Guidelines require that electric IOUs:

“... work together to share information and advice in order to create effective and safe de-energization programs at each utility and to ensure that utilities are sharing consistent information with public safety partners.”¹⁹⁶

Pacific Gas & Electric

For PG&E’s October 9 PSPS event, PG&E held operational briefings to provide status updates to state and local officials. However, CalCCA noted that some CCAs “were provided with information on these calls, while others were not.”¹⁹⁷

For PG&E’s October 9 PSPS event, Verizon discussed cellular site lists provided by PG&E:

“Sometimes the list of sites in the emailed notices differed from what the PG&E account representative conveyed to Verizon.”¹⁹⁸

The California State Association of Counties notes that for the late 2019 PSPS events, the information communicated by PG&E to the counties was inconsistent:

“In some counties, the local PG&E representative did not have much information or would not have the information needed and in others, the PG&E representative provided real-time updates.”¹⁹⁹

¹⁹⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A3

¹⁹⁵ SCE October 12 Post-Event Report, p.9-10

¹⁹⁶ D.19-05-042 in R.18-12-005, Appendix A, p. A3

¹⁹⁷ R.18-12-005, CalCCA Submission of Comments on IOU Post-Event Reports, Appendix B, filed January 7, 2020, Attachment dated November 19, 2019, p.3

¹⁹⁸ R.18-12-005, Cellco Partnership d/b/a Verizon Wireless (U 3001 C) Comments on PG&E Post-PSPS Event Report for October 9-10, 2019, filed January 7, 2020, Attachment A, dated November 12, 2019, p.2

¹⁹⁹ I.19-11-013, Response of California State Association of Counties to OII, January 10, 2020, p.3

Public Report on the Late 2019 Public Safety Power Shutoff Events

In the above instances, PG&E did not ensure the sharing of accurate, consistent information with public safety partners. PG&E should continue improving its PSPS event communications.

Southern California Edison

While the impact of SCE's discrepancies was not widespread, SCE still has room to improve in sharing consistent information with its public safety partners.

The Joint Local Governments noted that:

*"Santa Barbara County regularly received reports for other counties, or reports that included Santa Barbara and other counties, which required follow-up to the EOC duty officer and created confusion."*²⁰⁰

ii. **Nondisclosure Agreement (NDA) and Other Restrictions for Sharing Information**

The Guidelines require that electric investor-owned utilities:

*"... electric investor-owned utilities, emergency responders, and local governments...to be seamlessly integrated when communicating de-energization notifications."*²⁰¹

On October 8, the Commission provided further clarification by sending a letter authorizing PG&E, SCE, and SDG&E to provide, upon request, medical baseline information to county and tribal government emergency response personnel.²⁰²

On October 23, the Commission sent a second letter authorizing PG&E, SCE, and SDG&E to share with county or tribal governments, upon the county or tribal government's request, the addresses within their jurisdiction that are or will be impacted by current and future PSPS events.²⁰³

Pacific Gas & Electric

For PG&E's October PSPS events, the IOU established barriers that prevented the free flow of critical information required for quick response to evolving conditions during PSPS events. PG&E required non-disclosure agreements (NDAs) to be executed prior to sharing customer identifying and critical facility/infrastructure information, as noted in the following parties' comments:

The Joint Local Governments on PG&E's October 9 PSPS event:

*"...the Joint Local Governments are frustrated to see that PG&E persists in making NDAs a cornerstone of its information-sharing requirements for public safety partners."*²⁰⁴

The City of San Jose on PG&E's October 9 PSPS event:

²⁰⁰ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.21

²⁰¹ D.19-05-042, Appendix A, p. A2

²⁰² Resolution L-598, dated December 9, 2019, p.1

²⁰³ Resolution L-598, dated December 9, 2019, p.1

²⁰⁴ R.18-12-005, Joint Local Government's Comments on PG&E Post-PSPS Event Report for October 9, 2019, filed January 3, 2020, dated November 19, 2019, p.5

Public Report on the Late 2019 Public Safety Power Shutoff Events

“...government entities should not be negotiating obscurely drafted non-disclosure agreements (NDAs) with PG&E to access secure data transfer portals or customer information needed for public safety and local responses efforts.”²⁰⁵

The Rural County Representatives of California (“RCRC”) on PG&E’s October 9 and October 23 PSPS events:

“Eliminate cumbersome restrictions that inhibit the provision of emergency services by allowing information about medical baseline customers, AFN populations and critical facilities to be shared between utilities and local agencies while maintaining the confidentiality of sensitive information.”²⁰⁶

The Joint Local Governments on PG&E’s October 23 PSPS event:

“In addition to the fact that certain of PG&E’s local government liaisons had not been informed of the Commission’s October 8, 2019 directive and were still demanding nondisclosure agreements, the Commission did not order PG&E to provide only information for medical baseline customer that had not confirmed receipt of the PSPS notification...”²⁰⁷

CalCCA on the October 23 and October 26 PSPS events:

“PG&E kept that list confidential and was responsible for contacting those individuals. It wasn’t until the morning of the Shut-Off that they released the information to our fire department to contact the remaining baseline customers.”²⁰⁸

The City of San Jose on PG&E’s October 26 PSPS event:

“While the Commission put forth a draft ratification of its October 8 and 23 letters to the Investor Owned Utilities (IOUs) authorized release of medical baseline customer information and specific addresses of affected customers to counties and tribal governments, this is of little use to cities like San José.”²⁰⁹

Without the Commission resolution, “PG&E’s public safety partners would have been forced to manage the late 2019 PPS events without important information.”²¹⁰ During emergency events, such as those conducted by utilities during PPS, local jurisdictions were called upon to quickly locate and make contact with AFN communities that the IOU could not contact. Local jurisdictions should not have to argue over the confidentiality of customer location information in order to serve their constituents. The Commission resolution corrected the confusion and will likely improve efforts leading up to the 2020 fire season.

²⁰⁵ R.18-12-005, City of San Jose’s Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.9

²⁰⁶ R.18-12-005, Rural County Representatives of California Comments on PG&E’s Post-PSPS Event Reports for October 10, 2019, October 25, 2019 and November 8, 2019, Attachment dated January 6, 2020, p.4

²⁰⁷ R.18-12-005, Joint Local Government’s Comments on PG&E Post-PSPS Event Report for October 23, 2019, filed January 3, 2020, Attachment dated December 3, 2019, p.3

²⁰⁸ R.18-12-005, CalCCA Comments on PG&E Post-PSPS Event Report for October 23 – November 1 Consolidated Events, filed January 7, 2020, dated December 3, 2019, p.16

²⁰⁹ R.18-12-005, City of San Jose’s Comments on PG&E’s Post-PSPS Event Report for October 26 & 29, 2019, filed January 7, 2020, Attachment dated December 3, 2019, p.6

²¹⁰ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.13

Southern California Edison

SCE did not discuss the use of NDAs in its September 2019 Progress Report titled “Progress Report on the Implementation of De-energization Guidelines.” Nor did SCE discuss its use of NDAs in its post-event reports for information sharing purposes with public safety partners. However, SCE provided SED with information regarding NDAs in a data request response on this topic:

“SCE requires a non-disclosure agreement to provide all medical baseline customer information with public safety partners and any outside entities when the information request occurs outside of PSPS events. This includes providing any Personal Identifiable Information (PII). The only medical baseline customer information not subject to NDA before disclosure to public safety partners is aggregated information such as totals of medical baseline customers, which does not include PII.”²¹¹

Although NDAs were not a pre-requisite to share information, the Joint Local Governments noted that:

“In Santa Barbara’s experience, SCE’s duty officers were regularly impeded by SCE’s internal communication and information-sharing problems, despite the officers’ clear desire to help.”²¹²

It seems internal protocols within SCE were in place that, while inadvertent, restricted sharing of confidential information even though executed NDAs were not required.

The Clean Power Alliance (CPA) also noted that for the November 15-17 PSPS event:

“As a Load Serving Entity (‘LSE’) with the privilege to access confidential customer account information, CPA requests that account information associated with PSPS-affected accounts be shared in advance, during the event in real time, and after the event with CPA and other CCAs in the future... During the November 15 to 17 PSPS event, CPA received public notices from SCE.”

When asked for a list of public safety partners contacted for feedback regarding the November 15 PSPS event, SCE provided a list²¹³ which did not include CPA even though they CPA is an entity whose customers were potentially impacted by the de-energization. This is another example of how SCE may have had internal confusion regarding the sharing of confidential information. SCE should improve its sharing of confidential information with public safety partners.

iii. GIS Shapefiles of PSPS Boundaries Provided to Public Safety Partners

The Guidelines require that electric investor-owned utilities:

“... at the time of first notification preceding a de-energization event, make available a Geographic Information System shapefile via a secure data transfer process depicting the most accurate and specific information possible regarding the boundaries of the area subject to de-energization to all public safety partners whose jurisdictions or service areas will be impacted by the de-energization event, including adjacent jurisdictions or service areas that could lose power as a result of de-energization in a high fire threat district.”²¹⁴

²¹¹ SCE Response to SED-001, Question 35

²¹² I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.35

²¹³ SCE Response to SED-001, Question 2

²¹⁴ D.19-05-042 in R.18-12-005, Appendix A, p.A16-17

Pacific Gas & Electric

In previous post-event reports for October, PG&E had mentioned the GIS shapefiles were made available to public safety partners. In addition, real time information and up to date information was available on their website. However, in the post-event reporting for the de-energization event from November 20-21, PG&E did not mention either the availability of the GIS shapefiles to public safety partners or real time information and up-to-date information on PG&E's website.

In the data request response to this requirement, PG&E stated:

*"Public safety partners had access to the GIS Shapefiles through the Secure Data Portal. Access to the Secure Data Portal was provided upon review and approval of a request for access. The PSPS event maps were manually uploaded to the PG&E's Secure Data Portal as they were generated. Public safety partners were alerted to new information on the Secure Data Portal during conference calls and were also encouraged to monitor the Secure Data Portal for new and updated information."*²¹⁵

Even though PG&E's statement suggests that it has they have provided the necessary information to public safety partners. In the following instances, PG&E did not make GIS data available to a public safety partner:

- For the October 9 PSPS event, AT&T noted that it did not receive a GIS shapefile of the potentially affected areas with PG&E's initial notification in the morning of October 7.²¹⁶ However, PG&E did provide the maps on the afternoon of October 7.²¹⁷
- For the October 9 PSPS event, San Jose noted that the Secure Data Portal only provided information related to Bakersfield. However, this issue was corrected in a subsequent event.²¹⁸
- For the October 26 PSPS event, AT&T received encrypted emails that impeded its access to "essential" information. It is unclear what type of content was included in these encrypted emails, but it seems this method of secure data transfer was not effective in providing information identified as confidential to PG&E.²¹⁹
- For the November 20 PSPS event, CCTA claims that its members were not provided credentials to log into PG&E's Secure Data Portal. As public safety partners, CCTA highlights its request made to PG&E on its July 8, 2019 letter requesting login credentials for its secure web portal.²²⁰

PG&E should ensure public safety partners have proper access to GIS shapefiles and should continue to document in the de-energization reports the status of the availability of the GIS shapefiles to public safety partners. In addition, PG&E should report if the available information was updated in real-time.

²¹⁵ PG&E Response to SED-001, Question 9, PG&E SED-001, Question 11, March 24, 2020

²¹⁶ R.18-12-005, Comments of AT&T on Amended PG&E Report for October 9-12 PSPS, dated November 19, 2019, filed January 7, 2020, p.9

²¹⁷ *Id.*, p.9

²¹⁸ R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, dated November 19, 2019, filed January 7, 2020, p.9

²¹⁹ R.18-12-005, AT&T Comments on PG&E's Post-PSPS Event Report for October 26 to November 1, 2019, filed January 7, 2020, attachment dated December 13, 2019, p.10

²²⁰ R.18-12-005, CCTA Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, attachment dated December 24, 2019, p.6

Southern California Edison

During the 2019 wildfire season, in SCE’s event notification scripts for county officials that identified cities that would be affected by a PSPS event, SCE provided the following information, “For your reference, PDF and GIS circuit maps may be found at www.sce.com/maps.”²²¹

SCE experienced difficulties with its website during the first PSPS event of the 2019 wildfire season, October 2-12: “Starting October 8th due to the PSPS event, traffic on SCE.com spiked from 1 million-page views to 1.7 million, then spiked again to 2.5 million on Wednesday, October 9.”²²² The traffic impact to SCE’s website made it difficult for public safety partners to access GIS shapefiles from their public website. Additionally, many public safety partners in SCE’s territory did not receive the information that the GIS shapefiles were also available through SCE’s GIS Representational State Transfer (REST) server. For these two reasons, many of SCE’s public safety partners were unable to access the GIS shapefiles.

For the October 2 and November 23 PSPS events, CCTA consistently urged SCE to provide GIS files instead of referring to maps on SCE’s website.^{223 224}

For the October 2 PSPS event, CCTA also requested that SCE “promptly provide login credentials for its secure web portal to all cable companies within its respective service territory.”²²⁵

These data points support the statement above that SCE did not provide GIS files to many public safety partners, including CCTA members. SCE should provide or make available GIS shapefiles to public safety partners depicting the most accurate PSPS boundary known to the utility.

iv. Work Towards Providing Real-time Data to Public Safety Partners

The Guidelines require that electric investor-owned utilities:

“Going forward, the electric investor-owned utilities must work to provide a secure data transfer of the de-energization boundary in Geographic Information System Representational State Transfer Service format... and must also show affected circuits and any other information that is requested by public safety partners and can reasonably be provided by the utility. The utilities must work towards being able to provide real-time data to public safety partners.”²²⁶

Southern California Edison

In SCE’s “Lessons Learned” section of its October 12-21 post event report, SCE makes the following statement:

“It appears that many Public Safety Partners do not have access to SCE’s publicly facing GIS Representational State Transfer (REST) server, which provides information that will help them plan or

²²¹ SCE October 2 Post-Event Report, p.49-54

²²² SCE October 2 Post-Event Report, p.19

²²³ R.18-12-005, CCTA Comments on SCE’s Post-PSPS Event Reports for October 2-12, 2019 and November 23-26, 2019, attachment dated November 19, 2019, p.3

²²⁴ *Id.*, attachment dated December 26, 2019, p.3-4

²²⁵ *Id.*, attachment dated November 19, 2019, p.4

²²⁶ D.19-05-042 in R.18-12-005, Appendix A, p.A17

*maintain situational awareness during PSPS events. While SCE has made this GIS service available and the State and County Emergency Management officials are using it, other 'Public Safety Partners' such as telecommunications and water agencies are not."*²²⁷

In this same report SCE explains that:

*"SCE holds calls every other week with county emergency management partners where we discuss available tools and technology, such as the GIS REST Service. And SCE has created an email address and fact sheet specific to the GIS REST Service, which provides basic information on how to sign up and access the data."*²²⁸

SCE also admits that it can "engage the telecommunications and water agency providers through groups like the California Utilities Emergency Management Association to increase engagement and awareness of resources."²²⁹ SCE acknowledges that it needs to increase its outreach efforts to educate all of its public safety partners about the GIS REST service.

The Joint Local Governments generally noted:

*"SCE had difficulty providing accurate information to its local public safety partners about the facts on the ground, including which circuits were actually going to be de-energized...During one event, SCE failed to notify Santa Barbara County that wind-related damage had shut off a large portion of a circuit in the outage footprint because the power loss on the circuit was not due to the PSPS and so was not deemed relevant to the event coordination."*²³⁰

SCE should continue improving its effort in working toward providing real-time data to public safety partners.

v. Up-to-Date Information Provided on Public Website and PSPS Webpage Depicting Event Boundary

The Guidelines require that electric investor-owned utilities:

*"...must provide up-to-date information, including a depiction of the boundary of the de-energization event, on their websites' homepage and a dedicated Public Safety Power Shut-off webpage regarding the de-energization event."*²³¹

Pacific Gas & Electric

PG&E made PSPS information available on its public website; however, deficiencies in content, accessibility and web traffic issues did not allow it to be used for its intended purposes.

In Center for Accessible Technology's (CforAT) comments regarding the October 5 and October 9 PSPS events, CforAT found that the website was not up-to-date, accessible and in-language for AFN communities:

²²⁷ SCE October 2 Post-Event Report, p.14

²²⁸ SCE October 12 Post-Event Report, p.14

²²⁹ SCE October 12 Post-Event Report, p.15

²³⁰ I.19-11-013, Response of the Joint Local Governments to the OII, January 10, 2020, p.20

²³¹ D.19-05-042 in R.18-12-005, Appendix A, p.A18

“PG&E has also failed to make its website accessible to people who use screen readers or people who do not speak English as their primary language.”²³²

CforAT also noted that the website information was “not being updated for several hours after local news reported something different.”²³³

NCPA noted that for the October 9 PSPS event, PG&E’s website “caused confusion due to misleading and/or information provided or no (lack of) information provided.”²³⁴ NCPA stated: “PG&E listed outages in Members’ Communities even though they had power.”²³⁵

Due to the website crashing during the October 9 PSPS event, CCTA reported that this “required Comcast to obtain its outage information from local television news programs at the same time as the public.”²³⁶

During the late 2019 PSPS events, PG&E’s PSPS website challenges highlight the need to have up-to-date information, accessibility to people/communities with access and functional needs, and web traffic capacity.

Southern California Edison

As stated earlier in this report, SCE experienced web traffic impacts during their first PSPS event of the 2019 wildfire season. SCE stated in their October 2 post-event report that “traffic on SCE.com spiked from 1 million-page views to 1.7 million, then spiked again to 2.5 million on Wednesday, October 9.”²³⁷ This resulted in a slowing down of webpage loading times. SCE stated in their “Lessons Learned” section in this same post-event report:

“We began monitoring site traffic during five-minute increments and noticed the site’s response time slowed down, from three to five second page loads to page loads of over 30 seconds. To mitigate the issue and ensure customers could access the most critical PSPS updates, we moved a subset of our PSPS information to an alternate site and redirected customers to it while we increased our bandwidth and fixed the issues on SCE.com.”²³⁸

SCE determined the problem was due to “a network tunnel capacity constraint. The tunnel allows us to pass information securely from our SCE.com site to our customers. This issue on the tunnel required an upgrade to increase capacity demands, triggered by the PSPS event.”²³⁹ To help alleviate the traffic problem for future PSPS events, SCE plans to accomplish this:

²³² R.18-12-005, CforAT Comments on PG&E Post-PSPS Event Reports for September 23 and 25, 2019; October 5 and 9, 2019; October 26 and 29, 2019; and November 20, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.1

²³³ *Id.*, p.2

²³⁴ R.18-12-005, NCPA Comments on PG&E Post-PSPS Event Report for October 9 to October 12, 2019, filed December 31, 2019, letter dated November 19, 2019, p.3

²³⁵ *Id.*, p.3

²³⁶ R.18-12-005, CCTA Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, dated November 19, 2019, filed January 7, 2020, p.3

²³⁷ SCE October 2 Post-Event Report, p.19

²³⁸ SCE October 2 Post-Event Report, p.19

²³⁹ SCE October 2 Post-Event Report, p.19

“...by migrating SCE.com to the cloud, we are now able to shutdown non-PSPS transactional services, such as turn-on/turn-off services and bill payment, when required to make additional capacity available for PSPS information accessibility. This will ensure our customers are able to access outage information without interruption.”²⁴⁰

Aside from the web traffic issues described above, CforAT’s comments regarding the October 2 and October 21 PSPS events found that the website was inaccessible to people/communities with access and functional needs and was not in-language for certain non-English speakers.

For the October 2 PSPS event, an alternate website was being utilized as SCE attempted to fix the main website. SCE made it clear that the alternate website did not incorporate accessibility features:

“[T]he alternate site was provided in English-only and did not include all of the outage-related educational and emergency preparedness content.”²⁴¹

CforAT noted that:

“SCE says nothing about whether its alternate website has any of these accessibility features...lack of accessibility is especially troubling in times of an emergency like a de-energization event.”²⁴²

For the October 2 PSPS event, CCTA also noted that “the October 9 switch from the SCE website (www.sce.com) to the backup site (www.scemaintenance.com) prevented them from obtaining updated SCE Outage maps.”²⁴³

For the October 21 PSPS event, CforAT stated the following:

“CforAT monitored SCE’s website leading up to and during the de-energization event and identified substantial problems, particularly with the accessibility of information for customers who use screen readers. In particular, SCE failed to provide accessible information on the locations where power was shut off...On October 23, the website provided information about outage locations using maps in pdf format, with unreadable street names and borders. There was no information available on a screen reader, and no zoom function or adjustment in contrast was available.”²⁴⁴

“Additionally, the website had menu options for languages other than English, but selecting those options led to pages where all information was in English only.”²⁴⁵

People with access and functional needs may require the use of screen readers or substantive in-language information. It is clear that SCE did not make the main or alternate websites

²⁴⁰ SCE October 2 Post-Event Report, p.19

²⁴¹ SCE October 2 Post-Event Report, p.19

²⁴² R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, CforAT Comments on SCE Post-PSPS Event Report for October 2, 2019, dated November 19, 2019, p.2

²⁴³ R.18-12-005, CCTA Comments on SCE’s Post-PSPS Event Reports for October 2-12, 2019 and November 23-26, 2019, attachment dated November 19, 2019, p.3

²⁴⁴ R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, CforAT Comments on SCE Post-PSPS Event Report for October 21, 2019, dated December 3, 2019, p.3

²⁴⁵ *Id.*, p.4

comprehensively accessible. SCE should improve for the upcoming 2020 fire season and should report on the effectiveness of countermeasures implemented to address the website shortcomings.

D. Post-Event Required Reporting

i. Report Submitted to Lead Local/County Public Safety Agency

The Guidelines require that electric IOUs:

“...must send a copy of the report to the lead local/county public safety agency for the de-energization event.”²⁴⁶

Pacific Gas & Electric

In its post-event reports, PG&E did not discuss whether the post-event reports would be distributed to the lead local/county public safety agency for the de-energization event. However, in its response to a subsequent data request, PG&E stated, “every county and federally recognized tribal government was provided with a copy of the 10-day report for each PSPS event that impacted them in 2019 and the report was provided to city governments who provided PG&E with a dedicated lead within their agency.”²⁴⁷ PG&E should document such distribution in its post-event reports.

Southern California Edison

In its post-event reports, SCE did not discuss whether the post-event reports would be distributed to the lead local/county public safety agency for the de-energization event. However, in its response to a subsequent data request, SCE stated, “After each PSPS event, SCE engages county Emergency Management entities impacted during PSPS events, provides them a copy of the Post-Event report, and encourages them to provide feedback after the post-event reporting has been served on all applicable service lists.”²⁴⁸ SCE should document such distribution in its post-event reports.

ii. Report Submitted to Director of SED and Service Lists

The Guidelines require the following of electric IOUs:

“In addition to submitting a report to the Director of the Commission’s Safety and Enforcement Division within 10 business days of power restoration, electric investor-owned utilities must serve their de-energization report on the service lists of this proceeding [R.18-12-005] and Rulemaking 18-10-007 or their successor proceedings.”²⁴⁹

Pacific Gas & Electric

For PG&E’s de-energization event during October 26-29, 2019, PG&E power was restored on October 29, 2019. However, the report was not provided to the service list until November 18, 2019 (14 working days). The report was four days late. For PG&E’s de-energization event during November 20-21, 2019, PG&E power was restored November 21, 2019. However, the report was not provided to the service list until December 9, 2019 (12 working days). The report was two days late.

²⁴⁶ D.19-05-042 in R.18-12-005, Appendix A, p.A22

²⁴⁷ PG&E Response to SED-001, Question 3, dated March 24, 2020

²⁴⁸ SCE Response to SED-001, Question 3, dated March 25, 2020

²⁴⁹ D.19-05-042 in R.18-12-005, Appendix A, p.A22

iii. Decision Criteria Leading to De-energization

The Guidelines require that electric IOUs “must provide the decision criteria leading to de-energization.”²⁵⁰

Southern California Edison

In its post-event reports, SCE did not discuss the decision criteria leading to de-energization of each event. However, in response to a subsequent data request, SCE stated:

“SCE’s decision whether to de-energize is dynamic and made by considering many factors. Some factors SCE considers in deciding when to de-energize for public safety reasons are:

- *Red Flag*
- *Meteorologists*
- *Fire Potential Index*
- *Winds*
- *Public Authorities*
- *Impacts*
- *Operational Situation*”²⁵¹

In its post-event reports for October 26, 2019 and November 4, 2019, SCE did not discuss that it considered moisture in the vicinity of the de-energized circuits as one of the factors to de-energize. However, in response to a subsequent data request, SCE stated:

*“SCE does not use fuel moisture content as an isolated criterion for de-energization; rather it is part of a holistic approach to assess fire potential (FPI) within a given area. Thus, it is the FPI value at the circuit level that is used as a criterion for de-energization at that location. Besides wind, the FPI considers dead fuel moisture, live fuel moisture, and the state of green-up of the annual grasses as part of its calculation.”*²⁵²

SCE should document in the report all the factors considered in the decision to shut off power, including moisture in the vicinity of the de-energized circuits. In addition, SCE should document in the report all the decision criteria leading to de-energization.

iv. Evaluation of Alternatives Considered

The Guidelines require that electric investor-owned utilities must include in their reports:

*“...an evaluation of alternatives to de-energization that were considered and mitigation measures used to decrease the risk of utility-caused wildfire in the de-energized area.”*²⁵³

Southern California Edison

In its post-event reports for October 26, 2019 and November 4, 2019, SCE did not discuss any evaluation of alternatives to de-energization. In response to SED’s first data request, SCE does list some

²⁵⁰ D.19-05-042 in R.18-12-005, Appendix A, p.A22

²⁵¹ SCE Response to SED-001, Question 16, dated March 25, 2020

²⁵² SCE Response to SED-001, Question 23, dated March 24, 2020

²⁵³ D.19-05-042 in R.18-12-005, Appendix A, p.A22-23

alternatives to de-energization.²⁵⁴ However, in its response to the data request, SCE lists risk mitigating and operational maintenance activities as part of the alternatives evaluated to de-energization. It is unclear if SCE fully understands the difference between ongoing risk mitigation activities and evaluation of alternatives to de-energization. SCE should document in the report the evaluation of alternatives to de-energization.

San Diego Gas & Electric

In its post-event reports for October 10, 2019 and October 20, 2019, SDG&E did not include an evaluation of alternatives to de-energization considered. In its response to SED's first data request, SDG&E provided a brief summary of SDG&E's fire hardening programs and portable backup generators to reduce the impact of a PSPS event.²⁵⁵ SDG&E should document in the report the evaluation of alternatives to de-energization.

v. Explanation of How IOUs Determined that the Benefit of De-energization Outweighed Potential Public Safety Risks

The Guidelines require that electric investor-owned utilities:

*"...must provide an explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks."*²⁵⁶

The narrative below describes the inadequacies of each IOU; however, the general concept may be better discussed in a forum in which all parties can contribute, such as R.18-12-005.

Pacific Gas & Electric

In its post-event reports, PG&E did not provide an in-depth discussion of how PG&E determined that the benefit of de-energization outweighed potential public safety risks. PG&E provided general information with minimal quantitative supporting data or rationale. In the data request response about this requirement, PG&E did not provide a direct response to this inquiry and instead directed SED to PG&E's "Public Safety Power Shutoff Annex,"²⁵⁷ which is an annex to PG&E's Company Emergency Response Plan.

PG&E needs to coordinate with its impacted stakeholders and public safety partners to identify essential services and assess the potential public safety risks posed by de-energization. PG&E should document in the report efforts made to identify essential services and the public safety risks considered to determine the benefit of de-energization outweighing the potential public safety risks. The parties below identified the same issue regarding a lack of public safety risks considered and discussed in PG&E's post-event reports.

Regarding PG&E's post-event report for its October 9 PSPS event, the Joint Local Governments commented:

²⁵⁴ SCE Response to SED-001, Question 17, dated March 24, 2020

²⁵⁵ SDG&E Response to SED-001, dated March 24, 2020, p.28

²⁵⁶ D.19-05-042 in R.18-12-005, Appendix A, p. A24

²⁵⁷ PG&E Response to SED-001, Questions 16 and 20, dated March 24, 2020

“Is any consideration given to the types of critical facilities or the geographic concentration of medical baseline customers? Both PG&E and local emergency manager have to understand which facilities will lose power and whether there are densely populated clusters of vulnerable customers or if those individuals are spread out in remote areas—the necessary information, planning, and response will be different depending on those facts.”²⁵⁸

Regarding PG&E’s post-event reports for its October 9 and October 26 PSPS events, AT&T stated:

“PG&E does discuss the potential harms the shutoff was intended to prevent, but it does not contain an adequate analysis of the harms the shutoff would create—or any explicit attempt to weigh those harms.”²⁵⁹

“PG&E does not articulate in its post-event report the specific ‘public safety impact[s]’ of de-energizing that were considered, or how the risks created by energized lines and the ‘impacts’ of de-energization were balanced.”²⁶⁰

Regarding PG&E’s post-event reports for its October 9 and October 26 events, CforAT repeatedly stated:

“PG&E offers no explanation of how this incredible number of customers ‘was considered’ in their decision, and certainly makes no effort to set out risks of harm to these customers from an extended power outage.”^{261 262}

Regarding PG&E’s post-event reports for its October 23 and October 26 events, CalCCA’s consolidated comments included this statement:

“In the both Reports, PG&E states that ‘in light of the meteorological information indicating the potential for catastrophic wildfire and the customer impacts from mitigating that risk through de-energization.’ PG&E does not define or explain what it considers ‘customer impacts.’ Nowhere in the discussions of the Events does PG&E define or quantify the impacts to the customers and communities from de-energization.”²⁶³

Regarding PG&E’s post-event report for its October 26 event, SBUA recommended:

“...PG&E to carefully and transparently analyze the actual economic, health and societal impact of its PSPS-initiation decision to assure that the cost is truly warranted and then implement permanent

²⁵⁸ R.18-12-005, Joint Local Governments’ Comments on PG&E Post-PSPS Event Report for October 9, 2019, filed January 3, 2020, Attachment dated November 19, 2019, p.4

²⁵⁹ R.18-12-005, AT&T Comments on PG&E’s Amended Post-PSPS Event Report for October 9 to October 12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.2

²⁶⁰ R.18-12-005, AT&T Comments on PG&E’s Post-PSPS Event Report for October 26 to November 1, 2019, filed January 7, 2020, Attachment dated December 13, 2019, p.2

²⁶¹ R.18-12-005, CforAT Comments on PG&E Post-PSPS Event Reports for September 23 and 25, 2019; October 5 and 9, 2019; October 26 and 29, 2019; and November 20, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.3

²⁶² *Id.*, Attachment dated December 13, 2019, p.3

²⁶³ R.18-12-005, CalCCA Submission of Comments on IOU Post-Event Reports, CalCCA Comments on PG&E Post-PSPS Event Report for October 23-November 1 Consolidated Events, Attachment dated December 3, 2019, p.4

Public Report on the Late 2019 Public Safety Power Shutoff Events

solutions to avoid the worst impacts of PSPS events. As part of this analysis, PG&E must assess the efficacy of its PSPS decision-making and whether there are particular locations and customers that are repeatedly subject to PSPS events. Where the social cost is high and customers are predictably at high risk of repeated and prolonged power loss, durable solutions, such as undergrounding, must be considered.”²⁶⁴

Regarding PG&E’s post-event report for its November 20 event, SBUA noted:

“...the Report does not consider the extreme detrimental impacts to small businesses, which are particularly vulnerable to outages.”²⁶⁵

Regarding PG&E’s post-event report for its November 20 event, CforAT stated:

“PG&E continues to disregard the effects that extended power outages have on customers, and only considers its own liability when weather conditions are right for a wildfire. PG&E, as well as the other IOUs, must begin to truly recognize the risks of de-energization to their customers, and they must actually weigh those risks against the benefits of de-energization.”²⁶⁶

In response to the OII, CSAC stated:

“PG&E failed to adequately consider the impacts on local governments when determining whether to have a PSPS event...”²⁶⁷

TURN also noted in response to the OII and referring to the specific Guideline requirement:

“For example, the PSPS Guidelines required the utilities to explain in its post-event report ‘how the utility determined that the benefit of de-energization outweighed potential public safety risks.’ As TURN noted previously, PG&E did not comply with this requirement and continues to ignore this requirement in its recent post-event reports.”²⁶⁸

Southern California Edison

In its post-event reports for October 26, 2019 and November 4, 2019, SCE did not provide an in-depth discussion on how SCE determined that the benefit of de-energization outweighed potential public safety risks. In its reports, SCE provided general information with minimal quantitative supporting data or rationale. However, in the data request response to this requirement, SCE stated:

“SCE coordinates closely with county emergency management officials and first responder agencies prior to and throughout PSPS events to understand the risks of de-energizing and SCE takes into account the conversations with its public safety partners as it evaluates the public safety risk of deenergizing circuits (e.g. impacts on essential services such as public safety agencies, water pumps, traffic controls, etc.)

²⁶⁴ R.18-12-005, Comments of SBUA on PG&E Post-PSPS Event Report for October 26-29, 2019, filed January 7, 2020, Attachment dated January 7, 2020, p.1-2

²⁶⁵ R.18-12-005, Comments of SBUA on PG&E Post-PSPS Event Report for November 20-21, 2019, filed January 7, 2020, Attachment dated December 26, 2019, p.4

²⁶⁶ R.18-12-005, CforAT Comments on PG&E Post-PSPS Event Reports for September 23 and 25, 2019; October 5 and 9, 2019; October 26 and 29, 2019; and November 20, 2019, filed January 7, 2020, Attachment dated December 23, 2019, p.2

²⁶⁷ I.19-11-013, Response of CSAC to OII, dated January 10, 2020, p.2

²⁶⁸ I.19-11-013, Response of TURN to OII, dated January 10, 2020, p.2

Public Report on the Late 2019 Public Safety Power Shutoff Events

*when it decides whether to de-energize circuits. SCE weighs the viewpoint of its public safety partners as an input to the final recommendation from SCE's PSPS Incident Management Team (IMT), but the ultimate decision of whether to de-energize is made by the IMT Incident Commander, who weighs all the risks of de-energizing against the very extreme risk of fire if SCE were not to de-energize."*²⁶⁹

SCE should document in its reports the efforts made to identify essential services and the public safety risks considered as it weighed the benefit of de-energization and the potential public safety risks.

For the majority of late 2019 events conducted by SCE, CforAT repeatedly noted the shortcomings of SCE in its explanation on the consideration of potential public safety risks.

Regarding the October 2 PSPS event, CforAT stated:

*"SCE provides a brief paragraph on its 'decision criteria leading to de-energization, and two further brief paragraphs purporting to explain 'how the utility determined that the benefit of de-energization outweighed potential public safety risks,'[footnote omitted] makes no effort whatsoever to justify turning off the power as a 'last resort.'[footnote omitted] Instead, the purported explanation simply sets out a statement of forecasted fire risk, with no consideration whatsoever of the public safety risks associated with turning off power to large numbers of customers."*²⁷⁰

*"SCE appears to weight the scales in favor of de-energization by noting the risk of harm of ignition while ignoring the risk of harm from a shutoff."*²⁷¹

Regarding the October 21 and October 27 PSPS events, CforAT stated:

"Instead, the purported explanation simply sets out a statement of forecasted fire risk, with no consideration whatsoever of the public safety risks associated with turning off power to large numbers of customers..."^{272 273}

Regarding the November 23 PSPS event, CforAT noted:

*"Its continued recitation of various weather conditions that indicate a wildfire is likely has not provided any consideration of the effects of de-energization on customers. Not only has SCE failed to consider the effects on customers for each individual de-energization event, but it has not considered the effects of repeatedly de-energizing its customers."*²⁷⁴

Regarding the November 23 PSPS event, the Small Business Utility Advocates (SBUA) stated that SCE's description of its decision to de-energize:

"...fails to identify consideration of any countervailing risks to public safety that would be created by de-energizing power lines. For instance, was lack of traffic controls at intersections and street lights,

²⁶⁹ SCE Response to SED-001, Question 20, dated March 25, 2020

²⁷⁰ R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, CforAT Comments on SCE Post-PSPS Event Report for October 2, 2019, dated November 19, 2019, p.4

²⁷¹ *Id.*, p.4

²⁷² *Id.*, CforAT Comments on SCE Post-PSPS Event Report for October 21, 2019, dated December 3, 2019, p.4

²⁷³ *Id.*, CforAT Comments on SCE Post-PSPS Event Report for October 27, 2019, dated December 16, 2019, p.4

²⁷⁴ *Id.*, CforAT Comments on SCE Post-PSPS Event Report for November 23, 2019, dated December 23, 2019, p.2-3

wireless and wired communication outages, failure of HVAC systems, spoilage of food, ignition risk from operation of personal generators or candles for light or other hazards created by the PSPS event...”²⁷⁵

Regarding the October 2019 PSPS events, the Joint Local Governments noted that:

“SCE never explains what public safety risks it was looking for, what the assessment process was, or how the determination that no such risks existed was made. There are multiple significant public safety risks inherent in every de-energization—AFN individuals’ health is put at risk, water pumps stop working, cell towers and other communications systems may fail, backup generators spark fires—which calls SCE’s decisionmaking into question.”²⁷⁶

Based on the above comments and SCE’s explanations for de-energization, more details regarding SCE’s consideration of potential public safety risks need to be included in its reports. SCE should make more of an effort to identify public safety risks in order to prudently weigh the option to de-energize.

San Diego Gas & Electric

In its post-event reports for October 10-11, 2019 and October 20-November 1, 2019, SDG&E did not provide an adequate explanation regarding its decision to de-energize. SDG&E did not provide an in-depth discussion on how it determined that the benefit of de-energization outweighed potential public safety risks. In its reports, SDG&E provided general information with minimal quantitative supporting data or rationale. In a subsequent response to SED’s data request, SDG&E continued to discuss the conditions for an extreme weather event that may lead to significant wildfires. SDG&E further stated that its “largest PSPS events have impacted less than 10% of the its customers within the HFTD and less than 2% of the overall customer base. And while that in no way diminishes the impacts those customers experience, in SDG&E’s experience and even the experience across the state, that the losses that occur with a power outage are nowhere near the potential loss of life and property associated with wildfires.”²⁷⁷

This risk-benefit explanation was provided at a general level with minimal supporting data or rationale.

Regarding SDG&E’s October 20 post-event report, CforAT stated:

“Its section titled ‘An explanation of how the utility determined that the benefit [sic] of de-energization outweighed potential public safety risks’ explains in detail that weather conditions were right for a wildfire, but makes no effort whatsoever to justify turning off the power as a ‘last resort.’ Instead, the purported explanation simply sets out a statement of forecasted fire risk, with no consideration whatsoever of the public safety risks associated with turning off power to large numbers of customers.”²⁷⁸

²⁷⁵ R.18-12-005, Comments of SBUA on SCE’s Post-PSPS Event Report for November 23-26, 2019, filed January 7, 2020, attachment dated December 26, 2019, p.2

²⁷⁶ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.35

²⁷⁷ SDG&E Response to SED-001, dated March 24, 2020, p.31

²⁷⁸ R.18-12-005, CforAT Comments on SDG&E Post-PSPS Event Reports for October 24 and 28, 2019; and November 17, 2019, Attachment 1, filed January 7, 2020, p.3

Regarding SDG&E's October 20 post-event report, SBUA noted:

*"It does not explain how SDG&E determined that the benefit of de-energization outweighed the costs and risks of de-energization because the Report does not describe how, or whether, the costs and risks of PSPS were assessed."*²⁷⁹

SDG&E should make more of an effort to identify public safety risks that it considers when it weighs the decision to de-energize.

vi. Customer Complaints and Claims

Resolution ESRB-8, required that electric IOUs' post-event reports to the Director of SED shall summarize:

*"...the number and nature of complaints received as the result of the de-energization event and include claims that are filed against the IOU because of de-energization."*²⁸⁰

Pacific Gas & Electric

In its corrected amended post-event report for the October 5 PSPS event, PG&E reported:

*"PG&E received a number of complaints between October 9 and October 22 and will report on these complaints in the October 9 and the October 23 de-energization reports."*²⁸¹

In PG&E's post-event report for the October 9 PSPS event, PG&E reported that "[a]s of October 22, PG&E had received three written, three phone and one e-mail CPUC complaints."²⁸²

While PG&E provided information regarding complaints about the October 5 PSPS event in subsequent post-event reports, there were potential discrepancies between PG&E's descriptions and information in parties' comments.

CalCCA noted that regarding the October 26-29 post-event report:

"PG&E claims 13 written complaints and 1 email. CalCCA questions how these complaint statistics are compiled and what metric PG&E uses to qualify a communication as a complaint. CalCCA knows that several of the jurisdictions in its members' service areas, both counties and cities, sent letters of complaint not only to the PG&E, but to the Governor's office and the President of the Commission."

In response to SED's first data request, PG&E stated in an attachment that "[a]ny customer issue where a customer contacts another line of business or our customer service Contact Center Operations is an 'inquiry.'"²⁸³ This response raises concerns that a number of complaints may be missing from the number reported for each event.

PG&E did not identify which customers submitted complaints; however, due to the widespread impact of both the October 9 and October 26 PSPS events, it is surprising to see the low complaint

²⁷⁹ R.18-12-005, Comments of SBUA on SDG&E's Post-PSPS Event Report for October 20 through November 1, 2019, filed January 7, 2020, p.2

²⁸⁰ Resolution ESRB-8, p.5

²⁸¹ Correction to Updated Post-PSPS Report for October 5-6, 2019, dated February 28, 2020, p.12

²⁸² Amended PG&E PSPS Report to the CPUC October 9-12, 2019 De-Energization Event, p.19

²⁸³ PG&E Response to SED-001, Question 35 Attachment, dated March 24, 2020

numbers that PG&E reported. For the October 9 PSPS event, PG&E reported a total of seven complaints when the event impacted approximately 735,440 customers over a period of four days. For the October 26 PSPS event, PG&E reported a total of 14 complaints when the event impacted approximately 967,700 customers. Additional data collection would be required to verify complaint and claim figures reported by PG&E.

Southern California Edison

According to SCE's Response to the OII, SCE received 35 complaints pursuant to the October 2019 PSPS events.²⁸⁴

- For the October 2 PSPS event, SCE received five complaints/concerns.²⁸⁵
- For the October 12 PSPS event, SCE received no complaints.²⁸⁶
- For the October 21 PSPS event, SCE received 12 complaints/concerns and processed 40 claims.²⁸⁷
- For the October 27 PSPS event, SCE received 18 complaints/concerns and processed 126 claims.²⁸⁸
- For the November 15 PSPS event, SCE received no complaints and processed 45 claims.²⁸⁹
- For the November 23 PSPS event, SCE received no complaints.²⁹⁰

However, Acton reported that "SCE received more than 50 complaints about the October PSPS events from just the rural residents of Acton and Agua Dulce alone."²⁹¹

In response to SED's first data request regarding how SCE determines the figures for complaints and claims in post-event reports, SCE provides information about claims but does not address how complaints are identified or tracked.²⁹² Without additional detailed data collection about SCE's operations, it is unclear if SCE accurately determined the reported figures.

San Diego Gas & Electric

In response to SED's first data request regarding how SDG&E determines the figures for complaints and claims in post-event reports, SDG&E provides information about claims but does not address how complaints are identified or tracked.²⁹³ It is unclear whether SDG&E accurately determines the reported complaint and claim figures.

vii. Number of Affected Customers

²⁸⁴ I.19-11-013, SCE (U 338-E) Response to OII on the Commission's Own Motion on the Late 2019 PSPS Events, dated December 13, 2019

²⁸⁵ *Id.*, p.A-15

²⁸⁶ *Id.*, p.A-110

²⁸⁷ *Id.*, p.A-185-186

²⁸⁸ *Id.*, p.A-298

²⁸⁹ *Id.*, p.A-390

²⁹⁰ *Id.*, p.A-431

²⁹¹ I.19-11-013, Acton Town Council Response to OII of Power Shutoff Events, dated January 10, 2020, p.7

²⁹² SCE Response to SED-001, Question 37, dated March 25, 2020

²⁹³ SDG&E Response to SED-001, Question 36, dated March 24,2020, p.52

In Resolution ESRB-8, the Commission found it appropriate to apply the reporting requirements adopted in D.12-04-024 to all electric IOUs' de-energization events.²⁹⁴ In D.12-04-024, the Commission required SDG&E to provide a report to the Director of SED within 10 business days after the shut-off event ends that includes, among other elements, the number of affected customers, broken down by residential, medical baseline, commercial/industrial, and other categories."²⁹⁵

Southern California Edison

In its post-event reports for October 26 and November 4 PSPS events, SCE did not include the number of affected customers, broken down by residential, medical baseline, commercial/industrial, and other categories. In response to SED's first data request, SCE provided copies of Appendix C from the October 26 PSPS event report.²⁹⁶ However, the information did not summarize or break down customers affected by residential, medical baseline, commercial/industrial, and other categories. SCE should, in each post-event report, summarize the total number of affected customers, broken down by these specific categories; residential, medical baseline, commercial/industrial, and other categories. Additionally, SCE should ensure that its documentation in the de-energization reporting is legible. Appendix C for the November 4 post-event report had extremely small blurred text, making it unreadable.

San Diego Gas & Electric

In its post-event report for the October 20 PSPS event, SDG&E did not include a breakdown of the number of affected customers for one circuit or device. For SDG&E's Weather Event 3, Circuit/Device 1021-CB, SDG&E only provided a total number of customers without a breakdown by customer type.²⁹⁷ This was one line in the table of 45 different circuits/devices that did not provide a breakdown by customer type. In a follow-up response to SED's first data request, SDG&E provided the missing information and stated that the figures were "inadvertently not included in the subject post-event report."²⁹⁸

viii. Lessons Learned Reports

The Guidelines require electric IOUs to:

*"...report on lessons learned from each de-energization event, including instances when de-energization protocols are initiated, but de-energization does not occur, in order to further refine de-energization practices."*²⁹⁹

Pacific Gas & Electric

In its post-event reports, PG&E mentions that it conducts after-action reviews of the de-energization events to discuss the lessons learned from each event. During these discussions, PG&E states that the Emergency Preparedness and Response team consolidates internal feedback along with

²⁹⁴ Resolution ESRB-8, p.3

²⁹⁵ *Id.*, p.3

²⁹⁶ SCE Response to SED-001, Question 22, dated March 25, 2020

²⁹⁷ SDG&E Report on PPS Shutoff Event: October 20-November 1, 2019, dated November 15, 2019, p.26

²⁹⁸ I.19-11-013 SED-SDG&E DR 1, Response to Question 22, dated March 24, 2020, p.33

²⁹⁹ D.19-05-042 in R.18-12-005, Appendix A, p. A3

external feedback from Cal OES and CAL FIRE representatives. PG&E also states that it focuses its lessons learned on six workstreams:

- Enhanced scoping ability and timing accuracy
- Strengthening data quality
- Improved Estimated Time of Restoration (ETOR) precision and communication
- Improved map precision and communication
- Optimizing external communication
- Addressing EOC staff fatigue

Although the six workstreams PG&E concentrates on for its lessons learned reviews are important, PG&E should also include in its lessons learned reviews an evaluation of the thresholds used to decide whether to de-energize and the failures to facilities that occurred.

In evaluating its decisions to de-energize, PG&E should consider lessons learned regarding the criteria for de-energization and the thresholds used for strong wind events as well as the conditions used to define “an extreme fire hazard” (humidity, fuel dryness, temperature, etc.) that PG&E used in deciding whether to shut off power. For example, PG&E can discuss whether the thresholds applied were warranted in all areas. Was there less damage to overhead facilities in some areas versus others? PG&E can discuss how it is refining the thresholds for de-energization. PG&E states in several post-event reports that the cause of damage to some of its facilities “could not be identified.” It is imperative that PG&E conduct a thorough investigation into the root cause of the failures, so that it can implement mitigating measures and prevent other similar failures.

San Diego Gas & Electric

SDG&E’s post-event reports focused on the PSPS event itself which, while important, only pertains to a portion of improvements that can be made based on the experience gained from each event. SDG&E identified lessons learned in the following categories:

- Notification and communication
- Process enhancements for updating GIS maps
- Training for managing the PSPS event
- Internal and external coordination
- Equipment in place to minimize PSPS impact
- Efforts to re-energize circuits
- Outreach efforts for AFN communities

SDG&E noted in its October 10 post-event report that it needs to continue defining and refining processes related to activation levels and timing. For this issue, SDG&E stated that more coordination is required and processes need to be updated.³⁰⁰

SBUA provided comments on SDG&E’s October 20 post-event report regarding a meaningful discussion that SDG&E could provide in order to reduce the scope of future PSPS events:

³⁰⁰ SDG&E PSPS Shutoff Report, dated October 25, 2019, p.35

“At a minimum, this section should include discussion of potential vegetation management that would have been beneficial, infrastructure hardening, including undergrounding, and microgrid opportunities, such as in areas already served by photovoltaic power installations on municipal facilities, that could have prevented the need for de-energization in some areas.”³⁰¹

Although the SDG&E-identified lessons learned are important, SDG&E should also consider specific improvements in thresholds to de-energize and perhaps identify improvements to its vegetation management operations or maintenance of its electric facilities. SDG&E could review its criteria for high wind events and high wildfire risk after every event to identify any opportunities for reducing the scope of future PSPS events.

IV. Analysis of Effectiveness of IOUs’ Conduct of PSPS in 2019 and Recommendations

In this section, SED presents analysis to respond to the questions in the preliminary scoping memo about the overall effectiveness of the IOUs’ conduct of PSPS in 2019. SED’s analysis is based on the information presented in the preceding sections, as well as additional comments by parties and stakeholders that are relevant to effectiveness. Second, SED provides recommendations about potential future revisions to the Guidelines, content of post-event reports, and reporting standardization. As noted above, the recommendations here are presented based on staff’s experience in preparing this report, and any consideration of potential Guideline revisions is best undertaken in a public setting.

A. Reporting Issues that Impeded Analysis

The following reporting issues shared by all of the electric IOUs impeded SED’s analysis:

i. Non-standard Report Formatting

The formatting and information provided by each of the IOUs varied in their post-event reports. Some reports provided an extensive summary while some did not. Some reports summarized the data in the body of the report while others directed the reader to the appendices, where the requested data was not summarized but rather buried in numerous pages of tables. In order to efficiently decipher and compare the progress and work of each electric IOU, there needs to be more consistency among the IOUs on how the reports are produced and the level of detail provided.

ii. Unclear Thresholds Supporting Decision to De-energize

All IOUs failed to provide concrete explanation about what triggered the de-energization events. They all cite to weather conditions, wind speed, dry brush, humidity, etc. but do not articulate the thresholds that triggered the de-energization events. None of the IOUs elaborate on specific sustained wind speeds or wind gusts that factor into the decision to de-energize, nor is there any clear consistency among the IOUs on when to de-energize.

iii. Insufficient Descriptions of Lessons Learned

³⁰¹ R.18-12-005, Comments of SBUA on SDG&E’s Post-PSPS Event Report for October 20 Through November 1, 2019, p.4

Regarding lessons learned, all three electric IOUs list some areas of lessons learned as required by the Guidelines. While most of the focus for the IOUs is largely on event communications, not a lot of attention is focused on the PSPS itself. For example, SDG&E's October 10 post-event report did not note damage to overhead facilities but there does not appear to be an analysis as to whether the PSPS event was needed. This may signify that the thresholds in place to determine a PSPS event are too low.

In instances where damage was found, a follow-up investigation and action plan should be put in place to understand the root cause of the incident. For example, in PG&E's October 9 post-event report, under the "Damage to Overhead Facilities" section of the report, PG&E stated that the cause of damage to some of its assets could not be identified. This would be an ideal case to conduct a thorough investigation into the failure of the asset. Additionally, if damage was caused by vegetation hitting a conductor, the electric IOU should perform an investigation into its vegetation management program to find any inadequacies or failures of its own vegetation management activity. Through such focused investigations, utilities could determine if additional trimming beyond minimum required clearances is necessary if minimum clearances were met but vegetation debris still caused damage.

B. Effectiveness of Notifications and Communications

Sections II and III above discuss specific notification and communication difficulties during the electric IOUs' PSPS events. The following presents SED's analysis of the overall effectiveness of their notifications and communications.

i. Pacific Gas & Electric

In SED's analysis, PG&E's notification of its customers for all five of its events was ineffective. As identified in Section III, the major cause was PG&E's incomplete list of customer information. PG&E admitted it failed to give some customers a two-hour notice, or any notice, for all five of its events. Below are additional issues SED identified that contributed to ineffective notification and communication.

a. Communication Network Outages

Regarding PG&E's October 9 PSPS event, CalCCA noted that many CCAs experienced a loss of communications infrastructure provider networks, which rendered notifications and communications ineffective.³⁰² However, CalCCA was uncertain whether the PSPS event was the direct cause of the communications outages and whether backup power was available. PG&E and the communications infrastructure providers are responsible for assessing the need for backup power in the event emergency communications are required.

b. Positive/Affirmative Notifications for Medical Baseline Customers

Regarding the notification of medical baseline customers, PG&E mentions in its October 23 post-event report:

³⁰² R.18-12-005, CalCCA Submission of Comments on IOU Post-Event Reports, Appendix B, filed January 7, 2020, letter dated November 19, 2019, p.8

*"If confirmation is not received, a PG&E representative visits the customer home to check on the customer (referred to as the "door knock process"). If the customer does not answer, a door hanger is left at the home. In both cases the notification is considered successful."*³⁰³

CalCCA noted its concern "that [PG&E] considers leaving a door hanger on a customer's door to be a 'successful' notification of a pending de-energization."³⁰⁴ SED agrees that the statement in PG&E's in its October 23 post-event report is concerning. PG&E must more accurately report its notifications, or lack thereof, to the Commission and impacted entities.

c. Education and Notifications for Resources Provided by Utility or Utility's Partners

For PG&E's October 9 PSPS event, San Jose noted that:

*"...PG&E told medical baseline customers to have an emergency plan ready and referred them to the website, which did not work and did not provide information on resources they could access."*³⁰⁵

"At most, it directed the AFN population to ask their local government for help in dealing with the PSPS, which is inconsistent with PG&E's 'ultimate responsibility for notification and communication throughout a de-energization event.'" ³⁰⁶

Regarding PG&E's October 26 PSPS event, San Jose mentioned:

*"While PG&E uses robocalls to contact this population to warn them of an upcoming PSPS event, it does not provide them with information about available resources. It is then up to San José or Santa Clara County to check on their wellbeing and/or provide services."*³⁰⁷

In response to the OII, the Joint Local Governments stated the following regarding PG&E's late 2019 PSPS events:

*"The Joint Local Governments have never been able to determine if information about available resources, participating Independent Living Centers, or whom to contact and how to access the resources was ever provided directly to AFN individuals."*³⁰⁸

One PG&E medical baseline customer commented that PG&E left a message to go online for information and that they would appreciate more information about where to go for internet, hot water and perhaps a meal.³⁰⁹

Utilities are required to convey what resources are available to the public during PSPS events. People and communities with access and functional needs, which includes medical baseline customers,

³⁰³ Amended PG&E PSPS Report to the CPUC October 23-25, 2019 De-Energization Event, p.16, ftn.10

³⁰⁴ R.18-12-005, CalCCA's Submission of Comments on IOU Post-Event Reports, Appendix A, filed January 7, 2020, letter dated December 3, 2019, p.12

³⁰⁵ R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.2

³⁰⁶ *Id.*, p.5

³⁰⁷ R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 26 & 29, 2019, filed January 7, 2020, Attachment dated December 3, 2019, p.4

³⁰⁸ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.14

³⁰⁹ R.18-12-005, Public Comments, dated December 8, 2019, p.10

should not only understand how to prepare for an emergency event, but also know where to find additional resources for each, inherently different PSPS event.

d. Local Jurisdiction Representative Embedded in PG&E EOC

PG&E offered to embed a local representative from a requesting local jurisdiction in its EOC if the local jurisdiction preferred that instead of PG&E providing a liaison to embed at the local EOC. In its response to SED's first data request, PG&E did not state whether all requests to embed local staff in PG&E's EOC were met.³¹⁰ The following comments from the various entities described the communication of information as inaccurate, untimely or not available.

When PG&E met the request to embed local staff in PG&E's EOC, the Joint Local Governments noted that the location of the staff was not within PG&E's EOC:

*"Sonoma County sent liaisons to PG&E's EOC on two consecutive days, and during both visits Sonoma's liaisons were again kept in a separate room outside the EOC. ...PG&E admitted after the September 25, 2019 PSPS event that isolating a local liaison in a room separated from the EOC by three security gates was not an acceptable plan."*³¹¹

If PG&E invited a local liaison to its EOC, it should have provided a seat within the EOC to ensure the rapid and accurate sharing of information.

San Jose stated the following regarding a request to embed a liaison in PG&E's EOC for its October 9 PSPS event:

*"San Jose cannot validate the claims made in Section 2 by PG&E, due to the denial of PG&E to allow a member of San Jose's emergency management liaison into PG&E's EOC to be involved with the decision-making process."*³¹²

However, it is unclear whether the liaison was explicitly denied a seat inside PG&E's EOC, denied involvement in the decision-making process, or both. In either case, PG&E did not properly embed the local representative in its EOC and impaired communications with local jurisdictions.

e. Transmission Customer Notifications

CLECA stated in its comments: "CLECA believes that PSPS events impacting transmission lines continue to warrant greater scrutiny due to the greater impact on customers and the public of such PSPS events."³¹³ CLECA requested consideration of transmission-level impacts and possible associated need for different communication and/or notification procedures.

NCPA stated:

"Throughout the Commission's de-energization proceeding, NCPA has stressed the need for PG&E to provide notice to publicly owned utilities that are transmission customers of PG&E as soon as possible."

³¹⁰ *Id.*

³¹¹ R.18-12-005, Joint Local Governments' Comments on PG&E Post-PSPS Event Report for October 9, 2019, filed January 3, 2020, Attachment dated November 19, 2019, p.2

³¹² R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.3

³¹³ I.19-11-013, Response by the CLECA to the OII, dated January 10, 2020, p.3

PG&E is required to provide publicly owned utilities priority notification, yet throughout the PSPS event that began on October 9, PG&E repeatedly failed to provide critical information in a timely manner to their transmission-level customers for planning and preparedness. The moment PG&E begins assessments of whether a transmission line is even potentially within the scope of a planned de-energization event, it is required to notify POUs.”³¹⁴

NCPA suggested the following solution for PG&E:

“In order to avoid this kind of confusion in obtaining critical information, PG&E must establish a single point of contact for all transmission-dependent POUs; for NCPA, for example, that contact must be someone that is knowledgeable and actionable regarding the transmission lines serving NCPA members and plants.”³¹⁵

ii. Southern California Edison

SED acknowledges that sudden changes in weather played a major role in SCE’s ineffective customer notifications. SCE explained the lack of notification within 1-4 hours of a power shut-off was due to the “sudden appearance of extreme winds around particular circuits”³¹⁶ that caused SCE to immediately cut power; problems with weather models;³¹⁷ and other unexpected weather changes. (See Section III above.) In addition to these difficulties experienced by SCE, the following issues contributed to ineffective notification and communication.

a. Notifications Unrelated to the PSPS event

For SCE’s October 2 PSPS event, CCTA stated:

“A major challenge stemming from SCE’s recent PSPS events concerned the burdensome nature of SCE’s over-notification email process. Specifically, SCE appears to use only one distribution list for all notifications, including those unrelated to the PSPS event. For example, during the PSPS event, SCE sent out numerous notices, not just for PSPS-related events but notices for routine maintenance, rescheduling of maintenance, and the completion of maintenance. Those maintenance notices were not related to the PSPS event.”³¹⁸

For the November 23 PSPS event, CCTA noted that the “event would also have benefited from more distinct stand-alone PSPS notices.”³¹⁹

In certain circumstances, excessive notification may be counterproductive. Some agencies may find it helpful to be aware of SCE’s maintenance activities but other public safety partners may find it confusing and difficult to understand how the maintenance work impacts their efforts. SCE’s notification

³¹⁴ R.18-12-005, NCPA Comments on PG&E Post-PSPS Event Report for October 26 to November 1, 2019, filed December 31, 2019, letter dated December 13, 2019, p.3-4

³¹⁵ *Id.*, p.5

³¹⁶ SCE October 27 Post-Event Report, p.17

³¹⁷ SCE November 15 Post-Event Report

³¹⁸ R.18-12-005, CCTA Comments on SCE’s Post-PSPS Event Reports for October 2-12, 2019 and November 23-26, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.2

³¹⁹ *Id.*, Attachment dated December 26, 2019, p.3

protocol may benefit from coordination with public safety partners to identify which notifications are essential and helpful for PSPS events.

b. Unreadable PSPS Maps

For SCE's October 2 PSPS event, CforAT stated:

*"CforAT identified that the public maps showing areas where power is turned off are provided only as static pdf documents, with no ability to zoom and with poor color contrasts. A person with low vision would have an extremely difficult time determining where the shut-off boundaries are located, and a person who relies on a screen reader would not be able to obtain any information whatsoever from these maps."*³²⁰

For SCE's October 21 PSPS event, CforAT noted the same issues and stated:

*"In addition, website lacked any easily identifiable way to find shutoff information from the home page."*³²¹

SED notes that as a result of feedback from the impacted entities, SCE has since completed its actions to address the static map problems by implementing an interactive PSPS map on SCE's website and also adding searchability by customer address beginning with the November 15 PSPS event.³²²

iii. San Diego Gas & Electric

SDG&E notified many more customers about a possible PSPS than the number of customers who were de-energized. For example, SDG&E notified 43,012 customers and 2,298 medical baseline customers on October 8, 2019, at 2100 hours, of a possible upcoming PSPS but only 395 customers were ultimately de-energized on October 10.³²³

Such overbroad notification does not aid public safety partners and local jurisdictions in focusing efforts on ensuring public safety and coordinating efforts to mitigate the impact to the public. Instead, it requires entities to commit their resources to support the public over a broader area than may be needed, and means that SDG&E's notifications were ineffective.

Further, SDG&E's notification of 2,298 medical baseline customers may have caused these customers to relocate or take extreme actions. The 2,298 medical baseline customers notified 48-72 hours in advance, then 24-48 hours in advance, dwindled to 882 medical baseline customers to whom SDG&E sent out notifications that the power would go off overnight.³²⁴ However, only 28 medical baseline Customers were ultimately de-energized.³²⁵

³²⁰ R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, CforAT Comments on SCE Post-PSPS Event Report for October 2, 2019, dated November 19, 2019, p.2

³²¹ *Id.*, CforAT Comments on SCE Post-PSPS Event Report for October 21, 2019, dated December 3, 2019, p.3

³²² SCE Response to Data Request SED-001, Question 45, dated March 24, 2020

³²³ SDG&E October 10 Report, Appendix 1, p.3-4.

³²⁴ *Id.*, p.A1-5

³²⁵ *Id.*, p.6

C. Effectiveness of Efforts to Minimize Public Impact and Ensure Public Safety (IOUs and other Entities)

i. **Community Resource Centers (CRC)/Community Assistance Locations**

Resolution ESRB-8 requires that in an electric IOU's post-event report:

*"The IOU shall identify the address of each community assistance location during a de-energization event, describe the location (in a building, a trailer, etc.), describe the assistance available at each location, and give the days and hours that it was open."*³²⁶

The electric IOUs generally met this requirement by describing the details above for each CRC.

The OII's Preliminary Scoping Memo for Phase 1 ("Phase 1 Scoping Memo") posed the question:

*"How effective were the Community Resource Centers and what challenges were faced by customers using these centers?"*³²⁷

Because Resolution ESRB-8 requires limited reporting about CRCs, SED could not perform extensive analysis about the effectiveness of CRCs. To enable more extensive analysis in the future, SED proposes that, at a minimum and in addition to the current requirements, the IOUs report the ratio of the number of CRCs opened in relation to counties and customers affected during each future PSPS event. This would assist in an assessment of the effectiveness of the CRCs, such as shown in Table 2 below for the late 2019 PSPS events.

³²⁶ Resolution ESRB-8, p.5

³²⁷ OII, p.6

Table 2 – Community Resource Center Figures for each event, sorted by electric IOU. CRCs documented below include mobile units in addition to static structures.

IOU	Event Start Date in 2019 (MM/DD)	Event End Date in 2019 (MM/DD)	Number of Counties Affected	Number of Customer Accounts Affected	Number of CRCs Opened	CRCs Opened per Counties Affected (CRC/Counties Affected)	Customer Accounts Affected per CRC opened (Customer Accounts/1 CRC)
PG&E	10/5	10/6	3	11,609	3	3/3	3,870
PG&E	10/9	10/12	35	735,440	33	33/35	22,286
PG&E	10/23	10/25	17	178,800	28	28/17	6,385
PG&E ¹	10/26	10/29	30	967,700	77	77/30	12,568
PG&E ²	11/20	11/21	15	49,000	34	34/15	1,441
SCE ¹	10/2	10/12	5	23,824	3	3/5	7,941
SCE ¹	10/12	10/21	4	444	3	3/4	148
SCE ¹	10/21	10/26	6	31,386	4	4/6	7,847
SCE ¹	10/27	11/4	10	126364	9	9/10	14,040
SCE ²	11/15	11/17	3	49	1	1/3	49
SCE ²	11/23	11/26	5	1,192	2	2/5	596
SDG&E ²	10/10	10/11	1	395	2	2/1	198
SDG&E*	10/20	11/1	1	27,703	7	7/1	3,958

Note 1 - OII event dates revised based on utility post-event reports.

Note 2 - Added events to include all PSPS events for October 2019 and November 2019.

In addition, for each event it may be helpful to identify the affected square miles, population densities of those areas, egress routes from the CRC itself and from the community in which it is located, and results of surveying the areas for CRC feedback. SDG&E responded to SED’s first data request with additional information that may be helpful to the Commission:

“[SDG&E] evaluates the event as a whole for factors such as projected duration of the event, ambient temperatures in the areas impacted, and proximity of publicly available resources in relation to the impacted customers...Resources provided are intended to help customers hydrate, nourish, charge cell phones, and stay informed.”³²⁸

With this information, the Commission could be more informed about the effectiveness of CRCs and may craft additional minimum requirements for activation of CRCs.

Pacific Gas & Electric

The comments below were provided by various entities affected by the late 2019 PSPS events conducted by PG&E and speak to the effectiveness of PG&E’s CRCs.

³²⁸ SDG&E Response to SED-001, Question 36, dated March 24, 2020

Public Report on the Late 2019 Public Safety Power Shutoff Events

San Jose's comments regarding the October 9 PSPS event stated:

*"Depending on the size of the outage, PG&E's plan to set up just one CRC in each county is not enough; it is not even enough to set up one CRC within San Jose. San Jose covers a large geographic area."*³²⁹

San Jose also commented on the October 26 PSPS event:

*"During the October 26 PSPS event, San José set up its own five CRCs to accommodate its affected residents more effectively. ...If PSPS events will continue for another 10 years, then San José believes PG&E should fund equipment for additional CRCs, so San José will not have to scramble for resources each time."*³³⁰

For the October 9 and October 23 PSPS events, RCRC stated:

*"Unfortunately, Community Resource Centers (CRCs) have been too few in number, too far from residents, open too few hours, and sometimes delayed in opening during PSPS events."*³³¹

RCRC also suggested three recommendations that are discussed in Section IV.E. below.

Regarding the late 2019 PSPS events, the Joint Local Governments noted:

*"While the CRCs undoubtedly provided a benefit to customers impacted by the de-energizations, PG&E's protocols for standing up CRCs were designed without any consideration for the needs of the communities and customers the CRCs would serve. And while PG&E appears to have realized its mistake, the fact remains that the utility went into the 2019 (and 2018) fire season with no intention of involving the impacted communities in the CRC process."*³³²

In response to SED's first data request, PG&E stated that:

*"In January 2020, PG&E contacted all 47 counties within its service area, as well as tribal governments, inviting the governments to propose CRC sites."*³³³

PG&E understood the lack of coordination with local jurisdictions and attempted to correct the issue with the late 2019 PSPS events. However, based on the comments above, the utility has room for improvement regarding minimizing public impacts through its CRCs. As the Commission Guidelines stated, "electric utilities are ultimately responsible and accountable for the safe deployment of de-energization"³³⁴ but the Commission should also recognize that resources are also provided by local jurisdictions.

Southern California Edison

³²⁹ R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.12

³³⁰ R.18-12-005, City of San Jose's Comments on PG&E's Post-PSPS Event Report for October 26 & 29, 2019, filed January 7, 2020, Attachment dated December 3, 2019, p.6

³³¹ R.18-12-005, Rural County Representatives of California Comments on PG&E's Post-PSPS Event Reports for October 10, 2019, October 25, 2019 and November 8, 2019, dated January 6, 2020, p.5-6

³³² I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.18

³³³ PG&E Response to SED-001, Question 30, dated March 24, 2020

³³⁴ D.19-05-042, Appendix A, p.A2

Public Report on the Late 2019 Public Safety Power Shutoff Events

The comments below were provided by various entities affected by the late 2019 PSPS events conducted by SCE and speak to the effectiveness of SCE's CRCs or community assistance vehicles.

The Los Angeles County Department of Public Health (LACDPH) responded to the post-event reports for October 21, October 27 and November 15:

*"For the first PSPS events in the Reports, LACDPH had a difficult time obtaining information on SCE community resources established for the public and what their capability was to serve vulnerable persons."*³³⁵

*"SCE did not provide resources sufficient to best assist County residents during the October and November PSPS events. LACDPH recommends that SCE partner with local government to establish a network of permanent CRCs, available to the public and those with access and functional needs to charge devices, connect electrical medical equipment, provide a temperature-controlled and filtered air environment, receive light refreshments or meal deliveries, and get up-to-date information on outages in remote areas."*³³⁶

The Joint Local Governments also generally responded to the late 2019 PSPS events conducted by SCE:

*"SCE has not provided adequate community shelters or CRCs to ensure the safety of AFN residents. PSPS events generally occur during times of high daytime temperatures and/or low overnight temperatures; leaving medically fragile individuals without heating or air conditioning for extended periods of time can be life-threatening."*³³⁷

*"In Kern County and Santa Barbara County, SCE has relied more heavily on its mobile CRCs, called Community Crew Vehicles, or 'CCVs,' rather than stationary tents or permanent buildings."*³³⁸

The resources provided by SCE were found inadequate as the affected entities noted above. Some communities may not have even known about the existence of the supporting resources provided by SCE. SCE was the only IOU to provide mobile stations instead of temporary or permanent structures that may potentially provide resources for larger portion of the communities they intend to serve. It may be beneficial to have more discussion about the benefits of both mobile and more permanent solutions for CRCs.

As a result of the identified shortcomings of the CRCs in both PG&E's and SCE's territories, SED provides recommendations in Section IV.E. to aid in improving CRC coordination and overall effectiveness in reducing public impacts and ensuring public safety.

ii. Other Efforts from Other Entities: Emergency Disaster Relief Program Proceeding (R.18-03-011)

³³⁵ R.18-12-005, LACDPH's Comments on SCE's PSPS Reports for the October 21-26, 2019, October 27-November 4, 2019 and November 15-17, 2019 Consolidated Events, dated December 13, 2019, p.3

³³⁶ *Id.*, p.4

³³⁷ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.23

³³⁸ *Id.*, p.23

While the electric utilities are ultimately responsible for the decision to initiate PSPS events, other entities can aid in minimizing the public impact and ensuring public safety.

On November 13, 2019, President Batjer sent a letter³³⁹ to communications service providers involved in the Emergency Disaster Relief Program rulemaking (R.18-03-011) regarding the late 2019 PSPS events. The letter directed communications service providers to respond to three directives: (1) Responsiveness during the latest wildfires and public safety power shutoffs to keep communications services on; (2) Engagement and timely responsiveness to requests from Cal OES and CAL FIRE; and (3) Compliance with D.19-08-025.

On March 6, 2020, President Batjer issued proposals³⁴⁰ for maintaining resilient and dependable communications networks during emergency events, such as PSPS events, that will better aid emergency responders and ensure the public's ability to reliably communicate and receive critical information. The Commissioner's Ruling and Proposal includes a proposed 72-hour backup power, immediately following a power outage, for all essential communications equipment as well as proposals for developing uniform protocols to ensure that communications service providers are providing safe and reliable service to the public in future disasters and PSPS events. Coordination with R.18-03-011 is needed when considering critical communications facilities and infrastructure.

iii. Coordination with First/Emergency Responders and Public Safety Partners

Sections II and III describe coordination issues between each electric IOU and its respective public safety partners. In SED's analysis, each of the IOUs was ineffective in its coordination efforts.

Pacific Gas & Electric

Although PG&E's efforts to coordinate with its public safety partners are well documented through its numerous coordination meetings, issues were still identified by affected entities that signified ineffective coordination activity:

- Confusion around the identification of public safety partners.
- Critical facilities and infrastructure losing power without an alternative source of power.
- Difficulty communicating through PG&E liaisons.
- Inconsistent notifications and information across public safety partners.
- Inability to notify public safety partners when PG&E activated its EOC.
- Inability to notify public safety partners upon re-energization.
- Requiring NDAs to share confidential but vital information.

Southern California Edison

SCE recognized in its response to this OII that while it made efforts to hold biweekly calls with emergency management partners, it identified additional opportunities to engage with communications service and water agency providers through the California Utilities Emergency Management

³³⁹ R.18-03-011, President Batjer Letter to Communications Industry Leaders for Information, dated November 13, 2019

³⁴⁰ R.18-03-011, Assigned Commissioner's Ruling and Proposal, dated March 6, 2020.

Association.³⁴¹ This signifies ineffective coordination with all public safety partners and thus the following issues identified by the various affected entities:

- Confusion around the identification of public safety partners.
- Missed opportunities to conduct operational coordination.
- Critical facilities and infrastructure losing power without an alternative source of power.
- Inconsistent notifications and information across public safety partners.
- Ineffective information sharing protocols.
- Real-time data not provided to all public safety partners through its GIS REST service or other method.

San Diego Gas & Electric

SDG&E's September 2019 Progress Report describes its coordination activities with public safety partners, including weekly and biweekly meetings with other IOUs, Cal OES and CAL FIRE.³⁴² In the September 2019 Progress Report, SDG&E notes coordination with first/emergency responders and local governments but lacks specificity regarding coordination with all communications service and water agency providers. Below are the coordination issues with public safety partners identified for SDG&E:

- Difficulty identifying points of contact for critical facilities and infrastructure providers.
- Did not demonstrate sufficient effort with public safety partners to address emergency situations that may arise during PSPS.
- Notifications were inconsistent or lacked required content for public safety partners.

iv. Consideration of Impacts on People and Communities with Access and Functional Needs

The OII asks:

"Did the electric utility appropriately consider the impact of the PSPS event on Access and Functional needs populations, including, but not limited to, low-income and medically vulnerable communities?"³⁴³

The three electric IOUs have made steps in the right direction to consider people/communities with access and functional needs but can improve consistency in identifying and communicating effectively with those populations. The electric IOUs have generally worked with CBOs but did not specify if resources were made available to them and the communities they serve.

Pacific Gas & Electric

While PG&E made efforts to consider impacts to some of the people/communities with access and functional needs, additional considerations for accessibility would be helpful. In addition to the comments in the previous sections regarding AFN accessibility, below are additional issues identified by impacted entities.

³⁴¹ I.19-11-013, SCE Company's (U 338-E) Response to OII on the Commission's Own Motion on the Late 2019 PSPS Events, dated December 13, 2019, p.A114-115

³⁴² SDG&E Company's Progress Report on Implementation of De-Energization Guidelines, dated September 4, 2019, p.5

³⁴³ OII, p.6

Public Report on the Late 2019 Public Safety Power Shutoff Events

San Jose stated in its comments for the October 9 PSPS event:

“Lastly, while PG&E had a contact center to field calls, this would not help much of the deaf, hard of hearing, or speech-impaired population who no longer use TTY but text instead. San Jose also recommends that PG&E invite a representative from an AFN service organization into its EOC to issue spot and help communicate with the AFN population.”³⁴⁴

In comments regarding the October 5 and October 9 PSPS events, CforAT found that the website was not up-to-date, accessible or in-language for the AFN communities:

“PG&E has also failed to make its website accessible to people who use screen readers or people who do not speak English as their primary language.”³⁴⁵

Southern California Edison

In its consideration of people/communities with access and functional needs, SCE fails to consider outreach efforts for these people and minimally mentions its efforts to identify and consider AFN customers in its September 2019 Progress Report.³⁴⁶

Regarding SCE’s post-event report for its October 21 PSPS event, CforAT stated:

“Not only has SCE failed to make efforts to identify these customers, the Report appears to simply disregard all requirements for AFN outreach. The Report notes the number of notification efforts made to Critical Care and Medical Baseline customer notifications, but fails to include any further information about AFN populations.”³⁴⁷

Regarding the October 27 PSPS event, CforAT notes:

“SCE does not indicate whether it provided any support for people with medical devices requiring electricity, or whether it coordinated with any CBOs to attempt to provide resources to AFN customers.”³⁴⁸

San Diego Gas & Electric

Regarding its consideration of people/communities with access and functional needs, SDG&E did not provide detailed information related to outreach for them. SED notes that SDG&E provided

³⁴⁴ R.18-12-005, San Jose’s Comment on PG&E’s Post-PSPS Event Report for October 9-12, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.8

³⁴⁵ R.18-12-005, CforAT Comments on PG&E Post-PSPS Event Reports for September 23 and 25, 2019; October 5 and 9, 2019; October 26 and 29, 2019; and November 20, 2019, filed January 7, 2020, Attachment dated November 19, 2019, p.1

³⁴⁶ SCE Company’s Progress Report on the Implementation of De-energization Guidelines set forth in Appendix “A” of D.19-05-042, dated September 4, 2019, p.19-20

³⁴⁷ R.18-12-005, CforAT Comments on SCE Post-PSPS Event Reports for September 16, 2019; October 2, 2019; October 21, 2019; October 27, 2019; and November 23, 2019, CforAT Comments on SCE Post-PSPS Event Report for October 21, 2019, dated December 3, 2019, p.3

³⁴⁸ *Id.*, CforAT Comments on SCE Post-PSPS Event Report for October 27, 2019, dated December 16, 2019, p.3

some information in its September 2019 Progress Report about its partnerships with state and local CBOs to identify AFN communities.³⁴⁹

CforAT noted that for SDG&E's October 20 PSPS event:

*"In its report, SDG&E fails to provide any useful information about identifying AFN customers. The report notes how many Medical Baseline customers were impacted, but fails to include any further information about AFN populations. This leads to the and how many Medical Baseline customers the utility contacted in person."*³⁵⁰

v. Impacts on Critical Facilities and Infrastructure Coordination

As discussed above in Section IV.C.ii, coordination with the Emergency Disaster Relief Program proceeding (R.18-03-011) is needed when considering backup power for critical communications facilities and infrastructure. Although the Commission adopted an interim list of critical facilities and critical infrastructure aligned with the Department of Homeland Security's Critical Infrastructure Sectors in the Guidelines,³⁵¹ affected entities still experienced power loss without an alternative source of power for their facilities. Below is a discussion of how coordination between the electric IOUs and public safety partners resulted in critical facility outages that could impair critical infrastructure, such as communications and water supplies.

Pacific Gas & Electric

In PG&E's response to SED's first data request, the utility described how it identified critical facilities and infrastructure:

*"Prior to this automated approach being developed, PG&E identified critical facilities manually using similar information and customer input, but without the benefit of an automated approach....In 2019, PG&E requested agencies to provide a list of critical facilities that PG&E then cross checked with their system of record."*³⁵²

In addition to the critical infrastructure power failures described in Section II, impacted entities provided more insight into backup power assessments and preparations or the lack thereof. As mentioned in Section III regarding PG&E's events, the CLECA noted inconsistencies between PG&E's critical facilities in comparison with CLECA's list which resulted in de-energization without prior notice.³⁵³

For PG&E's October 9 PSPS event, San Jose made the following statements:

- *"The October 9 PSPS event affected three fire stations, four water pump stations, and two radio towers that transmit police and fire communications, requiring fuel not just for facility generators, but in some cases, for the fire trucks themselves via on-site fuel storage tanks. The inaccurate identification of affected facilities caused San Jose to re-route its refueling*

³⁴⁹ SDG&E Company's Progress Report on Implementation of De-Energization Guidelines, dated September 4, 2019, p.8-9

³⁵⁰ R.18-12-005, CforAT Comments on SDG&E Post-PSPS Event Reports for October 24 and 28, 2019; and November 17, 2019, filed January 7, 2020, Attachment 1 dated December 10, 2019, p.2

³⁵¹ D.19-05.042, Appendix A, p.A5-6

³⁵² PG&E Response to SED-001, Question 31, dated March 24, 2020

³⁵³ I.19-11-013, Response by the CLECA to the OII, dated January 10, 2020, p.4

trucks to different facilities and deploy electricians to pull the correct generators for the correct facilities.”³⁵⁴

- *“PG&E states that it has been ‘[coordinating with cities and counties to confirm critical facilities in their jurisdictions,’ but there is a discrepancy between the list of critical facilities San Jose had during the October 9 event (10 facilities) and the list PG&E had (3 facilities).”³⁵⁵*
- *“Another important example is that San Jose could not tell whether PG&E coordinated with the telecommunications companies on deenergization. One customer reported that her mother was in an outage area, and the telecommunications company servicing her landline phone only had enough backup power for 4-5 hours. This is a dangerous situation for people who live in remote regions or who have limited mobility.”³⁵⁶*

During the October 26 PSPS event, San Francisco lost tens of thousands of gallons of water when the event created a power outage for critical water supply facilities.³⁵⁷

As described in Sections II and III, the Joint Local Governments noted PG&E’s failure to assess the need for backup generation for the Joint Local Governments’ critical facilities. The Joint Local Governments also state:

“As far as the Joint Local Governments can tell, PG&E’s strategy is to let local emergency managers and first responders worry about the dwindling backup battery life on local communications infrastructure, or the failure of wildfire notification systems that rely on cellular phones, or how to ensure the wellbeing of isolated residents.”³⁵⁸

Regarding the events that began on October 26, NCPA stated:

“During this time, not only was Ukiah unable to obtain accurate information specific to the de-energization of the transmission lines into the city, but communications were further challenged since Ukiah experienced some issues with connectivity for both cell phone and internet service during the PSPS event.”³⁵⁹

CalCCA stated the following about the October 9 PSPS event:

- *“Larger, extended PSPS events result in inoperability of vital security, safety, health and communications infrastructure equipment such as traffic lights, water/sewer pumps, natural gas supply, gas stations and cell towers. resulting in near catastrophic socio-economic impacts to the local economies and the State of California.”³⁶⁰*

³⁵⁴ R.18-12-005, City of San Jose’s Comments on PG&E’s Post-PSPS Event Report for October 9-12, 2019, dated November 19, 2019, filed January 7, 2020, p.5

³⁵⁵ *Id.*, p.8

³⁵⁶ *Id.*, p.13

³⁵⁷ I.19-11-013, Response of the City and County of San Francisco, dated January 10, 2020, p.2-3.

³⁵⁸ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.32

³⁵⁹ R.18-12-005, NCPA Comments on PG&E Post-PSPS Event Report for October 26 to November 1, 2019, filed December 31, 2019, letter dated December 13, 2019, p.6

³⁶⁰ R.18-12-005, CalCCA Submission of Comments on IOU Post-Event Reports, Appendix B, filed January 7, 2020, letter dated November 19, 2019, p.2

Public Report on the Late 2019 Public Safety Power Shutoff Events

- *“In addition to customers not receiving notice that their power would be turned off, the Placer County area experienced extensive cell tower and cable connection outages, which affected internet voice over internet protocol phones.”³⁶¹*
- *“Uniquely, the Placer County area also experienced hardline outages reported in an area ranging from North Auburn to Colfax.... These lines are the actual copper hardlines operated by AT&T that many residents in rural areas maintain for emergency communication during power outages during storms and because cell service in the Sierra Nevada can be patchy.”³⁶²*

A PG&E customer also left public comments regarding their own personal experiences after losing their landline service. The customer noted the risk associated with the loss of power to cell towers and land lines.³⁶³

As the statements above suggests, there was a widespread impact on critical facilities and there was a lack of coordination or preparation between electric infrastructure providers and critical facility operators. In addition to coordination between electric utilities and all public safety partners, the Commission is considering proposals in the Emergency Disaster Relief Program proceeding (R.18-03-011) regarding additional requirements for prolonged backup power for critical communications facilities.

Southern California Edison

In SCE’s response to SED’s first data request, the utility described how it identified critical facilities and infrastructure: “SCE uses the North American Industry Classification System (NAICS) codes to identify critical infrastructure providers.”³⁶⁴ Additionally, SCE describes its coordination with its critical infrastructure providers in its March 2020 Progress Report: “SCE Business Customer Division (BCD) account managers consistently engage with these customers. Customer contact verification is an integral part of the account manager role.”³⁶⁵

However, the Joint Local Governments noted multiple instances of critical facilities experiencing power outages due to the late 2019 PSPS events:

- Kern County – water districts and water facilities were unable to provide water or wastewater services³⁶⁶
- Golden Hills Water District – forced to suspend customers in order to maintain safe water pressure³⁶⁷
- Community of Bear Valley Springs – water system disrupted but SCE provided bottled water³⁶⁸
- Community of Stallion Springs – received 10 minutes’ notice of the outage³⁶⁹

³⁶¹ *Id.*, p.8

³⁶² *Id.*, p.8

³⁶³ R.18-12-005, Public Comments, p.11

³⁶⁴ SCE Response to SED-001, Question 33, March 24, 2020

³⁶⁵ SCE’s Second Progress Report on the Implementation of De-energization Guidelines set forth in Appendix A of Decision 19-05-042, amended March 13, 2020, p.25

³⁶⁶ I.19-11-013, Response of the Joint Local Governments to the OII, dated January 10, 2020, p.24

³⁶⁷ *Id.*, p.27

³⁶⁸ *Id.*, p.27

³⁶⁹ *Id.*, p.27

Improved coordination and preparation with water and wastewater facility operators are immediately required ahead of the 2020 fire season.

vi. Public Safety Impacts and Risks

Across all three electric IOUs, reporting of potential public safety impacts and risks requires more supporting data and detail. Within the utilities' post-event reports and Progress Reports, the utilities focused on wildfire risks and the factors that may contribute to those risks but did not thoroughly explain or consider other risks to the public due to de-energization. The lack of thorough explanations may signify that the electric IOUs did not properly consider public safety impacts and risks.

D. Late 2019 PSPS Event Challenges Due to Delays in Guideline Implementation

The Preliminary Scoping Memo asks: "Did delay in implementing any of the requirements present challenges during the late 2019 PSPS events?"³⁷⁰

In addition to the post-event reports, SED reviewed the electric IOUs' Progress Reports, party comments in the OII and OIR, and responses to two data requests to identify how each IOU's planning and implementation activities correlated with any of the challenges identified during execution of the late 2019 PSPS events.

i. Pre-planning and Rehearsals

a. Consideration of Public Safety Risks

Nowhere in the three electric IOUs' post-event reports and Progress Reports was there a discussion of a comprehensive list of public safety risks considered. The main focus of the utilities' decision to de-energize appeared to be reducing wildfire risks, which, while important, was not weighed against the impact on the public. The apparent delay in conducting the proper research in order to meet the requirement to consider all public safety risks, in addition to potential wildfires, appears to have led to numerous issues described in the previous sections, such as losing critical water facilities and all methods of communication, ineffective notifications for people/communities with access and functional needs, inadequate resources provided to mitigate PSPS impacts, etc.

b. In-Language PPS Information

SCE stated in its September 2019 Progress Report that it:

*"...is enhancing all outreach collateral, its webpage on PPS and the alerts and notifications whose primary language is Spanish, Mandarin, Cantonese, Korean, Tagalog and Vietnamese and ensuring SCE resources are available to support other languages customers speak through use of SCE's translation services vendor."*³⁷¹

Due to SCE's delay in implementing the Guideline requirement that information be provided to customers in different languages, SCE's webpage did not provide in-language PPS information to the non-English speaking public.

ii. Internal and External Coordination

³⁷⁰ *Id.*

³⁷¹ SCE Progress Report, dated Sept 4, 2019, p.19

- a. Coordinate with First/Emergency Responders and Local Jurisdiction to Identify and Assess Needs of Critical Facilities and Infrastructure

Pacific Gas & Electric

Prior to the late 2019 PSPS events, PG&E did not clearly state whether it coordinated with first/emergency responders in its September 2019 Progress Report. This delay in coordination and assessment of backup power needs may have contributed to the outages experienced by critical facilities and infrastructure within PG&E's service territory as described in previous sections.

San Diego Gas & Electric

SDG&E only stated in its September 2019 Progress Report that it "is prepared" to coordinate with first/emergency responders and local jurisdictions to identify critical facilities and infrastructure. However, SED did not identify any comments regarding critical facilities losing power in SDG&E's territory.

- b. Invite Water and Communications Infrastructure Providers to the IOU's EOC

Neither PG&E nor SCE invited water and communications infrastructure provider into its respective EOCs. As described in the previous sections, critical facilities lost power and may not have had the backup power necessary to maintain emergency communications or provide water to the public. The impact of PG&E and SCE PSPS events could have been minimized had the proper representatives been invited to each EOC or if adequate coordination occurred in advance.

- c. Providing GIS Shapefiles

PG&E and SCE had difficulty providing or making accurate GIS shapefiles available to their public safety partners, as described in previous sections. GIS shapefiles and the information in those files depicting the potential de-energization are vital for public safety partners to fully understand the impact on their own facilities and to prepare to mitigate any negative impacts on the public. The most accurate data should be provided to public safety partners and adjacent jurisdictions with priority notification. The two utilities should have also worked toward providing real-time data to their public safety partners. However, the delay in proper implementation of this secure data transfer process led to difficulties described above, including critical facilities losing power without an alternative source of power.

iii. Situational Awareness

The three electric IOUs generally described the various factors for high winds and high fire risks considered in their decision to de-energize in their September 2019 Progress Reports. The IOUs also described PSPS protocols implemented and situational awareness equipment installed in proximity to their systems to measure the various environmental factors. Overall, the IOUs are working toward building a network of equipment to measure these factors across their respective territories that would most likely not have been completed by the start of the 2019 fire season. The lack of equipment to measure localized events would lend to an ill-informed decision to de-energize. SED did not have enough information to determine if the situational awareness protocols and tools implemented had a significant impact on the late 2019 PSPS events. Therefore, in the following section, SED proposes that

electric IOUs include in an annual report, status updates on the various situational awareness projects planned, pending, and completed.

E. Recommendations

i. Proposed Guideline Modifications

Based on its learnings through requesting and examining documentation, performing analysis, and writing this report, SED recommends that the Commission consider revisions to the Guidelines in a public venue, as noted above.

a. Guideline Clarifications

Throughout the review process, SED found it difficult at times to assess implementation consistently across the three electric IOUs. The fact that PSPS requirements appear in three separate Commission orders (D.19-05-042, Resolution ESRB-8, and D.12-04-024) added to the complexity.

1. Public Safety Partners and Communications Service Providers

As described in Section II, some cities and communications service providers were not clearly identified as public safety partners for coordination and preparation for the various activities that must take place leading up to the next fire season. The definition of local governmental agencies could include counties and cities that request to become a public safety partner, and that the definition of communications service providers can include internet service providers, e.g., cable, wireless, etc.

2. Lessons Learned Include Refining Thresholds and Decision Criteria

While SED appreciates the lessons learned provided by the electric IOUs, a more meaningful response would include planned improvements to de-energization protocols, post-event observations of no damage found, number of customers notified in comparison to number of customers de-energized, and any additional factors or actions being considered by the electric IOU at the time of the report that may help mitigate the impact of future PPS events.

3. Timing of Notifications – Required Versus Recommended

The Guidelines prescribe specific timeframes for notifications sent to public safety partners and all other customers/populations.³⁷² However, it is unclear which notifications are strictly required and which are recommendations. Establishing clear categories of notifications would be helpful.

b. Programmatic and Procedural Requirements that Could Be Addressed in Appropriate Venues

1. Minimum Notification and Communication Procedures

In addition to the minimum notification and communication requirements in the Guidelines, the following notifications would help improve local jurisdiction response and transmission level operations.

After notification of potential de-energization is sent to all affected entities, including the public, an additional notification identifying a cancellation or removal of circuit operating restrictions would

³⁷² D.19-05-042, Appendix A, p.A8-9

ease the amount of resources that the local jurisdiction was planning to deploy in response to the potential PSPS event.

This “notice of cancellation” could occur within one hour after the IOU decides to lift its operating restrictions on a circuit or lessen the scope of the potential de-energization in some other way.

2. Transmission-Level Customer Notification

The electric IOUs have a slightly different transmission-level notification protocol in comparison to distribution-level customers (live calls vs automated calls) and the Guidelines require coordination with the CAISO. In addition to notifying and coordinating with the CAISO, at a minimum, the same priority notification can also be sent to transmission-level customers when considering de-energization of the customer’s facilities and that the notification must occur 48-72 hours in advance.

3. Emergency Management Experience or Emergency Management Training for Electric IOU Staff in an EOC

In order to communicate effectively, accurately and consistently, all electric IOUs require a standardized framework for handling PSPS events which can be considered an emergency event due to widespread power outages. The Guidelines make clear that “standardized nomenclature based on existing emergency frameworks”³⁷³ is essential for PSPS events. However, SED found that not all electric IOUs required emergency management experience or training for staff within each respective EOC.

By requiring all electric IOU staff to, at a minimum, have emergency management experience for a set amount of years or complete emergency management training prior to working in an EOC, communication between public safety partners can only improve.

4. Coordinate with Local Jurisdictions to Proactively Identify Medical Baseline Customers and Those Reliant on Life Sustaining Equipment

To reach the people/communities with access and functional needs, the IOUs mainly identified medical baseline customers as those requiring positive/affirmative notification since medical baseline was already designated in their customer databases. In this aspect, IOUs should be required to coordinate with local jurisdictions, e.g., counties, cities and tribes, to comprehensively identify medical baseline populations, including those that rely on electric-powered life-sustaining devices, and populations who may qualify for low-income assistance programs. Populations considered in this context should include customers and non-customers. The IOUs should be required to share and receive compiled lists of the populations identified above from local and tribal governments. The lists should be maintained and updated annually before each wildfire season.

5. CBO Partnerships

In an effort to improve outreach and assistance for people/communities with access and functional needs, electric IOUs should be required to build partnerships with CBOs to lessen the impact of PSPS events on AFN communities and at-risk populations.

³⁷³ D.19-05-042, Appendix A, p.A16

Through these partnerships, the utilities could better disperse information to people/communities with access and functional needs, including where to find physical resources provided by the IOU or IOU partners, such as temporary shelter, charging stations, heat, water, food, etc. The partnerships could also be leveraged to start programs that reimburse for portable charging units for qualified households.

6. Critical Facilities and Infrastructure

The Guidelines currently identify water utilities and communications facilities as critical facilities and infrastructure. The Guidelines require coordination with first/emergency responders and local governments to identify critical facilities and also recommends that IOUs partner with local government and public safety partners in high fire risk areas to develop a list of critical facilities and infrastructure in those areas. However, disparities between lists of critical facilities and infrastructure existed between the different entities and negatively impacted public safety by de-energizing water and communications facilities that did not have alternative sources of power. SED recommends the Commission consider requiring electric IOU coordination with public safety partners, including first/emergency responders, and local jurisdictions, e.g., counties, cities and tribes, and critical facilities and infrastructure providers, to comprehensively identify critical facilities and infrastructure.

In addition, the Commission may consider requiring the electric IOUs to assess the need for extended backup power beyond the minimum required time following a power outage by the appropriate regulatory entity. For example, the FCC requires communications infrastructure to have 8-hour backup power immediately following a power outage. This topic is being considered in the Disaster Relief Program Proceeding, R.18-03-011.

7. Community Resource Centers/Assistance Locations

In an effort to minimize the impacts of PSPS events, the electric IOUs implemented CRCs or mobile assistance vehicles. To more effectively minimize public impacts due to PSPS events, the electric IOUs should be required to coordinate with their local jurisdictions and CBOs to better serve their communities during PSPS events. For example, as RCRC recommends:

- *“Require utilities to coordinate in advance with local governments to identify sites for community resource centers and the level of services that will be available at those centers.*
- *Require standing contracts to be executed in advance to ensure that CRCs can be opened quickly when needed.*
- *Require the utility to ensure that the CRCs can provide the services and supplies required by medical baseline and AFN populations as suggested by the respective local government.*
- *Require the utility to work with the impacted local government to identify the CRC to be opened from the prepared list of facilities.*
- *Ensure that the CRC is open 24 hours a day from the beginning of the PSPS event until the final service restoration.”³⁷⁴*

The Commission could consider adopting some or all of these recommendations to improve public safety and reduce PSPS impacts.

³⁷⁴ *Id.*, p.5-6

8. Situational Awareness Projects Update

Understandably, the IOUs are developing a network of situational awareness tools, such as, weather stations, high-resolution cameras, etc., to utilize across their respective territories to monitor wildfire risks in HFTDs. SED found it difficult to determine if the protocols and equipment in place had a significant impact on the late 2019 PSPS events. The Commission could consider requiring electric IOUs include in an annual report, status updates on the various situational awareness projects planned, pending, and completed, as well as how those projects affected the IOU's decisions about and conduct of PSPS. This requirement could provide more insight into each electric IOU's decision to de-energize.

9. Annual Reporting

As noted earlier, SED recognizes that IOU performance regarding guideline requirements is not clearly reported in IOU post-event reports or Progress Reports. Therefore, SED recommends that the Commission consider requiring an annual report for IOUs to address all non-event specific requirements that are not explicitly required in post-event reports. The annual report would include all non-event specific requirements identified in D.19-05-042 Appendix A Guidelines, Resolution ESRB-8, D.12-04-024, and any additional PSPS requirements resulting from related proceedings.

In order to determine that each electric IOU adequately considered alternatives and mitigation measures to PSPS, the Commission should require each electric IOU to provide in an annual report the status of all electric infrastructure projects planned or in progress, relating to mitigating impacts of PSPS events, such as sectionalization, microgrid installations, etc.

This will provide more transparency into the entire PSPS process that includes preparation and coordination activities leading up to each fire season. The report could be served on service lists for the PSPS OIR and this OII as well as the Director of SED and any other Commission Division that requests the annual report.

10. Explore Allowing Public Safety Partners to Opt Out of Notifications

SDG&E reported that some public safety partners wanted to opt out of notifications but gave no additional explanation.³⁷⁵ SED recommends that the Commission explore this further with the electric IOUs.

ii. Post-event Reporting Standardization and Additional Proposed Post-event Reporting Requirements

As stated in the Decision (D.19-05-042), the Commission has already recognized the need for a standardized post-event report template. The three IOUs used very different formats and each format created difficulties when SED tried to assess performance relative to the Guidelines. In addition, staff found that many requirements prescribed in the Guidelines did not have an associated reporting requirement. SED proposes that the Commission consider requiring additional information to include in a standard post-event report template and additional annual reporting requirements, described above. As a starting point, the Commission could consider requiring each electric IOU to address the questions

³⁷⁵ SDG&E October 10 Post-Event Report, p.37

in SED's first data request³⁷⁶ in its post-event reports. Standardized reports should also include appendices with script templates, and actual scripts sent by the electric IOU by time period and location.

Any reports issued by the electric IOU could be served on service lists for the de-energization OIR (R.18-12-005) and this OII (I.19-11-013) as well as the Director of SED and any other Commission Division that requests the reports. The Commission may also consider the following reporting requirements to include in the electric IOU post-event reports.

a. Metrics for Notification of People/Communities with Access and Functional Needs

In order to verify the effectiveness of each electric IOU's outreach and notifications protocol, the Commission could consider requiring the following to be reported in post-event reports:

- Total number of people identified with access and functional needs
- Number of people with access and functional needs positively-notified
- Number of people with access and functional needs not positively-notified prior to being de-energized

The IOUs should include successful positive/affirmative notifications and notifications that did not reach the intended groups of AFN communities, with an analysis of why the notification failed and how it can be made successful in the future. This SED recommendation would help the public understand the success rate of each electric IOU.

b. Information on CRC Effectiveness

SED proposes that, in addition to the current requirements for each PSPS event, the IOUs report the number of CRCs opened in relation to counties and customers affected, identify the affected square miles, population densities of those areas, and results of surveying the areas for CRC feedback. This would assist in an assessment of the effectiveness of the CRCs.

c. Maps Depicting Actual PSPS Event Impact

While not a requirement identified in the Guidelines, the utilization of maps to depict the PSPS event would help readers understand the extent and actual impact of each PSPS event's impact. The Commission could consider requiring illustrative maps for each PSPS event that depict the following information, at a minimum:

- Areas depicting those who were sent a PSPS notification
- Areas actually de-energized
- Time of each area actually de-energized
- Time of each area restored

d. PSPS Related Electric Infrastructure Project Impacts on Each Event

In order to better understand the impact of sectionalization, microgrids and any other system improvements or modernization, the Commission could consider requiring electric utilities to describe the extent to which the improvement or modernization impacted the size and scope of each PSPS event.

³⁷⁶ Data Request SED-001-PG&E, Data Request SED-001-SCE, Data Request SED-001-SDG&E dated March 12, 2020.

This post-event reporting requirement would be an expansion of the existing Guideline requirement, which is limited to required reporting on the impacts of sectionalization.³⁷⁷

V. Supporting Documents Available Upon Request

- A. I.19-11-013 Phase I Preliminary Scoping Memo
- B. PSPS Non-Event-Specific Guidelines (Extracted from D.19-05-042, ESRB-8, and D.12-04-024)
- C. PSPS Event-Specific Guidelines (Extracted from D.19-05-042, ESRB-8, and D.12-04-024)
- D. Decision 19-05-042
- E. Resolution ESRB-8
- F. Decision 12-04-024
- G1. PG&E PSPS Progress Report, September 4, 2019
- G2. SCE PSPS Progress Report, September 4, 2019
- G3. SDG&E PSPS Progress Report, September 4, 2019
- H1. PG&E PSPS Progress Report, March 4, 2020
- H2. SCE PSPS Progress Report, March 4, 2020
- H3. SDG&E PSPS Progress Report, March 4, 2020
- I1. PG&E PSPS Report Letter for October 5 Event
- I2. PG&E PSPS Report Letter for October 9 Event
- I3. PG&E PSPS Report Letter for October 23 Event
- I4. PG&E PSPS Report Letter for October 26 Event
- I5. PG&E PSPS Report Letter for November 20 Event
- J1. SCE PSPS Report Letter for October 2 Event
- J2. SCE PSPS Report Letter for October 12 Event
- J3. SCE PSPS Report Letter for October 21 Event
- J4. SCE PSPS Report Letter for October 27 Event
- J5. SCE PSPS Report Letter for November 21 Event
- J6. SCE PSPS Report Letter for November 23 Event
- K1. SDG&E PSPS Report Letter for October 10 Event

³⁷⁷ D.19-05-042, Appendix A, p.A23

Public Report on the Late 2019 Public Safety Power Shutoff Events

- K2. SDG&E PSPS Report Letter for October 20 Event
- L1. Data Request SED-001 sent to PG&E, March 12, 2020
- L2. Data Request SED-001 sent to SCE, March 12, 2020
- L3. Data Request SED-001 sent to SDG&E, March 12, 2020
- M1. Data Request SED-002 sent to PG&E, March 27, 2020
- M2. Data Request SED-002 sent to SCE, March 27, 2020
- M3. Data Request SED-002 sent to SDG&E, March 27, 2020
- N1. PG&E Consolidated Response to SED-001, March 24, 2020
- N2. SCE Consolidated Response to SED-001, March 24-25, 2020
- N3. SDG&E Consolidated Response to SED-001, March 24, 2020
- O1. PG&E Consolidated Response to SED-002, April 7, 2020
- O2. SCE Consolidated Response to SED-002, April 7, 2020
- O3. SDG&E Response to SED-002, April 7, 2020
- P1. R1812005 AT&T Comments on PG&E October 9 Event
- P2. R1812005 AT&T Comments on PG&E October 26 Event
- Q1. R1812005 CalCCA Comments on PG&E October 9 Event
- Q2. R1812005 CalCCA Comments on PG&E October 23 to November 1 Consolidated Events
- R1. R1812005 CCTA Comments on PG&E October 9 Event
- R2. R1812005 CCTA Comments on SCE October 2 Event
- S. R1812005 EBMUD Comments on PG&E Events
- T1. R1812005 Joint Local Governments' Comments on PG&E October 9 Event
- T2. R1812005 Joint Local Governments' Comments on PG&E October 23 Event
- T3. R1812005 Joint Local Governments' Comments on PG&E October 26 Event
- U. R1812005 LACDPH Comments on SCE Events
- V1. R1812005 NCPA Comments on PG&E October 9 Event
- V2. R1812005 NCPA Comments on PG&E October 26 Event
- W. R1812005 Cal Advocates Comments on SDG&E November 17 Event
- X. R1812005 RCRC Comments on PG&E October 10, October 25, and November 8
- Y1. R1812005 San Jose Comments on PG&E October 9 Event

Public Report on the Late 2019 Public Safety Power Shutoff Events

- Y2. R1812005 San Jose Comments on PG&E October 26 and 29 Event
- Z1. R1812005 SBUA Comments on PG&E October 26 Event
- Z2. R1812005 SBUA Comments on PG&E November 20 Event
- Z3. R1812005 SBUA Comments on SCE November 23 Event
- Z4. R1812005 SBUA Comments on SDG&E October 20 Event
- AA. R1812005 UCAN Comments on SDG&E Events
- AB. R1812005 Verizon Comments on PG&E October 9 Event
- AC1. CPUC Executive Director Letter on Medical Baseline Customers, October 8, 2019
- AC2. CPUC Executive Director Letter on Address Information, October 23, 2019
- AC3. Resolution L-598 Ratifying October 8 and October 23 Executive Director Letters
- AD1. CPUC President Letter to Communications Industry Leaders for Information and Hearing on Emergency Disaster Relief Programs, November 13, 2019
- AD2. R1803011 CPUC President Proposals, March 6, 2020
- AE. PG&E Response to SED-001, Question 26, dated March 24, 2020
- AF. PG&E Question 35 Attachment in Response to SED-001, dated March 24, 2020
- AG. R.1812005 Public Comments