

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Pacific Gas and Electric Company, for authority to decrease its rate and charges for electric and gas service and increase rates and charges for pipeline expansion service-test year 1996 general rate case consolidated with I9502015.

A.94-12-005
(Filed: December 9, 1994)

Commission Order Instituting Investigation into rates, charges, service and practices of PG&E; consolidates with A9412005; authority applies to A9212043 et al.

I.95-02-015
(Filed: February 22, 1995)

Commission Order Instituting Rulemaking, to develop standards for electric system reliability and safety pursuant to D96-09-073. Consolidated with I95-02-015

R.96-11-004
(Filed: November 6, 1996)

PUBLIC VERSION

**PACIFIC GAS AND ELECTRIC COMPANY'S
ANNUAL REPORT ON COMPLIANCE
WITH GENERAL ORDER 166 – COMPLIANCE PERIOD:
JANUARY 1, 2022 TO DECEMBER 31, 2022**

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Dated: April 27, 2023

Vice President, Emergency Preparedness & Response
PACIFIC GAS AND ELECTRIC COMPANY

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JANUARY 1, 2022 TO DECEMBER 31, 2022**

Pursuant to General Order 166, Standard 11, Pacific Gas and Electric Company (PG&E) hereby submits its annual report on compliance with General Order 166 for the period January 1, 2022, through December 31, 2022 (Compliance Period). This report documents PG&E's compliance with each of the fourteen standards of the General Order.

Standard 1. Emergency Response Plan

Standard 1 requires PG&E to prepare an emergency response plan and update the plan annually to incorporate changes in procedures, conditions, law, or Commission policy.

Attached as Exhibit A is PG&E's Company Emergency Response Plan (CERP) Version 7 in effect from August 4, 2021, to December 31, 2022. PG&E's CERP consists of a base plan and functional and hazard annexes.

The following table summarizes locations within CERP Version 7 that addresses required elements of Standard 1:

**TABLE 1
LOCATION OF REQUIRED ELEMENTS**

| Required Element | CERP Sections and Subsections |
|--|---|
| Internal Coordination | 2, 3 and subsections, 2.5 and subsections, 4 and subsections, 5 and subsections, 6 and subsections, 8 and subsections, 10, 10.1 and 10.1.1, 10.1.2, 10.1.3, 10.1.4 10.2, 10.3, 10.5, Appendix A, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G |
| ISO/TO Coordination | 2.3.1.1, 5.2.4, 6.0, 6.2, 6.2.2, 7.5.9, 10.3.2 |
| Media Coordination | 1.4, 5.1.5, 5.1.7, 8.3.4.6, 10 and subsections |
| External and Governmental Coordination | 1.4, 4.1, 4.2, 4.3, 5.1, 5.1.7, 6.1.2, 6.1.7, 7 and subsections, 10 and subsections, Appendix C, Appendix D |
| Wildfire Mitigation Plan | 2.7 |

In accordance with Standard 1, Element D, PG&E maintains contact information for California Governor’s Office of Emergency Services (Cal OES) regional offices and County government emergency management offices, set forth in Exhibit I as CERP EMER-3001M-Att01 and EMER-3001M-Att02, respectively. This contact information is accessible to coworkers responsible for coordinating emergency communications within PG&E’s internal Emergency Management (EMER) Guidance Document Library.

A key element of the CERP is the alignment of PG&E’s functional areas to the frameworks provided by the National Incident Management System (NIMS), California Standardized Emergency Management system (SEMS) and the NIMS/SEMS component Incident Command System (ICS). Adoption of these frameworks aligns PG&E with public partners to execute a coordinated response that supports safe restoration of service and whole community recovery. Specifically, PG&E has adopted the following NIMS, SEMS, and ICS consistent operational components:

1. Formalized SEMS/ICS training and execution of the management by objectives concepts of ICS.
2. Whole community engagement through PG&E’s presence in County Emergency Operations Centers and the State Operations Center, and actions of the Liaison

Officer and team leveraging coordination calls and collaboration of community and customer support.

3. Mutual Assistance agreement memberships at the California, Western Region, and National levels.
4. Use of the same framework as the SEMS Operational Area concept in the context of emergency organizational structure and levels, with emergencies beginning at the local level (Level 1) which is PG&E's base emergency posture.

SEMS/ICS training details can be found in CERP subsection 3.7.1, Training. Whole community engagement including PG&E Liaison Officer actions are described in CERP sections 7 and 10, External Relationships, and Coordination and Communication. Mutual Assistance agreements are outlined in CERP subsection, 7.1, Collaboration with Other Utilities and Trade Associations. SEMS Operational Area coordination framework details can be found in CERP subsection 7.4, Local Government, Operational Areas, found in Exhibit A.

As required under Standard 1 Element E, a link to PG&E's 2022 Wildfire Mitigation Plan (WMP) (filed with the CPUC on February 25, 2022 and updated through July 26, 2022) is available at https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page. The WMP describes in detail how PG&E is actively mitigating wildfire risks, including requirements specified in Standard 1, Element E, and was developed to be consistent with the requirements of the California Public Utilities Code §8386(a). The objective of the 2022 WMP is to reduce the risk and consequences of wildfires associated with utility electrical equipment, and particularly to avoid utility-related catastrophic wildfires across central and northern California.

The CERP addresses Elements A through J of Standard 1. The location of these elements within the CERP are identified in the table above and within Exhibit D. PG&E's CERP Electric Annex is included as Exhibit B to this report. A summary of CERP and CERP Electric Annex updates is set forth below under the heading Standard 11 Annual Report.

Standard 2. Mutual Assistance Agreements

Standard 2 requires PG&E to enter into mutual assistance agreements with other utilities, to the extent such agreements would be practical and improve emergency response. Resources

available to be shared under such agreements are subject to participant party availability in relation to current operational requirements.

For the Compliance Period ending December 31, 2022, PG&E maintained existing agreements with mutual aid associations, including the California Utilities Emergency Association (CUEA), the Western Region Mutual Assistance Agreement, the Edison Electric Institute (EEI), and the American Gas Association. In addition, PG&E had mutual assistance agreements with individual companies or agencies, including Florida Power and Light Company, Trinity County Public Utilities District (TCPUD), the Western Area Power Administration (WAPA), and the Yolo County Flood Control and Water Conservation District. These agreements provide the terms for requesting and delivering assistance, payment, cost recovery, and legal liability.

Copies of the agreements are provided in Exhibit F.

Standard 3. Emergency Training and Exercises

Standard 3 requires the utility to conduct an exercise annually using the procedures set forth in the utility's emergency plan and to evaluate its response to an exercise or incident. From June 10, 2022, to June 17, 2022, PG&E Emergency Preparedness and Response (EP&R) hosted the 2022 Public Safety Power Shutoff (PSPS) and Wildfire Full-Scale Exercise (FSE). Exercise participants and observers included representatives from state and local government agencies, tribes, community-based organizations, and other utilities.

The June 10, 2022, to June 17, 2022, exercise began with an initial readiness posture followed by a pause from June 11-12, 2022, before moving into FSE operations from June 13-17, 2022. Based on simulated R5-Plus Weather conditions¹, the FSE exercise activities were carried out in accordance with the CERP, PSPS Annex, Wildfire Annex, and PG&E functional area specific plans. The FSE scenario was designed to provide a real-time operational challenge focused on the reduction of wildfire ignition potential concurrent with wildfire response.

¹ "R5-Plus" indicates there is an elevated fire potential plus the potential for wind-related outage activity.

As standard process following all exercises and actual emergency response, PG&E conducts hotwashes and after-action meetings to evaluate and improve emergency plans and protocols. An after action hotwash was conducted at the conclusion of the FSE on June 17, 2022.

PG&E's June 10 & June 13-14, 2022, Full-Scale Exercise After Action Report (AAR) is attached as Exhibit G.

As a guiding training principle, PG&E uses the "Cal OES's SEMS." This is to ensure all agencies (i.e., Cal OES, County Office of Emergency Services (County OES), PG&E and other Investor-Owned Utilities (IOUs)) responding to a potential event are aligned to safely and efficiently communicate and respond.

In February 2020, PG&E, Cal OES, the CPUC, and the other IOUs entered into a multi-phase SEMS training related agreement to help ensure consistent training requirements for all Emergency Operations Center (EOC) staff. For the 2022 General Order 166 Compliance Period, PG&E continued to train EOC staff using an ICS Baseline, Expanded, Advanced and Position Specific approach, as follows:

- **ICS Baseline:** Foundational SEMS and NIMS courses required of all EOC personnel and pre-requisites to any advanced training.
- **Expanded:** California Specialized Training Institute training request, including:
 - G-191 (EOC/ICS Interface)
 - G-626 (EOC Action Planning)
 - G-775 (EOC Management and Operations)
 - IS-368 (Including People with Disabilities & Others with Access & Functional Needs in Disaster Operations)
- **Advanced:** ICS-300 and ICS-400
- **Position Specific:** Training focused on EOC specific roles.

Standard 4. Summary of PG&E's Communications Strategy

Standard 4 requires PG&E to develop a strategy for informing the public and relevant agencies of a Major Outage or Emergency, as defined by the General Order. PG&E's strategy for communicating with the media, customers, regulatory agencies, and other governmental

organizations is primarily described and annually updated in the Emergency Communications Annex, which is an annex to the CERP.

Attached as Exhibit C, the PG&E's CERP Emergency Communications Annex ensures coworkers with emergency communication positions have a thorough understanding of their roles, responsibilities, and processes and that the company speak with "One Voice" to internal and external audiences. PG&E's Public Information Officer (PIO) is responsible for establishing and maintaining communications throughout all PG&E levels to support the delivery of regular status updates to internal stakeholders, customers, external agencies, and the media, including the internal and external reporting requirements.

PG&E's media relations strategy and the channels used before, during, and after emergencies are also presented in the CERP Emergency Communications Annex. For PSPS Events, PG&E used multiple communications channels to notify the public including direct customer notifications, PSPS Address Alerts, the PG&E website, information releases to local media, and Live Agent Call Center Support. For further information about PG&E's notification strategies for 2020 to 2022 and the PSPS Call Strategy, refer to the Customer, Agency, and External Communications section of PG&E's WMP, available at the link provided in this report under the heading Standard 1, Emergency Response Plan.

PG&E's communication strategy incorporates 2021-2022 lessons learned, including Public Safety Power Shutoffs on January 19-21, 2021; August 17-18, 2021; September 20-22, 2021; October 11-13, 2021; and October 14-16, 2021. During the Compliance Period, PG&E activated its EOC for capacity shortage and shared circuit events, a potential PSPS event, three weather events and the Ferndale Earthquake. Post event lessons learned are captured in PG&E's June 23, 2022, CERP Emergency Communications Annex update, to include detailed planning, process, and business continuity information and pre-approved message content for coworker use during or after an emergency incident or event.

In local emergencies, PG&E field personnel coordinate their activities with local public safety and other first responders to provide for the safe restoration of service. As incidents

expand, internal and external coordination requirements grow, with the Company EOC becoming the single point of coordination for information dissemination when activated, including:

- Damage assessment information, restoration priorities, provision of customer outage information, movement of human resources and equipment, and implementation of mutual assistance.
- Interaction with government agencies, including Cal OES and the Commission, except for operational communications addressed in specific emergency plans and known to EOC personnel.
- Communication with customers and the media.

The Company's community outreach efforts include website communications, media engagement, community events, PSPS and wildfire preparedness regional open houses (webinars), Community Based Organization (CBO) engagement, Medical Baseline (MBL) customer outreach, tribal community engagement, and use of advisory boards. These outreach efforts help customers prepare for the unique impacts of wildfire, de-energization, and natural disaster or emergencies. PG&E makes a considerable effort to use a diversity of channels to best reach customers in the format of their choice. PG&E intends to continue to explore additional channels and technologies for communications, while also refining details and scope of implementation to improve content, accessibility, awareness, and effectiveness.

PG&E's coordination and communication strategy with state and local governmental agencies is contained in the CERP and the Emergency Communications Annex. PG&E Public Safety Specialists² maintain state and local government contact information in coordination with PG&E's Public Affairs department. PG&E teams engage with local agencies throughout the year, with preparation for wildfire and PSPS season being a primary focus.

² Managed by its Emergency Response and Preparedness Field Operations organization, PG&E's Public Safety Specialist (PSS) program is a field-based resource that supports PG&E's response when deployed in support of incident or events. PSS personnel work with local, state, and federal agencies throughout the year to socialize PG&E's emergency response plans and execution goals for fire emergencies.

For wildfire and PSPS activities, PG&E's plan for coordinating communications with state and local government is described in the Customer, Agency, and External Communications section of the 2022 WMP.

For Transmission System issues, PG&E's Grid Control Center (GCC) is the official point of contact with the California Independent System Operator (CAISO). The GCC notifies the CAISO of adverse conditions. PG&E's plan for communicating and coordinating with the CAISO is described in the Electric Annex (Exhibit B) and the Emergency Communications Annex (Exhibit C).

Standard 5. Activation Standard

Standard 5 requires PG&E to coordinate internal activities during a Major Outage in a timely manner. PG&E did not experience a Major Outage, as defined by this General Order, during the Compliance Period.

Standard 6. Initial Notification Standard

PG&E did not experience a Major Outage, as defined by this General Order, during the Compliance Period.

PG&E reports its Public Safety Power Shutoff (PSPS) customer outage communications in accordance with the detailed reporting procedures set forth in Resolution ESRB-8 and Decision (D.) 19-05-042, issued in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005). This reporting protocol includes as applicable, major outage notifications to the Commission, affected Essential Customers, and the Warning Center at the California Office of Emergency Service.

From January 1, 2022, to December 31, 2022, PG&E notified the Commission of seven EOC activations.

Standard 7. Mutual Assistance Evaluation Standard

Standard 7 requires PG&E to evaluate the need for mutual assistance during a Major Outage. PG&E did not experience a Major Outage, as defined by this General Order, during the Compliance Period.

Standard 8. Major Outage and Restoration Estimate Communication Standard

Standard 8 requires PG&E to inform the public and relevant public safety agencies of the estimated time for restoring power during a Major Outage. PG&E did not experience a Major Outage, as defined by this General Order, during the Compliance Period.

PG&E reports its PSPS customer outage communications in accordance with the detailed reporting procedures set forth in Resolution ESRB-8 and Decision (D.) 19-05-042, issued in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005). This reporting protocol includes as applicable, major outage notifications and restoration estimates sent to Essential Customers, state and local public agencies, and the media.

Standard 9. Personnel Redeployment Planning Standard

Standard 9 requires PG&E to train personnel to assist with emergency activities in preparation for responding to a Major Outage, (i.e., assess damage and perform safety standby). PG&E's personnel redeployment plan in support of safety standby and damage assessment during a Major Outage is set forth in Section 3 of the Electric Annex (Exhibit B). During the Compliance Period, PG&E conducted trainings for those who may perform safety standby (TECH-0300) in lieu of their normal duties.

As of December 31, 2022, 2,453 non-traditional emergency response employees (such as Meter Readers, Gas Service Representatives, Gas Maintenance and Construction, Gas Transmission and Regulation, Work & Resource Inspectors, Mappers, Estimators, etc.) have completed 911 Standby training (TECH-0300). The training included how to: (1) identify hazards in the electric distribution system, (2) standby hazards safely, and (3) maintain safety for the public and themselves until qualified electric personnel arrive at the scene.

Standard 10. Annual Pre-Event Coordination Standard

PG&E conducts frequent, reoccurring pre-event coordination with public safety partners at the state, county, city, and tribal levels throughout PG&E's service area. Key outreach channels include:

- **Public Safety Specialist Team Engagements:** PG&E’s Public Safety Specialist Team provides personalized engagements (i.e., meetings, calls) specific to external agency emergency preparedness needs and local issues. These engagements encompass a variety of outreach channels, including:
 - First responder workshops.
 - Wildfire safety town halls.
 - Cal OES Mutual Aid Region Advisory Committee meetings.
 - General regional coordinator meetings.
 - Professional meetings.
 - Trainings, exercises, and drills.
 - One-on-one delivery.
- **Local Government Forums:** PG&E offers an annual meeting opportunity to every city and county to review emergency plans, highlight programs of interest (such as PSPS), review prior year accomplishments and milestones, receive feedback, and learn of any pertinent city and county work.
- **PSPS Regional Working Groups:** PG&E provides quarterly stakeholder work sessions to discuss:
 - Post wildfire lessons learned,
 - PSPS, and
 - Wildfire safety work.

Work group sessions are designed to discuss lessons learned and build regional collaboration and incorporate learnings into future wildfire safety and PSPS plans.

- **Tabletop and Functional Exercises:** Drills hosted by PG&E to evaluate its ability to communicate effectively with partners during Wildfire and PSPS outages, gain efficiencies within roles and identify areas of improvement.
- **Community Wildfire Safety Program (CWSP) Trainings and Workshops (Ad-hoc):** Trainings and workshops for agencies and other public safety partners, (i.e., PSPS Portal trainings, deep dives on wildfire mitigation efforts).

From January 1, 2022, to December 31, 2022, PG&E’s Public Safety Specialist team conducted a series of First Responder Workshops with local public safety agencies. A total of 2,879 representatives from 187 local public safety agencies were in attendance.

Standard 11. Annual Report

Standard 11 requires PG&E to submit an annual report describing compliance with these standards during the Compliance Period and to identify any modifications to PG&E’s emergency

plan. In accordance with Decision (D.) 21-05-019, this report covers the Compliance Period January 1, 2022, through December 31, 2022.

The following is a summary of the changes that PG&E made to the emergency plan during the Compliance Period.

Company Emergency Response Plan

PG&E's Exhibit E attachment to its April 27, 2022, General Order 166 filing identifies areas added or updated in CERP Version 7 in effect from August 4, 2021, to December 31, 2022.

Electric Annex

Attached as Exhibit B is the PG&E CERP Electric Annex. Updated on June 30, 2022, the Electric Annex to the CERP provides an outline of PG&E's electric emergency management organizational structure, roles, and responsibilities, and describes the activities undertaken in response to electric emergency outage situations. The Annex is a key element to ensure the company is prepared for emergencies to minimize damage and inconvenience to the public, which may occur because of:

- Electric system failures.
- Major outages.
- Hazards posed by damage to electric facilities.

Emergency Communications Plan

Attached as Exhibit C is the PG&E CERP Emergency Communications Annex. Updated on June 23, 2022, the CERP Emergency Communications Annex contains detailed planning, process, and business continuity information and pre-approved content for staff to update as appropriate during or following an emergency or catastrophic event. The plan/annex ensures that all employees with emergency communication positions have a thorough understanding of their roles, responsibilities, and processes that the company is speaking with "One Voice" to internal and external audiences.

To make 2022 PSPS event communications 'smarter', PG&E worked closely with external media outlets, including both paid and earned media, to provide broad awareness to

Californians to share tips related to wildfire and PSPS preparedness, socialize available resources, and communicate PSPS event information. PG&E is also focused on enhancing and formalizing coordination with multicultural media organizations for both preparedness outreach and in-event communications. For a description of PG&E’s engagement with media partners, refer to the Community Outreach Efforts for PSPS and Wildfire-Related Outreach section of the 2022 WMP.

Standard 11 also requires that PG&E report on the number of available repair and maintenance (R&M) personnel in each personnel classification and in each county during the Compliance Period. Table 2 identifies the number of PG&E’s R&M employees by county. 3,774 R&M employees were on staff during the Compliance Period. For the personnel or job classification of the employees by county, refer to Exhibit H.

**TABLE 2
R&M EMPLOYEES ON STAFF
AT PG&E REPORTED AS OF DECEMBER 31, 2022**

| | Work County Name | Number of Employees |
|----|-------------------------|----------------------------|
| 1 | Alameda | 334 |
| 2 | Amador | 20 |
| 3 | Butte | 157 |
| 4 | Calaveras | 33 |
| 5 | Contra Costa | 284 |
| 6 | El Dorado | 33 |
| 7 | Fresno | 249 |
| 8 | Glenn | 9 |
| 9 | Humboldt | 69 |
| 10 | Kern | 170 |
| 11 | Kings | 41 |
| 12 | Lake | 25 |
| 13 | Madera | 65 |
| 14 | Marin | 52 |
| 15 | Mariposa | 2 |

| | Work County Name | Number of Employees |
|----|-------------------------|----------------------------|
| 16 | Mendocino | 65 |
| 17 | Merced | 115 |
| 18 | Monterey | 126 |
| 19 | Napa | 43 |
| 20 | Nevada | 32 |
| 21 | Placer | 157 |
| 22 | Plumas | 22 |
| 23 | Sacramento | 108 |
| 24 | San Benito | 10 |
| 25 | San Bernardino | 1 |
| 26 | San Francisco | 121 |
| 27 | San Joaquin | 185 |
| 28 | San Luis Obispo | 87 |
| 29 | San Mateo | 202 |
| 30 | Santa Barbara | 24 |
| 31 | Santa Clara | 242 |
| 32 | Santa Cruz | 52 |
| 33 | Shasta | 102 |
| 34 | Solano | 94 |
| 35 | Sonoma | 137 |
| 36 | Stanislaus | 91 |
| 37 | Tehama | 41 |
| 38 | Tulare | 12 |
| 39 | Tuolumne | 16 |
| 40 | US/Not assigned/Not | 17 |
| 41 | Yolo | 72 |
| 42 | Yuba | 57 |
| | Total | 3,774 |

Standard 12. Restoration Performance Benchmark for a Measured Event

Standard 12 provides that PG&E may be subject to a restoration performance benchmark for Measured Events. PG&E did not experience a Major Outage or Measured Event during the Compliance Period.

Standard 13. Call Center Benchmark for a Measured Event

Standard 13 provides that PG&E may be subject to a call center performance benchmarking for Measured Events. PG&E did not experience a Major Outage or Measured Event during the Compliance Period.

Standard 14. Plan Development Coordination and Public Meeting

Standard 14 is a new standard adopted in D.21-05-019 requiring consultation with cities and counties within the utility’s service territory for development of the Plan established in Standard 1. PG&E understands Standard 14 to require such consultation and public meetings on a going forward basis, for further development of the Plan after the effective date of D.21-05-019. PG&E’s future development of the Plan will target completion of the consultation and public meeting requirements within the two-year schedule referenced in Standard 14.

Respectfully Submitted,

ANGELINA GIBSON

By: /s/ Angelina Gibson
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Vice President, Emergency Preparedness & Response
PACIFIC GAS AND ELECTRIC COMPANY

Dated: April 27, 2023

List of Exhibits

- Exhibit A Company Emergency Response Plan
- Exhibit B Electric Annex, Public Safety Power Shutoff Annex
- Exhibit C Emergency Communications Annex
- Exhibit D Required Elements of Standard 1
- Exhibit E Summary of Company Emergency Response Plan Changes
- Exhibit F Mutual Assistance Agreements
- Exhibit G June 10 & June 13-17, 2022 PSPS/Wildfire Exercise After Action Report
- Exhibit H PG&E Repair and Maintenance Employees
- Exhibit I Cal OES and County Emergency Management Contact Lists

VERIFICATION

I, the undersigned, hereby attest:

That the information in this document is true, accurate and complete to the best of my knowledge.

I am a Vice President of Emergency Preparedness & Response for PACIFIC GAS AND ELECTRIC COMPANY, a public corporation, and in this position, am duly authorized to make this verification. I have read the foregoing GO 166 Annual Report and I am informed and believe the matters stated therein are accurate.

Therefore, I declare under penalty of perjury that the foregoing is true and correct.

Executed at Ukiah, California this 26th day of April 2023

A handwritten signature in black ink, appearing to read "Angelina Gibson". The signature is fluid and cursive, written in a professional style.

VP Emergency Preparedness & Response
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Exhibit A

Company Emergency Response Plan



*Pacific Gas and
Electric Company*[®]

Company Emergency Response Plan (CERP)



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Editor's Notes:

All links have been verified as of June 10, 2021.

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Document Control

This section contains Pacific Gas and Electric (PG&E) Company information related to the ownership and maintenance of this document. This document undergoes annual review and update as needed and in compliance with [EMER-2001S, Company Emergency Operations Plans Standard](#). The Standard is located on the Guidance Document Library:

[REDACTED]

Emergency Preparedness and Response (EP&R) maintains this Company Emergency Response Plan (CERP). This section, and more specifically the Change Record, shows the updates made to the plan and approval of the plan by the persons responsible for its preparation and maintenance.

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Comments

CERP Change Request Form

To request changes, corrections or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of EMER-2001S-F01, Change Request Form, to EPRCERP@pge.com. Blank EMER-2001S-F01 forms are located on the Guidance Document Library at .

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once a Bulletin is communicated, a copy will be placed under the respective Annex located in the GDL and be included as content in the next Annex update.

Change Record

Changes made to the 2021 plan from the 2020 version are noted in the table below.

| Topic | 2020 | 2021 | Type | Change Detail | SME |
|--------------------------------------|-------------------|------------|---------|---|------------|
| Reviewers | Document Reviewer | Throughout | Updated | ██████████ added as EP&R document reviewer Remove ██████████ as PR reviewer and added ██████████ | ██████████ |
| Preparers and Approvers | Document Preparer | Throughout | Updated | ██████████, Director, EP&R Strategy and Execution ██████████, EP&R SE Emergency Planning, Process Improvement and Change ██████████, Expert Emergency Management Specialist ██████████, Expert Technical Writer ██████████, Expert Emergency Management Specialist ██████████ Expert Emergency Management Specialist | ██████████ |
| CERP Change Request Form | | | Updated | Updated Change Request Form section to include standardized language used in Annexes. | ██████████ |
| Document Relationships | 1.5 | 1.5 | Updated | Updated Figure 1-2 and supporting language describing CERP relationship to CERP annexes and other documents. | ██████████ |
| EPPIC unit | 1.6 | 1.6 | Updated | EPPIC acronym defined | ██████████ |
| Situational Awareness and Assessment | 3.1 | 3.1 | Added | Added new section on Situational Awareness and Assessment. | ██████████ |
| HAWC | 3.1.1 | 3.1.1 | Updated | Changed name from Wildfire Safety Operations Center (WSOC) to Hazard Awareness & Warning Center (HAWC). Moved content from section 6.2.7 to section 3.1., Situational Awareness and Situational Assessment. Changed capability description from wildfire specific to all-hazards threats. | ██████████ |
| AFN | 3.2.3 | 3.2.3 | Added | Added link to Access and Functional Needs (AFN) plan filed with the CPUC on February 1, 2021. | ██████████ |
| AFN | 3.2.3 | 3.2.3 | Added | Added details on AFN considerations. | ██████████ |

| Topic | 2020 | 2021 | Type | Change Detail | SME |
|--|---------|---------|---------|--|-----|
| Cybersecurity Incident Notifications | 3.2.4 | 3.2.4 | Added | Noted EOC Commander role in notifying PG&E executives upon activation of the Company EOC for a cybersecurity incident. | |
| Weather Emergencies | 3.3.2 | 3.3.2 | Added | Added PG&E Meteorology Operations & Analytics (MOA) provides support to the Reliability Group capability details. | |
| DASH | 3.5.1 | 3.5.1 | Update | Updated Dynamic Automated Seismic Hazard (DASH) reporting system details. | |
| SOPP | 3.5.2 | 3.5.2 | Updated | Updated PG&E's Storm Outage Prediction Program description. | |
| POMMS | 3.5.4 | 3.5.4 | Updated | Updated PG&E's Operational Mesoscale Modelling System (POMMS) description. | |
| OPW | 3.5.5 | 3.5.5 | Updated | Updated PG&E's Outage Producing Wind (OPW) model description. | |
| Debris Flow Modeling | 3.5.5 | 3.5.5 | Added | Added reference to section 4.4.5 of the Wildfire Annex for details on debris flow modeling. | |
| Exercises | 3.7.2 | 3.7.2 | Added | Added Homeland Security Exercise & Evaluation Program (HSEEP) methodology and CPUC General Order 166, Standard 3, parts <i>a</i> and <i>b</i> references. | |
| ICS | 4.3 | 4.3 | Updated | Updated Incident Command System (ICS) concepts and principles descriptions. | |
| Figure 5.1: EOC Organization Chart | 5 | 5 | Updated | Updated Figure 5-1 organization chart to depict Command and General Staff deputies to the side of the downtrace lines to other EOC organizational leaders. | |
| Figure 5.1: EOC Organization Chart | 5 | 5 | Added | Added Logistics Reporting Unit and MTTC box under Logistics Chief box. | |
| Public Safety Specialists | 5.1.7.1 | 5.1.7.1 | Added | Added Utility Standard EMER-4002S Agency Representative language. | |
| Aviation Operations Branch | 5.2.1 | 5.2.1 | Updated | Deconflicted content with CERP PSPS Annex to identify and separately describe PSPS unique air operations requirements. | |
| Intelligence and Investigation Section | 5.3 | 5.5 | Updated | Updated I&I Section content for PSPS events based on current CERP PSPS Annex. | |

| Topic | 2020 | 2021 | Type | Change Detail | SME |
|--|------------|------------|---------|---|------------|
| Planning Section Situation Unit | 5.4.1 | 5.4.1 | Updated | Updated language to include reference to LOB predictive model owner participation in Situation Unit. | [REDACTED] |
| AFN | 5.4.4.1 | 5.4.4.1 | Added | Added Access and Functional Needs (AFN) definition. | [REDACTED] |
| Logistic Section Personnel Unit | 5.5 | 5.5 | Changed | Changed Figure 5-11 organization chart box titled "Mutual Assistance" to "Mutual Assistance Unit". | [REDACTED] |
| Figure 5-11: Logistic Section Organizational Chart | 5.5 | 5.5 | Added | Added Logistics Reporting Unit and MTTC box under Logistics Chief box. | [REDACTED] |
| Logistic Section Personnel Unit | 5.5.2.6 | 5.5.2.6 | Removed | Removed Internal Crew and Contract Support positions and position responsibilities. | [REDACTED] |
| Finance and Administration Section | 5.6 | 5.6 | Changed | Updated former Finance Unit (now Branch) description. | [REDACTED] |
| Finance and Administration Section | 5.6 | 5.6 | Changed | Updated former Human Resource Unit (now Branch) description. | [REDACTED] |
| CAISO | 7.5.8 | 7.5.8 | Updated | Updated language noting that the California Independent System Operator is the largest of about 40 Balancing Authority registered entities in the Western Interconnection. | [REDACTED] |
| Everbridge Notifications | 8.3.4.4 | 8.3.4.4 | Updated | Changed Send Word Now notification language to new Everbridge notification language. | [REDACTED] |
| Resource Management | 9.1.1 | 9.1.1 | Updated | Updated resource planning and management content. | [REDACTED] |
| FORCE Tool | 9.1.1.5 | 9.1.1.5 | Added | Added Field Operations Resource Calculation of Estimated Time of Restoration (FORCE) Tool description. | [REDACTED] |
| Mutual Assistance | 9.2 | 9.2 | Added | Added details on Mutual Assistance decision criteria. | [REDACTED] |
| Levels of Emergency and Activation Criteria | Appendix B | Appendix B | Updated | Updated Table 11-1 to include Power Generation column earthquake magnitudes for emergency activation levels 3-5. Also updated level 4, Severe, Power Generation column to note that earthquake may affect more than Power Generation assets and facilities. | [REDACTED] |

| Topic | 2020 | 2021 | Type | Change Detail | SME |
|---------------------|------------|------------|---------|--|-----|
| EOC SharePoint Link | Appendix F | Appendix F | Updated | Updated Emergency Operations Center SharePoint Reports, Forms, Checklists and Tools link to EOC SharePoint | |

1 Introduction

1.1 Purpose

The purpose of the Company Emergency Response Plan (CERP) is to assist Pacific Gas and Electric (PG&E) personnel with safe, efficient and coordinated response to all-hazard emergency incidents affecting gas or electric generation, distribution, storage, transmission systems or any other emergency incident within the PG&E service area.

The CERP and its annexes contain the following key plan elements:

- Provides a broad outline of PG&E's organizational structure
- Describes actions undertaken in response to emergency situations
- Presents a response structure that:
 - Has clearly defined roles and responsibilities
 - References an organized emergency team or team members
 - Describes emergency call out procedures
 - Details plan maintenance
 - Defines how PG&E exercises or tests plans and procedures
 - Identifies coordination efforts with outside organizations, (e.g., government, media, other gas and electric utilities, essential community services, vendors, public agencies, first responders and contractors)

1.2 Scope

PG&E utilizes common emergency response protocols and follows a recognized incident command system. For purposes of the CERP, this all-hazards approach applies to any natural disaster or human-caused situation (e.g., fires, floods, storms, earthquakes, terrorist- or cyber-attack) that threatens life and property or requires immediate action to protect or restore service or critical business functions to the public. Actions described in the CERP apply to incidents that:

- Affect or threaten service in a significant part of the company's service area
- Affect or threaten service to a significant percentage of PG&E's customers
- Require system-wide coordination, including significant involvement by various lines of business (LOBs) and/or other support departments

1.3 PG&E's Mission, Vision and Culture

PG&E is committed to safely and reliably delivering affordable and clean energy to our customers and communities every single day, while building the energy network of tomorrow. With a sustainable energy future as our North Star, we will meet the challenge of climate change while providing affordable energy for all customers.

Protecting public, employee and contractor safety is our number-one responsibility, period. [Figure 1-1](#) identifies PG&E's Mission, Vision, and Culture statements.

Figure 1-1: PG&E's Mission, Vision and Culture Statements¹

1.4 PG&E's Emergency Response Priorities

At PG&E, all emergency response activities are governed by the following priorities:

- Protect the health and welfare of the public, PG&E responders and others
- Protect the environment, public property, PG&E and others
- Inform customers, governmental agencies and representatives, the news media and other constituencies
- Restore gas and electric service and power generation
- Restore critical business functions and move to resume business as usual

Additionally, these priorities are maintained through all phases of response to an emergency and are the foundation of the CERP:

- Consistent incident management, planning and response concepts, processes and procedures
- Scalable staffing model to provide emergency support as needed across the enterprise

¹ Image on 06/21/19 from [REDACTED]

- Respond to all emergency incidents safely, transparently and with a strong sense of urgency
- Align PG&E's planning and response efforts with the needs of the communities it serves
- Establish close working relationships with external emergency public entities consistent with the National Incident Management System (NIMS), Standardized Emergency Management System (SEMS) and Incident Command System (ICS) principles

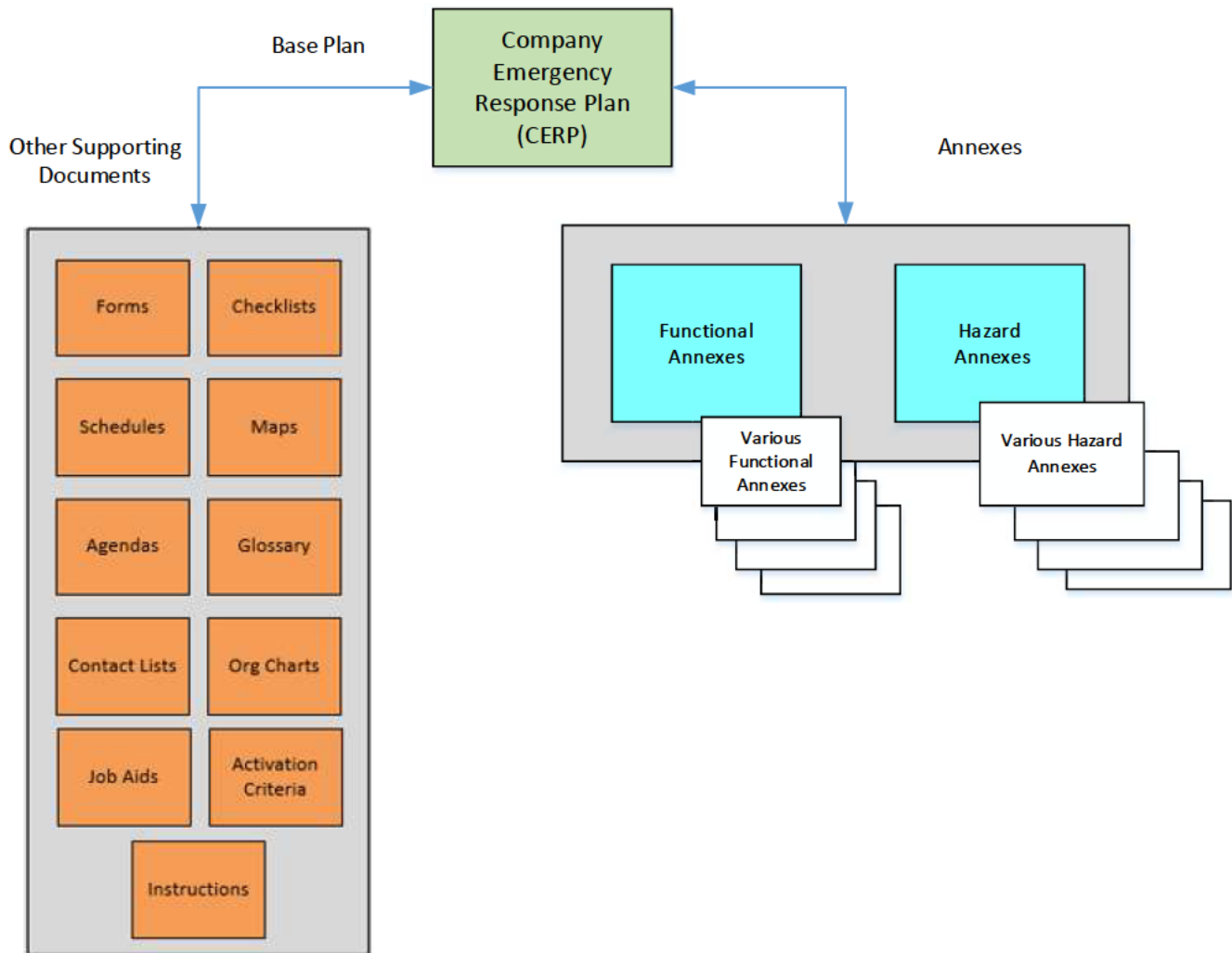
1.5 Document Organization

The CERP flows from general emergency response concepts and guidelines to specific emergency management organizational structures, roles, responsibilities and processes, much of which is found in the appendices and annexes.

The CERP consists of a Base Plan, Annexes and Appendices (Figure 1-2). The Base Plan is applicable company-wide and is generally referred to as "the CERP."

Technically, Annexes are Appendices to the Base Plan. However, they are packaged separately for ease of reference. There are two kinds of Annexes: Functional Annexes and Hazard Annexes.

Figure 1-2: CERP Base Plan



PG&E uses other documents (checklists, forms, job aids, etc.) to assist personnel with emergency roles and responsibilities.

Organized by section relative to the normal flow of emerging incident or event requirements, CERP sections 1-10 are compared in Table 1-1 to General Order (G.O.) 166 Standards. The California Public Utilities Commission (CPUC) promulgates and maintains G.O. 166 to provide regulatory guidance on how California investor-owned electric utilities prepare and respond to emergencies. G.O. 166 Standard 11 requires each utility to submit an Annual Report on Compliance in relation to its thirteen component standards.

Table 1-1: CERP Organization Comparison to G.O. 166 Standards

| CERP Section | Topic Content | G.O. 166 Standard |
|-----------------------|---|-------------------|
| Document Organization | Table of Contents; Lists of Tables and Figures | |
| Preface | Document approvals, controls, and change record | |

| CERP Section | Topic Content | G.O. 166 Standard |
|---|---|---|
| 1 Introduction | The Plan's purpose, scope, guiding principles, emergency planning and response priorities, plan maintenance, and regulatory authorities | |
| 2 Company Overview | PG&E's organizational and operational structure and customers | |
| 3 Emergency Management | How PG&E applies risk management to emergency response, planning assumptions, scenarios and planning, and conducting and evaluating emergency training | 3. Emergency Training and Exercise 3D. 10-Day Annual Exercise Report Notice |
| 4 Incident Management Concepts and Guidelines | PG&E's emergency management concepts and guidelines, including dual commodity response, unified command, emergency financial management and cost recovery | 1A. Internal Coordination |
| 5 EOC Staffing | PG&E's emergency teams, the company leadership, EOC organization and position descriptions | 1A. Internal Coordination |
| 6 Emergency Facilities | Emergency centers, control rooms, support and coordination centers, and emergency field sites, including mobile command vehicles (MCVs) | 1A. Internal Coordination |
| 7 External Relationships | PG&E's relationships with and responsibilities to industry organizations and local, state and federal agencies | 1D. External and Government Coordination 6. Initial Notification Standard 10. Annual Pre-Event Communication Standard |
| 8 Concept of Operations | PG&E's emergency plan activation, levels of emergencies, triggers and authorities to activate emergency centers, response sequence, and damage modeling | 1A. Internal Coordination 5. Activation Standard 6. Initial Notification |

| CERP Section | Topic Content | G.O. 166 Standard |
|---|---|--|
| 9 Resource Management, Mutual Assistance and Demobilization | Planning, tracking and management crew and material resources in relationship to emergency preparedness and response; mutual assistance agreements, strategy, process and documentation. Also provides details on Edison Electric Institute (EEI) Resource Allocation Management Program and National Response Events; demobilization roles, responsibilities and process | 11. Mutual Assistance 2. Mutual Assistance Agreement(s) 7. Mutual Assistance Evaluation Standard |
| 10 Coordination and Communication | How PG&E disseminates emergency response information internally, to executives, to external stakeholders, and to the public | 1A. Internal Coordination 1C. Media Coordination 1D. External and Government Coordination 4. Communications Strategy 8. Major Outage and Restoration Estimate Communication Standard |
| 11 Appendices | Supplemental materials, including annexes, to define or provide additional detail on acronyms and terms, the Incident Command System (ICS), meetings, agendas, schedules, MCVs, etc. | |

1.5.1 CERP Annexes

Annexes are detailed emergency response plans for specific operations, functions, or hazards. They refer back to the CERP and other annexes, or specific procedures. Annexes are reviewed annually and are structured similarly to the CERP. PG&E's Electric Annex to CERP is an example of a functional annex, whereas PG&E's Wildfire Annex to the CERP is a hazard annex.

Access a complete copy of any annex in the [Guidance Document Library \(PG&E@Work > Guidance Document Library > Emergency Response \(EMER\)\)](#). Annexes are identified by name and number in the EMER-2001S Company Emergency Response Plans Standard and on the GDL.

1.6 Plan Maintenance

Maintenance of the Company Emergency Response Plan (CERP) is the responsibility of the Emergency Preparedness and Response (EP&R) Organization and is delegated to the EP&R Strategy and Execution Department. The Strategy and Execution Department Emergency Planning, Process Improvement and Change (EPPIC) Unit is responsible for annually reviewing and editing the CERP. The CERP review team works with subject matter experts from across the enterprise to update the plan.

The CERP and functional and hazard-specific annexes are annually reviewed and approved in compliance with PG&E's emergency planning standard EMER-2001S². The CERP is published on the Guidance Document Library (GDL)³. An interim update to the CERP can be performed by submitting a Change Request form (EMER-2001S-F01), available in the GDL and emailing EPRCERP@pge.com.

EP&R will address suggested plan change requests and recommendations:

- Significant changes to roles and responsibilities, emergency organization, personnel call-out procedure, regulatory requirement changes, or other major area of the plan will be addressed within **60 days** of receipt of the request.
- Proposed changes to the CERP are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan. The information will be addressed within **60 days** of receipt as a Bulletin update to the CERP. Bulletins serve as changes to plan documents when there is information that must be conveyed quickly and there is insufficient time to revise the parent document. As soon as possible, the new or changed information will be added to the parent document and the bulletin will be canceled.
- Minor changes to the plan which include word changes, image updates, and formatting will be held until the next formal plan update. These changes will be addressed during the annual plan update process, which takes place within the **second quarter (Q2) of the calendar year**.

Additionally, with regard to the Cybersecurity Annex, EP&R and Cybersecurity will perform the following activities to meet the NERC CIP 008 requirements:

- Cybersecurity should notify EP&R of any changes to the NERC CIP requirement within **30 days**.
- Within **60 days** of a change to roles and responsibilities, cybersecurity incident response groups or individuals, or technology, Cybersecurity will update the Cybersecurity Annex and EP&R will notify emergency staff of the update.
- Within **90 days of a cyber incident response (actual or exercise)**, Cybersecurity will provide lessons learned and will update the Cybersecurity Annex.

As part of the annual review process, EP&R revises the CERP training curricula for internal responders to the Emergency Operations Center (EOC). Additional training is implemented through specialized classes, the company-wide exercise, and practical exercises. PG&E's internal training and exercise program is a multi-year program that aims to socialize aspects of the CERP and focuses on procedures and specific hazards.

² EMER-2001S is available on the Guidance Document Library at:

³ The Guidance Document Library is at:

For more information about PG&E's training and exercises, see section 3, [Emergency Management](#).

1.7 Regulations and Authorities

The CERP, including the Base Plan and its Annexes, is reviewed and updated annually in accordance with PG&E's [Company Emergency Operations Plans Standard \(EMER-2001S\)](#) and the California Public Utilities Commission (CPUC):

- [General Order 166, "Standards for Operation, Reliability and Safety During Emergencies and Disasters"](#)^{3F}
- [General Order 112-F, "State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems," Subpart C, 143.6, "Compatible Emergency Response Standard,"](#)^{4F}⁴ which cites federal regulation [49 CFR § 192.615, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards: Operations - Emergency Plans"](#)^{5F}⁵

The CERP, including documentation of revisions, is filed annually with the CPUC. Sections containing confidential or sensitive information are filed under seal with the CPUC and are required to be redacted from any public release.

The CERP also complies with the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) reliability standard for Cyber Security Incident Reporting and Response Planning CIP-008-05.

⁴ G.O.112-F states that "All Gas utilities shall use, at a minimum, the Incident Command System (ICS) as a framework for responding to and managing emergencies and disasters involving multiple jurisdictions or multiple agency responses. The ICS used by utilities must be compatible with the ICS used by the first responder community within the State of California and as detailed in California Government Code Section 8607(a)." To access G.O.112-F see link above or <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M163/K327/163327660.PDF>. Link validated 06/11/2020.

⁵ For the text of 49 CFR § 192.615, see https://www.ecfr.gov/cgi-bin/text-idx?node=se49.3.192_1615. Link validated 06/11/2020.

2 Company Overview

2.1 Service Area

Pacific Gas and Electric Company (PG&E), incorporated in California in 1905, is the largest combined natural gas and electric energy company in the United States. Based in San Francisco, California, the company is a subsidiary of PG&E Corporation. In total, PG&E service, territory and assets include:

Area

- 70,000 square miles
- 47 of California's 58 counties
- Eureka in the north to Bakersfield in the south
- Pacific Ocean in the west to the Sierra Nevada in the east

Assets

- Employees, Non-employees workers, and Contractors⁶: 35,903
- Circuit miles of electric distribution lines: 106,681⁷
- Circuit miles of electric transmission lines: 18,337⁸
- Miles of gas distribution pipelines: 42,141
- Miles of gas transmission pipelines: 6,438
- Powerhouses in hydroelectric system: 67
- Reservoirs in hydroelectric system: 120

Customers⁹

- ~5.1M electric customers (accounts)
- ~4.4M natural gas customers (accounts)

2.2 PG&E Organizational Structure

The PG&E Corporation continues to plan and incorporate new organizational leadership, increasing efficiencies in staffing, and increasing strategic management.

⁶ Employee and non-employee information from the GN 801 Employee and Non-Employee Report as of June 4, 2020. The GN 801 report is located at [REDACTED]

⁷ In March 2017 PG&E expanded its Geographic Information System (GIS) technology to more accurately represent PG&E's distribution system.

⁸ The information was validated with Transmission Asset Strategy and ET-GIS on 01/21/2020

⁹ Customer Data from

The major work streams are spread across the PG&E Utility and the Office of the CEO¹⁰ listed in [Table 2-1](#).

Table 2-1: PG&E Organizational Structure

| Line of Business | Responsibilities |
|--|---|
| Office of the CEO | |
| General Counsel, Ethics and Compliance | Responsible for Law, Litigation and Commercial Contracts, Legal Operations & Claims, Corporate Governance, Enterprise Records and Information Management, and Corporate Compliance and Government Oversight |
| Finance | Responsible for Business and Performance Management, Treasury, Internal Audit, Tax, Investor Relations, Business Finance and Planning, and Controller |
| Enterprise Health & Safety | Responsible for Safety & Health, Enterprise Corrective Action Program, Enterprise Safety Management System, Business & Performance Management, Integrated Disability Management, DOT & Regulatory Compliance, Business Operations, and Field Safety Operations |
| Customer & Communications | Responsible for Customer Service, Customer Experience & Regulatory Strategy, Security, Business Development and Customer Engagement, Customer Operations & Enablement, Customer Care Business Operations, Residential Services & Digital Channels |
| PG&E Utilities Operations | (Includes Electric and Gas Operations and Generation) |
| Electric Operations | Responsible for Major Projects & Programs, Electric Transmission Operations, Wildlife Safety Public Engagement, Regulatory Compliance & Quality Assurance, Community Wildfire Safety Program and Asset Risk Management, Emergency Preparedness & Response, and Electric Distribution Operations |
| Gas Operations | Responsible for Asset Management and System Operations, Gas T&D Operations, Lean Capability / Chief of Staff, Gas T&D Construction, Safety Quality and Contract Management, and Gas Stewardship Office |
| Generation | Responsible for Quality Verification, Nuclear Generation, Power Generation, and Business and Technical Services |
| Information Technology | Responsible for IT Office of the CIO, Data and Analytics, Products and Enterprise Platforms, Enterprise Strategy and Architecture, and Application and Infrastructure Services |
| Wildfire Risk | Responsible for Enterprise Vegetation Management, PSPS Operations & Execution and System Inspections |
| Engineering, Planning & Strategy | Responsible for Electric Engineering, Gas Engineering and Energy Policy and Procurement |
| Corporate Affairs | Responsible for Federal Affairs, Regulatory Affairs and State Government Relations |

¹⁰ Structure as reflected in Who's Who organizational chart, April 15, 2020.

| Line of Business | Responsibilities |
|--|---|
| People, Shared Services & Supply Chain | Responsible for Land Management; Corporate Real Estate Strategy & Service (CRESS), Aviation Services, General Counsel Risk and Compliance; Environmental Management and Programs, Environmental Programs and Systems, Remediation, Environmental Remediation, and Transportation Services; Supply Chain Sourcing Operations, Contract Lifecycle Management, Supply Chain Market Intelligence and Analytics, Supply Chain Responsibility, Supplier Quality Assurance, and Materials and Distribution Operations. |

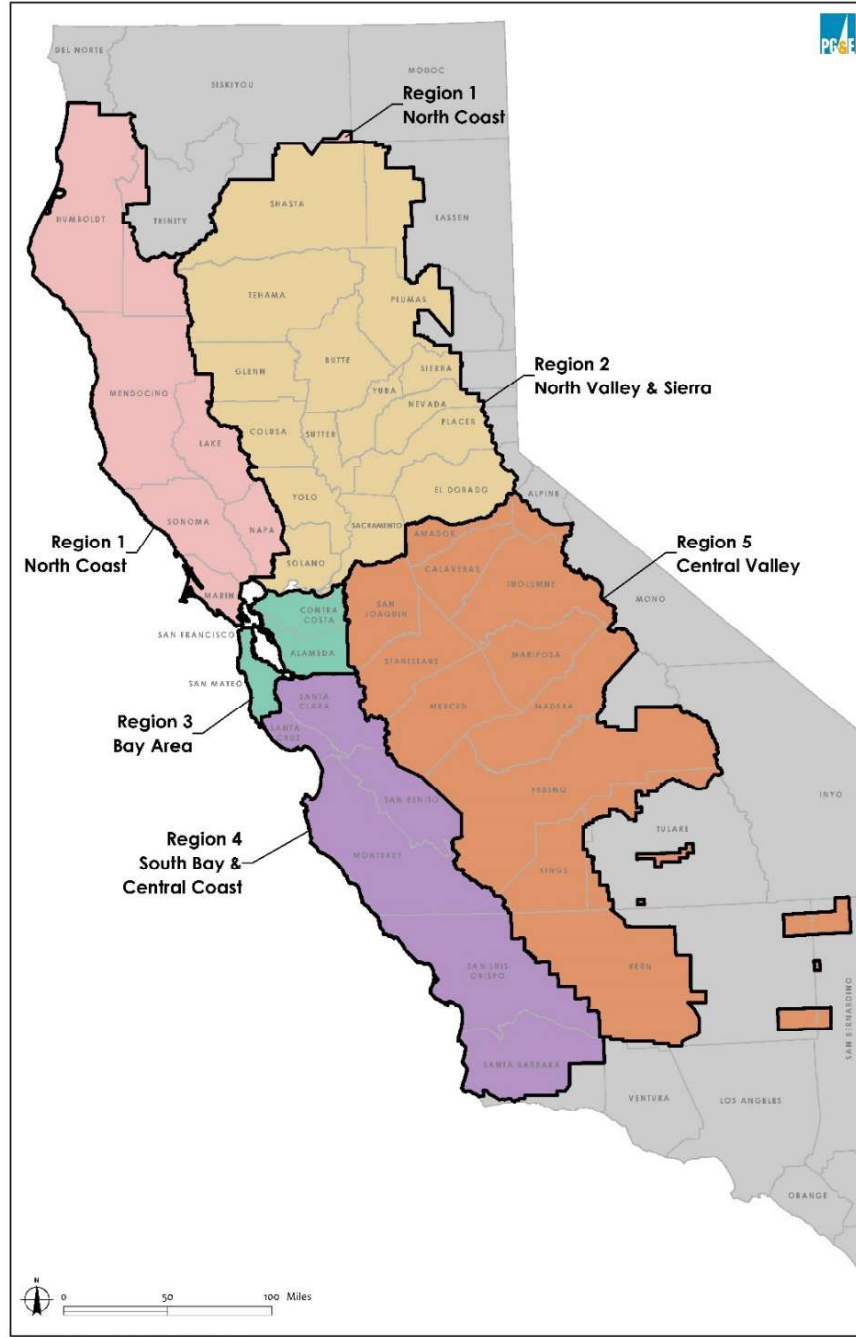
2.3 New PG&E Operational Structure

On February 26, 2021, PG&E submitted an update regionalization proposal to the CPUC in compliance with the *Assigned Commissioner's Scoping Memo and Ruling* dated October 2, 2020.¹¹ With the submittal, PG&E created five new regional boundaries (Figure 2-1) designed to:

- Align PG&E regional boundaries with county boundaries to provide greater clarity on PG&E points of contact for local officials.
- Align work standards for proximate counties with similar customer, geographic, weather, and operational characteristics.
- Capitalize on proximate travel corridors to facilitate the movement of company resources.

¹¹ This document was a follow up PG&E initial Regionalization Proposal filed with the CPUC on June 30, 2020, following directions contained in Decision ("D.") 20-05-053 in the Plan of Reorganization Order Instituting Investigation ("POR Decision")

Figure 2-1: PG&E Regions Map



As of May 27, 2021, PG&E announced the hiring of five new Regional Vice Presidents, four Regional Safety Directors and one Interim Regional Safety Director.

2.3.1 Electric Operations

The Electric Annex to the CERP focuses on two primary areas:

- Electric Distribution Operations
- Electric Transmission Operations

2.3.1.1 Electric Transmission Operations

Electric Transmission Operations (Figure 2-2) ensures the safe, reliable, compliant and event-free operation of our electric transmission system across short- and long-term planning horizons. This group is primarily responsible for Grid Operations, Construction, Operations and Maintenance of our Substations and Transmission Systems assets, including large projects. Electric Transmission Operations manages PG&E's service territory from four regions—North Coast, North Valley, Central Coast, and South. Electric Transmission assets include:

- 18,337 transmission circuit miles (60kV to 500kV)¹²
- 107 Transmission substations
- 2 Transmission Control Centers¹³
 - Vacaville Grid Control Center (VGCC) – manages real-time transmission operations and is the single point of contact for the California Independent System Operator (CAISO)
 - Rocklin Grid Control Center (RGCC) – performs contingency studies, next-day analysis, handles all telecom clearances and maintains full functionality as the backup facility for the VGCC
- Connects to transmission and distribution substations from which electricity is distributed to individual customers through step-down transformers

Figure 2-2: Electric Transmission
See Appendix A for larger map



¹² The information was validated with Transmission Asset Strategy and ET-GIS on 01/21/2020

¹³ Transmission control center information provided by Emergency Management Specialist Transmission, 6/18/2019.

2.3.1.2 Distribution

Electric Distribution Operations ensures that we are safely maintaining, constructing and operating our distribution system. This group is also responsible for restoration, system operations, and the execution of our Reliability Programs, Corrective Maintenance, and Preventative Maintenance. Electric Distribution Operations manages the service territory in three regions—North, Bay/Central, and South (Figure 2-3). Electric Distribution works throughout the service territory in nineteen divisions and thirty-seven districts. Electric Distribution assets include:

- 100,000-line circuit miles¹⁴
- 769 Distribution substations¹⁵
- 3 Distribution Control Centers – North, Central, and South

Figure 2-3: Electric Distribution Regions and Divisions
See Appendix A for larger map



For further information on Electric Transmission and Distribution operations, refer to the [Electric Operations site](#). The address to Electric Operations is:



2.3.2 Gas Operations

Gas Operations (Figure 2-4) includes transmission, distribution, storage, and Gas Operations Center.

Transmission

- 7 Transmission field service areas¹⁶
- 11 Transmission districts
- ~6,800 miles of transmission pipeline
- Transports gas from interconnections with interstate pipelines owned by third parties that feed natural gas from all the major natural gas basins in western North America, including western Canada, the U.S. Southwest and the Rocky Mountains

Figure 2-4: Gas Operations

See Appendix A for larger map and details



Verified by Asset Maintenance and Inspection, 06/24/2019.

Verified by Substation Asset Management and also confirmed by SEC 10-K report (for FY ending Dec 31, 2018), page 17.

Figure 2.2 Field Services Areas, GERP version 6.0 p. 2-8.

- Moves gas into and out of PG&E's 3 underground and other third-party owned natural gas storage facilities
- Feeds the distribution system directly

Distribution

- 2 Distribution regions – North and South
- 18 Distribution divisions
- ~42,000 miles of distribution pipeline

Storage

- 3 underground storage facilities:
 - McDonald Island
 - Los Medanos
 - Pleasant Creek

(**Note:** Though not decommissioned, Pleasant Creek has been reclassified as shut in and is not an actively leveraged storage facility.)

Gas Control Center

- Located in San Ramon and includes:
 - Gas Dispatch and Scheduling
 - Gas Transmission Control Center (GTCC)
 - Gas Distribution Control Center (GDCC)

2.3.3 Power Generation

PG&E’s Power Generation (Figure 2-5) business consists of hydroelectric, fossil and solar generation¹⁷

Hydro Generation

- ~3,900 megawatts of generation from 25 FERC Project Licenses
- 66 powerhouses with:
 - 105 generating units
 - 170 dams
 - 173 miles of canals
 - 132 miles of tunnels
 - 65 miles of pipe (penstocks, siphons and low head pipes)
 - 43 miles of flumes
 - 4 miles of natural waterways
- Additional detail for each hydro area may be found on the PG&E’s Generation System map located at the [Power Generation site](#) address: [REDACTED]

Figure 2-5: PG&E’s Generation System

See Appendix A for larger map and details



Fossil Generation

- ~1,400 megawatts of generation
- Gateway Generating Station
- Humboldt Bay Generating Station
- Colusa Generating Station

Solar Photovoltaic Generation

- 252 megawatts of solar photovoltaic generation with nine solar stations located south of Fresno and one small solar station located just east of Vacaville.

2.3.4 Nuclear

The Diablo Canyon Power Plant (DCPP) is PG&E’s nuclear facility located on approximately 1,000 acres in San Luis Obispo County (Figure 2-6).

Figure 2-6: Nuclear Generation

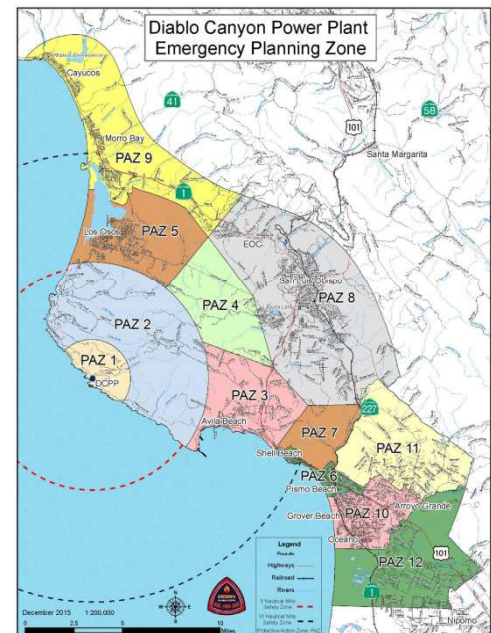
See Appendix A for larger map and details

Updated by Power Generation Public Safety 07/2018.

DCCP includes: ¹⁸

- 2,240 MW total plant generation capacity
- 2 Westinghouse Pressurized Water Reactor units
- 18,000 gigawatt-hours of electricity annually
- ~12,000 acres of land that is managed by PG&E

The Humboldt Bay Power Plant is PG&E's decommissioned nuclear facility consisting of independent spent fuel storage installation (ISFSI).



2.4 Customers

PG&E serves approximately 5.4 million electric customers and 4.5 million natural gas customers. Customers are categorized based on public safety considerations, potential impact(s) resulting from a sustained outage and CPUC requirements for service reliability.

Customer Care is responsible for emergency related customer service operations, including services provided under Customer Experience & Regulatory Strategy, Business Development and Customer Engagement, Customer Operations & Enablement, Customer Care Business Operations, and Residential Services & Digital Channels.

2.4.1 Critical Customers

Critical customers fall into three key categories:

- Public safety impacting
- Community impacting
- Higher education/universities or schools K-12

Public safety impacting customers provides or supports the emergency response needs within their communities.

- Immediate Emergency Response Customers (CC1) may include 911 dispatch centers, emergency operations centers, trauma centers/hospitals or police/fire stations.

¹⁸ DCCP statistics and map validated by Nuclear Communications Senior Manager, Communications 06/12/2017.

- Supporting Emergency Response Customers (CC2) may include evacuation centers/shelters, kidney dialysis centers, public transportation centers, or water treatment/sewage plants.

Community-impacted customers are further clarified and prioritized by two levels based on overall community needs and impact during an event.

- High (CC3) to Med-Low (CC4) Impact Customers are critical customers that may experience significant loss (physical damage, data, revenue, etc.) in the event they experience a sustained outage
- High (CC3) to Med-Low (CC4) Profile Customers are critical customers that may attract significant public scrutiny in the even they experience a sustained outage

Customer support examples may include 24-hour operations facilities, arenas/coliseums, food refrigeration/food processing or call centers.

Critical customers are monitored in the Outage Information System/Outage Management Tool (OIS/OMT) for priority restoration and communications during an unplanned outage event.

2.4.2 Essential Customers

Essential customers are defined by the California Public Utilities Commission and are exempt from rotating outages when there is an insufficient supply of electricity. Depending on the status of the backup generation at the customer's facility, non-residential customers who provide certain essential public health, safety, and security services are considered essential use customers. Essential customers fall into one of more of the following categories:

- Government and other agencies providing essential fire, police, and prison services
- Government agencies important to national defense
- Hospitals and skilled nursing facilities
- Communication utilities as they relate to public health, welfare, and security, including telephone
- Water and sewage treatment facilities when their services are required for emergency response such as firefighting

For further information about critical and essential customers, refer to the [Customer Care Emergency Response Site](#).¹⁹

¹⁹ Complete UR [REDACTED]

2.5 PG&E Emergency Preparedness Departments

The PG&E emergency management structure includes dedicated full-time and on-call staff and contractors whose primary responsibilities are emergency management related. Other teams stand up as needed.

The Emergency Response Teams and certain work facilities, such as the Control Centers, are PG&E departments and/or facilities whose primary function is to manage day-to-day LOB operations as well as level 1 thru level 3 emergency incidents, as well as to prepare for and support PG&E's emergency response. Some teams are made of cross-functional LOB personnel.

The Incident Management Teams (IMTs), and field sites are identified and ready to quickly come together when needed to respond to an incident, as described in Chapter 6, "Emergency Facilities and Coordination Centers".

2.5.1 Electric Transmission Operations – Grid and Emergency Response

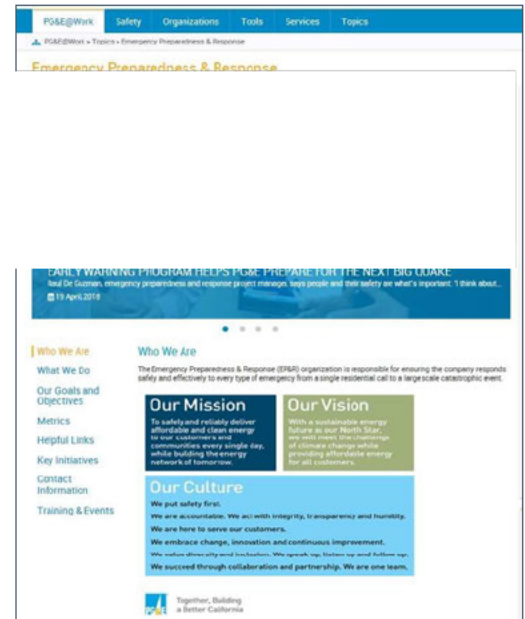
Electric Transmission Operations (TO) - Grid and Emergency Response is the corporate emergency management component for emergency preparedness, prevention, response, mitigation, recovery and related initiatives.

The EP&R Strategy and Execution (SE) sub component of TO-Grid & Emergency Response is organized to cover the five major areas of emergency management: Prevention, Protection, Mitigation, Response and Recovery. Core initiatives and projects implemented by EP&R SE include:

- Developing corporate emergency strategy, preparedness, response and business continuity policies, standards and procedures
- Maintaining and promoting PG&E's company-wide emergency response and business continuity plans
- Supporting PG&E LOBs and cross-functional teams to develop, review and test functional and hazard-specific annexes and business continuity plans (BCPs)
- Integrating Information Technology (IT) disaster recovery planning with emergency response planning to minimize or eliminate impacts to PG&E service delivery.
- Sponsoring internal and external emergency preparedness events
- Conducting of annual company exercises and functional/hazard-specific exercises
- Maintaining the Emergency Operations Center (EOC), including displays of and access to technologies and systems used to provide situational awareness

Figure 2-7: EP&R Intranet Homepage

- Developing tools, personnel and processes, and having them in place **before** a large disaster strikes
- Establishing processes that are scalable to any hazard
- Developing new technologies in the areas of damage modeling, earthquake early warning systems and identification and prioritization of natural and human-caused hazards and risks
- Partnering with Corporate Security to operate the LiveSafe application²⁰ focused on employee safety.
- Facilitating plan–do–check–act (PDCA) continuous improvement of emergency management core capabilities.
- Annually developing and submitting to the CPUC the G.O. 166 report.



More information about EP&R is available on the [EP&R intranet site](#)²¹(Figure 2-7).

2.5.2 Electric Emergency Management

The Electric Distribution Operations Emergency Management (EDO EM) team, working with other leaders across Electric Operations, develops and recommends a strategic direction for electric emergency preparedness, emergency response and public partnerships.

EDO EM responsibilities include:

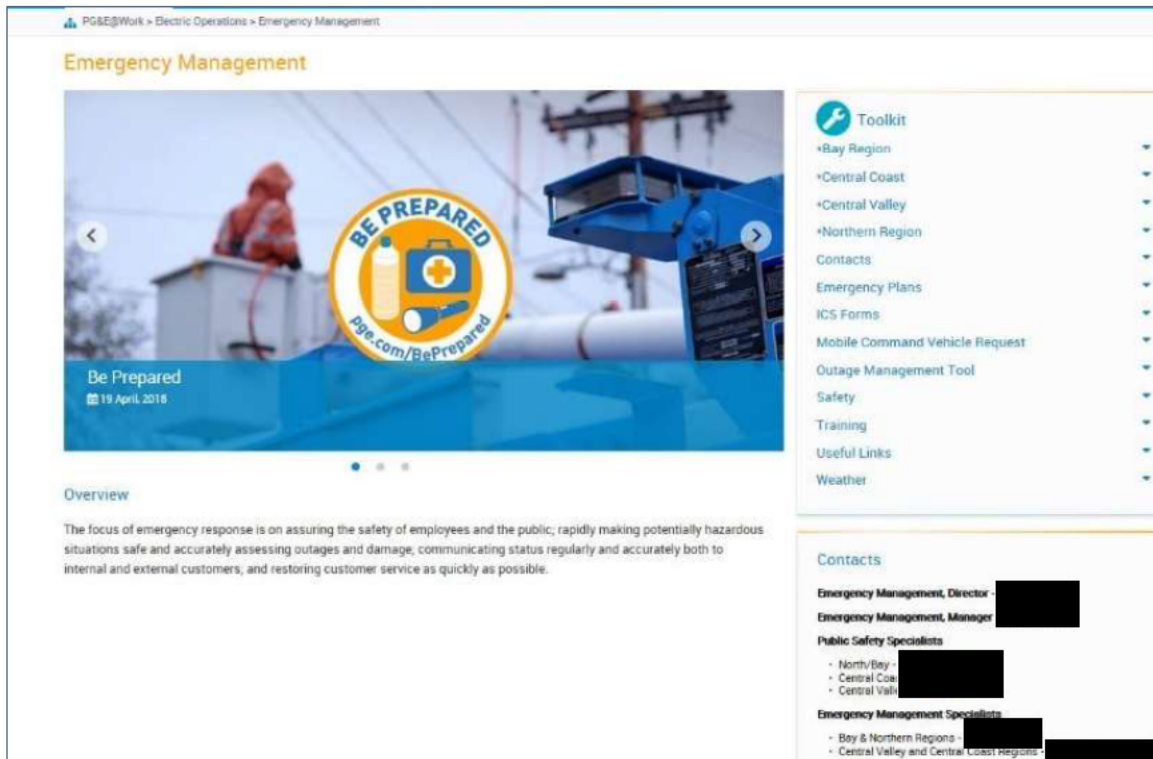
- Responds to emergency centers and supports electric distribution emergency incidents.
- Facilitates Electric emergency response and business continuity planning, as well as maintaining related documents, such as the Electric Annex and BCPs.
- Conducts training and exercises to ensure the readiness of Electric Regional Emergency Center (REC) and Operations Emergency Center (OEC) personnel.
- Trains and coordinates emergency activities with public safety agencies.
- Conducts performance monitoring of key operations and reliability metrics.

²⁰ For further information on the LiveSafe application, refer to PG&E intranet site [REDACTED]
 Instructions for downloading the LiveSafe application are located:

²¹ Complete URL as of 06/10/20 [REDACTED]

More information about EDO EM is available on the [Emergency Management](#) intranet site²² (Figure 2-8).

Figure 2-8: Electric Emergency Management Webpage



2.5.3 Gas Emergency Preparedness

The Gas Emergency Preparedness (GEP) Team is responsible for overseeing Gas Operation's incident preparedness and response programs, which include planning, training, exercising and responding to emergency incidents.

GEP performs the following functions:

- Executes Gas Emergency Response Plan Training, Exercise and Evaluation, [EMER-6010S](#), responds to emergency centers and supports gas incidents, Levels 2 through 5
- Promotes incident management doctrine and principles within Gas Operations
- Develops and maintains the Gas Emergency Response Plan (GERP)
- Conducts annual emergency response plan training and exercises

Complete URL as of 06/10/2020: [REDACTED]

- Facilitates the use of the PG&E Corrective Action Program (CAP) following gas incidents and exercises, which may include hosting one or more of the following: Hot Wash Discussions, After Action Reviews (AAR)
- Implements continuous improvement/corrective action items related to Gas Operations incident preparedness and response program (inclusively)
- Submits incident response plans annually to the California Public Utilities Commission (CPUC)
- Participates in industry benchmarking on Emergency Management solutions and best practices
- Organizes, trains, and equips Gas Emergency Center teams and facilities
- Supports overall business continuity for gas operations

In addition to the functions listed above, the GEP Team also provides Incident Command (IC) Advisors for the Gas Emergency Center (GEC) if activated, and for any activated Gas Incident Command Posts (ICPs).

Gas EPCs maintain 24/7/365 rotational on-call status for emergencies and respond to Gas Emergency Centers and the PG&E Emergency Operation Center upon notification of a gas incident or emergency center activation. The Gas Emergency On-Call Hotline is (925) 244-4000.

2.5.4 Diablo Canyon Power Plant Emergency Preparedness

The Senior Vice President, Generation and Chief Nuclear Officer is responsible for overall emergency preparedness at Diablo Canyon Power Plant (DCPP). Day-to-day management is delegated to the Emergency Planning Manager whose department:

- Ensures a highly trained Emergency Response Organization (ERO) is ready to respond
- Prepares and updates detailed emergency plans and procedures
- Maintains emergency response facilities, equipment and resources within strict federal regulations that govern the program, including
 - The ERO's rotating on-call teams to ensure that continuous 24-hour operations can be sustained
- Coordinates emergency preparedness integration with local, state and federal government agencies and the PG&E Corporate Emergency Preparedness and Response organization

More information about DCPP Emergency Preparedness is available on the [DCPP Emergency Planning](#) intranet site (Figure 2-9).

Figure 2-9: DCPD Emergency Planning Webpage

Generation Operations > Diablo Canyon Power Plant > Emergency Planning

DCPD Emergency Planning

Emergency Planning Zones (EPZs)
 NRC/FEMA established a 10 mile radius limit for the plume exposure pathway EPZ and an approximate 50 mile radius limit for the ingestio...
 19 April, 2018

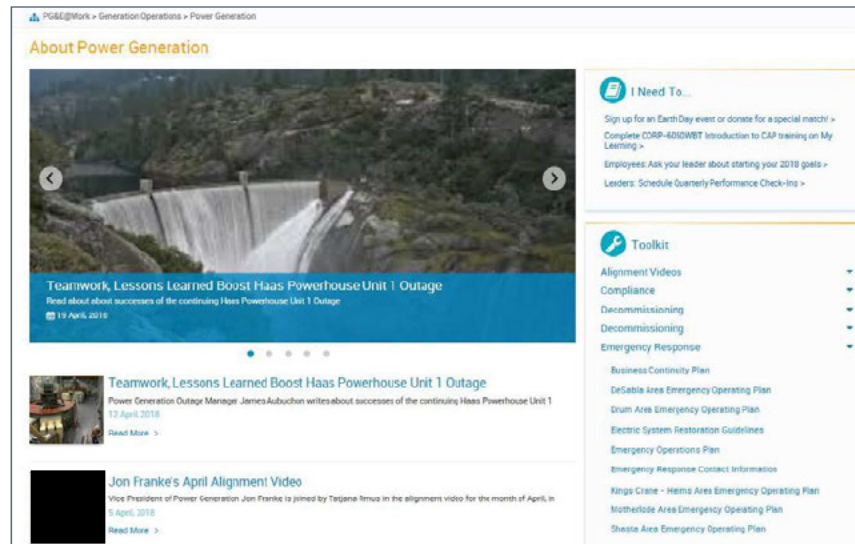
| | |
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| <p>Who We Are</p> <p>What We Do</p> <p>Our Goals and Objectives</p> <p>Metrics</p> <p>Our Services</p> <p>Helpful Links</p> <p>Key Initiatives</p> | <p>Who We Are</p> <p>Your DCPD Emergency Planning department implements and ensures an effective Emergency Preparedness Program at DCPD.</p> <p>Our overall objective is to protect public health and safety.</p> <p>An effective Emergency Preparedness Program requires a high degree of coordination in administrative, technical, and communications areas. In the event of a plant or Independent Spent Fuel Storage Installation (ISFSI) emergency, natural phenomena, or offsite incident, a well-coordinated, effective, and timely response to the event will minimize the consequences to both onsite personnel and the public.</p> <p>The key to being prepared? A highly trained Emergency Response Organization (ERO), as well as properly maintained plans, procedures, facilities, equipment, and resources.</p> |
|---|--|

2.5.5 Power Generation Emergency Preparedness

Power Generation Preparedness supports hydro, fossil, solar, and fuel cell generation and reports up to the Director of Engineering and includes Public Safety and Security (Figure 2-10). The team is responsible for:

- Maintaining the Emergency Response Plans (ERP) and Emergency Action Plans (EAP)
- Conducting annual training and exercises
- Supporting Power Generation personnel during emergency incidents

Figure 2-10: Power Generation Emergency Preparedness Webpage



2.6 PG&E Emergency Management Organization

The next two chapters describe PG&E's Company Leadership and the ICS EOC Command and General Staff structure. The positions described below specifically refer to the Company Leadership and EOC staff positions; however, other emergency centers will have the same ICS staffing structure:

- The Company Leadership is chaired by the CEO of PG&E Corporation, or a President of PG&E Company designated by the CEO, and includes executives representing all areas of the company
- The Command Staff is led by the EOC Commander (IC) and includes the Deputy EOC Commanders and Support Staff (see section 5.1, EOC Command Staff)
- The General Staff consists of the five sections: Operations, Intelligence & Investigation, Planning, Logistics, and Finance & Administration

Officers and Section Chiefs have additional direct reports; each Officer and EOC Section is described in detail further in this chapter. In the EOC, sections are distinguished by the color of the vest worn while on duty.

2.7 Wildfire Risk Command Center

Announced in March 17, 2021 and currently operating out of PG&E's San Ramon Valley Conference Center, the Wildfire Risk Command Center is tasked with executing PG&E's [2021 Wildfire Mitigation Plan](#) commitment with the California Public Utilities Commission. Use of the San Ramon Valley facility enables quick, in-person decision making, working in accordance with COVID19 safety precautions, to ensure WMP progress on asset and environment related WMP risk reductions.

2.8 Incident Management Teams and Incident Support Teams

An Incident Management Team is comprised of an Emergency Center Commander (IC or EOC Commander) and the Command and General Staff personnel assigned to an incident. Incident teams, when assembled, have direct authority to plan and execute a response. Incident Management Teams will be staffed with a full complement of Command & General Staff personnel, but may only activate partially if appropriate. An incident team at the EOC, field and local levels is called an Incident Management Team (IMT); an incident team at the GEC is called an Incident Support Team (IST).

Incident teams are trained to work at a variety of locations, including the EOC or a PG&E Incident Command Post (ICP). Incident teams may contain only overhead staff (officers, chiefs and commanders) or up to a full complement of support staff for all ICS positions. Incident Teams may consist of on-call staff or other employees called in to respond to an incident.

Some incident teams are on-call according to a scheduled rotation calendar posted at the beginning of the year. DCP, Gas, Government Relations, IT and many of the coordination centers use this model. However, teams also may be made up of any combination of first responders, SMEs and other employees throughout the enterprise.

2.9 Best Practices

From summer rotating outages to a record California's wildfire season, 2020 prompted one of the heaviest EOC activation periods on record for PG&E. Despite the extraordinary operational tempo, EOC team members demonstrated persistence, flexibility and resilience in meeting the challenge in a significantly altered operating environment due to the SARS-CoV-2 pandemic.

2.9.1 COVID-19 and Microsoft TEAMS

As a result of the SARS-CoV-2 pandemic, unprecedented in PG&E history, Electric Transmission Operations (TO) - Grid and Emergency Response has moved essentially all EOC Command and General staff operations to a virtual Microsoft TEAMS environment. While challenges remain with situational awareness displays, meeting cadences and staff familiarity with the electronic platform, this move to a virtual environment has in all likelihood reduced the potential for SARS-CoV-2 transmission. This new electronic approach has also introduced logistical efficiencies (e.g., reduced to non-existing commuting, reduced physical facility footprints, real-time communications) that will enable leaner EOC operations once the pandemic subsides.

2.9.2 Rotating EOC Team Schedule

The Director of EP&R Strategy and Execution (EP&R SE) maintains a rotating EOC Team schedule (Table 2-2) with contact information for emergency response personnel and is responsible for issuing the call to activate the Company EOC. Day shift and night shift teams may be activated at the discretion of the EOC Commander. Each team is prepared to serve in the EOC for a one-week period.

Table 2-2: Rotating EOC Team Schedule

| Week | Day Shift | Night Shift |
|------|-----------|-------------|
| 1 | Alpha | Bravo |
| 2 | Charlie | Delta |
| 3 | Echo | Foxtrot |
| 4 | Golf | Hotel |

Beginning October 22, 2020, and concurrent with the activation of the Company EOC for an October 21, 2020 PSPS event, PG&E EP&R prepared an initial ICS 201 Incident Briefing in advance of an anticipated October 25, 2020 PSPS event. With the day shift team already engaged, the EP&R SE Director was able to activate the on-call EOC night shift team in a virtual mode for the second EOC event without interrupting the activated team management of the October 21, 2020 PSPS event. Considered a best practice staffing approach, the use of the standing day and night EOC roster in this manner enabled service reliability and safety by clarifying roles and responsibilities for separate but staggered PSPS events.

2.9.3 Situational Awareness

Described in detail in the [CERP PSPS Annex](#), the PSPS Situational Intelligence Platform (PSIP) is built on PG&E's implementation of the Palantir Foundry system. Connected to 50+ source systems contain billions of records relevant to asset health analytics, it is PG&E's central Public Safety Power Shutoff (PSPS) decision-making, reporting, and communications platform. In 2020, PG&E used the PSIP platform to develop, communicate and display situational awareness and intelligence for PSPS events.

2.9.4 ICS Based Incident/Event Management

Codified within daily incident action plans, PG&E's implementation of the Incident Command System (ICS) continues to underpin and facilitate streamlined emergency operations. Scalable and modular by design, PG&E's use of the ICS has enabled the transition from PSPS related damage prevention to damage recovery by clarifying separate EOC PSPS and field restoration chain of command relationships.

A case in point occurred in January 2021 with the onset of PSPS conditions and damaging high winds (Figure 2-11) in the central part of the service territory along the Sierra Nevada Mountain foothills. PG&E activated its EOC on Saturday, January 16, 2021 in anticipation of PSPS conditions from Wednesday, January 19-20, 2021. Though minimizing the potential for fire ignition, the number of Company EOC initiated PSPS de-energizations (5,099 customers) were ultimately overtaken by a far larger number of customers outages (394,000 at peak) due to windstorm conditions.

Figure 2-11 January 2021 Windstorm Damage



With up to 2,400 customers experiencing prolonged outages due to the January 19-20, 2021 windstorm, PG&E was able to quickly organize and mobilized local restoration operations separate and apart from the PSPS EOC operations by leveraging the ICS tenets of unity of command, chain of command, and management by objective.

Moving forward, PG&E will continue to leverage the modular “plug and play” nature of the ICS Technical Specialist function, including the potential use of PPS Technical Lead support for capacity shortage events.

2.9.4 Public Safety Power Shutoffs

An indicator of increased flexibility and resilience, PG&E has continued to reduce the size and duration of Public Safety Power Shutoff (PSPS) events. An example of this occurred on December 2, 2020, when PG&E initiated a virtual EOC managed PSPS to mitigate wildfire risk presented by anticipated high winds, low humidity levels and critically dry vegetative fuels.

Due to increased meteorological predictive capability, on-going weather analysis, activity managed de-energization scoping and grid mitigation measures, the December 2020 PSPS event affected about 19% fewer customers than would have been affected by the same weather conditions in 2019. Although a PG&E weather station measured at least one gust of up to 72 mph, the PSPS event resulted in a comparatively limited de-energization of 617 customers in three different Time-Places (TPs) in Kern County.

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3 Emergency Management

PG&E considers two (2) types of risk: corporate operational and event based. Enterprise and Operational Risk Management (EORM) has various tools and a procedure²³ for managing corporate operational risk. In the event-based risk framework, Emergency Preparedness and Response (EP&R) serves a key role in mitigating the consequences of many risk events. Conducting evaluations and after-action reviews of EP&R and other LOB practices and procedures—during and following company exercises—is a standard step in contributing toward our operational management of risk. Lessons learned from and best practices identified during these activities inform improvements to EP&R and other participating LOB practices. Corporate risk owners and managers incorporate the results of these improvements in their periodic risk assessments.

3.1 Situational Awareness

PG&E emergency managers develop Situational Awareness by: (1) ensuring essential elements of information are collected, processed and communicated to relevant EOC members; (2) delivering information to inform decision making to save and sustain life and stabilize the incident; (3) monitoring information before an incident; and (4) sharing information gathered to develop a common operating picture. Variables impacting PG&E's Situational Awareness include asset status, long to short range wind, relative humidity, rain and heat potentials and duration, geologic threats, geomorphology, and vegetative cover and condition. In addition to environmental threats, PG&E emergency managers look at demographic factors including disadvantaged vulnerable communities and people with access and functional needs.

3.1.1 Hazard Awareness & Warning Center

The Hazard Awareness & Warning Center (HAWC) is PG&E's centralized information center to detect, assess, communicate, and initiate response to identified hazard events. The HAWC is staffed 24 hours a day, seven days a week and can vary staffing to support conditions.

The HAWC falls under the Wildfire Safety Organization (WSO) which consists of two elements: (1) the HAWC, and (2) Safety and Infrastructure Protection Team (SIPT) crews who mitigate the risk of fire at work sites. SIPT crews also support field observations and assessments to support field fire safety.

HAWC personnel:

- Monitor potential fire threats and ignitions across PG&E's service area to include cameras, satellite remote sensing and communications monitoring

²³ Enterprise and Operational Risk Management Standard and Procedure (5001S and 5001P-01) are in the GDL.

- Analyze real-time information to maintain hazard situational awareness across PG&E's service area in support of stakeholders, lines of business and leadership reporting.
- Partner with Geosciences to increase awareness of land movement and geologic phenomena throughout the service territory, to include landslides, post-wildfire debris flows, earthquakes, and tsunamis.
- Partner with Meteorology to support PSPS events and other major weather events through the HAWC facility and SIPT crews.
- Coordinate as necessary with the PG&E Emergency Operations Center to support response to monitored hazards and PSPS events.

3.1.2 Safety and Infrastructure Protection Teams

As part of its wildfire safety efforts, PG&E established the Safety and Infrastructure Protection Teams (SIPT) program to provide firefighting expertise and resources in support of operations and maintenance crews and PG&E asset and infrastructure at potential risk to wildfire. SIPTs work primarily in high fire-threat areas within the PG&E service areas.

Equipped to support PG&E [Utility Standard TD-1464S](#) fire prevention work, SIPT Crews are comprised of one Crew Lead and 1-2 Crew Technicians per SIPT Engine. This is equivalent to a National Wildfire Coordinating Group Type 6 Engine.

Routine SIPT work may include:

- Defensible space inspections and fuel hazard assessment at PG&E facilities
- Safety protection standby (during "hot work") at PG&E work sites
- Medical response standby at PG&E work sites
- Safety patrols on PG&E properties
- Asset protection planning for PG&E construction projects

SIPT emergency work may include:

- Support to PG&E asset protection efforts
- Accompany vegetation management crews during wildfire recovery to suppress incidental ignitions
- Fire protection at PG&E-owned facilities during wildfires as authorized by the Authority Having Jurisdiction (AHJ)
- Mop up of fire-damaged PG&E assets as authorized by the AHJ

3.2 Emergency Planning Assumptions

3.2.1 General Planning Assumptions

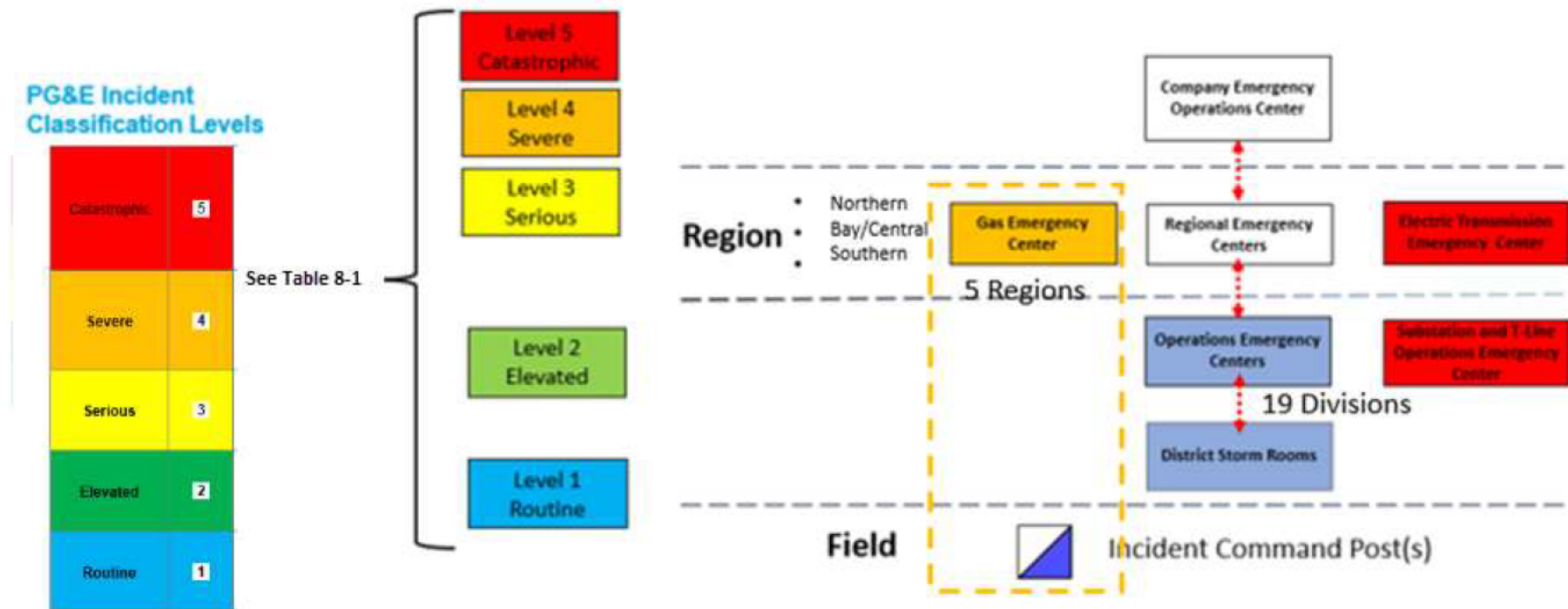
PG&E recognizes that emergencies can result from natural or human-caused incidents and that any incident may adversely impact people, property, and the environment. Thus, the CERP is based on the following assumptions: Emergency incidents are best handled at the local PG&E division level.

Emergency incident response will be scaled according to the incident(s), location(s), impact(s) and resources available or needed to restore gas or electric service safely and efficiently.

In general, the Company EOC will not activate for an incident that can be managed out of an Operations Emergency Center (OEC), the Gas Emergency Center (GEC) or at an Electric Regional Emergency Center facility activated in support of one or more OECs. (Refer to Figure 3-1 for PG&E emergency operations levels and facilities.)

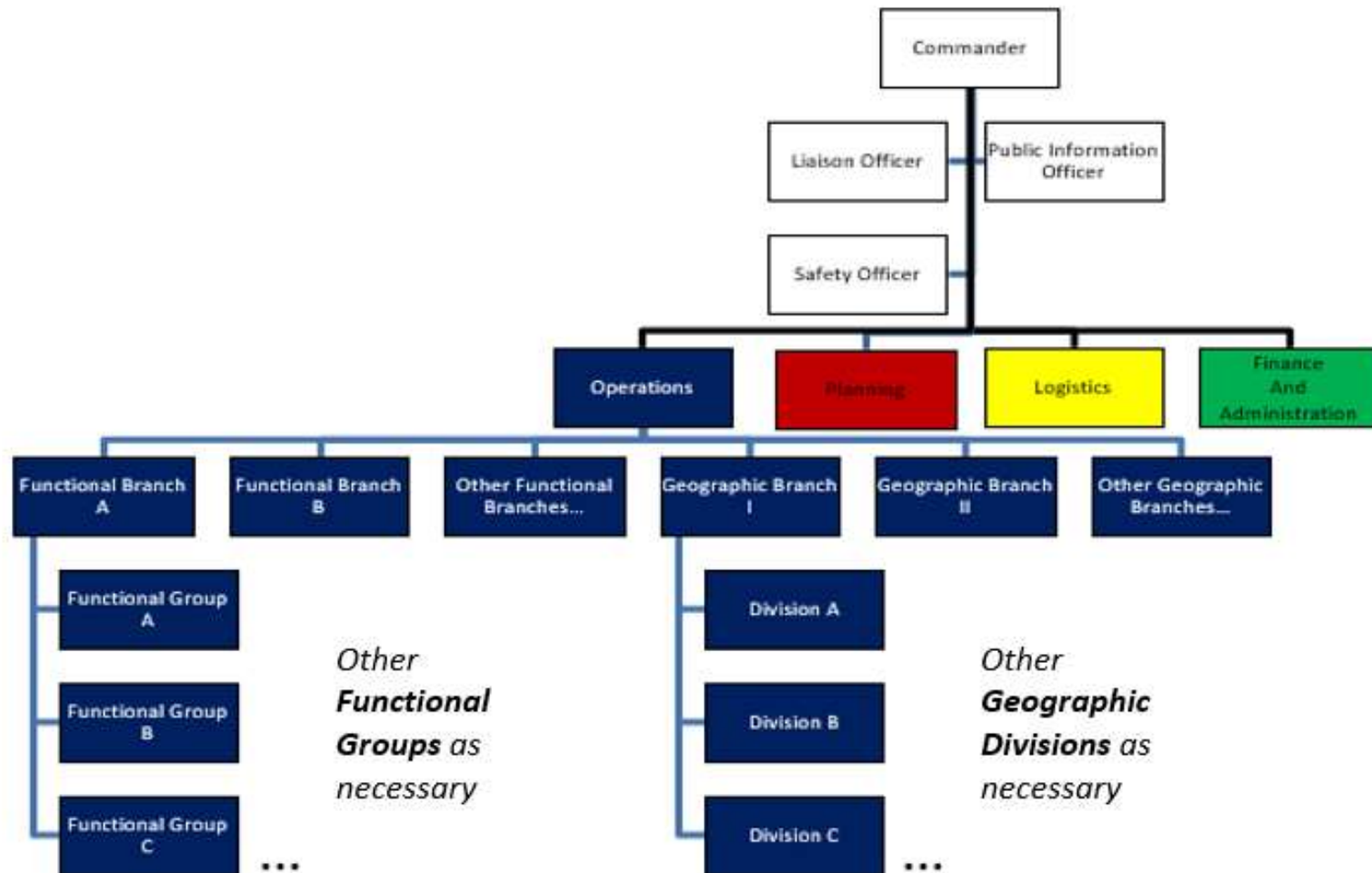
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Figure 3-1: PG&E Operational Levels and Emergency Facilities



From the field to OEC or OEC's, RECs or the GEC and at the primary EOC, each company level will organize operations under an Incident Command System (ICS) task organization, including as necessary establishment of functional Branches and Groups and/or geographic Branches and Divisions. (Refer to Figure 3-2 for ICS task organization example.)

Figure 3-2: ICS Task Organization Example



- In general, resources may be moved within company regions as needed; EOC approval is not normally required.
- Significant events will have coordination and support at the EOC, Alternate EOC (AEOC), or a site designated by the Incident Commander (IC).

3.2.2 Priority Planning Scenarios

The EP&R Strategy and Execution Prevention unit is responsible for developing the Threat Hazard and Identification Risk Assessment (THIRA) used to inform the development of CERP annex planning priorities.

As part of the threat/hazard identification process, the company considers two key factors:

1. The likelihood of a threat or hazard affecting the company.
2. The challenge presented by the impact of that threat or hazard, if it occurs.

The determination of hazard specific CERP annex development priorities are predicated on the potential for incidents that go beyond routine safety concerns and business continuity requirements triggering criteria for CERP annex development and will include at a minimum incidents or events with the potential to:

- Cause multiple casualties (injuries and/or loss of life) or widescale property damage within the PG&E service area.
- Reach or exceed Type 3 emergency activation criteria within one or more of the company's Gas, Electric, Generation, and Cybersecurity line of business and/or line of business support functions. Refer to [Appendix C](#), Table 11-1, for all five escalating levels of threats.

A copy of the latest CERP annex update schedule can be found in the Guidance Document Library within the [EMER-2001S, Company Emergency Response Plan Standard](#).

3.2.3 Access and Functional Needs

To identify and calculate specific customers and/or households within the PG&E service territory that are considered AFN, PG&E uses the following categories for which data is available in internal company databases (e.g., Customer Care and Billing (CC&B) and others):

- Customers enrolled in the Medical Baseline (MBL) program
- Customers enrolled in California Alternate Rates for Energy Program (CARE) and Family Electric Rate Assistance Program (FERA)²⁴
- Customers that self-identify to receive an in-person visit before disconnection for non-payment (e.g., vulnerable)

²⁴ The California Alternate Rates for Energy Program (CARE) and Family Electric Rate Assistance Program (FERA) are PG&E discount programs that help eligible customers afford their energy bills.

- Customers that self-identify as having a person with a disability in the household (e.g., disabled)
- Customers who self-select to receive utility communications in non-standard format (e.g., in braille or large print)
- Customers who indicate a non-English language preference

PG&E maintains an Access and Functional Needs (AFN) Plan for Public Safety Power Shutoff support to AFN community members.

3.3 Emergency Scenarios

3.3.1 Infectious Disease/Pandemic

With the safety, health and welfare of our customers and employees as PG&E's most important responsibility, the spread of an infectious disease or pandemic in the workplace and/or community presents a significant risk. PG&E recognizes that several organizational and operational impacts could be caused by the spread of a highly infectious disease or pandemic. Depending on the specific disease, this could be categorized by (1) a workforce reduced by exposure to illness or government-directed quarantine or isolation; and (2) inability to perform routine work, with the potential to affect critical functions/processes.

PG&E's workforce, including contractors and mutual assistance could be impacted by a rise in workforce absenteeism due to individuals becoming infected, voluntary quarantine, and increased demand/constraints for the care of family and friends. Similarly, PG&E's supply chain partners dealing with the same workforce issues may be disrupted, limiting the availability of materiel and equipment. With a limited workforce, reduction in supplies, and infectious disease/pandemic protective measures (i.e., social or physical distancing), some PG&E procedures and/or functions could be hindered or rendered impossible to complete. Depending on the nature of the disease, this could be exacerbated further by competition for and limited supplies of Personal Protective Equipment (PPE).

3.3.2 Weather-Related Emergencies

Adverse weather is the primary modulator of unplanned outage activity on PG&E's grid. PG&E's Meteorology Operations & Analytics (MOA) provides a daily breakdown of the primary mode of weather impacts. Specifically, whether a day of the week is a Blue-Sky Day, no or minimal weather impact; a Gray Sky Day, some weather impact; Or a Storm Day, significant weather impact. Table 3-1 provides a list of these primary impact options for Gray Sky and Storm Days, as well as a brief description of the phenomena. This historical database goes back to January 1, 1995.

Table 3-1: Weather Impacts

| Weather Type | Description |
|--------------|---|
| Winter Storm | Weather type selected for classic winter storms where strong southerly winds are usually observed and are the primary damage pathway. Note that winter storms may also be accompanied by heavy rain/low snow/and lightning. |
| Rain | Heavy rain resulting in elevated outage activity, not accompanied by wind. Heavy rain can cause several issues from underground vault flooding to vegetation sagging to pole/tree failure due to soil instability. This category is also used for insulator-flash events driven by rain or drizzle. |
| Lightning | Any outage event caused by thunderstorms and lightning. |
| NorthEast | Weather type used when strong offshore (northerly or northeast winds) result in elevated outage activity. This includes Diablo and Santa Ana wind events. An example are the classic offshore winds events where surface high pressure develops in the Upper Great Basin. |
| NorthWest | Strong northwest or westerly winds resulting in elevated outage activity. An example are the strong winds that develop after a cold frontal passage or a stronger than normal sea breeze. |
| Heat | Heat-related outage activity due to hot ambient temperatures. |
| Low Snow | The outage type used when outage activity is due primarily to abundant snow-loading. These events are most common across the lower elevations (< 4000') such as the Sierra foothills where there is generally more distribution and vegetation is more susceptible to snow-load. |
| PSPS | Public Safety Power Shutoff Outages, almost always due to Northeast wind events. PSPS was created instead of keeping these as Northeast Flagged due to the substantially increase outage numbers during a typical PSPS. |
| Other | Weather type used for rare or unknown weather events. |

3.3.3 Earthquakes and Tsunamis

California earthquakes pose a significant hazard and risk to PG&E's customers, employees, and assets. PG&E's risk scenarios, damage forecasting and emergency preparedness exercises focus on earthquake response and recovery activities.

For planning purposes, PG&E uses modeled or historic earthquake scenarios that have the potential to significantly impact the following 10 counties in the Bay Area: Alameda, Santa Clara, Contra Costa, San Francisco, San Mateo, Marin, Santa Cruz, Napa (Figure 3-3), Sonoma and Solano. PG&E tests its all-hazard emergency processes and procedures during an annual exercise facilitated by EP&R Strategy and Execution.

PG&E uses damage modeling information to estimate the impacts of earthquakes, the potential damages, and the number of emergency resources needed to restore service. The following example scenarios and others are included in the [DASH model library](#):

Figure 3-3: Napa Earthquake, August 24, 2014

- West Napa Earthquake – Magnitude 7.0
- Hayward – HN+HS Magnitude 7.3
- Rodgers Creek-Healdsburg – Magnitude 7.2
- N. San Andreas – Magnitude 7.9
- San Andreas-Peninsula – Magnitude 7.4
- Rodger's Creek-Healdsburg – Magnitude 7.2



These scenarios represent incidents that can have a significant impact to PG&E's service territory. For more information, refer to the CERP Earthquake Annex.²⁵ In addition to earthquakes, PG&E's territory is at a low to moderate risk from tsunamis generated by earthquakes in the Alaskan/Aleutian Islands subduction zone, the Cascadia subduction zone and submarine landslides off the California coast. A somewhat lower risk is presented by tsunamis generated in the greater circum-Pacific area including an island volcano flank collapse and submarine landslide from the Hawaiian Islands. The areas most exposed to tsunamis in the PG&E service territory are the Humboldt generation facility and related electric distribution and transmission system in the greater Humboldt area of the north coast of California (highest potential hazard), Santa Cruz/Monterey Bay region, and Diablo Canyon/San Luis Bay region. The San Francisco Bay has a relatively low risk for tsunami hazard.

The best source for tsunami information is from the [National Oceanic and Atmospheric Administration \(NOAA\)](https://www.tsunami.gov) tsunami alert system. See link <https://www.tsunami.gov>.

It is important to recognize that the DASH system provides reporting only for earthquakes within the greater California region, and does not report on distant earthquakes that could generate far-traveling tsunamis.

To subscribe to DASH and receive text and email alerts and notifications, visit <http://wwwt2/DashWeb/Subscribe>.

3.3.4 Cybersecurity

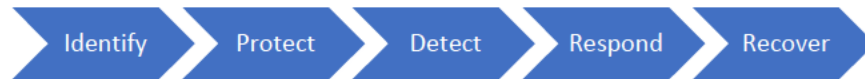
PG&E increasingly relies on electronic Information Systems to improve efficiency. Electronic systems may store sensitive employee and customer information or control physical structures that deliver energy safely.

A cybersecurity incident is one or more occurrences of unexpected or unwanted activity in a network or system that results in adverse consequences to information systems or the information the system stores, processes or transmits. To be declared an incident the activity must cross a threshold of business impact that justifies the activation of the incident response plan. The EOC Commander will notify company executives upon

²⁵ Document EMER-3101M, Earthquake Annex, is available here:

Link validated June 18, 2020.

activation of the company EOC for a cybersecurity incident. Responding rapidly and in a coordinated fashion is essential to fulfilling PG&E's mission – and in many cases a regulatory requirement. The National Institute of Standards and Technology (NIST)'s Cybersecurity Framework (CSF) consists of five primary functions:



PG&E annually updates its hazard-specific Cybersecurity Annex to the Company Emergency Response Plan (CERP) and conducts exercises to test the Annex.

3.3.5 Fire-Related Emergencies

While the company prepares for all fire potentials, extreme weather events driven by climate change are causing unprecedented wildfires. Years of drought, extreme heat and bark beetled killed trees have created a “new normal” that requires PG&E to increase its fire response capabilities. To meet these challenges while keeping communities safe, PG&E has bolstered its fire emergency response capabilities through the following enterprise initiatives:

The **Hazard Awareness & Warning Center (former Wildfire Safety Operations Center)** has been improving its main mission to prevent, monitor, detect, and respond to fire incidents of all size and complexity. As a result, the HAWC has greater fire-related situational awareness through investments in field monitoring technology, personnel training, enhanced information management and reporting, and expanded program scope with heavy emphasis on better equipping and training field staff to safely respond to fires.

The **Safety Infrastructure Protection Teams** program is a part of the HAWC's field presence and monitoring function. The teams are responsible for routine and emergency duties including fuel vegetation removal, patrols, fire stand-by and pre-treating poles. They are the HAWC's eyes and ears reporting fire information directly from the field.

The **Public Safety Specialists (PSS) program**, managed by Emergency Response and Preparedness' Field Operations, is another field-based resource that supports PG&E's response when deployed in support of incident or events. The PSS personnel work with local, state, and federal agencies throughout the year to socialize PG&E's emergency response plans and execution goals for fire emergencies. During emergency incidents, they are liaisons in the field with the public and emergency response agencies and provide intelligence to the PG&E HAWC and local leadership. PSS's are integral in the coordination of the company's emergency response and restoration activities.

3.3.5.1 Public Safety Power Shutoff Program

The purpose of a Public Safety Power Shutoff (PSPS) is to mitigate the risk of utility infrastructure contributing to catastrophic wildfire risk by proactively de-energizing

PG&E facilities in the event of gusty winds and dry conditions, combined with a heightened fire risk. The PSPS program is based on four guiding principles:

1. **Prevent catastrophic ignitions:** Mitigate catastrophic fire ignitions in the impacted geographical scope while minimizing potential public safety impact.
2. **Execute event** with no safety incidents.
3. **Restore power quickly and safely:** Ensure power to all customers affected by the PSPS event is restored quickly and safely.
4. **Communicate potential impact with internal and external stakeholders:** Provide timely and accurate notifications to employees, customers, California Public Utilities Commission (CPUC), California Department of Forestry & Fire Protection (CAL Fire), Governor's Office of Emergency Services (Cal OES), Public Safety Partners, and Cities/Counties/Tribes.

PSPS is targeted to be applied to both distribution and transmission lines that are located within or that touch the boundaries of PG&E's High-Fire Risk Area map, which is largely consistent with the California Public Utilities Commission (CPUC) defined Tier 2 and Tier 3 High Fire Threat Districts (HFTDs) modified in some boundary areas to focus on areas of potential catastrophic fire risk.

No single factor drives a PSPS event, as each situation is unique. PG&E carefully reviews a combination of many criteria when determining if power should be turned off for safety. These factors generally include, but are not limited to:

- A Red Flag Warning declared by the National Weather Service
- Low humidity levels, generally 20 percent or lower
- Forecasted sustained winds, generally above 25 mph, and wind gusts in excess of approximately 45 mph, depending on location and site-specific conditions, such as temperature, terrain and local climate
- Condition of dry fuel on the ground and live vegetation (moisture content)
- On-the-ground, real-time observations from PG&E's Hazard Awareness & Warning Center (HAWC) and observations from PG&E field crews

Power shutoff decisions are made by the designated Officer-in-Charge (OIC) with support from the Emergency Operations Center (EOC) leads. After the extreme weather has passed and it is safe to do so, crews visually patrol affected power lines to ensure they are free from damage and safe to energize.

For further information about how public safety power shutoff is implemented, the [Public Safety Power Shutoff Annex²⁶](#) is available on the Guidance Document Library.

²⁶ Guidance Document Library link is

3.4 Threat Landscape

PG&E is continually monitoring the threat landscape. This includes but is not limited to cyber, wildfire, storm response and extreme weather. Risks are identified and monitored in real-time by the Hazard Assessment and Warning Center (HAWC), Corporate Security, Enterprise Network Operations Center (ENOC), Security Intelligence Operations Center (SIOC), as well as Grid Control, transmission and distribution control centers, the Gas Control Center, Hydro and other lines of business entities. The Enterprise and Operational Risk Management (EORM) Program includes a horizon-scanning process which monitors threats over a longer time horizon and modifies the Corporate Risk Register and cross-cutting factors as needed.

Threats are incidents that have not yet occurred but have a reasonable potential to occur. Dynamic threats are based on risk analysis and timely intelligence received from one or more sources.²⁷

It is imperative that PG&E be aware of physical and cyber threats that may affect the company so that we may respond quickly and effectively.

Responding to a “threat” may include:

- Conducting a situational awareness call
- Opening the EOC in a monitoring mode
- Notifying staff via Everbridge or through e-page alerts
- Notification to external partners

PG&E’s response can be anything from conducting a situational awareness call all the way to a physical response. This may include for example deployment of SIPT crews to monitor for potential fire ignitions or the conduct of electronic threat monitoring by the Security Intelligence Operations Center to identify potential cyber-attacks.

3.5 Damage Modeling

Planning is necessary to prepare effectively for an emergency response. PG&E has developed tools to assist in predicting potential damage to our facilities, infrastructure and to test what may be needed to restore power to our customers. Advance or “pre”-planning consists of:

- Identifying hazards
- Developing response and mitigation measures for those identified hazards
- Developing tools using both internal proprietary information and publicly accessible information to aid in predicting, defining and responding to certain emergency scenarios, such as:

²⁷ Definition from <http://www.businessdictionary.com/definition/threat.html> accessed 04/20/2020.

- Damage modeling
- Scenario creation
- Storm Outage Prediction Program (SOPP)

PG&E uses damage modeling information to estimate the impacts of earthquakes, storms and other potential causes that would trigger a need for an emergency response. PG&E uses several modeling tools which are further described in sections 3.5.1 through 3.5.6.

3.5.1 Dynamic Automated Seismic Hazard System

The Dynamic Automated Seismic Hazard (DASH) system is an automated earthquake reporting system that generates rapid, facility-specific damage estimates for use in prioritizing initial inspections (Figure 3-4).

DASH reports are distributed automatically to subscribers via company email approximately 15 minutes after an earthquake and are archived at www/DASH on the PG&E intranet. The initial report is not reviewed by Geosciences subject matter experts (SMEs). However, within 15 minutes of the initial report, Geosciences SMEs review and distribute subsequent DASH reports. To subscribe to DASH and receive text and email alerts and notifications, visit <http://wwwt2/DashWeb/Subscribe>. All PG&E employees can receive automatic notification of seismic events system-wide, with the option to sign up for more detailed line-of-business reports as well.

²⁸ See PG&E Dashboard at <http://wwwt2/dashweb> (link accessed 06/21/2019)

Figure 3-4: Dynamic Automated Seismic Hazard (DASH) Site



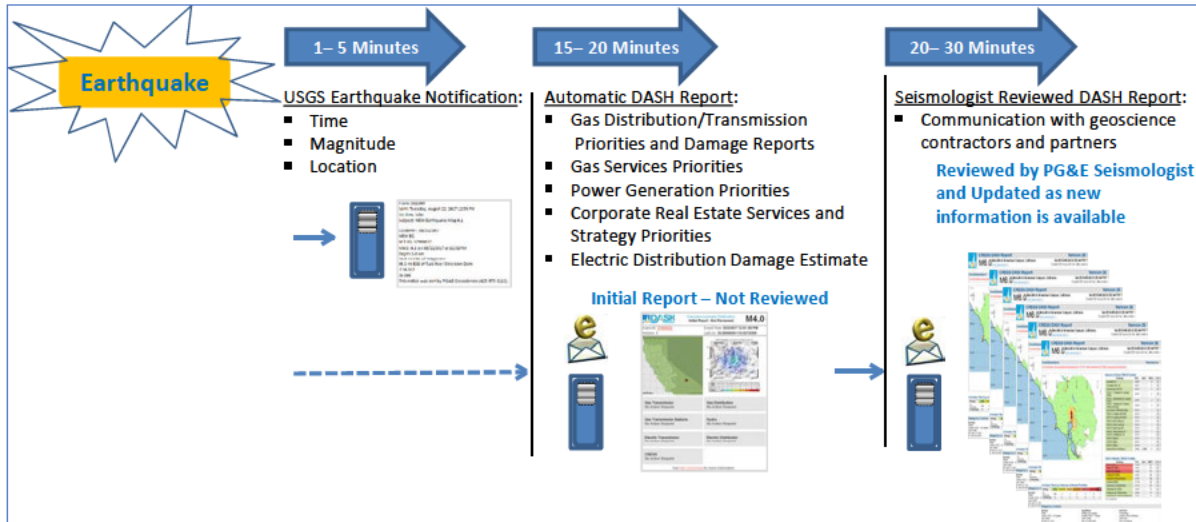
DASH capabilities provide the following major benefits:

- **Situational Awareness** – within minutes of a major earthquake, DASH subscribers receive the best available information on the potential impact to PG&E facilities
- **Damage Assessment Priorities** – DASH automatically prioritizes affected PG&E facilities, based on factors such as customer impact, enabling efficient and data-driven first response where needed most
- **Scenario Planning** – DASH facilitates effective emergency response planning and preparedness via a library of known earthquake scenarios likely to occur within PG&E's service area

DASH reports (Figure 3-5) are run using screening-level fragilities to represent likely areas or specific facilities which are in areas of strong ground shaking or ground failure. Asset damage and prioritization models are available for Hydro Generation, Corporate Real Estate Strategy and Services, Gas Transmission, Gas Distribution, Electric Transmission, and Electric Distribution. Reports highlight focus areas or facilities for first response assessment and planning. The output includes both location and potential damage estimates.

The DASH program includes continual improvement measures and functionality developments which continue to refine the accuracy and information provided in DASH reports. Experience from earthquake exercises provides user feedback for identifying enhancements for the DASH model and output.

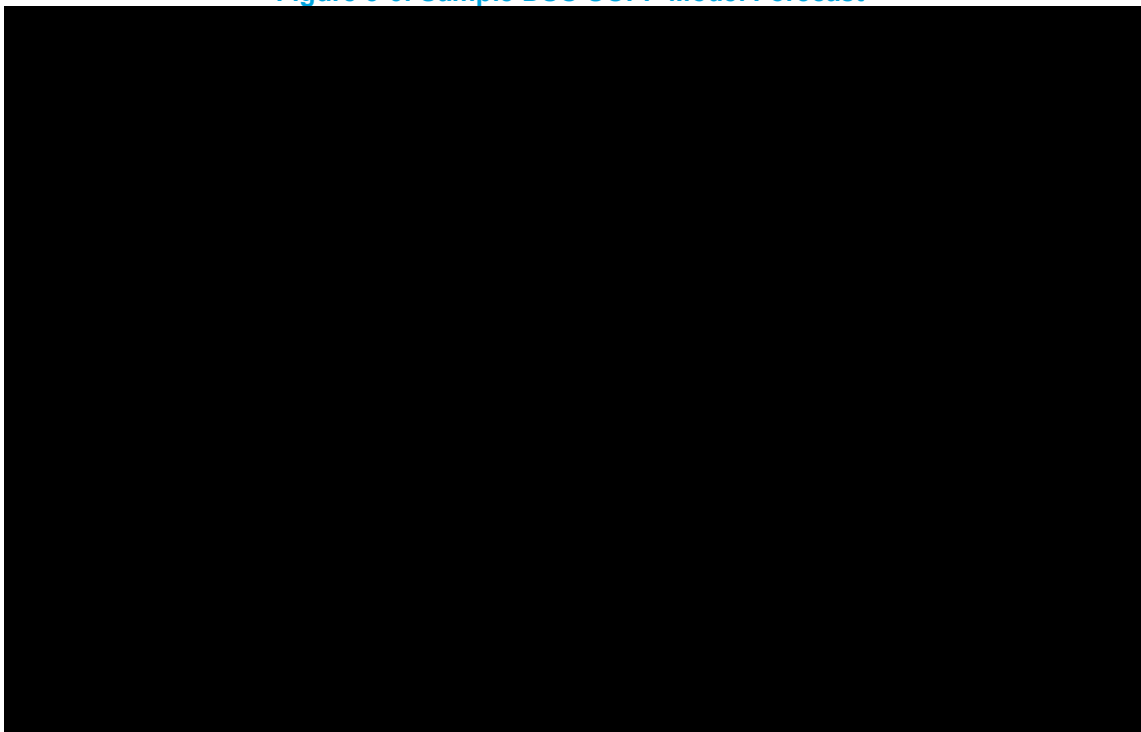
Figure 3-5: Earthquake Notification and DASH Report Timeline



3.5.2 Storm Outage Prediction Program

To mitigate the considerable operational risk caused by adverse weather, PG&E’s Meteorology Operations and Analytics team developed a storm damage prediction model, the Storm Outage Prediction Project (SOPP) Model (see Figure 3-6 for an example output product). The model leverages over 25 years of historical weather and outage data along with high-resolution weather forecasts and real-time weather data.

Figure 3-6: Sample DSO SOPP Model Forecast



The SOPP model updates daily (more often during storm events) to forecast the following:

- Sustained Outages (SO)
- Customers Experiencing Sustained Outages (CESO)
- Resources (Troublemakers and Crews) needed to respond and repair
- Standby 911 Emergency Events
- Location and timing of specific adverse weather elements: precipitation, wind, heat, lightning and snow

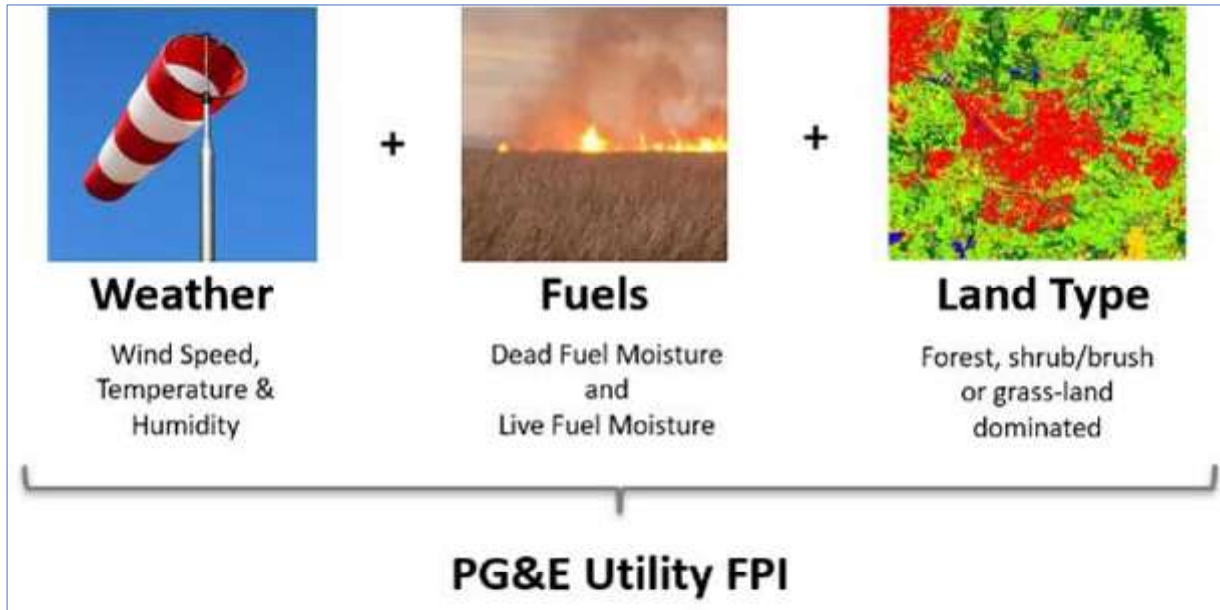
The SOPP Model supports advance planning and preparation for storm events for electric transmission and distribution asset managers. Both groups receive daily SOPP model forecasts.

3.5.3 Fire Potential Index

To understand the potential for large fires to occur across the PG&E territory at a high resolution and hourly, and up to four days in advance, PG&E developed the Fire Potential Index (FPI) Model in 2015 and significantly enhanced the model in 2018 and 2019. The current FPI Model is modeled on historical fires using PG&E's 30-year downscaled climatology, Dead Fuel Moisture (DFM) and Life Fuel Moisture (LFM) Models, fire weather indices, and other models and data.

The PG&E FPI deployed initially in 2019 combines fire weather parameters (wind speed, temperature and RH), dead and LFM data, and land use type, as depicted in Figure 3-7, PG&E Fire Potential Index.

Figure 3-7: PG&E Fire Potential Index



Note: For additional information about the FPI tool, refer to section 2.1.2 in the CERP [Wildfire Annex](#), EMER-3105M, and the related Utility Bulletin update, EMER-3105M-B001.

3.5.4 PG&E’s Operational Mesoscale Modelling System

Besides the weather models used/monitored from NOAA, PG&E meteorology department operates PG&E’s Operational Mesoscale Modeling System (POMMS), a high-resolution weather forecasting model that forecasts important fire weather parameters including wind speed, temperature, relative humidity, and precipitation down to 2-kilometer resolution. Outputs from the POMMS model are used in the National Fire Danger Rating System (NFDRS) to derive key fire danger indicators such as the Energy Release Component, Ignition Component, Spread Component, Burning Index, and fuel moistures.

3.5.5 Outage Producing Wind

In 2020, PG&E revised its Outage Producing Wind (OPW) Model. The revised version represents the next generation distribution outage model building on the 2019 OPW model. The OPW Model was built from the ground up and is focused on supporting mitigation of utility caused wildfire risk through PG&E’s PSPS program and other wildfire risk mitigation programs. The OPW Model is based on an analysis of windspeeds from PG&E’s 30-year weather climatology and approximately 400,000 sustained and momentary outages occurring on distribution grid from 2008 to 2020. Damages and hazards from PG&E’s 2019 PSPS events were also included in the training set.

Excluded from the outage data are outages due to snow, rain and lightning, and outages due to non-weather driven major events such as fires and earthquakes.

The OPW Model forecasts the probability of unplanned outages associated with wind events occurring in PG&E's service area. The output of the OPW Model is a measure of the probability of an outage in specific parts of PG&E's service territory based on forecasted wind speed. The OPW Model is driven by PG&E's high-resolution weather modeling output, POMMS, at both 2 km and 3 km resolution. Outage producing winds are forecast four times per day with the hourly outage probabilities for each grid cell with a forecast horizon of 84 hours ahead for the 3 km resolution, and 105 hours ahead for 2 km resolution. These winds vary across PG&E's system based on differences in topography, vegetation and climatological weather exposure in different parts of PG&E's service territory.

3.5.6 Debris Flow Hazard Modeling and Warning

PG&E Geosciences and EP&R groups have implemented a debris flow model and warning procedure for monitoring debris flows in fire burn areas. The model is an adaptation of the U.S. Geological Survey post-fire debris flow model, including input from nearest rain gauges to assess the likelihood of debris flow initiation in fire burn zones relative to rainfall intensity. The model helps assess areas of greatest debris flow likelihood during storms, focusing on short-term rainfall intensity (e.g., triggering rain intensity of > 1/4-inch in a 15-minute period). Ongoing desktop analysis of model outputs, field checks and instrumentation improve and validate the model.

Post wildfire debris flow is a significant concern within the PG&E service area. Further details on debris flow modeling can be found in the Wildfire Annex to the Company Emergency Response Plan, EMER-3105, (section 4.4.5).

3.6 Annex Development

Additional annexes to the CERP may be developed based on EP&R Strategy Execution Prevention unit led Threat Hazard and Identification Risk Assessment (THIRA). Functional and Hazard annexes development follows the same guidance as the CERP, notably the Company Emergency Operations Plans Standard EMER-2001S and the Emergency Preparedness and Response Policy EMER-01. After each annex is approved, the document is posted to the Guidance Document Library (GDL). Copies of the annex are distributed to 24/7 control centers, gas, electric, emergency preparedness departments, and other LOBs—including those that own an Annex in the CERP.

Hazard-specific annexes can be identified via the corporate risk identification process described earlier in this section.

Concepts of Operations (ConOps) are also written for planned events, such as major planned sporting events and celebrations in the territory, (e.g., SuperBowl50 or NBA,

MLB, and NFL championship celebrations²⁹). ConOps and other types of emergency plans are maintained by Emergency Preparedness & Response (EP&R).

3.7 Training and Exercises Program

PG&E's training program is aligning with the Standard Emergency Management System (SEMS) to better collaborate and coordinate response with all elements of California's emergency-management community.

EP&R SE is responsible for communicating and coordinating PG&E's emergency preparedness training and company emergency exercise program for all LOBs. Upholding our commitments to our regulators, EP&R SE is responsible for organizing and delivering to PG&E EOC staff courses that are certifiable by FEMA and/or Cal OES (CSTI) and are *relevant to utility emergency responders*.

PG&E's multi-year training and exercise program is described in the EP&R Multi Year Training and Exercise Plan (MYTEP), which is company-wide in scope. PG&E will annually train personnel with an emergency role(s) in preparation for emergencies. Training shall be designed to overcome problems identified in the evaluation of responses to major emergencies and exercises.

As part of CPUC General Order (G.O.) 166 Standard 3 compliance, PG&E will annually train designated personnel in preparation for emergencies and major outages. The training will be designed to overcome problems identified in the evaluation of responses to a major outage or exercise and reflect as relevant changes to the CERP and/or its hazard of functional annexes.

If the CERP is used during the twelve-month period for an event or major outage, PG&E may not conduct an exercise for that period.

3.7.1 Training

PG&E continually evaluates threats, hazards, risks, after action reports, and related post-incident or exercise corrected actions as part of its multi-year training strategy. The PG&E Learning Governance Committee authorized the requirement that all company emergency responders complete California Specialized Training Institute (CSTI) Type III credentialing for their assigned Emergency Operations Center (EOC) positions.

Baseline coursework for the CSTI Type III EOC credential includes:

- G-606 California Standardized Emergency Management System (SEMS) Introductory Course
- IS-100 Introduction to the Incident Command System, ICS100
- IS-200 ICS for Single Resources and Initial Action Incidents, ICS 200
- IS-700 An Introduction to the National Incident Management System
- IS-800 National Response Framework – An Introduction

²⁹ NBA = National Basketball Association (Warriors), MLB = Major League Baseball (Giants, Athletics), NFL = National Football League (49ers, Raiders), and NHL = National Hockey League (Sharks).

The current EOC training schedule can be found on the EOC SharePoint Resource site at: [REDACTED]

FEMA IS (Independent Study) courses are available online at www.training.fema.gov/is. G-606 is available online at <https://www.caloes.ca.gov/cal-oes-divisions/california-specialized-training-institute/training-exercise-programs/emergency-management-training-program>.

In addition to FEMA and CSTI training, EOC emergency responders must also annually complete:

- EPRS-9010 – Company Emergency Response Plan (CERP) is an introduction to the CERP and an overview of current-year changes. Refreshed yearly after the CERP is updated and published, EOC on-call staff must remain current with this annual training.

3.7.2 Exercises

PG&E's Emergency Preparedness & Response Strategy & Execution Exercise Team plans, coordinates, and conducts the following types of Emergency Preparedness Exercises:

- Seminars
- Workshops
- Tabletop Exercises (TTX)
- Games
- Drills
- Functional Exercises (FE)
- Full Scale Exercises (FSE)

CPUC General Order 166 Standard 3D requires California utilities to provide no less than ten day notice of an annual exercise to state and local authorities, including the CPUC, state and regional offices of the California Governor's Office of Emergency Services, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed.

All exercises are designed and executed consistent with Homeland Security Exercise and Evaluation Program (HSEEP) methodology, the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E's EP&R SE Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises fulfills a key component of compliance with CPUC General Order (G.O.) 166, specifically Standard 3, parts a and b.

EP&R is responsible for developing and maintaining PG&E's company emergency exercises. The emergency exercises:

- Are objective driven
- The common core capabilities evaluated for every exercise are:
 - Situational Assessment
 - Operational Communications
 - Operational Coordination

- Public Information and Warning
- Logistics and Supply Chain Management
- Planning
- Safety
- Allow participants to practice the duties, tasks and operations they would be expected to perform in a real emergency
- Are adapted from the HSEEP to serve a utility
- Test emergency plans on an ongoing basis and no less frequently than once per calendar year

EP&R facilitates exercise planning meetings for corporate level exercises. Exercise planners from each business unit develop their portion of the exercise as assigned in planning meetings, following all planning guidelines and timelines.

The Senior Director of EP&R is responsible for ensuring that exercises mandated by regulatory agencies are exercised at least annually or meet the regulatory requirements for exercises. Each LOB is responsible for ensuring their hazard-specific annexes to the CERP are exercised at least annually or per regulatory requirements.

Both the CERP and annex exercises are based on emergency management program priorities, and test the specific operational components included in the CERP and annexes. Exercises can be conducted in workshop, drill, tabletop, functional and full-scale formats. The exercise format is selected based on the capabilities and objectives identified.

Depending on the scenario, exercises may include participation from other departments or from external public agencies. Generally, PG&E invites representatives from federal, state and local agencies to participate in or observe the annual CERP exercise. Which agencies are invited may depend on the exercise scenario or location and may include the following:

- Local emergency management agencies and offices of emergency services
- CPUC
- CAISO
- CEC
- Cal OES
- Nongovernmental Organizations (NGO)
- Voluntary Organizations (VO)
- Community-Based Organizations (CBO)

The current EOC exercise schedule can be found on the EOC SharePoint Resource site at:



3.7.3 After-Action Reports

PG&E's EOC Activation After-Action Report (AAR) Process Standard, EMER-2003S, can be found on the Guidance Document Library at

The After-Action Report (AAR) document summarizes key information related to EOC activations and exercise scenarios. EP&R SE is responsible for ensuring that the AAR is completed for the annual exercise(s) as well as any incident involving the EOC activation. Lessons learned will be captured using the PG&E-approved [AAR template](#)³⁰.

CPUC General Order 166 Standard 3 asks California utilities to annually evaluate their response to exercises or major outages as part of the utility's annual G.O. 166 filing. PG&E's Emergency Operations Center (EOC) After Action Report (AAR) standard describes the process and requirements for collecting hot wash data after an EOC activation. Responsible parties are identified along with supporting roles to the development of an AAR. Details on the AAR process flow can be found in the Standard's Appendix A, EOC AAR Process Flow Chart.

³⁰ The PG&E After Action Report (AAR) template is located on the EOC Resources SharePoint. The address is

[REDACTED]. The AAR template is modified from the U.S. Department of Homeland Security's Homeland Security Exercise and Evaluation Program (HSEEP) AAR template.

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4 Incident Management Concepts and Guidelines

PG&E aligns its emergency preparedness and response practices and structure with:

- National Incident Management System (NIMS)
- Standardized Emergency Management System (SEMS)
- Incident Command System (ICS)

Under the NIMS, SEMS and ICS organizational structures, there are Command and General Staff positions. General Staff consists of five primary sections: Operations, Intelligence and Investigations, Planning, Logistics, and Finance and Administration.

The PG&E emergency response model is organized, and the Emergency Operations Center (EOC) is staffed, using principles from NIMS, SEMS and ICS including but not limited to:

- Following a unified approach, (i.e., a single chain of command, adaptable to meet situational needs)
- Managing by a unified set of objectives, when possible, for single and dual commodity incidents
- Managing equipment, facilities, personnel, procedures and communications effectively
- Standardizing operational structures and terminology to enable disparate groups to work and communicate together in a predictable, coordinated manner

4.1 National Incident Management System

The National Incident Management System (NIMS) is designed to provide guidance to government organizations, non-profits and private sector businesses to work cohesively to manage incidents resulting from all hazards, regardless of their size, complexity or location. The purpose of NIMS is to reduce loss of life, damage to property, and harm to the environment.

The main concepts and principles of NIMS are:

- Flexibility – The NIMS framework allows maximum flexibility for multiagency, multijurisdictional and multidisciplinary coordination adaptable to events that are scheduled, incidents that provide warning or notice, and incidents that provide no notice.
- Standardization – NIMS provides an organized set of standardized operational structures that is critical in allowing disparate organizations and agencies to work together in a predictable, coordinated manner.

The five components of NIMS are:

- Preparedness
- Resource Management

- Communication and Information Management
- Command and Management
- Ongoing Management and Maintenance

4.2 Standardized Emergency Management System

The Standardized Emergency Management System (SEMS) outlines the fundamental structure for response to emergency incidents in California. This system integrates California's emergency management entities and standardizes key elements of response phase planning and execution.

The main concepts and principles of SEMS include:

- Incident Command System (ICS) – An incident management system developed to improve preparedness and response capabilities and coordination of government, private and non-profit entities
- Multi-/inter-agency coordination – Coordination of affected agencies and organizations to handle emergency response activities as well as resource allocations
- Mutual Aid – A system designed to obtain additional resources for response from non-affected jurisdictions
- Operational Area concept – Management and coordination of information, resources and priorities among local governments. The Operational Area is the link between local and regional levels of emergency management coordination

4.3 Incident Command System

The Incident Command System (ICS) is a standardized hierarchical incident management structure that allows for cooperative response without compromising the decision authority of local incident commanders. The ICS provides a structure to ensure that pressing needs are met, while preserving precious resources and avoiding duplication and waste. The ICS is designed to effectively manage incident and event related equipment, facilities, personnel, procedures and communications.

The main concepts and principles of ICS include:

- Scalable Modular Structure – The ICS organizational structure is designed to be flexible and able to scale up or down depending on incident size, complexity, and situational need. ICS Branches are considered to be incident or event organization elements with responsibility for tasks and activities.
- Span of Control - Within the ICS Operations Section, Branches are established when the number of Divisions or Groups exceeds span of control limits (generally 3-7 direct reports). ICS Division Supervisors have geographic responsibility and ICS Group Supervisors have functional responsibility.
- Management by objective – ICS emphasizes planning and management of incidents by focusing on objectives. The planning process used assists

responders in prioritizing and formulating the incident objectives to guide the response efforts.

- Common terminology – ICS uses common terminology and clear language to allow diverse incident management and support roles to work together.

Use of ICS alphabet map designations (i.e., A, B, C...) can foster communication by providing a common location reference for mutual assistance responders unfamiliar with Company divisions, service area political subdivisions (i.e., cities and counties), and population centers. When operational complexity exceeds span of control limits, geographic map divisions may be further subdivided by adding a second alphabet designation within ICS map divisions.

ICS allows for Single Command and Unified Command, as described below.

See [Appendix D](#) for additional details on ICS.

4.3.1 Single Command

Single Command (also called Single Incident Command) is when one Incident Commander (IC) has full responsibility for incident management. Single Command may be simple, involving only an IC, or a complex organizational structure involving multiple emergency centers.

Every emergency incident begins as Single Command with one IC.³¹ Initially, the first responder to the incident automatically becomes the IC and has overall command responsibility until:

- A more appropriately qualified person relieves him/her, (e.g., the on-call supervisor)
- Changes in the incident require jurisdictional or agency changes, (e.g., fire or police)
- Such a change makes good management sense
- Responsibility for specific functions is delegated
- Relief personnel arrive as part of the normal personnel shift change

4.3.2 Unified Command

In incidents involving multiple jurisdictional authorities where there are PG&E facilities involved, the company may participate in an ICS Unified Command incident management organization ([Figure 4-1](#)). Unified command enables agencies and organizations with different legal, geographic, and functional authorities and responsibilities to work together under a common set of incident objectives. All work

³¹ While there will always be an incident commander, other positions may be left unfilled based on the needs and circumstances of the incident.

carried out under a unified command organization will occur without loss or abdication of organizational authority, responsibility, or accountability.

Figure 4-1: ICS Command Staff



4.4 Dual Commodity Response

A dual (or multiple) commodity incident is managed as a single coordinated event with:

- One set of incident objectives
- One Incident Action Plan (IAP)
- One Operations Section
- One single coordinated process for resource management

An integrated incident organization may be used in a shared facility or base camp, rather than activating separate ICPs and OECs for Gas, Electric and other LOBs. This integrated structure scales up/down as needed, based on incident needs. Management and reporting relationships include several options:

- Single Command – The IC oversees the emergency response of both Gas and Electric (or other LOBs), with the creation of gas and electric branches within the Operations section to manage execution of the commodity response.
- Single Command with a Deputy Incident Commander – An IC from one commodity and a Deputy IC from another commodity manage the emergency response.

For multiple commodity incidents involving nuclear, refer to the Diablo Canyon Power Plant (DCPP) and the Humboldt Bay Power Plant (HBPP) Emergency Plans for response information. Information on integrated incident organization will be contained in the Nuclear Annex to the CERP.

4.4.1 Criteria for Which Commodity Has Authority

When two or more LOB representatives (most frequently Gas and Electric) are available to serve in the IC role, the following guidelines determine the IC and Operations Section Chief:

- Experience and training of the IC and Operations Section Chief
- Potential serious threat to the health, welfare or property of the public, employees, PG&E responders and others

- Incident complexity and commodity impact factors, including volume of customers, infrastructure impact, resource requirements, and response duration

While selections may follow the above guidance, ultimate decision making authority on the designation of an IC and Operations Chief resides with PG&E leadership as delegated to the EOC Commander or highest-level activated emergency center commander.

4.4.2 Modular Incident Management Organization

Scalable and flexible, PG&E's incident command structure will be organized in such a way as to expand and contract based on incident scope, resource needs, threats and hazards.

In a dual commodity incident impacting company asset, incident command may initially be established at a division level Operations Emergency Center (OEC) by the gas or electric line of business with the most serious threat to life and property, or the greatest number of impacted customers. For incidents with catastrophic potential, PG&E may designate company geographic divisions as ICS Branch organizations. Most incidents impacting company operations will be managed at the line of business OEC level with limited personnel or resource augmentation.

For severe localized scenarios such as a San Andres fault earthquake with an epicenter west of San Francisco, the amount of damage within a discrete company division may be overwhelming. In such instances, the EOC Commander may assign teams and resources to ICS map divisions within a pre-existing company service area division (see [Figure 4-2](#)).

Figure 4-2: Example of ICS Divisions in the Company SF Division



4.5 Emergency Financial Guidance

It is imperative to follow PG&E's financial guidance and requirements. In an emergency preparedness and response situation, documentation is especially critical so that incurred costs may be recovered through PG&E's Emergency Balancing Account (MEBA), Catastrophic Event Memorandum Accounting (CEMA), and other applicable filings (e.g., wildfire and PSPS related costs). Unsupported costs, i.e., without documentation or proper approvals, will not be reimbursable or recoverable.

When a significant event impacts PG&E's assets and ability to provide safe and reliable electricity and gas to customers, additional resources may be required. To predict recovery costs, PG&E employs various forecasting models, (e.g., historical, outage, resources and facility types, unit costs and estimates), which help Finance develop a restoration cost estimate for:

- Internal accounting and forecasting
- On-hand cash management
- External investors and lending institutions
- Insurance carriers

This estimate and subsequent documentation will:

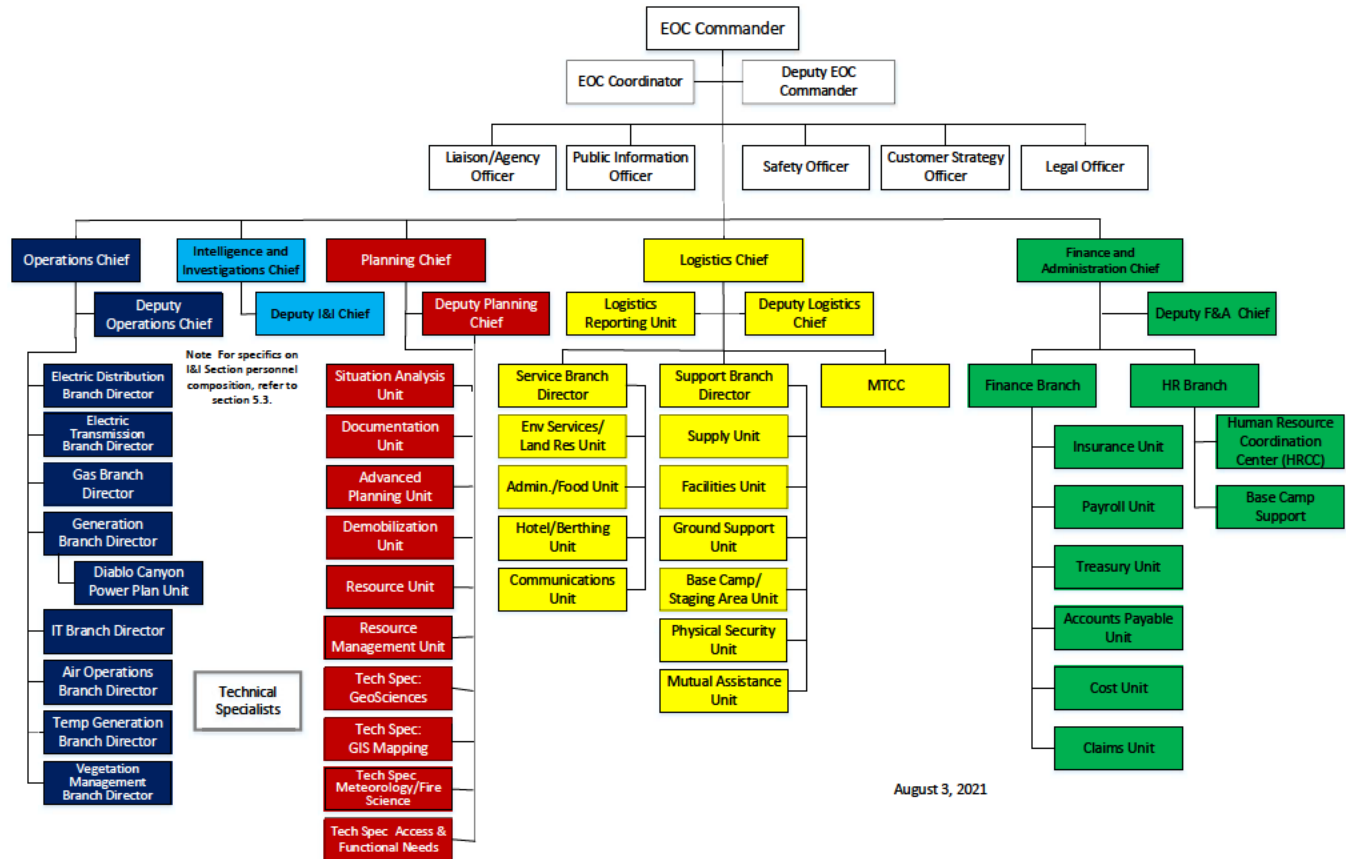
- Develop strategic framework for financing the emergency response and recovery and ensure proper accounting
- Enable the Treasury group to know how much cash may be needed in a relatively short period of time. With the estimate and a review of current cash on hand, Treasury will then determine in what manner the additional cash should be raised
- Enable PG&E the notification of insurance carriers to ensure that they are aware of the incident and existing or anticipated damage, and to anticipate forthcoming claims. Appropriate documentation will be needed to verify that claim requests are related to the incident
- Conform to CUEA and Western Regional Mutual Assistance Association (WRMAA) agreements and support timely recording of costs, estimated goods receipts and accruals
- Enable quick response to internal and external audit or data requests
- Provide current actual data from which future estimates will be built
- Facilitate prompt payment of third-party contractors and/or mutual aid assistance invoices by showing that services provided aligned with predicted needs

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5 EOC Staffing

As of 2020, EP&R Strategy and Execution has re-aligned EOC roles and the overall structure of the emergency organization to a more traditional Incident Command System (ICS) framework to enhance emergency response performance and coordination with partners. Figure 5-1 is the Emergency Operations Center Organization at EOC Levels 3, 4, and 5 and shows an overview of the sections and the units. Additional details about the units are provided in the role descriptions presented in this section.

Figure 5-1: EOC Organization Chart (Levels 3-5)



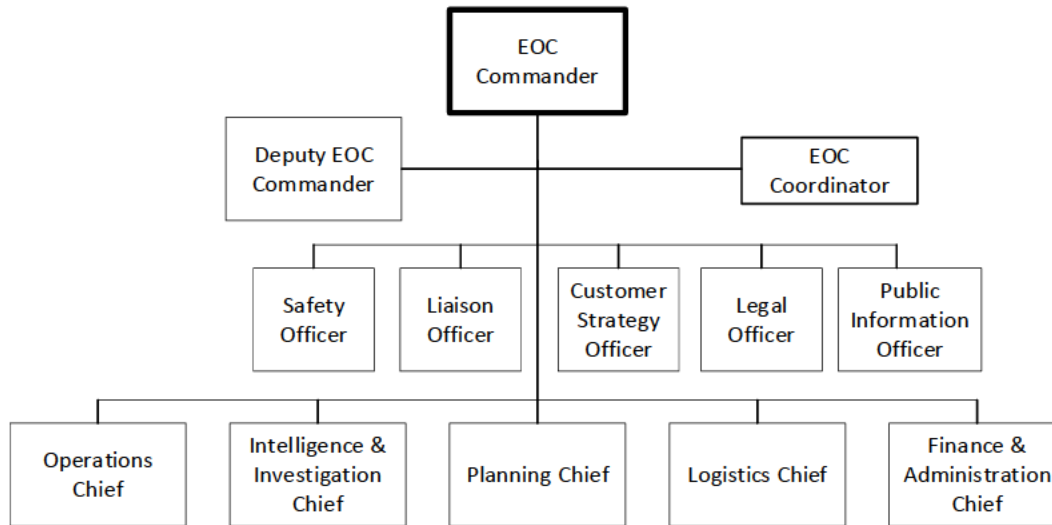
Staff are organized under the following functional areas:

- Command Staff
- General Staff, which includes:
 - Operations Section
 - Intelligence and Investigations (I&I) Section
 - Planning Section
 - Logistics Section
 - Finance and Administration Section

5.1 EOC Command Staff

The organizational chart in Figure 5-2 displays the EOC Command Staff top-level structure. The EOC organizational chart for a level 3 to 5 emergency incident is available in [Appendix C](#). Individual EOC sections, branches, units and roles are described in this chapter.

Figure 5-2: PG&E Command System



The positions described below specifically refer to the EOC staff positions; however, depending on the situation, other activated emergency centers may have the same or similar staffing structure. In the EOC, sections are distinguished by the color of the vest worn while on duty.

The Command Staff is led by the EOC Commander (IC) and includes the Deputy EOC Commander, Officers and Support Staff.

The General Staff consists of five sections, with each section led by a Section Chief who reports to the IC. Officers and Section Chiefs have additional direct reports.

Table 5-1 identifies direct reports to the EOC Commander. It does not include subordinate reports or those who report up to officers.

Table 5-1: EOC Roles that Report Directly to the Incident Commander

| <i>Command Staff</i> | |
|----------------------|----------------------------|
| EOC Commander | Navy Blue with Neon Stripe |
| Deputy EOC Commander | Navy Blue |
| EOC Coordinator | Navy Blue |

| Command Staff | |
|------------------------------------|------------|
| Officers | |
| • Safety Officer (SO) | White |
| • Public Information Officer (PIO) | Tan |
| • Customer Strategy Officer (CSO) | White |
| • Liaison Officer (LNO) | White |
| • Legal Officer | White |
| General Staff | |
| Sections | |
| • Operations | Royal Blue |
| • Intelligence & Investigations | Light Blue |
| • Planning | Red |
| • Logistics | Yellow |
| • Finance and Administration | Green |

5.1.1 EOC Commander

As noted previously, as part of PG&E's emergency management practice, there is always an on-call EOC Commander who is in charge of company emergency operations. When working in an emergency center, this position is the EOC "Commander".

The EOC Commander is responsible for:

- Notifying emergency personnel, executive leadership, and external agencies of activation per the emergency plan checklists
- Readiness posture including determining what level of EOC activation is required and which EOC to activate (i.e., Vacaville Emergency Response Center, virtual, or any other place designated by the EOC Commander.)
- Assessing incident priorities and resource needs
- Overall management of the incident, including:
 - Developing and implementing the response strategy
 - Coordinating the response strategy with external agencies, when appropriate
 - Making management decisions during an incident within the scope of authority
 - Coordinating with LOB executives on policy issues beyond that scope

The EOC Commander's responsibilities include:

- Resolving section conflicts
- Setting strategic objectives
- Directing the tactical response to the emergency incident
- Coordinating with and providing regular communication to PG&E Company Leadership when activated

- Approving and overseeing the Incident Action Plans (IAPs)
- Approving all communications strategies in consultation with the PIO
- Setting the operational period
- Establishing orders and directives necessary for effective operations

5.1.2 Deputy EOC Commander

The Deputy EOC Commander:

- Has the same authority as the EOC Commander
- Acts as the EOC Commander in their absence
- May have one or more deputies and may delegate responsibilities in accordance with the needs of the incident

5.1.3 EOC Coordinator

The EOC Coordinator:

- Ensures the timely and effective opening of the EOC
- Maintains supplies and assists with the operations, setup, activation and maintenance of the EOC

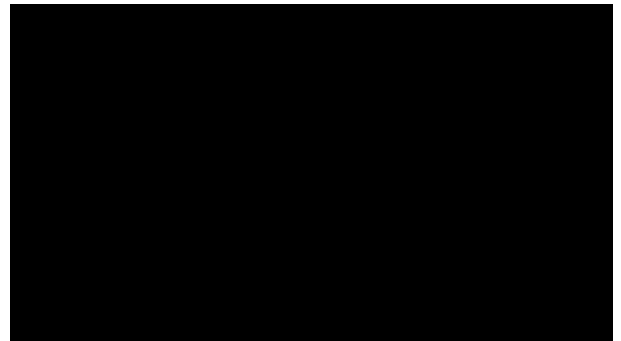
Ensures emergency notifications are sent to EOC members and other on-call teams as requested by the EOC Commander or the Director of EP&R

5.1.4 Safety Officer

The Safety Officer:

- Monitors safety conditions in the field and is the Safety Officer in the EOC (Figure 5-3)
- Advises the EOC Commander on all matters relating to operational safety
- Develops measures and messages for improving safety and health awareness of all assigned personnel
- Tracks work-related injuries
- Performs investigations, as necessary

Figure 5-3: EOC Operational Briefing



5.1.5 Public Information Officer

Each level of PG&E's emergency response may have a Public Information Officer (PIO) and/or public information function. However, when staffing the EOC, the PIO's role is to provide strategic communications counsel to the IC.

The Public Information Officer:

- Oversees the Public Information Office

- Develops all internal and external communications strategies and messaging during an emergency
- Obtains IC approval of all information to be released from the event or incident.
- Ensures that all information being shared with external audiences is timely, accurate and consistent.
- Escalates significant issues to the IC for additional guidance on potential actions and strategies

Public Information Office:

- Develops and implements communication strategy to ensure “one voice” communications
- Coordinates emergency communication activities with other agencies, media, customers, etc., through verbal replies, on-camera interviews, written statements, press releases and social media
- Responds to real-time media requests for information, interviews and status
- Conducts press conferences and manages press questions and queries
- Staffed by PIO and other EOC positions as required (e.g., Customer Strategy Officer, Liaison Officer)
- In a Diablo Canyon Power Plant (DCPP) emergency, the EOC PIO integrates with the DCPP Joint Information Center (JIC) in San Luis Obispo to ensure timely, accurate and consistent messaging
- Additional communications information is available in section 10 “[Coordination and Communication](#),” of this plan and in the Emergency Communications Annex

5.1.6 Customer Strategy Officer

The Customer Strategy Officer (CSO) serves as an advocate for customers by:

- Providing updates to customers
- Addressing customer issues
- Communicating high-priority outage concerns to the emergency operations team
- Develops customer communication strategy in coordination with the other customer focused teams, including
 - Customer Contact Emergency Coordination Center (CCECC)
 - CSOs in the OECs
 - Public Information Office

5.1.7 Liaison Officer

The Liaison Officer (LNO) is primarily responsible for being the point of contact for representatives of government agencies, non-governmental organizations and/or

private entities. In either a Single or Unified Command Structure, representatives from assisting or cooperating agencies and organizations coordinate through the LNO.

Depending on the scale of the incident, the LNO may also have agency representatives reporting to them. Liaison staff could include representatives from:

- Community Relations
- Public Affairs
- Government Relations
- Regulatory Relations
- Public Safety

If the incident involves Diablo Canyon Power Plant (DCPP), a Nuclear Liaison will report to the Liaison Officer. The Nuclear Liaison integrates plant response with the utility's emergency organization and facilitates requests for information and company support with the DCPP emergency response facilities.

5.1.7.1 Public Safety Specialist Liaison Role

When activated for all-hazards incidents, Public Safety Specialist (PSS) staff serve as Agency Representatives (AREPs)³² to the Authority Having Jurisdiction (AHJ) for the incident. In this capacity, PSS personnel report to the PG&E Incident Commander at an Operations Emergency Center (OEC) or PG&E Incident Management Team (IMT) Incident Command Post (ICP).

PSPS Exception: During PSPS events, PSS staff report to the Company EOC Liaison AREP Group.

On a day-to-day basis PSS personnel partner and coordinate with local government, first responders, media and safety officials on wildfire prevention.

5.1.7.2 Nuclear Liaison

The Nuclear Liaison is only activated when there is a nuclear incident. This individual is also a member of the Liaison Unit and is the first point of contact for managing information flows from the Diablo Canyon Power Plant EFO to and from the EOC during an incident at the nuclear facility.

5.1.7.3 SOC Agency Representative Liaison

During emergencies, the State Operations Center (SOC) Agency Representative (AREP) is deployed to the SOC UOC (Utilities Operations Center) to increase emergency response coordination and communication with the California Office of

³² See PG&E Utility Standard EMER-4002S, Public Safety Specialists

Emergency Services (CA OES), other utilities, and other state and local agencies. The SOC AREP reports to the Liaison Officer.

The SOC AREP:

- Facilitates communication of emergency information between the EOC and the SOC
- Commits PG&E resources toward state or regional missions as needed and with explicit approval of the EOC Commander
- Attends SOC meetings, such as Operational Briefings, and EOC Command Calls
- Responds to state and local agency information requests
- Works with the SOC to request federal resources from FEMA and other federal agencies

See the Liaison Officer job checklist in the EOC Resources SharePoint site under Command Staff.

5.1.8 Legal Officer

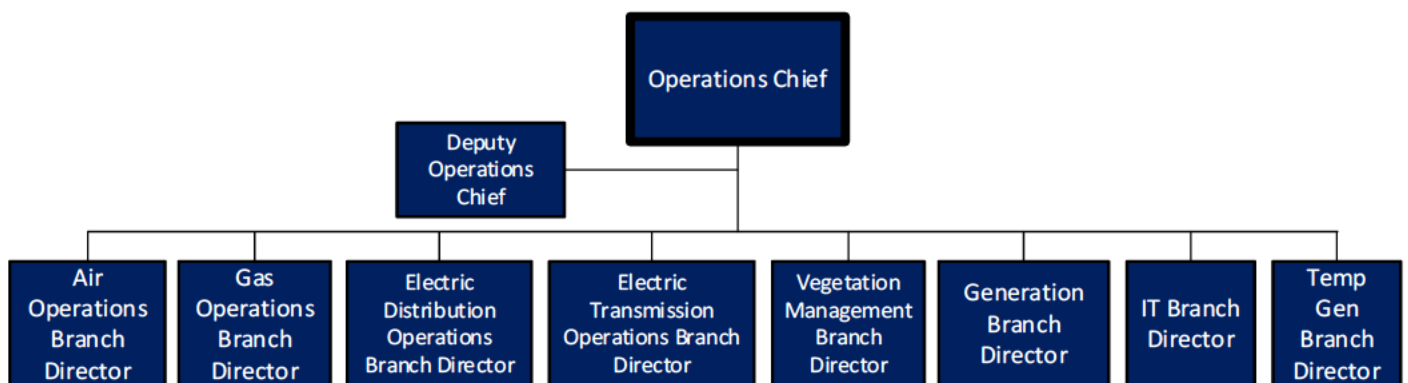
The Legal Officer reports to the IC and is responsible for the following:

- Provides advice and counsel on legal matters related to the incident
- Reviews media releases and public information
- Monitors compliance with regulatory and reporting processes
- Reviews the document retention plan
- Assists in incident investigations

5.2 Operations Section

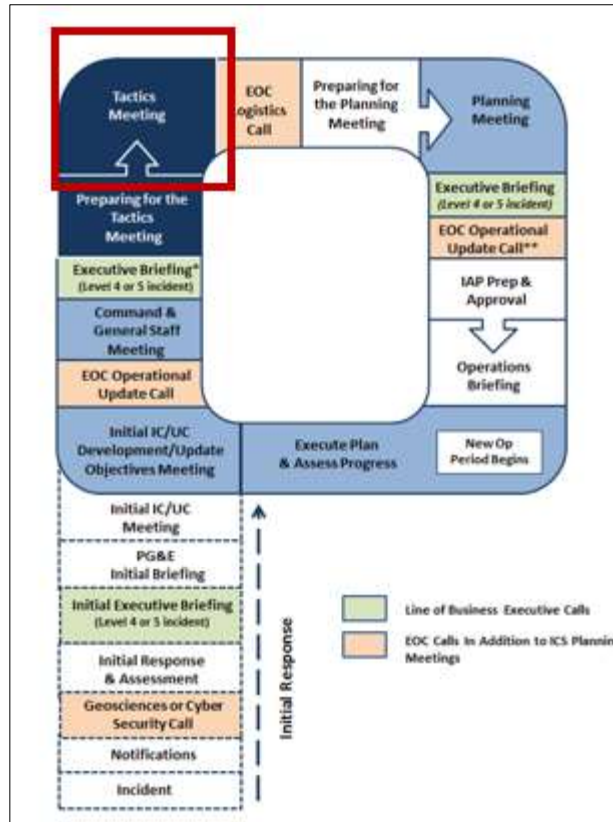
The Operations Section (Figure 5-4) implements the assessment and restoration strategy and achieves the incident objectives set by the Incident Commander (IC) and communicated in the Incident Action Plans (IAPs).

Figure 5-4: General Staff – Operations Section



Once the approach to achieving or working toward achieving the incident or event objectives is determined, the Operations Section Chief and staff prepare for the ICS “Planning P” Tactics Meeting (Figure 5-5) by developing tactics and determining the resources that will be applied during the next operational period.

Figure 5-5: Planning P Tactics Meeting



During the Tactics Meeting, key players review the proposed tactics developed by the Operations Section and conduct planning for resource assignments. The OPS Section Chief leads the Tactics Meeting, and key participants include the Logistics Section Chief, Safety Officer, a Planning representative, and other invitees.

In most emergencies, the Operations Section ensures coordination with other EOC sections and emergency centers, such as the Electric Regional Emergency Centers (RECs).

The Operations Section, led by the Operations Section Chief / Coordinator, consists of the following eight (8) branches, any or all of which may be activated, depending on the nature of the emergency:

- Air
- Gas
- Electric Distribution
- Electric Transmission
- Vegetation

- Generation
- Information Technology
- Temporary Generation

5.2.1 Air Operations Branch

PG&E's Aviation Services is comprised of helicopter, fixed wing aircraft and unmanned aerial system aircraft departments. During an emergency, the Air Operations Branch Director supports requests to patrol PG&E infrastructure to include as necessary the inspection of electric transmission and distribution lines.

When the EOC is activated, the Air Operations Branch Director coordinates all aviation service requests for the incident or event. To ensure requests for aviation services are coordinated in enough time to notify vendors, mission requests should be received and prioritized by close of business the day before support is required. If the number of requests requiring aviation services support outnumbers the number of aircraft available, the Operations Section will prioritize missions based on operational requirements.

The Air Operations Branch Director reports to the Operations Section Chief. Responsibilities include:

- Determining patrol aircraft deployment plan (for example, number of patrol aircrafts needed, number and location of aircrafts available, pilot resources available, timing of patrols).
- Determining aircraft operational times/periods based on Federal Aviation Administration (FAA) and company policy for duty days and flight hours, as well as, weather conditions, and airspace operating environments.
- Approving and managing movement/re-deployment of all aviation assets through coordination of the Operations Section Chief.
- Coordinating with Cal OES on support with mutual aid aircraft.
- Coordinating with Cal Fire on communications and access to airspace where they have Temporary Flight Restrictions (TFR).
- Reporting out on mission capable status of aircraft and pilots.
- Coordinating with Electric Operations on patrol aircraft location while inflight and during the patrol duty day.

5.2.2 Gas Operations Branch

The EOC's Gas Operations Branch supports the response, repair, and restoration of PG&E's gas distribution and transmission systems. Execution of gas service restoration and repair will be coordinated from the Gas Emergency Center (GEC) and implemented by the Incident Command Posts (ICPs).

The Gas Operations Branch will be represented by a select number of individuals in the EOC to support strategic planning and coordination with Electric.

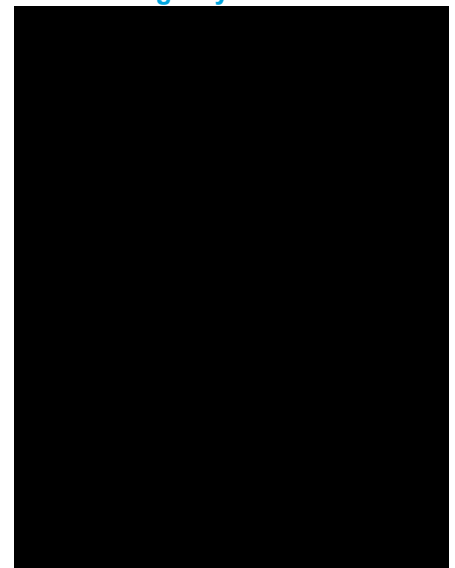
The Branch Director:

- Must be staffed by personnel who have the authority to make decisions on behalf of Gas
- Interfaces with the Electric Branch Director and others in the EOC to develop strategic level response, repair, and restoration strategies
- Provides updates for Gas Operations at the EOC Command and General Staff meetings
- Reports out for Gas Operations at the command and general staff meetings

5.2.3 Electric Distribution Operations Branch

The Electric Distribution Operations Branch (Figure 5-6) coordinates the recovery and restoration of PG&E's electric distribution system. The branch also provides information on customer outages and field operational challenges to the EOC.

Figure 5-6: Operations Staff Wearing Royal Blue Vests



The Electric Distribution Branch Director:

- Directs the work of the Regional Emergency Centers, who then perform tactical planning, mobilize resources within their areas, and guide multiple Operations Emergency Centers in the field performing restoration activity

5.2.4 Electric Transmission Operations Branch

The Electric Transmission Operations Branch coordinates with the Electric Transmission Emergency Center (ETEC) to manage the restoration of the electric transmission system.

The Electric Transmission Branch Director:

- Verifies that the Vacaville Grid Control Center (VGCC) is in close coordination with the California Independent System Operator (CAISO) for operational communications
- Verifies that ETEC is coordinating with Substation Transmission Operations Emergency Center (STOEC) to report transmission impact for de-energization, status of damage and restoration efforts
- Once CAISO has been notified, the Electric Transmission Branch Director will notify the Chief of Staff and/or Liaison Officer

5.2.5 Vegetation Management Branch

The Vegetation Branch Director (VBD) falls under the supervision of the Operations Section Chief. The VBD is responsible for planning and implementing vegetation strategy and tactics for the Operations Section while working with the Safety Officer to

ensure safety protocols in the field are followed. The VBD also prioritizes resources and requests additional resources as needed.

The VBD:

- Develops strategies and tactics to manage vegetation response in the field
- Ensures Vegetation Branch Support team members and Vegetation Management Operations Emergency Center (OEC) leads understand the EOC Operational Period objectives and have adequate resources
- Establishes a cadence of receiving and reporting progress on field operations from Vegetation OEC leads
- Coordinates with the Safety Officer to provide safety messaging and observation of personnel in the field
- Provides the Public Information Officer (PIO) and Liaison Officer details regarding emergency vegetation work conducted to communicate to communities and public agencies
- Complies with all existing State and Federal vegetation clearance requirements
- Plans vegetation patrols in areas impacted by an emergency to identify abatement and clearing/fuel reduction opportunities
- Plans vegetation clearing/fuel reduction to reduce the fuel in and around the power poles and utility right-of-way using a variety of vegetation clearing/fuel reduction methods
- Prioritizes the resource and equipment needs. Identify external resource needs and works with the Mutual Assistance team for their acquisition
- Works with Vegetation OEC Leads, the Safety Officer, the Logistics Section Chief, Contractor Management and the Mutual Assistance team to ensure field crews, including contractors and mutual assistance crews, are properly equipped and trained on fire prevention and suppression tools
- Responds to identify issues during storm response

5.2.6 Generation Branch

The Generation Branch secures gas and electric energy supplies to serve PG&E customers by safely, efficiently and effectively operating generating resources and administering the gas and electric transactions portfolio.

The Generation Branch includes the following:

- Nuclear Technical Specialist
- Energy Supply Group
- Power Generation

In the event of a generation emergency, the Generation Branch:

- Restores or replaces electric supplies to satisfy retail load and for managing the emergency at the plant level

5.2.7 Nuclear Technical Specialist

In the Emergency Operations Center (EOC), the Nuclear Technical Specialist falls under the Power Generation Branch Director.

The Nuclear Technical Specialist:

- Receives and communicates information to and from PG&E Nuclear Facilities
- Provides updates to Nuclear Facilities regarding Company EOC status and response efforts
- Provides explanation of nuclear situations and terms to Company EOC members as necessary
- Coordinates with Nuclear Liaison upon their arrival at the EOC if an emergency has been declared at either the Diablo Canyon Power Plant (DCPP) and/or the Humboldt Bay Power Plant (HBPP)

The Nuclear Technical Specialist becomes the first point of contact to the DCPP Emergency Response Organization (ERO), which is grouped into assigned teams for rotating on-call duties and to ensure that continuous 24-hour operations can be sustained. The DCPP ERO is trained in and implements components of the DCPP Emergency Plan. The DCPP Emergency Plan contains the following functional responsibilities:

- Plant Operations and Assessment of Operational Aspects
- Emergency Direction and Control
- Notification and Communication
- Radiological Assessment
- Plant System Engineering, Repair and Corrective Actions
- In-Plant Protective Actions
- Firefighting
- First Aid and Rescue Operations
- Site Access Control and Personnel Accountability
- Resource Allocation and Administration
- Public Information

The DCPPE Emergency Plan is available upon special request from the [DCPP Emergency Planning](#)³³ intranet website.

5.2.8 Information Technology (IT) Branch

The IT Branch coordinates with the Information Technology Coordination Center (ITCC) to ensure the availability of Information Technology infrastructure, applications and services, and it manages the protection and restoration of technology services.

The IT Branch:

- Coordinates with the EOC Operations and Logistics and Other EOC Sections to establish technology restoration priorities and deployment of technology services associated with the incident
- Develops a strategy to restore or implement technology services associated with the incident
- Leads the ITCC by defining strategies for IT during the incident

5.2.9 Temporary Generation Branch

The Temp Generation Branch Director oversees the Temporary Generation Branch, which manages temporary generation deployment for substations, mid-feeder temporary microgrids, hardened Community Resource Centers (CRCs) sites, and backup power support for single sites. Responsible for developing event-specific temporary generation plans once PSPS is forecast for a given area, routing those plans through ICS approval, delegating execution of approved plans, and adapting plans as needed to align with the evolving event scope.

5.3 Intelligence and Investigations Section

The Intelligence and Investigations (I&I) function may be activated, at the discretion of the EOC Commander, in cases where PG&E seeks to:

- Integrate intelligence and information collection, analysis and sharing for incidents that may be the result of criminal activities, (e.g., cyberattacks, physical attacks on critical infrastructure, and terrorist attacks)
- Determine the cause and origin of an incident
- Manage classified intelligence

The Intelligence and Investigations (I&I) Section:

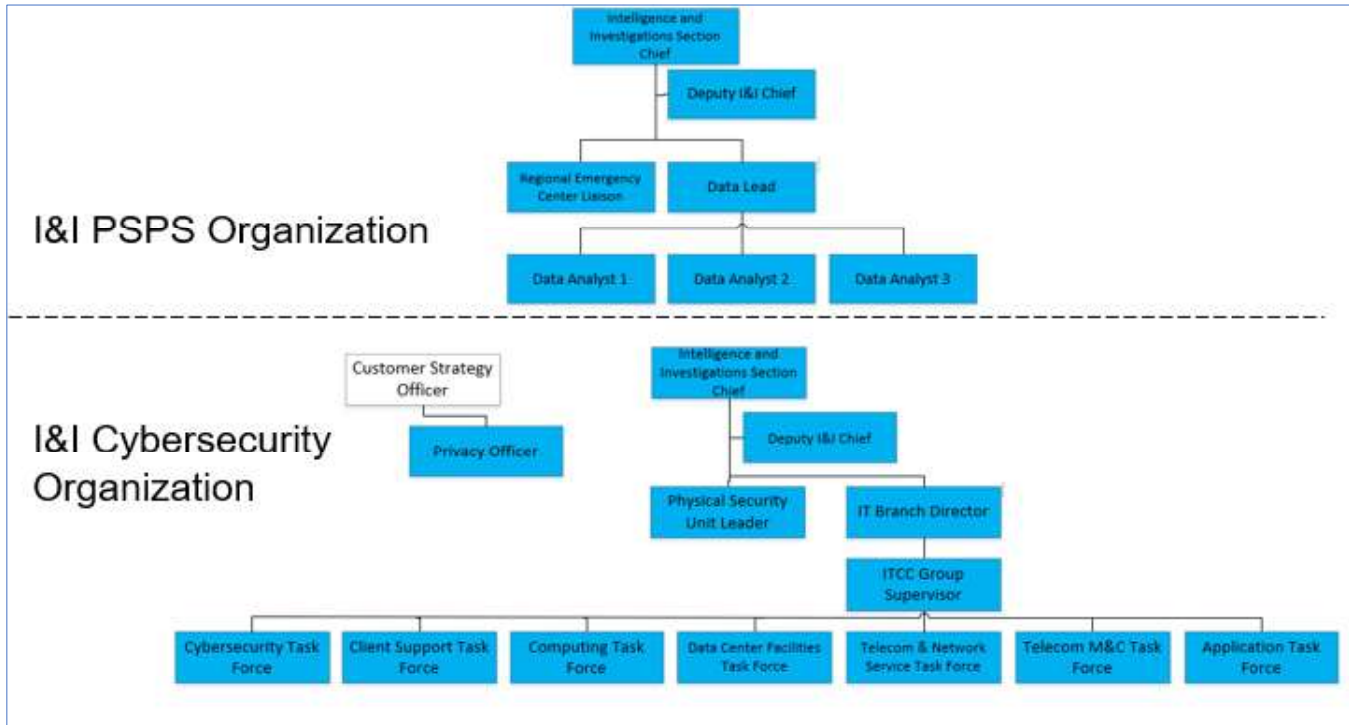
- Maintains a template for tracking damages and hazards
- Tailboards the use of the template with the potentially impacted divisions

³³ The DCPPE Emergency Planning website is at [REDACTED]

- Receives and aggregates the templates (including photos) into a single spreadsheet with all damages and hazards
- Activates for Public Safety Power Shutoff events

As outlined in Figure 5-7, I&I Section personnel composition differs for PSPS events versus Cybersecurity incidents.

Figure 5-7: I&I PSPS and Cybersecurity Organization Comparison

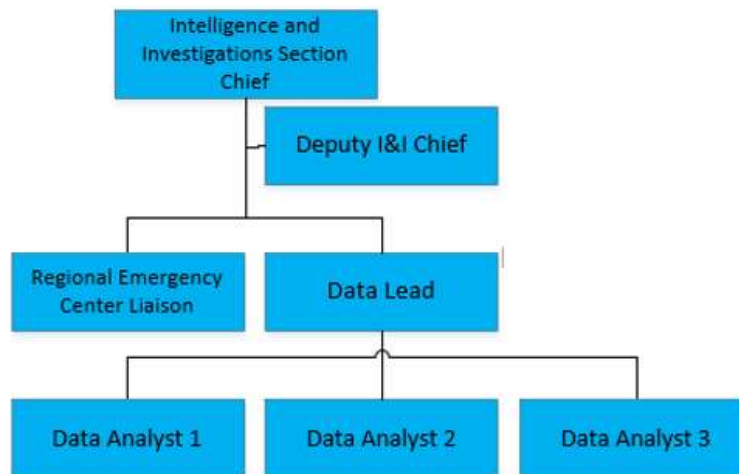


5.3.1 I&I for PSPS Events

When activated for PSPS events, the I&I Section ensures compliance with regulatory requirements to report on any wind-related damage, hazards, or near-misses sustained by PG&E facilities during a PSPS event including Resolution ESRB-8, Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042 (Phase 1), and Ordering Paragraph 1 of Decision (D.) 20-05-051 (Phase 2). This is in addition to investigation of any other incidents arising out of the PSPS event (e.g., fire/ignition).

For a PSPS event, the I&I Section Chief oversees the I&I Section (Figure 5-8), which may activate the following units, as needed.

Figure 5-8: PSPS I&I Section



The I&I Section's responsibilities during a PSPS event include:

- Maintaining the PSPS Damage Hazard Form via Inspect App and/or paper form to record damages, hazards, and near-misses observed in the post de-energization patrol.
- Tailboarding the use of the PSPS Damage Hazard Form via Inspect App, and/or paper form with field employees identified.
- Receiving and aggregating the reports of damages, hazards, and near-misses (including photos) into a master table.
- Quality-controlling the damages, hazards, and near-miss documentation to verify they are PSPS qualified and reportable.
- Managing a PSPS Damage/Hazard dashboard to provide situational awareness to the damages/hazards/near misses identified during patrol, ensuring the dashboard is actionable by stakeholders.
- Drafting the language for the damage documentation section of the CPUC De-Energization Post-Event Report.
- Provide validated and structured damage and hazard data to satisfy data requests from external and internal stakeholders.

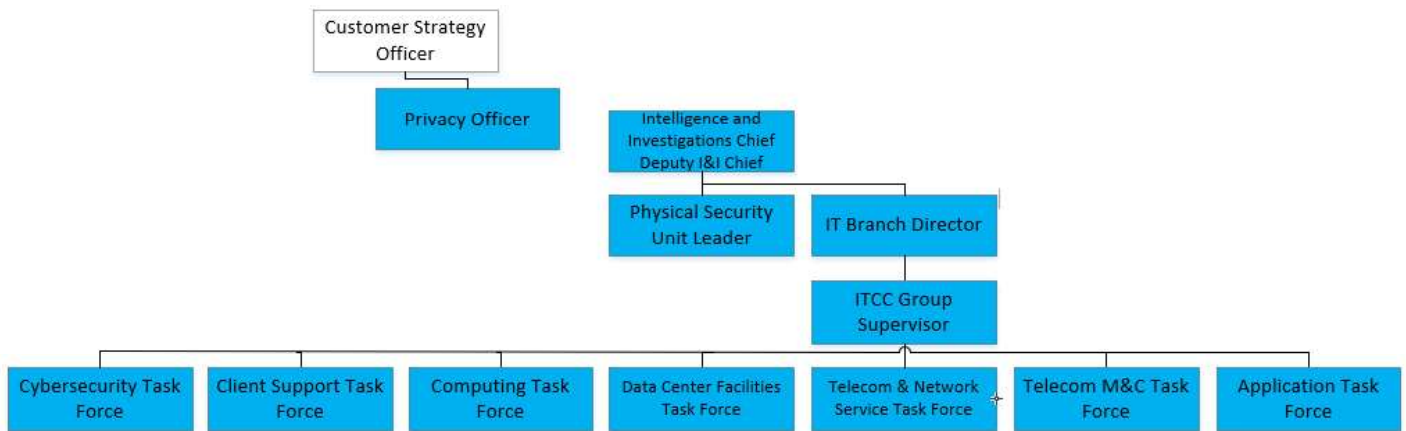
5.3.2 I&I for Cybersecurity Incidents

When activated for a cybersecurity incident, the I&I Section Chief works with the Operations and Planning Section Chiefs to determine appropriate response activities and recommend those activities to the Incident Commander. Specifically, the I&I Section (Figure 5-9) may be activated for cyber events at the discretion of the Incident Commander to:

- Determine the cause and origin of an incident.

- Work with Planning Section Situation and Advance Planning unit to determine the downstream operational impacts resulting from the loss of or impairment of electronic information systems.
- Lead the team of cyber and physical response professionals during a declared incident.
- Develop, collect and manage information related to security plans and operations, as directed by the Incident Commander, including information security and operational security activities.
- Manage classified intelligence.
- Ensure that all sensitive information is safeguarded and delivered to those who need access to it, so they can effectively and safely conduct operations.

Figure 5-9: I&I Section for Cybersecurity Incidents



The Incident Command System provides for organizational flexibility and the I&I function can be embedded in the Planning Section, Operations Section, Command Staff, or as a separate general staff section. At PG&E, the I&I function is likely to be activated as a separate general staff section.

5.3.3 Physical Security Unit

The Physical Security Unit:

- May be assigned to I&I instead of the Logistics Section specifically for cybersecurity incidents
- Supports investigation operations, as directed by the I&I Section Chief
- Acts as the primary liaison with law enforcement
- Ensures impacted facilities are protected and secured

5.3.4 IT Branch Director

The IT Branch Director:

- May be assigned to the I&I Section when an incident involves cybersecurity. For most emergency activations (e.g., storm or natural disaster events), the IT Branch reports to the EOC Operations Section Chief
- Manages protection and restoration of IT technologies
- Establishes technology assessment and restoration priorities and develops an IT response strategy for the incident
- Liaises with the IT Coordination Center (ITCC) to lead execution of the established strategy for IT

5.4 Planning Section

The Planning Section (Figure 5-10) is responsible for collecting, evaluating and displaying incident intelligence and information. This section prepares incident action plans (IAPs), long-range, contingency and demobilization plans. Additionally, the Planning Section gathers situational intelligence, maintains incident documentation and tracks resources assigned to the incident.

Figure 5-10: General Staff – Planning



The Planning Chief oversees the Planning Section, which contains the following units:

- Situation Unit
- Documentation Unit
- Advance Planning

- Demobilization Unit
- Resource Unit
- Resource Management Unit

5.4.1 Situation Unit

The Situation Unit:

- Collects and analyzes incident information
- Develops situation and intelligence reports
- Ensures that displays contain accurate information
- Participates in the operational planning process
- Conducts situation updates at meetings and briefings as requested by the Planning Section Chief

Depending on training and qualifications, Line of Business (LOB) predictive data models owners (e.g., Meteorology, Geosciences, Electric Transmission and Distribution health and reliability, and Customer Care) may serve in the Situation Unit when activated for an emergency incident or EOC activation event.

5.4.1.1 Technical Specialists

Depending on incident complexity, technical specialists have special skills that may be helpful or necessary to the response and are activated only when needed. Technical specialists may be placed anywhere they are needed in the EMO. Thus, technical specialists may be assigned to other sections or in the command staff and report up to the appropriate section chief, officer or commander.

Technical specialists include:

- Access and Functional Needs
- Business Continuity
- Business Technical Specialists-DMS/OMT
- Geosciences
- GIS mapping
- IT Tech Specialists-DMS/OMT
- Meteorology and Fire Science
- Nuclear
- Hazard Awareness and Warning Center (for PSPS and Wildfire events)

5.4.2 Documentation Unit

The Documentation Unit:

- Oversees the collection, organization and retention of incident information, including EOC Unit Logs, forms, reports, EOC Action Plans, talking points, surveys/survey results, and other documents related to the response
- Prepares, assembles and distributes the EOC Action Plan for each Operational Period
- Works closely with EOC Support to capture meeting notes, action items and decisions

5.4.3 Advance Planning Unit

The Advance Planning Unit:

- Includes representatives from Gas, Electric and Generation, as appropriate to the incident
- Runs damage models pertinent to the emergency
- Develops an Advance Plan consisting of potential response and recovery-related issues likely to occur beyond the next Operational Period
- Develops Restoration Work Plans that include resource requirements to repair assets and restore service
- Reviews all available status reports, action plans and other significant documents
- Determines potential future impacts in the event of a disaster, particularly issues which modify the overall strategic EOC objectives

5.4.4 Demobilization Unit

The Demobilization Unit:

- Determines objectives, priorities and constraints on demobilization
- Reviews incident resource records to determine scope of the demobilization effort
- Identifies surplus resources and probable release times
- Prepares the Demobilization Plan
- Monitors implementation of the Demobilization Plan, such as ensuring completion of the ICS 221 Form

5.4.5 Resource Unit

The Resource Unit Leader reports to the Planning Section Chief and is responsible for maintaining the status of all assigned resources at incident locations. Primary duties include:

- Tracking and analysis of resources assigned to the operation

- Development and maintenance of the Incident Organization Assignment List (ICS 203) and Organization Chart(s) (ICS 207)
- Establish Check in/Out functions at the incident locations(RECs, OECs, Base Camps) and work to achieve total accountability and tracking of incident resources.
- As required, transfer of information on Operational Planning Worksheets (ICS 215) to incident Assignment Lists (Incident Command System [ICS] 204 forms).

5.4.6 Resource Management Unit

The Resource Management Unit Leader reports to the Planning Section Chief and is responsible for the development and execution of resource mobilization strategy.

Primary duties include:

- Development of strategy and direction of resource moves in coordination with Operations
- Management of current base resource plan and anticipated staffing requirements based on work plan provided by Advance Planning Unit
- Execution in coordination with Advance Planning and resource tracker to build staffing plans and signal the need for additional resources

5.5 Logistics Section

The Logistics Section Chief oversees the Logistics Section (Figure 5-11), which consists of the Deputy Logistics Section Chief, the Service and Support branches, the Logistics Reporting Unit, and may include the Materials and Transportation Coordination Center (MTCC) depending on the scope and nature of the emergency. The Logistics Section secures resources, supplies, food, lodging, vehicles and equipment rentals, fuel, security and medical services, as well as maintains equipment for incident personnel. Figure 5-12 shows Logistic support personnel at the EOC.

Figure 5-11: General Staff – Logistics Section

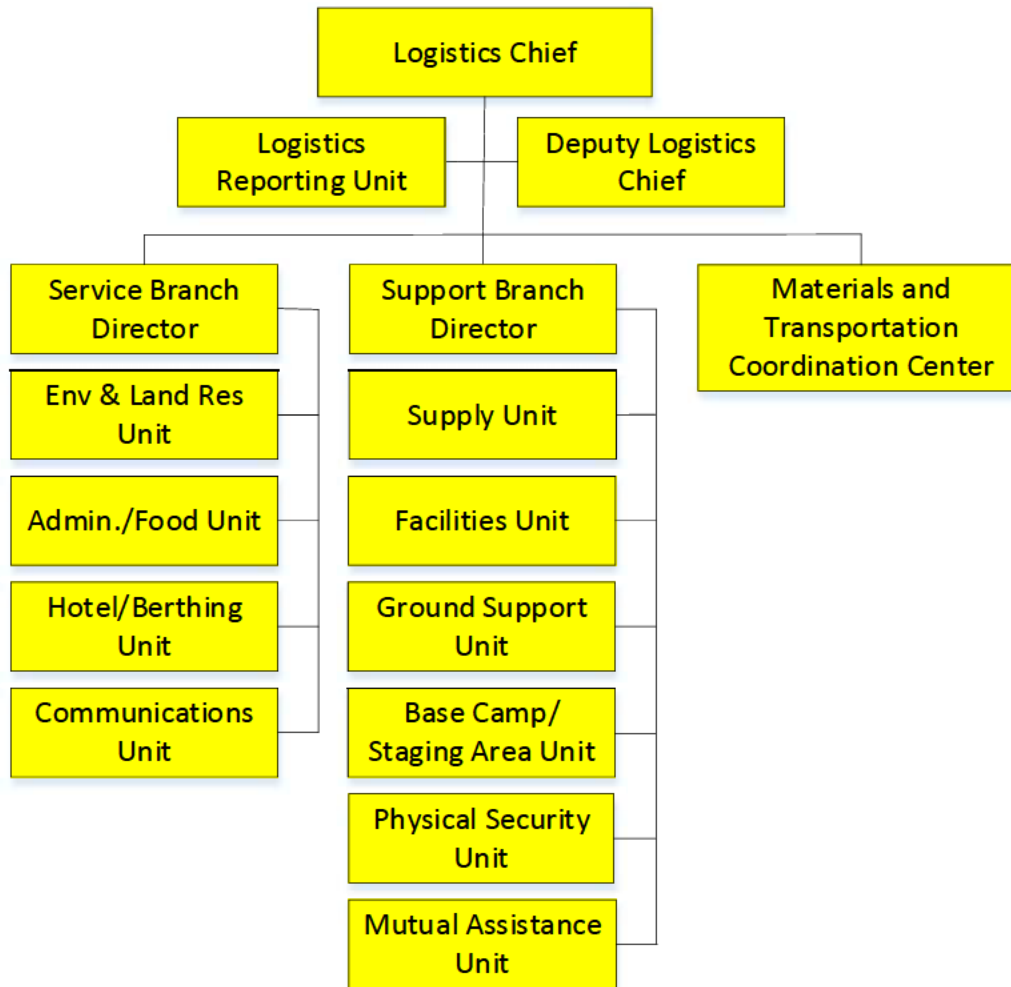
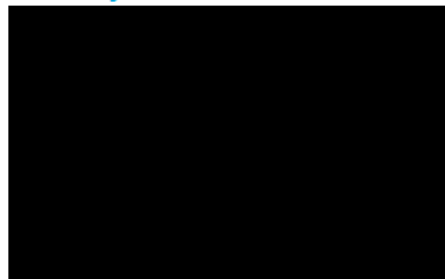


Figure 5-12: Logistics Support Personnel are Identified by Their Yellow Vests



5.5.1 Service Branch

The Service Branch :

- Maintains and submits incident documentation (such as the ICS 214 Unit Log, reports, talking points, documents, notes, drafts and other materials) to the Documentation Unit for review
- Oversees the Service Branch which is comprised of the following units: Environmental Services/Land Resource, Admin./Food, Hotels/Berthing, and Communications Units

5.5.1.1 Environmental Services and Land Resource Unit

The Environmental and Land Response Unit:

- Maintains situational awareness of potential environmental or land issues
- Provides expertise on hazardous materials/waste management, water quality, air quality, biological resources, environmental-related permitting and cultural resources
- Coordinates with Land Acquisition personnel on all land related needs

5.5.1.2 Admin./Food Unit

The Admin./Food Unit:

- Obtains event accounting for Emergency Operations Center (EOC) food expenditures including the Incident Commander's (IC) written approval
- Orders food as necessary for EOC staff and other PG&E facilities as requested
- Maintains stocks of perishable and non-perishable items in the EOC facilities, including replenishing of items before, during, and after activations and exercises
- Partners with Logistics Chief and Reporting Lead to maintain day-ahead forecast and operational headcount of all EOC staff members for meal counts
- Assists in support of Reporting Lead as necessary with incident documentation (such as the ICS 214 Unit Log, reports, talking points, tracking issues and requests, documents, notes, drafts and other materials) to the Documentation Unit for review

5.5.1.3 Hotels/Berthing Unit

The Hotels/Berthing Unit:

- Arranges lodging for EOC PG&E personnel and field operations personnel as requested
- Supports obtaining temporary housing for customers, employees and retired employees as needed
- Coordinates with third party hotel service provider to secure lodging

5.5.1.4 Communications Unit

The Communications Unit Lead:

- Executes all EOC notifications to EOC staff, PG&E employees and contractors, local government and agencies as required utilizing the Everbridge application

5.5.2 Support Branch

The Support Branch:

- Maintains and submits incident documentation (such as the ICS 214 Unit Log, reports, talking points, documents, notes, drafts and other materials) to the Documentation Unit for review
- Oversees the Support Branch which is comprised of the Supply, Facilities, Ground Support, Base Camps/Staging, Physical Security, and Mutual Assistance Units

5.5.2.1 Supply Unit

The Supply Unit:

- Oversees and coordinates all Logistics purchasing activities for materials and services
- Ensures that purchase orders (PO) are created for materials and services in a timely and accurate manner and are listed on the EOC PO log
- Acts as liaison between PG&E and critical suppliers
- Coordinates emergency materials requests with other utilities
- Tracks and expedites open POs, ensuring timely delivery and receipt of POs and accruals of costs as needed
- Works with suppliers as needed to resolve all supplier related issues

5.5.2.2 Facilities Unit

The Facilities Unit:

- Ensures efficient operation of the Facility Coordination Center (FCC)
- Activates and briefs FCC personnel of priorities and objectives
- Compiles data on the status of company facilities and provides reports as requested
- Coordinates emergency response and restoration activities as related to impacts to company real estate assets
- Sets up Alternate Company Headquarters (ACHQ) and Alternate EOC (AEOC) when activated
- Provides project management support when requested

5.5.2.3 Ground Support Unit

The Ground Support Unit:

- Arranges for services/repairs of vehicles and equipment
- Arranges and coordinates shuttling services
- Manages vehicle and equipment rentals
- Manages vehicle/equipment fueling
- Coordinates deployment of Mobile Command Vehicles (MCVs)

5.5.2.4 Base Camps/Staging Area Support

The Base Camps/Staging Area Support:

- Supports set-up of base camps, staging areas, micro sites, materials laydown areas and, community resource centers (CRCs)
- Contacts and coordinates with emergency service providers for all equipment and service needs
- Works with Land Acquisition and Environmental Services to identify and establish agreements for use of property as needed
- Ensures that all purchase orders (PO) related to base camps, staging areas, micro sites, materials laydown areas and community resource centers are created timely and are posted on the EOC PO log
- Tracks open POs, ensuring timely receipt of POs and accruals of costs as needed

5.5.2.5 Physical Security Unit

The Physical Security Unit:

- Ensures security of company personnel and assets
- Centrally manages security contracts for Company
- Provides security for temporary emergency sites, such as base camps, staging area, micro sites, materials laydown areas, and community resource centers (CRC)
- Coordinates with law enforcement agencies
- Reports to the Intelligence and Investigations Section during a cybersecurity incident

5.5.2.6 Mutual Assistance Unit

The Mutual Assistance Unit:

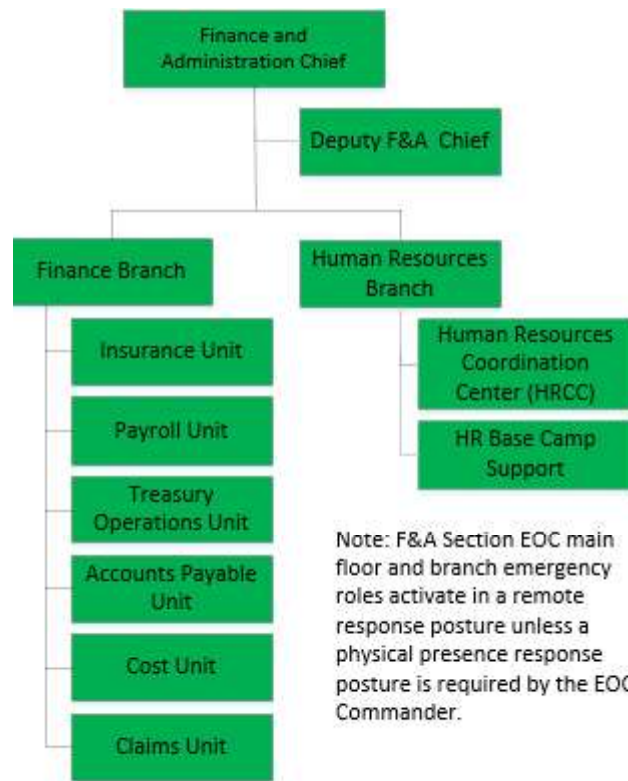
- Ensures PG&E's MA resource needs are met with regional or industry mutual assistance association and/or group resources
- Oversees receipt and documentation of in-coming MA crews

- In coordination with Planning Section Resource Unit Leader, checks in and accounts for MA crews before assignment to incident operations
- Briefs incoming MA personnel on PG&E unique work procedures and safety protocols
- Ensures incident or event activation briefings and databases reflect accurate MA resource information
- As required, oversees the Mutual Assistance Coordinator and Support staff activities throughout the incident or event
- Ensures that all MA purchase orders (PO) are created timely and are posted on the EOC PO log
- Tracks open POs, ensuring timely receipt of POs and accruals of costs as needed

5.6 Finance and Administration Section

In 2020, the Human Resources (HR) capability was merged with the Finance capability to form the new Finance and Administration Section ([Figure 5-13](#)). The merger required the development of the new HR and Finance branches consisting of two new Branch Director roles. The merger also required the removal of the HR Officer and Assistant HR Officer from the Command Staff structure. HR and Finance personnel share the assignment responsibility for Section Chief and Deputy Section Chief to ensure HR and Finance subject matter expertise is included at this leadership level.

Figure 5-13: General Staff – Finance and Administration Section



5.6.1 Human Resources Branch

HR has three deliberate EOC activation response capabilities to support natural disasters, PSPS events, and cybersecurity incidents. Specific HR response capabilities are referenced within the hazard specific annexes and the HR Annex. The HR Branch Director determines which HR emergency roles are activated and announces the appropriate response postures for those activated emergency roles. The below all-hazard information is consistent for the three deliberate HR EOC activation response types.

- Receives activation support from the HR Emergency Management Support Group
- Activates the Section Chief or Section Deputy Chief, HR Branch Director and HRCC Data emergency roles (Monitors the need for other emergency role activation)
- Approves and coordinates HR incident objectives and support requirements with HR personnel located in the HR EOC, HRCC, and HR Base Camp Support units when activated
- Facilitates the initial situation awareness notification to Labor Union leadership (The Labor Relations emergency role (if activated) or Labor Relations Senior Director conducts the notification process.)
- Develops and distributes the HR Common Operating Picture, EOC Action Plan, and EOC Intelligence Summary Report essential elements of information

- Validates HR Emergency Response Team staffing two weeks out
- Informs the EOC Safety Officer with known workforce injuries, deaths, child/eldercare, counselling, and safety incident awareness
- Supports the EOC emergency messaging process
- Supports the EOC activation After-Action Report/Improvement Plan processes
- Prepares for and executes the HR Emergency Response Team deactivation/demobilization process
- Monitors the need for HR Help Line support
- Monitors the need for impacted personnel data analysis and disaster support approval
- Monitors the need to develop and approve ad hoc HR policy modifications
- Monitors the need for EAP counsellor support
- Monitors the need to synchronize efforts with the PSEA Emergency Assistance Fund program
- Monitors the need for PG&E health benefits disaster enhancement messaging

5.6.2 Finance Branch

Key tasks and responsibilities for the Finance Branch include:

- Establish charging guidelines and event orders
- Communicate the appropriate field orders to capture time and expense for those responding
- Ensure that sufficient funds are available to pay vendors and employees
- Put together cost analysis and forecasting for the incident
- Notify insurance carriers about incident for costs that are eligible for recovery (when applicable)
- Track potential claims for compensation for injury or damage to life or property (if applicable)

The Finance Branch partners with Electric Distribution Emergency Restoration and EP&R to perform multiple tasks that help ensure costs are captured correctly, including:

- MEBA / CEMA qualification audits
- Timely closing of EOC orders

The Finance Branch also partners with the Sourcing and the Emergency Management team to:

- Ensure timely recording of costs, Estimated Goods Receipts or accruals as necessary to ensure that financial records are accurate.

The Finance Branch Director along has the following primary responsibilities:

- Ensure that all financial records are maintained throughout the event or disaster
- Schedule Finance Branch personnel
- Conduct Finance Branch briefings as required or requested
- Oversee the Finance Branch, which includes the following units
- Work with Lines of Business to properly and timely accrue event costs
- Make sure orders are setup correctly for reporting and regulatory cost recovery

5.6.2.1 Insurance Unit

The company maintains insurance policies for incidents over a certain dollar threshold. The Insurance Unit ensures that PG&E's insurance carriers are aware of the incident, and ultimately that our claims for reimbursement are filed in a timely manner

5.6.2.2 Payroll Unit

The Payroll Unit:

- Ensures that PG&E has a back-up plan should our financial systems be temporarily disrupted
- Ensures that employees continue to be paid in a timely manner

5.6.2.3 Treasury Operations Unit

The Treasury Operations Unit:

- Ensures that the company has sufficient cash on hand to meet our operational needs required to respond to the incident

5.6.2.4 Accounts Payable Unit

The Accounts Payable Unit:

- Ensures that PG&E's main suppliers are paid in a timely manner, especially if our financial systems are temporarily disrupted because of the incident

5.6.2.5 Cost Unit

The Cost Unit ensures that individuals, at the REC and OEC levels, who are responding to the incident:

- Have the correct charging guidelines
- Are aware of the appropriate field orders to be used when charging their time
- Coordinates Finance & Administration with Regional Emergency Centers (RECs), Operations Emergency Centers (OECs), and District Storm Rooms (DSRs)

- Works with EOC Finance Chief and Deputy to put together a forecast (with updated unit costs and assumptions) that provides an accurate estimate of total cost to be incurred (expense and capital)

5.6.2.6 Claims Unit

The Claims Unit:

- Ensures awareness of any claims that might be filed against the company
- Ensures awareness of any safety issues that may have been created due to how we responded to the incident

6 Emergency Facilities and Coordination Centers

PG&E's Emergency Facilities that can be activated in response to an incident or event. PG&E will activate the appropriate Emergency Facilities depending on the response needs. When activated, personnel operating out of each facility will follow company Emergency Management policies and practices. This includes organizational structure (emergency positions), coordination, communications, resource management, and financial tracking.

There are three (3) types of Emergency Facilities maintained by PG&E and also emergency field sites:

- Emergency Centers
- Control Centers
- Support and Coordination Centers and
- Emergency Field Sites

CPUC General Order (G.O.) 166 Standard 1A stipulates that utilities coordinate internal activities in an emergency operations center or use some other arrangement suitable for the purposes of internal coordination.

6.1 Emergency Centers

During significant incidents, PG&E may activate several Emergency Centers to support response activities. Emergency Centers facilitate:

- Unity of effort and teamwork in a common workspace
- Information sharing, including legal policy guidance to on-scene personnel and planning for contingencies
- Coordination, deployment, allocation and tracking of resources
- System-wide objectives and strategies
- Effective internal and external communication

6.1.1 District Storm Rooms

District Storm Rooms (DSRs) are tactical emergency centers housing personnel where company personnel direct emergency field restoration activities (i.e., Troublemens, gas service representatives [GSRs], meter technicians, estimators, mappers, and field operation crews). DSR personnel may report to the Operation Section of an Operations Emergency Center (OEC), if one or more OECs is activated. DSRs are typically located in service centers.

6.1.2 Substation Transmission Operations Emergency Center

The Substation Transmission Operations Emergency Center (STOEC) is an emergency center where company personnel provide field information to Electric Transmission Emergency Center (ETEC) personnel to support prioritizing the restoration of transmission outages. Activities carried out within the STOEC include damage assessment, information dissemination, coordination of transmission line and substation

manpower and equipment support, and other technical support as required in support of impacted operating departments.

6.1.3 Electric Transmission Emergency Center

The Electric Transmission Emergency Center (ETEC) is an emergency center where personnel provide support to the PG&E Vacaville Grid Control Center (VGCC) and the Rocklin Grid Control Center (RGCC). ETEC personnel coordinate with system protection personnel and the Electric Distribution Emergency Center (EDEC) and the Substation Transmission Operations Emergency Center (STOEC). The ETEC's primary location is within the VGCC, with an alternative site at the RGCC. When the primary Company Emergency Operations Center (EOC) is activated, ETEC personnel will report to the Electric Transmission Operations Branch Director.

6.1.4 Operations Emergency Center

There are 19 division level Operations Emergency Centers (OECs) located strategically throughout the company service area in support of electric operations. When activated, OEC personnel direct and coordinate DSR personnel responsible for damage assessments, securing hazardous situations, restoring service, and communicating information internally and externally.

Gas Operations no longer has pre-designated teams for OECs that may be activated. Gas OECs will be used to support any incident command post(s) as needed or may be the facility where the ICP is established. Both Gas and Electric OECs may support more than one incident at a time and may have several IMTs reporting into them.

During a dual commodity incident, an integrated gas and electric incident organization may share a facility, rather than activating separate OECs for Gas, Electric and other LOB activities.

6.1.5 Electric Regional Emergency Center

When activated, Regional Emergency Center (REC) personnel manage the overall response to an electrical incident. REC personnel will communicate operational status and submit request and logistical support requests to the Company EOC. Currently, there are three RECs:

- North Coast
- Bay/Central
- Sacramento

A REC can be activated to support multiple Electric OECs open in one region, or to coordinate resource movement between regions or mutual assistance crews from outside the company. As an incident escalates, REC personnel become the point of contact for information for incidents in the impacted region.

6.1.6 Gas Emergency Center

Gas Emergency Center (GEC) personnel manage the overall response to a gas incident. The GEC serves as both the primary emergency center and regional emergency center for Gas Operations. During a Company EOC activation, GEC personnel report to the Gas Operations Branch in the EOC.

The GEC services as both the primary emergency center and regional emergency center for Gas Operations. Whereas Electric Operations has OECs and Regional Emergency Centers, the GEC has no regional center equivalents.

6.1.7 Emergency Operations Center

The Vacaville Emergency Response Center (VERC) is PG&E's primary physical Emergency Operations Center (EOC). The VERC is a dedicated "hot site" equipped with all necessary equipment, supplies, information and data systems, backup power, and other resources needed to conduct prompt and effective emergency response activities.

The EOC is a location where staff from multiple LOB come together to: (1) assess impacts on PG&E's and coordination incident command; and (2) under lower level incidents, provide support to other PG&E Emergency Centers.

See section 5, [EOC Staffing](#), for EOC staffing and organizational information.

6.2 Control Centers

Control Centers monitor daily operations and manage for unexpected disruptions. During disasters, control centers become emergency facilities that perform essential emergency activities.

6.2.1 Distribution Control Centers

Personnel operating out of PG&E's three DCCs – one in the North, one in Central, and one in the South—monitor and manage the real-time operation of the electric distribution grid, including both planned and emergency outages. The three facilities are staffed 24 hours per day, 365 days per year and have the capability to transfer control between the 3 facilities during periods of peak activity or continuity of operations. If an outage occurs, the Distribution Operator (DO) personnel in the DCC directs field-level employees restoring service to:

- Go to substations to reconfigure or re-energize the distribution grid
- Operate distribution devices in the field to perform step restoration

6.2.2 Vacaville Grid Control Center

Personnel operating out of the Vacaville Grid Control Center (VGCC) manage real-time transmission operations. As the company's single point of contact with the California

Independent System Operator (CAISO)³⁴ the VGCC is staffed 24 hours per day, 365 days per year. VGCC personnel have direct contact with the CAISO to monitor power flows, coordinate clearance requests, and establish system restoration priorities.

VGCC personnel deal emergencies involving the electric transmission system. The Rocklin Grid Control Center (RGCC) is the backup facility for the VGCC.

6.2.3 Gas Control Center

Personnel operating out of PG&E's Gas Transmission and Distribution (collectively referred to as the Gas Control Center or GCC) monitor and control the flow of gas across the system 24 hours per day, 365 days per year, to ensure that it is received and delivered safely and reliably to customers. GCC personnel manage and operate the gas transmission and distribution systems in accordance with federal regulations such as 49 CFR § 192.631, "Control Room Management."³⁵

PG&E's Control Room Management (CRM) Operations Manual contains the standards, procedures, plans and processes that collectively address how GCC personnel conduct their work activity under normal, abnormal and emergency operating conditions, including a 911 notification process.

6.2.4 Enterprise Network Operations Center

Personnel operating out of the Enterprise Network Operations Center (ENOC) (staffed 24/7/365) analyze the health and availability of technology services provided by Information Technology (IT) and Cybersecurity to identify issues and engage the proper parties to resolve. ENOC responsibilities include:

- Monitoring of IT and Cybersecurity infrastructure and critical systems
- IT and Cybersecurity incident and event management
- IT and Cybersecurity incident escalation and clearances (IT systems change management)
- IT and Cybersecurity Operations support

6.2.5 Fairfield Security Control Center

Personnel operating out of the Fairfield Security Control Center (FSCC) monitor and manage the physical access to PG&E facilities.

The FSCC is staffed 24/7/365.

³⁴ The CAISO has overall operational control of our electric transmission facilities, as well as those of Southern California Edison, San Diego Gas & Electric, and others.

³⁵ For the text of 49 CFR § 192.631, see https://www.ecfr.gov/cgi-bin/text-idx?node=se49.3.192_1631. Link validated 06/10/2020.

6.2.6 Security Intelligence Operations Center

The Security Intelligence Operations Center (SIOC) provides intelligence, penetration testing, threat monitoring and response, incident response, data loss prevention, data security, security engineering, e-discovery, and digital forensics for enterprise PG&E cyber-assets.

The SIOC provides security monitoring 24/7/365.

6.3 Support and Coordination Centers

In addition to the facilities above, the Company may activate line of business level Coordination Centers (Table 6-1) to assist and augment the EOC and PG&E's restoration, customer service, and communications efforts.

When activated, coordination center staff will report to parent command or operation functions in the EOC. The table below describes these centers (in alphabetical order), their functions, and who has the authority to activate (in bold).

Table 6-1: Support and Coordination Centers

| Initials | Coordination Center Function | Activation Authority |
|--------------|--|---|
| CCECC | <p>Customer Contact Emergency Coordination Center</p> <ul style="list-style-type: none"> Coordinates response to emergencies through the WFM Routing Team Compiles and reports facility, operational and customer status information | <p>Manager, Customer Technology and Call Routing</p> <p>Customer Strategy Officer PIO</p> |
| FCC | <p>Facilities Coordination Center</p> <ul style="list-style-type: none"> Communicates facility impacts to the EOC and/or the GEC Dispatches civil engineering, building and environmental support specialists to inspect damaged facilities Coordinates with the other centers to identify and address critical facility issues affecting emergency response Staffed by CRESS, Geosciences and Substation Engineering | <p>Director of Corporate Real Estate</p> <p>EOC Logistics Section Facilities Unit Leader</p> |

| Initials | Coordination Center Function | Activation Authority |
|--------------------|--|--|
| <p>HRCC</p> | <p>Human Resources Coordination Center</p> <ul style="list-style-type: none"> • Coordinates emergency communications, labor relations, HR advice and counsel, and impacted personnel • Processes impacted personnel and provides disaster assistance • Coordinates impacted personnel support with the HR Help Line. • Maintains the HR Common Operating Picture (HR COP) including situational awareness information from the HR Help Line and HR Base Camp Support • Synchronizes impacted personnel efforts with PSEA (Pacific Service Employees Association) • Manages accountability of the HR activated personnel (ICS 211 From submission) • Supports the HRCC Synchronization Cell (HR objectives tracking; HR team scheduling; HRCC phone and email monitoring; HR data output) | <p>HRCC Unit Leader Deputy Finance and Administration Chief</p> |
| <p>ITCC</p> | <p>Information Technology Coordination Center</p> <ul style="list-style-type: none"> • Responsible for IT, Cybersecurity and telecommunications during emergencies • Manages major technology interruptions³⁶ • Develops and implements the overall response through technology assessment and restoration • Supports response to cybersecurity incidents through the guidance and strategy established by the Intelligence and Investigations Section • Provides support services to Emergency and Coordination Centers and the EOC • Manages deployment of telecommunications, technology and end user support at basecamps, Mobile Command Vehicles (MCV), Community Resource Centers and other field locations | <p>EOC Operations Section IT Branch Director ITCC Group Supervisor (if EOC is not activated) EOC Commander GEC Director Senior Vice President and CIO</p> |

³⁶ Rancho Cordova Information Operations Center (RCIOC) and the Fairfield Annex Information Operations Center (FXIOC) are PG&E’s data centers. Both sites host network, infrastructure and software applications supporting PG&E’s mission-critical processes. Each data center hosts most of PG&E’s mission- and business-critical applications, and they serve as the alternate site for Disaster Recovery purposes.

| Initials | Coordination Center Function | Activation Authority |
|----------|--|---|
| MTCC | Materials and Transportation Coordination Center <ul style="list-style-type: none"> • Coordination of materials requirements, procurements, and transportation activities • Staffed with representatives from Warehouse Operations, Materials Field Services, Logistical Planning and Traffic | Sr. Manager, Materials Distribution Operations EOC Logistics Section Logistics Section Chief (LSC) |
| RMC | Resource Management Centers <ul style="list-style-type: none"> • Provides clerical and estimating resources support | |

6.4 Emergency Field Sites

Emergency field sites are temporary work sites established in the field, close to the incident. The proximity to the incident enables more efficient response. The most common types of field sites are:

- Incident Command Posts
- Base Camps
- Staging Areas
- Micro Sites
- Materials Laydown Areas
- Mobile Command Vehicles

Requests for base camps, staging areas, and other sites are routed through the EOC Commander, who may need to validate the operational need with Planning and Operations prior to approval. Once need is confirmed and locations are determined, Logistics is assigned their responsibility to obtain, construct, and maintain the sites.

6.4.1 Base Camps

Base camps (Figure 6-1) are set up when there is a need to support crews in the field because a permanent facility is not accessible, non-operational, or not close enough to be of any advantage to the field responders.

Figure 6-1: November 2019 Kincadee Fire Rohnert Park Base Camp



Base Camps may:

- Function as an Operations Emergency Center (OEC) or solely to support first responders
- Be co-located with the Incident Command Post
- Be staffed with an Incident Management Team (IMT)
- Have HR, the Employee Assistance Program, and the Academy on site for support when required
- Have PG&E Safety Specialist on site to oversee all safety related issues
- Scale to meet the incident needs
- Provide parking for vehicles and equipment
- Provide food and drink services
- Provide showers, laundry and sleeping accommodations
- Have IT infrastructure to provide access to Company systems, applications and IT managed office equipment
- Have materials and equipment storage areas
- Provide vehicle maintenance, refueling stations, shuttle services and rental equipment
- Provide tents or trailers to serve as temporary workspace
- Have on-site emergency medical technicians
- Have rest and recreation sites

- Have a landing zone for helicopters

6.4.2 Staging Areas

Staging areas are set up for receiving, onboarding, and staging out-of-area crews prior to their being assigned to a base camp, micro site, or other crew location. They can also be utilized for staging crews prior to their being demobilized. PG&E staff may be limited to Logistics personnel, a Crew Supervisor or designated clerk, or a Safety Officer who checks-in personnel (during mobilization).

Mobilization

- Collects or confirms receipt of essential paperwork, such as crew lists and emergency contact information.
- Orients incoming PG&E, contractor, and mutual assistance crews
- Hands out welcome packets that contain information pertaining to safety, the assigned base camp or micro site, maps and construction information specific to the area they are being assigned
- Provides safety briefings
- Issues work assignments

Demobilization

- Checks-out personnel (during mobilization)
- Collects PG&E materials, supplies, and tools
- Confirms that crews have met the appropriate criteria to be released, including time sheets, safety briefings and other exist checklists
- Provides vehicle safety inspection stations

6.4.3 Micro Sites

Micro sites are set up to function as a satellite to a base camp. These smaller sites avoid the traffic issues present at the larger base camps and are intended to allow for speedier deployment of resources by placing them closer to the damaged areas.

Work packages are generally developed at the base camp or service center and are delivered to the micro sites for distribution to crews. IT access is limited to equipment (e.g., laptops, phones) carried by personnel. In some instances, food service may be provided at a micro site.

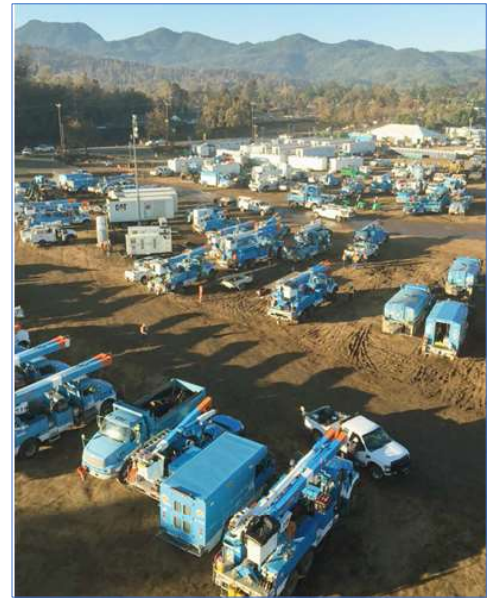
Figure 6-2: Incident Command Post

6.4.4 Materials Laydown Area

A materials laydown area serves to provide crews with access to needed materials closer to the work. Materials laydown areas typically only provide materials storage, a place for crews to park, portable restrooms, lighting and security, as required.

6.4.5 Incident Command Post

The Incident Command Post (ICP) is a field location where the primary tactical-level, on-scene incident command functions are performed. During a minor incident, activities of on-scene response personnel are typically managed at a gas or electric ICP location (Figure 6-2).



For larger events, the ICP can be managed at an ICP location or co-located at a base camp (e.g., during a wildfire or storm response).

6.4.6 Mobile Command Vehicles and Emergency Communications Trailers

A Mobile Command Vehicle (MCV) is a specialized vehicle that can be deployed to and stationed at the scene of an emergency for one or more days. The MCV can act as an ICP or an emergency center, if warranted. MCVs help facilitate communication between response crews, command staff and government agencies. Transportation Services (TS) and IT personnel work together to ensure that the MCVs operate properly.

Figure 6-3: Mobile Command Vehicle



6.4.6.1 Mobile Command Vehicle

The types of MCVs available are:

- Type I Commander (Figure 6-3), which is outfitted for large, multi-day incidents.
- Type II Lieutenant (Lt.) Commander, which is a mid-size motor coach which is between the size of a Commander and a Sprinter
- Type III Sprinter, which is used for short-duration incidents that do not require extensive capabilities

6.4.6.2 Emergency Communications Trailer MCV

Figure 6-4: Emergency Communications Trailer MCV

Emergency Communications Trailers (ECTs) are used to enhance radio communications in the event of poor radio coverage. The ECT (Figure 6-4) acts as mobile radio repeaters by augmenting radio coverage and providing better communications for crews and other emergency responders working in affected areas during emergencies and restoration efforts. It utilizes a multi-band radio scanner installed to pick up local communications and other radio equipment that allows it to facilitate interoperability with other agencies, such as Cal Fire and Cal OES.



See [Appendix G](#) for vehicle equipment specifications (e.g., size, fuel capacity, generator run time, and installed equipment, including radios, phones, work stations, printers).

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7 External Relationships

This chapter follows PG&E's emergency planning assumptions stated in section 3.2, "Emergency Planning Assumptions". Generally, situations are best handled at the most local level. Thus, this chapter is arranged according to relationship proximity; for example, local community-based groups precede state and federal level organizations.

Also, industry and professional organizations with whom PG&E has an established relationship or contract appear first, as they may span local, state, national and international boundaries. Thus, this chapter is arranged as follows:

- Industry
- Community-based organizations (CBOs)
- Nongovernmental organizations (NGOs)
- Voluntary organizations (VOs)
- Local Government
- State Government
- Federal Government

7.1 Collaboration with Other Utilities and Trade Associations

PG&E works collaboratively with other utilities and trade associations to identify best emergency management practices and to provide mutual assistance. PG&E's primary partners are:

- American Gas Association (AGA)
- California Utilities Emergency Association (CUEA)
- Edison Electric Institute (EEI)
- Western Electricity Coordinating Council (WECC)
- Western Energy Institute (WEI)
- Western Regional Mutual Assistance Association (WRMAA)

As a member of WEI, EEI and AGA, PG&E meets with utilities throughout the United States and Canada. Discussions through the Western Region Mutual Assistance Agreement (WRMAA), which is governed by WEI, and through other trade associations, involve emergency planning and response issues and opportunities to support each other in a large-scale emergency.

7.2 Collaboration with Other Utilities

PG&E works collaboratively with other utilities to identify best emergency management practices and participates in trade association meetings held by:

- Edison Electric Institute (EEI)
- Western Electricity Coordinating Council (WECC)

- American Gas Association (AGA)
- California Utilities Emergency Association (CUEA)
- Western Energy Institute (WEI)

As a member of WEI, EEI and AGA, PG&E meets with utilities throughout the United States and Canada. Discussions through the Western Region Mutual Assistance Agreement (WRMAA), which is governed by WEI, and through other trade associations, involve emergency planning and response issues and opportunities to support each other in a large-scale emergency.

7.3 Nongovernmental Organizations, Local Community-Based Organizations, and Voluntary Organizations

Nongovernmental Organizations (NGOs) and Community-Based Organizations (CBOs) provide housing, food, health services, mental health services, debris removal, clothing, transportation, financial assistance and other assistance to those affected by a disaster.

Voluntary Organizations (Vos) often serve as a critical link between the community and the government by helping to promote a quick and efficient disaster relief effort. Community-Based Voluntary organizations are well-grounded in the communities they serve. California Voluntary Organizations Active in Disaster (VOAD) serves as a forum where organizations share knowledge and resources throughout a disaster's life cycle to help communities prepare for and recover from disasters. NorCal or SoCal VOAD may coordinate among non-profits, CBOs, government agencies and for-profit companies.³⁷

PG&E's main community partner for emergency and disaster response activation is the American Red Cross. The American Red Cross provides ongoing safety and emergency preparedness education and training to vulnerable communities within PG&E's service territory, and the Red Cross also provides formal emergency response services when a county declares a state of emergency. PG&E supports the Red Cross' emergency response services to help PG&E customers in impacted communities. Typically, this involves PG&E supporting the Red Cross' shelter activations.

7.4 Local Government, Operational Areas

Local governments (cities and counties) respond to protect lives, property and the environment during an emergency. They deploy field-level emergency response personnel such as law enforcement, fire, and public works, and they activate emergency operations centers and issue orders to protect the public. Generally, the order of emergency service actions is preparing, respond, recover, and mitigate.

The California Emergency Services Act authorizes each county Board of Supervisors to designate an Operational Area (OA) lead agency to serve as primary point of contact

³⁷ Many but not all voluntary organizations are coordinated through a VOAD.

and emergency response coordination. In most counties, that OA lead agency is the Office of Emergency Services (OES). SEMS incorporates ICS for a standard organizational structure and terminology at all emergency management levels in the state. The Operational Area:

- Coordinates planning for the Operational Area / County and activates the Operational Area EOC and emergency operations plans
- Coordinates among local “political subdivisions” and the regional level of state government
- Maintains communications with the state Regional Emergency Operations Center (REOC), local emergency operations centers and other agencies
- Requests resources from the state, as needed

7.5 California State Government

The State of California (Figure 7-1) is responsible for the maintenance and implementation of the California Emergency Services Act. The California Emergency Services Act ensures the State of California prepares for, takes action to prevent, responds to and recovers from all threats, crimes, hazards, and emergencies. The State Emergency Plan (SEP) outlines the state-level strategy to support local government efforts during emergencies. The SEP formalizes SEMS and establishes the California Emergency Support Functions (CA-ESFs).

Figure 7-1: State of California Resources

| State of California Resources | |
|--------------------------------------|---|
| Cal OES | California Office of Emergency Services |
| SOC | State Operations Center |
| SEP | State Emergency Plan |
| CA-ESFs | California Emergency Support Functions |
| CNRA | California Natural Resources Agency |

7.5.1 California State Legislature

Responsible for passing the statutory framework implemented by the Administration and the California Public Utilities Commission (CPUC)

7.5.2 Office of the Governor

Is responsible for giving emergency management and energy policy direction to all state agencies.

7.5.3 California Office of Emergency Services

The California Office of Emergency Services (Cal OES) coordinates California State Agency response to events.

- Implements and maintains SEMS, the Standardized Emergency Management System

- Provides emergency response assistance for nuclear power stations in California, as outlined in the State of California’s “Nuclear Power Plant Emergency Response Plan”
- Manages the State Operations Center (SOC) and the three (3) Regional Emergency Operation Centers (REOC). When activated, the SOC is the primary point of coordination for all state agencies during emergencies.
- Maintains the State Emergency Plan (SEP)
- Supports OAs with response and recovery efforts

7.5.4 California Energy Commission

The California Energy Commission (CEC) is the state’s primary energy policy and planning agency.

- Is responsible for licensing all thermal power plants over 50 megawatts
- Oversees funding programs that support public interest energy research
- Advances energy science and technology through research, development and demonstration
- Provides market support to existing, new and emerging renewable technologies
- Forecasts future energy needs used by the CPUC in determining the adequacy of utilities’ electricity procurement plans

7.5.5 California Air Resources Board

The California Air Resources Board (CARB) is the state agency charged with setting and monitoring Greenhouse Gas (GHG) and other emissions and is responsible for adopting and enforcing regulations to meet Assembly Bill 32, the California Global Warming Solutions Act of 2006.

7.5.6 California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California³⁸. CPUC Decision 18-08-004 now requires utilities to implement Emergency Consumer Protections for electric and gas residential and non-residential (small business) customers upon a declaration of a state of emergency. These include (among others):

- Discontinuing billing
- Prorating any monthly access charges or minimum charges
- Implementing payment plan options for residential customers
- Suspending disconnection for non-payment and associated fees

³⁸ Including PG&E, Southern California Edison (SCE), San Diego Gas and Electric Company (SDGE) and Southern California Gas Company (SoCal Gas)

7.5.7 California Department of Public Health

The California Department of Public Health (CDPH) provides emergency response assistance for nuclear power stations in California as outlined in the State of California “Nuclear Power Plant Emergency Response Plan”.

- May direct businesses in responding to pandemics and other public health emergencies.
- In the event of an emergency, the Diablo Canyon Power Plant (DCPP) or the Safety Officer in PG&E’s EOC is responsible for contracting and interacting with the CDPH.

7.5.8 California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (Cal FIRE) provides fire protection and stewardship for over 31 million acres of public and privately-owned wildlands.

- Provides various emergency services in 36 of California’s 58 counties
- In the event of an emergency, the Operations Section often at the local command post is responsible for contacting CAL Fire

7.5.9 California Independent System Operator

The California Independent System Operator (CAISO) is the largest of about 40 Balancing Authority registered entities in the the Western Interconnection.

- Handles an estimated 35 percent of the electric load in the West
- Manages the flow of electricity for about 80% of California
- Monitors the transmission system at all times
- Operates two control centers:
 - Folsom Main headquarters houses one of the most modern control centers in the world
 - Lincoln, CA Backup is a fully functioning facility that is ready to assume control of the grid within minutes

A Balancing Authority is an entity responsible for operating a transmission control area. It matches generation with load and maintains the electric frequency of the grid.

7.6 United States Federal Government

The Federal Government is responsible for the maintenance and implementation of the Robert T. Stafford Act. The Robert T. Stafford Act ensures the United States is prepared for, takes action to prevent, responds to and recovers from all threats, crimes, hazards and emergencies. The Code of Federal Regulations (CFR) provides information on support and the implementation of the support; including eligibility. The Federal Government has also established the National Strategy which formalizes NIMS and

establishes the Emergency Support Functions (ESFs). Below is an overview of the different state entities and their role.

7.6.1 United States Congress

- House of Representatives
- United States Senate
- Responsible for passing the statutory framework that is implemented by the various federal agencies
- In the event of an emergency, PG&E's Federal Affairs team, based in Washington, DC establishes a liaison with California's congressional delegation on behalf of PG&E's Liaison Officer in San Francisco

7.6.2 Department of Homeland Security

The Department of Homeland Security (DHS) is designated as the primary federal agency to execute the National Response Framework (NRF) and integrate other interagency plans, such as the National Contingency Plan for Oil and Hazardous Materials (HAZMAT).

- Provides the National Infrastructure Protection Plan (NIPP) 2013 as a guide to manage the nation's effort to achieve national critical infrastructure security and resilience goals
- Is the parent agency of the Federal Emergency Management Agency (FEMA)
- Is supported by the United States Coast Guard (USCG), a military service and a branch of the armed forces of the United States positioned within the DHS, except when operating as a service in the Navy
- The United States Coast Guard may be requested to assist in emergency actions involving vessels and persons offshore, including following emergencies at DCP

Depending on the nature of the emergency, other branches of the DHS that have responsibility for addressing cybersecurity and other terrorist activity may work directly with state, locals, and companies.

7.6.2.1 Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) Is a branch of the DHS.

- Has oversight of security for all gas-related incidents and requires timely notification following a gas-related incident
- Serves as the coordinator of federal resources
- Coordinates the assistance to affected state and local governments under the Stafford Act and the National Response Framework (NRF), which:
 - Is an all-hazard, multi-discipline plan that establishes a single, comprehensive framework for the management of domestic incidents

- Outlines the specific roles and responsibilities of various federal agencies and departments to support federal coordination of resources in response to natural or human-caused disasters
- Provides mechanisms for an expedited and proactive federal response to prevent, prepare for, respond to and recover from incidents
- Organizes the federal response into 15 Emergency Support Functions (ESFs), grouping capabilities and resources into functions of the primary and support agencies

7.6.3 Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates transmission of electricity and the terms and rates of wholesale electricity sales in interstate commerce.

- Regulates transmission and sale of natural gas for resale in interstate commerce
- Regulates interconnections of transmission systems with other electric systems and generation facilities
- Regulates tariffs and conditions of service of regional transmission organizations, including CAISO
- Monitors dam safety, including requiring the preparation of emergency action plans for dam operations
- Approves and enforces mandatory standards governing the reliability of the nation's electricity transmission grid, including standards
 - To protect the nation's bulk power system against potential disruptions from cyber and physical security breaches
 - To prevent market manipulation
 - To supplement state transmission siting efforts in certain electric transmission corridors that are determined to be of national interest

7.6.4 North America Electric Reliability Corporation

The North America Electric Reliability Corporation is the Electric Reliability Organization for North America.

- Is subject to oversight by the Federal Energy Regulatory Commission (FERC) and governmental authorities in Canada
- Has an area of responsibility that spans the continental United States, Canada, and the northern portions of Baja California, Mexico
- Monitors and maintains situational awareness of the eight Regional Entities (RE) that comprise the North American Bulk Power System (BPS) to ensure reliability of the BPS
- Monitors to ensure the reliability of the BPS in North America through system awareness
- Develops and enforces Reliability Standards
- Annually assesses seasonal and long-term reliability
- Educates, trains, and certifies industry personnel

7.6.5 Department of Transportation

The Department of Transportation (DOT) regulates the safe and secure movement of hazardous materials and natural gas through its Pipeline and Hazardous Materials Safety Administration (PHMSA).

7.6.6 National Transportation Safety Board

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress to determine the probable cause of transportation accidents, including accidents on pipelines.

7.6.7 Nuclear Regulatory Commission

The Nuclear Regulatory Commission (NRC) responds to incidents under its statutory authorities and responsibilities in accordance with the NRF and, if applicable, as an integral part of the overall response by the federal government.

7.6.8 Department of Energy

The Department of Energy (DOE) is the primary federal point of contact within the energy industry for information sharing and requests for assistance from private and public-sector owners and operators

- Has the capability to dispatch radiological assistance teams to aid in radiological monitoring and provide technical guidance to state and local agencies during an emergency at DCP
- FEMA's NRF ESF #12-Energy describes the DOE's role to support energy asset owners and operators in maintaining and restoring energy systems and system components

The DOE led the update of the 2015 Energy Sector-Specific Plan (SSP) in close collaboration with its sector partners. The Plan reflects an integrated sector's efforts to improve the security and resiliency of its critical infrastructure while describing how the sector contributes toward the national security and resilience goals. It includes the discussion of the many evolving risks and threats in the Energy Sector, as well as an increased emphasis on the Energy- and cross-sector interdependency issues and the integration of cyber and physical security efforts.

7.6.9 Environmental Protection Agency

The Environmental Protection Agency (EPA) provides trained health physics personnel, field sampling equipment and laboratory facilities for assessment and radiological monitoring during an emergency at DCP.

7.6.10 Western Electricity Coordinating Council

The Western Electricity Coordinating Council (WECC) is the Western Interconnection (a wide area synchronous grid and one of the two major alternating current (AC) power

transmission grids in the continental U.S.³⁹) serves a population of over 80 million, and spans more than 1.8 million square miles in all or part of 14 states, the Canadian provinces of British Columbia and Alberta, and the northern portion of Baja California in Mexico.

The Interconnection is made up of approximately 136,000 circuit-miles of transmission lines that carry power long distances, from remote areas where generating resources are located to populated areas where load is located, primarily along the West Coast. Electricity generally flows south and west in a “doughnut” pattern, contrasting with a spider web configuration in the East.

³⁹ https://en.wikipedia.org/wiki/Western_Interconnection checked 6/10/2020.

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8 Concept of Operations

8.1 Emergency Plan Activation

To ensure a well-coordinated and consistent emergency response, PG&E developed a five (5)-tier incident classification scheme (Table 8-1). The incident classification scheme ranges from a Level 1, which represents a smaller, localized incident, to a Level 5, which represents a larger, more companywide incident. The incident classification scheme puts into context an incident's complexity and the actions that may be required. Appendix B, "Levels of Emergency and Activation Criteria for PG&E," provides a summary of potential impact to PG&E's primary LOBs.

Table 8-1: Incident Classification Levels

| | | |
|---------------------|----------|--|
| Catastrophic | 5 | <ul style="list-style-type: none"> • Incident includes multiple emergencies, affects many customers, business operations <ul style="list-style-type: none"> • Significant cost and infrastructure risk/damage • Full mobilization of PG&E, contractor and mutual aid resources • May have heavy media interest and actual reputational risk <ul style="list-style-type: none"> • EOC and Executive Team are activated |
| Severe | 4 | <ul style="list-style-type: none"> • Incident includes extended multiple incidents and affects many customers • Escalating company impact • Resources, contractors and mutual aid may be shared between region • May have heavy media interest and potential reputational risk |
| Serious | 3 | <ul style="list-style-type: none"> • Incident involves large numbers of customers • Resources may need to move between regions • Potential increased, actual or imminent negative media interest |
| Elevated | 2 | <ul style="list-style-type: none"> • A pending or local incident that requires more than routine operations • Resources may need to move within the region • Increased media interest |
| Routine | 1 | <ul style="list-style-type: none"> • Incident involves a relatively small number of customers • Local resources are sufficient • Little to no media coverage |

8.1.1 Level 1 Incidents

Declaration of Level 1 incidents are identified and managed locally following existing procedures. The on-scene Initial Assessment Team, working through their chain of command, assesses the incident and determines if the necessary actions to address the issue can be handled by local resources in a reasonable amount of time. If additional incident management support and resources are needed, the local Incident Commander will notify the on-call EOC Commander about the nature of the incident.

8.1.2 Level 2 Incidents

Declaration of Level 2 incidents are identified and locally managed following existing procedures. The on-scene Initial Assessment Team, working through their chain of command, assesses the incident and determines if the necessary actions to address

the issue can be handled by local resources. If it is determined that: (1) the necessary actions require a larger amount of time; (2) assigning additional staff to the incident may be necessary; or, (3) there is a potential for an escalation of the incident, a Level 2 incident may be made. If additional incident management support and resources are needed, the local Incident Commander will notify the on-call EOC Commander about the nature of the incident.

8.1.3 Level 3 Incidents

Declaration of Level 3 incidents are locally identified or by other sources (911 Stand-by, PG&E Control Centers). On-scene Initial Assessment Team, their chain of command, and the on-call EOC Commander together will determine if the necessary actions to address the issue can be handled using local or regional resources. Part of this determination will also include whether company emergency centers will need to be activated (actual or virtually) to support operations.

The decision to activate emergency centers is based on whether a response to the emergency will be served by managing local operations and resources and whether prioritization for the use of resources is necessary at a higher level.

8.1.4 Level 4 and Level 5 Incidents

Declaration of a Level 4 or Level 5 incident are usually identified by control centers or warning centers but there are instances where local staff may identify an incident (i.e. terrorism) that has the potential to escalate to a higher classification. In the instances where control centers and warning centers identify the issue, the on-call EOC Commander will determine the appropriate incident classification level. For incidents identified by the local PG&E staff, the incident level will be discussed in accordance with the process discussed in section 8.1.3, "Level 3 Incidents".

8.2 Emergency Center Activation

Any PG&E employee can request activation of the EOC by contacting the SR Director of Grid Operations and Emergency Response or the Director of EP&R SE. The Director of EP&R SE evaluates the request and determines activation status. Use the EOC Activation Checklist to request EOC activation.

The Diablo Canyon Power Plan on-call Emergency Response Organization Lead will be notified of all activations of the Company EOC. Other emergency center activation protocols, including REC or OEC, are located in the LOB functional annexes.

8.3 Emergency Response Sequence

The following sections discuss preparing for and responding to emergencies. PG&E's emergency readiness and response sequence may be summarized by the following seven steps:

1. Pre-incident Readiness
2. Make Safe and 9-1-1 Standby
3. Establish Command

4. Notify
5. Assess Damage
6. Restore
7. Demobilization⁴⁰

8.3.1 Pre-incident Readiness

When an impending incident is determined, PG&E takes proactive actions to prepare for the potential incident. These actions include, but are not limited to:

- Conference calls
- Placing personnel on alert status
- Advising employees to pack overnight bags
- Reviewing emergency plans
- Identifying key personnel available for restoration activities
- Pre-staging personnel and/or equipment
- Evaluating supplies and equipment
- Canceling or postponing non-critical meetings
- Conducting or reviewing damage modeling projections

8.3.1.1 On-Call Teams

The PG&E staffing plan uses eight phonetic alphabet designated⁴¹ EOC teams. Outlined in detail in the EOC staffing plan document contained in the 2021 EOC 8 Team Roster folder on the [EOC Resources SharePoint Site](#), this new EOC staffing plan establishes a rotating 24-hour (day/night) paired response team capability, as show in [Table 8-2](#).

Table 8-2: Example Rotating EOC Team Schedule

| Week | Day Shift | Night Shift |
|------|-----------|-------------|
| 1 | Alpha | Bravo |
| 2 | Charlie | Delta |
| 3 | Echo | Foxtrot |
| 4 | Golf | Hotel |

As required, on-call EOC staffers may switch roster assignments with other qualified position personnel.

⁴⁰ For further details on the demobilization of labor and material resources, refer to section 9.3.

⁴¹ See Appendix H for phonetic alphabet designation description.

Teams for the other Emergency Centers and Facilities (Control Centers, Support and Coordination Centers) can be found in the respective LOB Functional Annexes.

8.3.2 Make Safe and 9-1-1 Standby

For those situations where hazardous conditions have been identified and prompt attention is required, (e.g., wire down), field crews are responsible to “make safe” any incident before restoration can begin. For additional details, refer to the Make Safe sections in the Gas Emergency Response Plan (GERP) Annex and the Electric Annex.

A 9-1-1 callback process within PG&E has been implemented to ensure timely response to public safety agencies standing by PG&E facilities. PG&E deploys standby personnel to relieve public safety agency personnel until qualified gas or electric resources are available to assess and repair PG&E facilities. For additional information, refer to the 9-1-1 Standby sections in the GERP and Electric Annexes.

8.3.3 Establish Command

Incident Commanders (IC) have the authority to make decisions and commit resources consistent with the scale of the emergency and PG&E’s delegation of authority. As part of the EOC On-call Teams program, EP&R SE maintains a list of pre-designated qualified Incident Commanders.

Consistent with company delegations of authority, the Director EP&R SE or Senior Director of Grid Operations and EP&R may activate the EOC. Predesignated ICs from different lines of business have been assigned to on-call teams and may serve in any type of emergency at the discretion of the Director EP&R SE or Senior Director of Grid Operations and EP&R.

8.3.4 Notifications

8.3.4.1 Internal Call-Out Procedures

Each emergency center maintains call-out procedures to ensure adequate staffing levels for any and every emergency.

8.3.4.2 LOB Notification

LOB call-out procedures can be found in their associated functional annexes.

For escalating incidents, each line of business maintains appropriate notification processes, electronic mail and paging lists to notify personnel about the emergency and provide reporting and contact information. Personnel report to pre-designated emergency center locations or to another assigned location within the notified time period appropriate to the incident.

8.3.4.3 Automated Roster Callout System

Automated Roster Callout System (ARCOS) is a tool that enables PG&E to quickly obtain real-time views (Figure 8-1) into:

- Which crews are where
- Who is available to work
- Personnel cost tracking
- Additional information regarding ARCOS can be found in the Electric Annex.

Figure 8-1: ARCOS – Automated Roster Callout System



8.3.4.4 EOC Notification (Everbridge)

When possible and for most events, notification to the EOC on-call teams is initiated by the Director of EP&R SE. Everbridge (EVBG) is the method used to contact on-call teams and request their status and direct them to report. EOC on-call staff will be sent an EVBG message with important reporting details such as:

- Type of emergency incident
- Where to report (EOC or AEOC or other location)
- When to report
- Safety and Security instructions
- Required personnel protective equipment

The EVBG message may also ask whether on-call rosters are safe and able to report for duty. Responses will be in the form of pushing a numeric key on the phone. Messages may be sent via landline, Short Message Service (SMS), text and email. EVBG message recipients should respond to the messages they receive.

To ensure timely receipt of Everbridge notifications, all personnel are required to maintain updated emergency contact information in the “About me” tab of PG&E@Work For Me.

8.3.4.5 Diablo Canyon Notification

At Diablo Canyon, Emergency Response Organization (ERO) notification should occur immediately after an emergency has been declared by the shift manager. ERO personnel will staff pre-designated Emergency Response Facility locations within 60 or

90 minutes of upon the declaration of an Alert or higher emergency per the Diablo Canyon Power Emergency Plan.

8.3.4.6 External Notification

Once the EOC is activated, the Liaison Officer (LNO) in the EOC, with input from the public information officer (PIO), is responsible for ensuring all required regulatory and informational notifications are made. The LNO is responsible for documenting and providing records of these notifications to the Documentation Unit in the EOC or other appropriate-level emergency center.

G.O. 166 Standard 6 specifies that within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the Commission and Warning Center at the State Office of Emergency Services of the location, possible cause and expected duration of the outage. The Warning Center at the OES is expected to notify other state and local agencies of the outage.

The LNO will direct the Public Affairs/Government Relations teams to notify, as appropriate:

- Government officials that represent the affected area
- Local OES and city/county officials
- Office of the Governor of the State of California and the California State Senate and Assembly
- Members of Congress and the United States Senate

The LNO will direct the Regulatory Relations team or pre-designated personnel in the appropriate LOB to notify, as appropriate and within the required time-specific period: CAISO, CPUC and DOT.

For incidents occurring at the Diablo Canyon Power Plant (DCPP), the Control Room at the plant will notify by telephone the:

- San Luis Obispo County Sheriff's Office
- State Warning Center
- Nuclear Regulatory Commission Operations Officer

The notification includes specific information on the incident, affected population areas and protective measures that may be necessary and includes a provision for message authentication by the government agencies.

For a summary of external notifications for emergency center activations and outages, refer to Table 8-3. For additional details on external agency communication / coordination and outage notifications / reporting, refer to Chapter 10, "Coordination and Communication".

Table 8-3: External Agency/Stakeholders Notifications

For additional details see the table notes on the next page.

| External Agency / Stakeholder | Reporting Criteria | Required Time Frame | Responsible Department |
|--|---|---|---|
| CPUC Energy Division of Emergencies | EOC Activation or major electric outage | 1 hour | EP&R SE |
| Cal OES Warning Operations Center | EOC Activation or major electric outage | 1 hour | EOC Admin EP&R SE |
| CAISO, WECC, NERC | Disruptive event that has the potential to or impacts the BES | Day of event | Vacaville Grid Control Center |
| DOE | Event that has potential to or impacts the BES | 1 or 6 hours, based on event | Vacaville Grid Control Center |
| DOT | Reportable Gas Incidents | 1 hour | District/Division IC compiles info, Gas CPUC/DOT On-Call Representative files reports |
| CPUC | Reportable Gas Incidents | 2 working hours, 4 non-working hours | District/Division IC compiles info, Gas CPUC/DOT On-Call Representative files reports |
| San Luis Obispo County Sheriff's Office Watch Commander CA State Warning Center | Declaration of Unusual Event Alert Site Area Emergency General Emergency | 15 minutes of declared emergency | Diablo Canyon Power Plant |
| NRC Operations Officer | Declaration of Unusual Event Alert Site Area Emergency General Emergency | 1 hour or ASAP if due to Hostile Action | Diablo Canyon Power Plant |
| Local OES City/County Officials CA Governor & Legislature US Congress | Courtesy notification to government officials that represent the affected area | As appropriate | Liaison Local, State or Federal Government Relations |
| Cal OES | Cal OES Warning Center criteria are listed above. No specific threshold for other notifications | As appropriate | EOC Admin EP&R SE |
| California Utilities Operation Center | No specific threshold | As appropriate | EP&R SE |
| California Energy Commission | No specific threshold | 1 hour | Liaison State Agency Relations |
| Federal Bureau of Investigations | Major law enforcement matter | As needed | Corporate Security Cybersecurity |
| Securities and Exchange Commission | No specific threshold | As appropriate | Legal Officer |

| External Agency / Stakeholder | Reporting Criteria | Required Time Frame | Responsible Department |
|--------------------------------------|-----------------------|---------------------|----------------------------------|
| Media Outlets, Social Media, PGE.com | No specific threshold | As appropriate | Marketing and Communications PIO |
| Customers | Outages | As CSO determines | Customer Strategy Officer |

Table Notes:

| | |
|---|---|
| CPUC = California Public Utilities Commission | DOT = (US) Department of Transportation |
| Cal OES = California Office of Emergency Services | CUEA = California Utilities Emergency Association |
| CAISO = California Independent System Operator | CEC = California Energy Commission |
| VGCC = Vacaville Grid Control Center | FBI = (US) Federal Bureau of Investigation |
| WECC = Western Electricity Coordinating Council | SEC = (US) Securities and Exchange Commission |
| NERC = North American Reliability Corporation | |

- Customer notifications – Automated electric outage notification is made to residential customers. Commercial customers opt in at PGE.com for information on current electrical outages. Additional communications are made, as determined by CSO
- External agency notifications – Refer to procedures or regulations noted under reporting criteria and the functional and hazard-specific annexes to the CERP, (e.g., refer to PG&E’s Cybersecurity Annex for notifications to E-ISAC, Cyber Emergency Response Team (US-CERT), insurance carriers / brokers, CA Attorney General, U.S. Department of Health and Human Services, etc.)
- CPUC and Cal OES – G.O. 166, Standard 6, specifies an initial notification following a major outage or other newsworthy event. PG&E generally treats newsworthy events as incidents which fall into the category of Level 3 or greater emergency. Refer to section 10.5, “Outage Notifications and Reporting,” for the CPUC’s definition of a major outage

G.O. 166 Standard 6 specifies that within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the Commission and Warning Center at the State Office of Emergency Services of the location, possible cause and expected duration of the outage. The Warning Center at the OES is expected to notify other state and local agencies of the outage.
- CAISO, WECC and NERC – Use Form OE-417 (Electric Emergency Incident and Disturbance Report) and the Event Reporting Form attachment in NERC Reliability Standard EOP-004-2
- Reportable gas incidents – Refer to Utility Procedure TD-4413P-01
- Nuclear incidents – Refer to the DCPD Emergency Plan Nuclear Annex

8.3.5 Assess Damage

Damage Assessment is the process of understanding and collecting information on the impacts to PG&E systems, facilities, and equipment. For larger incidents, this requires

more coordination and effort to ensure all information is collected and that there are no overlaps or omitted details.

There are two key steps to the Damage Assessment process:

- Field personnel initially assess the damage and make repairs, if possible
- Office personnel manage the information to ensure that the assessment information is timely and accurate throughout the restoration process

Damage assessment may take considerable time following an emergency and requires specially qualified personnel to complete correctly. The EOC Planning Section may use modeling and monitoring software and pre-established loss estimates to initiate planning and then will refine the estimates as valid data is received from the field.

The Initial Damage Evaluation (IDE) program provides immediate response guidance for earthquakes. The Gas Pipeline Earthquake Plan and Response Procedure – Risk Management Instruction (RMI-04)⁴² provides key damage assessment response protocols based on IDE procedures for Gas.

The EOC Planning Section provides consolidated damage assessments, outage estimates, estimated time of restoration (ETOR) forecasts and models from weather and geosciences whenever possible to the Command and General staff of the activated emergency centers. More specific detail about damage can be found in the functional and hazard annexes to the CERP.

8.3.6 Restoration

Both Gas and Electric organizations have detailed processes, tools and technology to develop restoration plans. During any activation, it is the responsibility of field crews to assess the expected time of restoration based on the current situation and with current resources. For more details on Gas and Electric restoration tools, refer to the [Gas Emergency Response Plan \(GERP\)](#) and [Electric Annex](#).⁴³

Any unmet resource needs should be communicated up to the appropriate emergency center. Unmet needs and long restoration times may indicate a need to bring in resources from another part of the service territory or seek mutual assistance from another utility. Mutual assistance during a single or dual-commodity incident is handled through the EOC.

⁴² As of 5/07/18 the link is being worked on, Gas Emergency to update. Consult with GERP for further questions.

⁴³ GERP and Electric Annex Links accessed 07/18/2019:

GERP, EMER-3003M, [REDACTED] x and
Electric Annex, EMER-3002M, [REDACTED]

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9 Resource Management, Mutual Assistance, and Demobilization

9.1 Resource Management

In any work situation, but especially in an emergency event, work must be prioritized. These priorities, noted as the operational period objectives in the Incident Action Plan (IAP), are operationally driven and are primarily focused on restoring as many customers and responding to the emergency as safely, efficiently and quickly as possible. However, to complete the work, resources must be managed. This includes organizing, assigning, and tracking resources (personnel, equipment, materials). In support of this, PG&E has adopted the Resource Planning Process discussed in section 9.1.1, “Resource Planning”.

9.1.1 Resource Planning

9.1.1.1 Resource Planning Coordination

Resource Planning is coordinated among the positions and functions listed in Table 9-1.

Table 9-1: Resource Planning Coordination

| Position | Responsibilities |
|------------------------|--|
| Commander | Reviews resource plans with Planning Section Chief, Operations Section Chief, and Advance Planning Unit to drive ETOR requirements Approves resource plan |
| Planning Section Chief | Manages the Planning Section to support information needs for response decision-making, situational awareness, and progress reporting. Responsible for the collection, evaluation, and display of incident information. |
| Advanced Planning Unit | Develops staffing and restoration plans for the next operational period and future operational periods based on damage models, predictive forecasts, real-time outage and leak information, and restoration strategies Incorporates feedback from resource manager to develop ETORs based on current staffing, outages, and projected system damage |

| Position | Responsibilities |
|--|---|
| Resource Management Unit | Develops strategy and directs resource moves in coordination with Operations Includes current base resource plan and anticipated staffing requirements based on work plan provided by Advance Planning Unit Carried out in coordination with Advance Planning and resource tracker to build staffing plans and signal the need for additional resources |
| Resource Unit | Tracks resource movements, provides reporting, data requests/analysis and liaison with Planning and EOC Leadership Oversees crew transfers between regions and divisions and tracks resources Works closely with resource manager to coordinate inter-region and division transfers to ensure that the required crews reach their destinations |
| Mutual Assistance: This is a means of obtaining additional electric or gas crews, vegetation management, unmanned aerial vehicles, and other specialized skills and resources. | Coordinates with external stakeholders and utilities to provide additional time critical support during large-scale emergency events May include other utility contract crews released in response to a PG&E request for crews. |
| Contractor Management | Coordinates with resource manager to acquire contractors to meet resource demands. |

9.1.1.2 Resource Planning Process

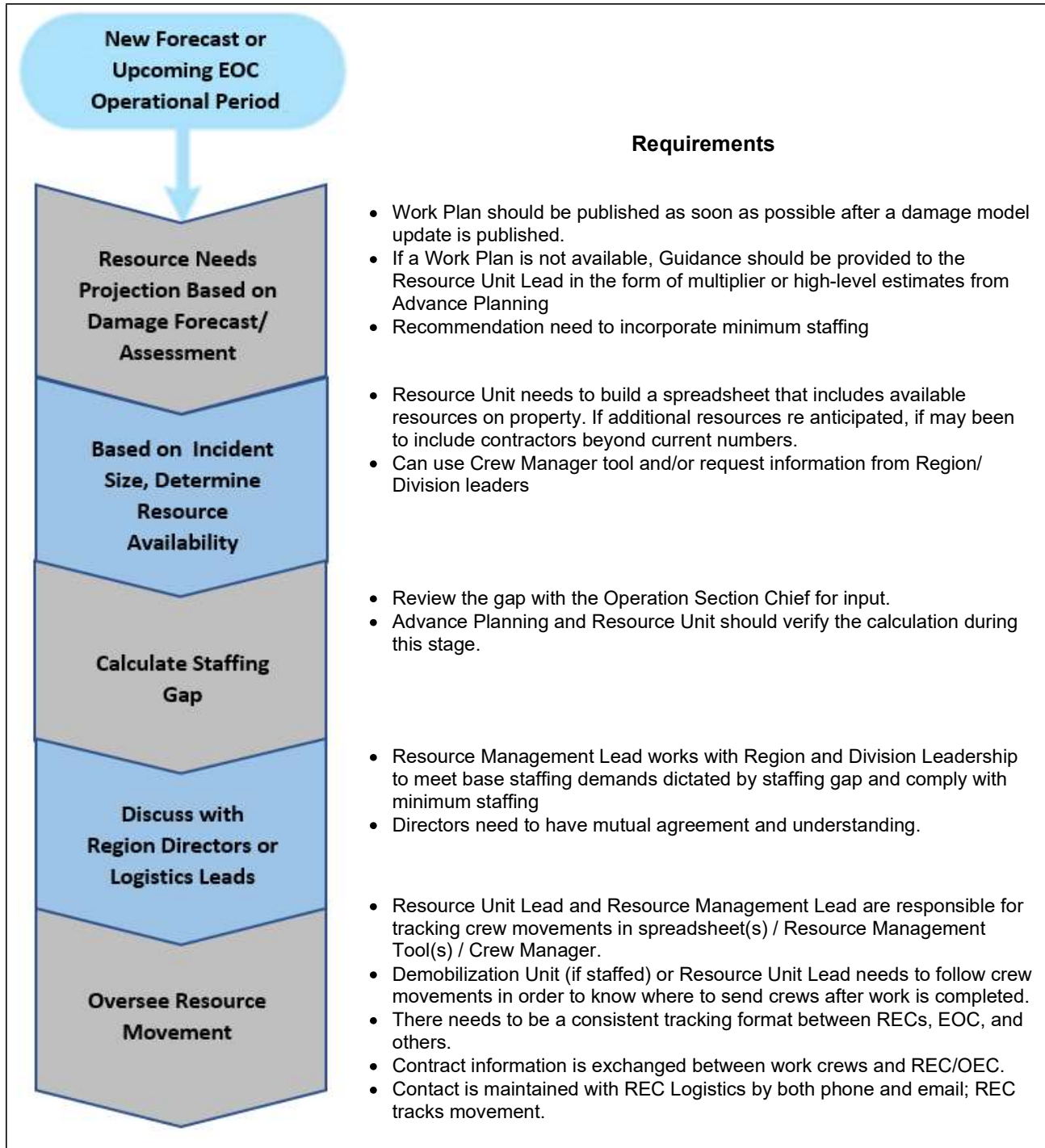
Figure 9-1 defines the requirements for each step of the resource allocation process, which both Gas and Electric follow. Within the Gas Emergency Center (GEC), the Resource Unit and Demobilization Unit duties are combined under the Resource Unit.

The process is:

- Repeated throughout the duration of the event
- Planned in advance if an impending storm could cause significant damage
- Updated frequently as new restoration or damage model information is received

To determine resource needs, Resource Managers may initially use damage models to align resources with the amount of work that needs to be completed in a particular area. Predictive damage models are used as a starting point for restoration until more accurate assessment information from the field, outage and leak management tools can be obtained. Additional information on damage modeling can be found in section 3, “Emergency Management”.

Figure 9-1: Resource Allocation Process Map



9.1.1.3 Resource Check-In and Check-Out Process

PG&E tracks personnel working in emergency facilities ranging from the Emergency Operations Center (EOC) to Base Camps in the field. Keeping accurate records of all checked-in and checked-out staff and workers is essential for managing personnel safety, accountability, and fiscal control. It is also a crucial component of

managing resources during major emergencies and is the responsibility of the Resource Unit to ensure check in and out is established within the incident. The personnel that are typically tracked include PG&E employees, non-employees, mutual assistance crews, external agency representatives, and contractors.

9.1.1.4 Resource Allocation

Decisions regarding allocation and deployment of resources are based on priorities that govern assessment or restoration work.

Criteria to be considered include:

- Asset accessibility based on terrain and vegetative cover
- Location of resources
- Time required to mobilize
- Crew size, expertise, and equipment
- Electric circuit configuration
- Financial impact

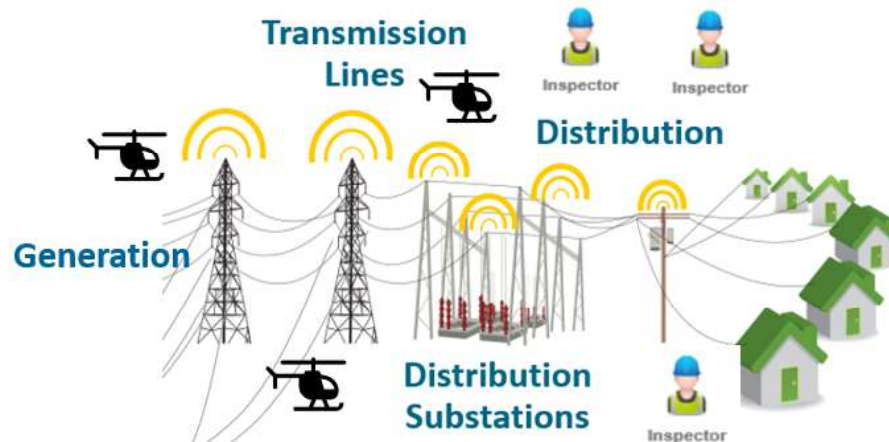
When personnel are redeployed across regional boundaries at PG&E, priority is given to using resources with appropriate expertise who are nearest to the need. As these resources are exhausted, personnel from a greater distance or with a higher level of skill will be used. If these resources are also exhausted, crews from other utilities and contractors will be requested.

9.1.1.5 Field Operations Resource Calculation of Estimated Time of Restoration Tool

Initially developed for Public Safety Power Shutoffs, PG&E's Field Operations Resource Calculation of Estimated (FORCE) Tool may be also used to estimate resources required to patrol and inspect de-energized electric lines prior to re-energization for all-hazard incidents. Based on circuit configurations, terrain, vegetative cover and accessibility, and concurrent with service connection restorations, PG&E may use the FORCE Tool to optimally allocate helicopters and ground patrols for earthquakes, wildfires, storms, flooding and volcanic eruption related power grid disruptions.

PG&E's FORCE Tool helps expedite electric grid restoration by optimizing the use of patrol and inspection resources across the grid. Weather permitting, electric transmission lines (Figure 9-2) will primarily be patrolled by helicopter due to the linear nature of the asset configuration. Ground patrols are generally better suited for distribution assets, especially within areas of high density development, steep and varied terrain and/or heavy vegetative cover.

Figure 9-2: FORCE Tool Resource Allocation



9.1.1.6 Moving Resources

During emergencies, resources are ordered and managed by different roles, listed in [Table 9-2](#).

Table 9-2: Resource Management

| Emergency Center | Ordering Authority | Managing Authority |
|-------------------------------------|---|--|
| No Emergency Center Activated | <p><i>Electric:</i></p> <ul style="list-style-type: none"> Local Supervisor or above <p><i>Gas:</i></p> <ul style="list-style-type: none"> Region General Construction Superintendent | <p><i>Electric:</i></p> <ul style="list-style-type: none"> Local Supervisor or above <p><i>Gas:</i></p> <ul style="list-style-type: none"> Region General Construction Superintendent or GEC On-Call |
| OEC, Electric REC, GEC, ETEC, STOEC | <p><i>Electric:</i></p> <ul style="list-style-type: none"> Local Supervisor or above <p><i>Gas:</i></p> <ul style="list-style-type: none"> Region General Construction Superintendent | <ul style="list-style-type: none"> Region Senior Director(s)/Director(s) EOC may activate Resource Management Unit Lead to manage crew moves during larger events |

* Additional information on the resource movement authorization, request, and tracking processes is available in respective LOB functional annexes.

9.1.2 Vehicle and Equipment Rentals

Logistics handles requests for vehicle and equipment rentals.

Rental Central within Transportation Services is responsible for fulfilling all company rental needs, (e.g., light and heavy duty, vehicles, unmonitored generators, construction equipment, portable restrooms, light towers, fencing, barges, tools, etc.).

The Ground Support Unit Leader, the Base Camp Ground Support Unit Leader, or the Staging Area Ground Support Unit Leader, when activated, will work directly with the rental team to fulfill all vehicle and equipment rental requests. Operations Emergency Center, Electric REC and Gas Emergency Center Logistics will coordinate rental requests directly with the Rental Central team, unless they require additional support from the next-highest emergency center in their hierarchy.

Rental Central at 530-757-5959 is staffed
24 hours a day, 7 days a week, 365 days a year.

9.1.3 Materials

Logistics is responsible for managing and supporting PG&E materials requirements during an emergency activation, with support from the Warehouse Operations and Materials Field Services (MFS) departments via the Materials and Transportation Coordination Center (MTCC).

The MTCC:

- Works with Materials Planning and Materials Field Services representatives to oversee and support any materials requirements not available at the service centers and various other locations throughout the system
- Oversees all inventory replenishment activities, including purchase order placement, transferring inventory between facilities, and expediting open orders, as needed

The EOC Supply Unit Leader or the Base Camp Supply Unit Leader, when activated, works directly with the MTCC to fulfill all material requirements.

Operations Emergency Center, Electric Regional Emergency Center and the Gas Emergency Center Logistics coordinates material requirements via the local MFS personnel at the service centers.

9.1.4 PG&E Contract Crew Support

PG&E has contracts in place to use contract crew and/or equipment resources during incidents where company resources alone are not able to restore our Electric and Gas infrastructure in a timely manner. Sourcing directly works with contractors on a day-to-day basis.

If there is still a shortage of resources, the Mutual Assistance process is followed to obtain crews from other utilities. Additional details on contract crews, resource acquisition and management can be found in the LOB annexes.

9.2 Mutual Assistance and MA Agreements

Mutual assistance (MA) is an essential part of the electric and gas power industry's service restoration process and contingency planning. The mutual assistance network is a cornerstone of electric utility operations during emergencies.⁴⁴

Mutual assistance arrangements include, but are not limited to, utilizing local (utility to utility), in-state (CUEA), regional (WRMAA), national (EEI and AGA), and specific hazards types (EEI's Cyber Mutual Assistance Program) established through Mutual Assistance Agreements (MAAs).

CPUC General Order 166 Standard 2 requires California electric utilities to enter into mutual assistance agreement(s) to the extent that such agreements are practical and would improve emergency response. G.O. 166 Standard 2 stipulates that agreements include:

- A. Resources that are available to be shared
- B. Procedures for requesting and providing assistance
- C. Provisions for payment, cost recovery, liability, and other financial arrangements
- D. Activation and deactivation criteria review

9.2.1 Mutual Assistance Agreements

PG&E has agreements with other utilities to aid on request by furnishing personnel, equipment and/or expertise in a specified manner. These mutual assistance agreements:

- Are established prior to any specific incident
- Follow standardized procedures
- Require specific authorizations before crews are provided/or received

PG&E has mutual assistance agreements with:

- American Gas Association (AGA)
- California Utilities Emergency Association (CUEA)
- Edison Electric Institute (EEI)
- Trinity County Public Utilities District (PUD)
- Western Area Power Administration Agreement (WAPAA)

CPUC G.O. 166 Standard 7 requires PG&E to evaluate the need for mutual assistance during a Major Outage, as defined by the CPUC. PG&E's evaluation of the need for mutual assistance involves a multi-step process that is repeated for the duration of events or incidents. Generally, PG&E considers the use of mutual assistance based on the following conditions:

- In advance of an impending storm that could cause significant damage based on DSO SOPP model and PSPS forecasts
 - Whether or not the number of available PG&E resources and contractors are adequate in relation to the size and scale of an emergency and the restoration timeline
 - Travel time for supporting utilities
- The type of work is also a factor. Personnel needed to support the emergency response may require specialized training on PG&E assets.

⁴⁴ Edison Electric Institute Mutual Assistance

<http://www.eei.org/issuesandpolicy/electricreliability/mutualassistance/Default.aspx?verified=01/14/2020>

- Western Energy Institute (WEI)⁴⁵
- Western Region Mutual Assistance Agreement (WRMAA)

PG&E considers several factors before requesting mutual assistance. For example, travel time may prevent responders from arriving time to increase the speed of restoration.

PG&E considers several factors before requesting mutual assistance, including but not limited to:

- Impact on the reduction of the estimated time of restoration
- Travel time to the area of assignment and assignment duration
- Ability of available mutual assistance resources to execute the work safely

9.3 Demobilization

NOTE

References to an REC in this section indicate Gas Operations personnel supporting/coordinating with Electric RECs during dual commodity or electric incidents.

Demobilization includes overseeing and validating the safe and efficient return of resources to their original location and status when they are no longer needed to support the response. Planning for demobilization starts soon after the resource mobilization process begins to facilitate accountability of resources.

The order for demobilization is executed in reverse of the deployment order and includes but is not limited to the following resources⁴⁶.

Non-PG&E Resources

- Government resources
- Mutual assistance crews
- Contract crews from outside utilities system
- Contract from less impacted regions

System-Wide

- T200 distribution from less impacted regions
- T300 transmission and T200 transmission from less impacted regions

⁴⁵ WEI agreement is expressed through WRMAA.

⁴⁶ The demobilization of resources should follow the order outlined in the section. There may be exceptions to the demobilization order based on the support of incident objectives and assigned resources

- T300 distribution from less impacted regions

Region

- Contract from within the impacted region
- T200 distribution from within the impacted region
- T300 distribution from within the impacted region

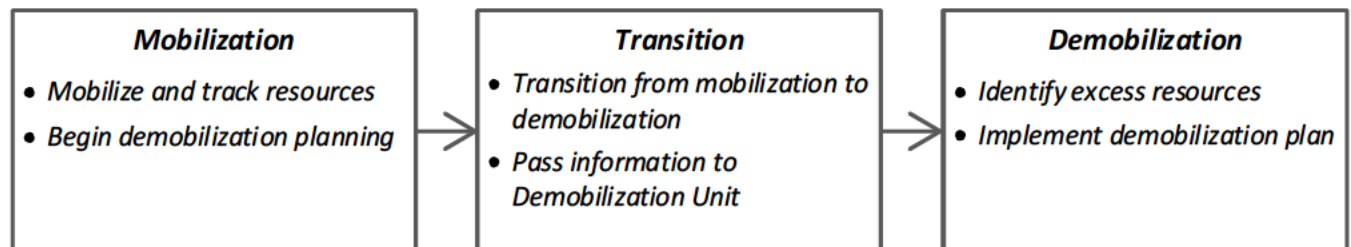
Division

- Contract from within the impacted division
- T300 transmission and T200 transmission from within the division

Planning for demobilization (Figure 9-3) starts soon after the resource mobilization process begins to facilitate accountability of resources. For example, near the start of the incident, the Demobilization Unit Leader works closely with the Resource Unit Leader to track resources, identify excess resources, and create a demobilization plan.

As service is restored, fewer resources are required and the demobilization process begins.

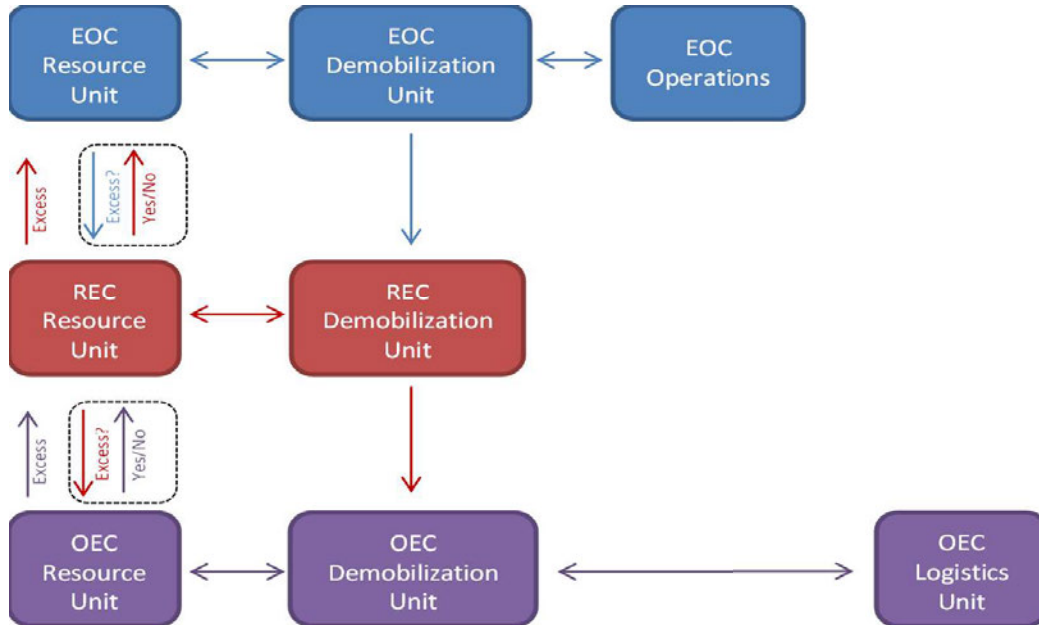
Figure 9-3: Progression from Mobilization to Demobilization



As soon as resources are mobilized, the planning for demobilization begins. Throughout the resource acquisition, management and demobilization continuum, communication is essential.

The demobilization process involves two-way communications. It can be initiated from the bottom up or from the top down. When multiple emergency centers are activated, the highest-level activated emergency center makes decisions on whether resources can demobilize or should be reallocated. This decision is based both on information passed up from the lower level emergency centers (Figure 9-4), as well as from information garnered through analytic tools.

Figure 9-4: Example Demobilization Process



To ensure personnel safety, and to prevent resources from being released in one area when they are needed in another, it is essential that a demobilization process is followed. The ICS 221 Form – Field Employee Demobilization Release must be completed for all responders.

Listed below are the responsibilities by Section/Unit in the demobilization process:

9.3.1 Resource Unit⁴⁷

The Resource Unit identifies excess resources in collaboration with the Section Chiefs and Demobilization Unit and informs the Incident Commander.

- If activated, checks with other activated emergency centers to see if resources are needed elsewhere and whether demobilization is authorized. The highest-level activated Emergency Center makes the ultimate decision to demobilize resources. For example, when activated, the EOC considers information and recommendations from the REC/OEC, but it ultimately makes final demobilization decisions.

9.3.2 EOC Demobilization Unit

The EOC Demobilization Unit creates the demobilization plan for the EOC.

⁴⁷ If the Resource Unit and Demobilization Unit are not staffed during an incident, the PSC is responsible for the functions.

- Works with Operations Section Chief and Resource Unit to identify excess resources.
- Creates the demobilization plan and monitors its implementation for the Emergency Center. The demobilization plan includes the release priorities, demobilization process, any specific release procedures, responsibilities for implementing the demobilization plan, and directories, if needed (e.g., maps, telephone listings, etc.).
- Creates instructions for the GEC/RECs to direct REC and ICP demobilization of field resources (e.g., order for the demobilization of resources, demobilization checklist, and safety considerations).
- Forwards demobilization instructions for field resources from the EOC.
- Is responsible for the demobilization of outside contract, mutual assistance crews, and out of region PG&E crews (i.e., communicates with the RECs who are returning and ETA, notifies the contract unit to release crews, calls outside utilities to notify when resources have been released, and confirms the number acquired equals number released).
- Keeps the sending and receiving ICP/REC Logistics Section Chiefs and Resource Unit Leaders apprised of resource movement during the demobilization process.
- Once approval is secured to demobilize by the Incident Commander, the Demobilization Unit notifies the Logistics Section and the Demobilization Unit of the excess resources.

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10 Coordination and Communication

To manage communications effectively, the Marketing and Communications, Public Affairs and Customer Care organizations developed the Emergency Communications Annex.

The CERP Communications Annex contains detailed planning, process and business continuity information and pre-approved content for staff to update as appropriate during or following an emergency or catastrophic event. The plan ensures that all employees with emergency communication positions have a thorough understanding of their roles, responsibilities and processes and that the company is speaking with “One Voice” to internal and external audiences.

In local emergencies, it is essential for field personnel to coordinate their activities with local public safety and other first responders to provide for the safe restoration of service. As an emergency grows, the necessity for internal and external coordination also grows.

When activated, the EOC becomes the single point of coordination for information dissemination, including:

- Damage assessment information, restoration priorities, provision of customer outage information, movement of manpower and equipment and implementation of mutual assistance
- Interaction with government agencies, including Cal OES and the CPUC, except for operational communications addressed in specific emergency plans and known to EOC personnel
- Communication with customers and the media

The Public Information Officer (PIO) is responsible for establishing and maintaining communications throughout all levels of the EMO to support the delivery of regular status updates to internal stakeholders, customers, external agencies and the media, including the internal and external reporting requirements noted below.

Internal reporting requirements include:

- Operations leadership
- Safety Health and Claims (SH&C)
- Corporate Security
- Environmental Operations
- Gas Control Center

External reporting requirements may include the:

- California Public Utilities Commission
- California Independent System Operator
- Western Electric Coordinating Council

These reporting requirements do not replace established PG&E internal and external reporting requirements. For more information on PIO processes, see the Emergency Communications Annex.

10.1 Internal Communication

Consistent with the ICS unity of command principle, all incident and event related tasking and direction should occur through the chain command consistent with Incident Action Plan objectives. Lateral, peer-to-peer and home office internal communications should proceed uninterrupted in accordance with existing Company line of business reporting relationships.

10.1.1 Communication Process and the Incident Action Plan

The ICS requires a structured “Planning Process,” which facilitates communication through regularly scheduled meetings that follow an operational planning cycle and are repeated in each operational period. Referred to as the Planning “P,” this process is discussed further in [Appendix D \(D.2\)](#).

the EOC is activated, information is gathered from a variety of sources. This information is reviewed with the EOC Commander at tactics and planning meetings. An Incident Action Plan (IAP) issued by the Planning Section and made widely available to emergency personnel, ensures a common understanding of the objectives, tactics and plans for communications, logistics and other specifics of the company’s response.

Use of the ICS in the EOC also identifies specific channels for formal communications so that the proper individuals are made aware of activities that may impact them.

Sharing of information on the company’s response to the emergency with non-emergency personnel is managed exclusively by the PIO.

10.1.2 Pre-Incident Reporting

Pre-incident summary reporting offers the Director of EP&R and/or the Incident Commanders at the OEC, Electric REC, GEC and EOC facilities an assessment of readiness plans.

Refer to the Gas and Electric annexes for commodity-specific pre-incident planning processes.

10.1.3 Incident Reporting Schedule

The schedule for providing current information is established soon after the activation of each EMO level and is included in the EOC Action Plan. The Daily Schedule ICS 230 form can be found on the [EOC Resources SharePoint Site](#). Reporting schedules for the EOC will be designed to allow sufficient time for compiling, analyzing and summarizing information before reporting to the next level. The EOC Planning Section Chief prepares and communicates the reporting schedule.

10.1.4 Intelligence Summary and Situation Reports

Upon request, all identified emergency centers provide intelligence summaries to the EOC Operations and the Planning Section Chiefs. The Intelligence Summary typically includes information on customer impact, damaged equipment or assets, weather and other incident summary information.

The EOC Planning Situation Unit also creates a system-level intelligence summary at intervals determined by the Planning Section Chief. For details, refer to the EOC Intelligence Summary Report Instructions, which is also a template for creating the EOC Intelligence Summary Report.

10.2 Corporate Incident Management Council

The Corporate Incident Management Council (CIMC) is responsible for providing executive oversight during a significant incident. Possible examples may include:

- An operational incident involving broad public safety issues and media attention
- A controversy involving a member of senior leadership, criminal activity against the Corporation (e.g., kidnapping, extortion, or a terrorist threat)
- Other major emergency incidents, (i.e., Catastrophic Earthquake, Cyber Security, Major Fire or Public Safety Power Shutoff that may affect a large customer base)

The CIMC may be activated at the discretion of the CIMC Chairperson, generally, during Level 5 activation. The roles of the CIMC during an emergency incident/Emergency Operations Center (EOC) activation are:

- Strategic policy decisions
- Strategic financial decisions
- Media spokesperson, if deemed appropriate
- Senior relationship manager for key company relationships such as, government officials, regulatory bodies, major customers, and the investor community

If the CIMC activates because of a catastrophic incident or at the request of EOC Commander, the EOC Commander (or his/her designee) works with the CIMC Coordinator to develop a formal briefing schedule for the CIMC.

Depending on the incident, executives may receive an executive summary that provides an incident status update. As an example, the update may include some or all of the following (depending on incident complexity):

- Risk level and concerns
- Incident status (e.g., information about weather, wildfire, cybersecurity)
- Emergency centers activated
- Numbers of customers impacted, outages, and customers restored
- Public or employee safety incidents
- Impacted personnel status
- Communications

- Resources
- Additional statistics (e.g., CAIDI, SAIDI, CESO, wires down, 911 standby requests, outage trend)

10.3 External Communication

10.3.1 Coordination at the California State Level

All activities at the state level are in coordination with PG&E's State Operations Center (SOC) Liaison. The PG&E SOC AREP is assigned to the Utilities Operation Center (UOC) at the SOC, which is run by the CUEA. The SOC AREP serves as PG&E's onsite liaison in support of emergency response and recovery efforts with government and other utility companies.

Coordination continues at the SOC, unless a Federal Joint Field Office (JFO) is opened. A representative of the LNO may be assigned to work with the Emergency Support Functions at the JFO.

The Planning Section may communicate with other utilities through established standard communication protocols and agreements, and regularly brief Command Staff on these communications. Local field personnel may coordinate their activities with public safety personnel as necessary, and keep local management informed of these interactions.

10.3.2 Coordination with CAISO

The coordination with CAISO for real-time operations is the responsibility of the Vacaville Grid Control Center (VGCC). Other communications when the EOC is activated are managed under the Operations Section of PG&E's EOC.

There is also ongoing communication and coordination that normally takes place through PG&E Regulatory Relations Affairs and External Communications, which would continue as part of the Liaison Officer and PIO functions in the EOC.

10.3.3 Coordination at the Local Level

When activated for all-hazards incidents, Public Safety Specialist (PSS) staff serve as Agency Representatives (AREPs)⁴⁸ to the Authority Having Jurisdiction (AHJ) for the incident. Local government contacts may include city/county executive officers, elected officials and department heads.

The Diablo Canyon Power Plant (DCPP) Emergency Plan describes coordination with local government agencies, including San Luis Obispo County authorities. San Luis Obispo County has the lead role in coordinating public protective action decisions for an emergency at the power plant. The county has prepared an Emergency Plan specifically applicable to DCPP, the "San Luis Obispo County/Cities Nuclear Power Plant

⁴⁸ See PG&E Utility Standard EMER-4002S, Public Safety Specialists

Emergency Response Plan.” The plan is activated on notification by PG&E of a declared emergency incident at DCPD.

For an updated list of government contacts, refer to the Emergency Communications Annex or Electric Annex in the [Guidance Document Library](#).⁴⁹

10.3.4 Coordination with Community-Based, Voluntary, and Nongovernmental Organizations

PG&E partners with Nongovernmental Organizations (NGOs), Voluntary Organizations (VOs) and Community-Based Organizations (CBOs) before, during and after emergency incidents. The Liaison Officer (LNO), or an assigned PG&E representative, may communicate with NGOs (e.g., Red Cross) through the Operational Area EOCs of the affected counties. If the Operational Area OES is not open, the PG&E EOC Liaison Officer directly interfaces with these organizations. Some activities PG&E coordinates with these organizations include:

- Providing volunteers at shelters and donation distribution centers
- Providing donations to be used in affected areas
- Distributing gift cards or other monetary support directly to affected residents
- Providing in-kind donations, such as equipment to be used during cleanup and restoration activities

10.4 Communicating with the Public and the Media

10.4.1 The Role of the Public Information Office

During an emergency, PG&E’s Public Information Office serves as the company’s official point of contact for outgoing announcements and briefings to employees, the media, customers and all other key audiences. The PIO will also coordinate with government agency communication counterparts on media briefs and public information release schedules.

G.O. 166 Standard 8 stipulates that within four hours of the identification of a major outage that California electric utilities make information available on the expected duration and cause of customer outages. G.O. 166 Standard 8 further stipulates that restoration priorities be provided within four hours of initial damage assessment.

The PIO manages dissemination of critical information to employees and customers through the news media, social media, contact centers and online at the pge.com website. The PIO ensures that the company delivers timely, accurate and consistent information across internal and external stakeholders. The PIO ensures that the

⁴⁹ [REDACTED]

messages PG&E customers and other external stakeholders read, hear, and see are timely, true, accurate and consistent with PG&E's vision and values.

Marketing and Communications representatives based at field locations throughout the service area act as local PIOs and work with local media.

10.4.2 The Role of the Customer Strategy Officer

The Customer Strategy Officer (CSO) works closely with the Public Information Officer (PIO) and the Liaison Officer (LNO) to communicate to PG&E customers. The CSO addresses customer issues and serves as an advocate for PG&E customers by communicating high-priority outage concerns to the operations team.

A Customer Strategy Officer may be assigned as an ICS Command position at all operational levels.

10.4.3 Contact Service Centers and PG&E Website

In an emergency, the primary points of contact for customers are the Contact Service Centers or the [pge.com website](http://pge.com). There are three (3) Contact Service Centers (Residential, Business, and Agriculture). They are open during the following times:

- Residential Customer Service Center, Business Customer Service Center, and Agricultural Service Center:
- Monday-Friday, 7:00 A.M. – 9:00 P.M.

Additionally, the Residential Customer Service Center is open:

- Saturday, 8:00 A.M. – 6:00 P.M.
Sunday and after hours: 24-hour availability for emergencies and automated customer service

The Contact Service Centers continue to be the primary avenue customers use to report emergencies. Contact Service Centers provide multilingual, telephonic services, including Telecommunications Device for the Deaf/Teletypewriter (TDD/TTY) for customers who are speech and hearing-impaired. These centers also respond to email contacts that may be made through the company website.

Depending on the nature of the emergency, the large number of customers wishing to speak with PG&E agents may necessitate the use of recorded messages, interactive voice response (IVR) and other technology. In these circumstances, the CSO coordinates messaging with the PIO in the EOC to provide current information advising customers through the media on measures they should take if they need to contact PG&E.

The company website, pge.com, also provides customers with current information on electric outages. Customers can also report electric outages and subscribe to automatic updates via text, voice message or email.

10.4.4 Communicating with the Financial Investment Community

Announcements and briefings covering potentially material impact are coordinated with Investor Relations to ensure compliance with securities law. Persons authorized to speak on behalf of PG&E Corporation to the financial investment community are the chairman, chief executive officer, chief operating officer, chief financial officer, vice president of investor relations and the investor relations staff.

10.5 Outage Notifications and Reporting

Both Gas and Electric have detailed procedures around notification to the CPUC and under what circumstances reports and notifications are required.

In general, for Electric, the CPUC G.O. 166 states that a major outage occurs when 10 percent of PG&E's serviceable customers experience a simultaneous, non-momentary interruption of service. A measured incident is defined as a major outage resulting from non-earthquake, weather-related causes and affecting between 10 percent (simultaneous) and 40 percent (cumulative) of PG&E's customer base. See the Electric Annex to this plan for more information regarding G.O. 166 and for details on when a measured incident begins and ends.

For Gas, any incident level can be reportable. CPUC and DOT reportable criteria are contained in [Utility Procedure TD-4413P-01, Procedure for Reportable Gas Incidents](#).⁵⁰ The Gas Control Center makes the determination and arranges the reporting. See the Gas Emergency Response Plan for more information regarding this procedure.

⁵⁰ Link validated 04/15/2020.

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11 Appendices

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Appendix A. Acronyms and Glossary

A.1 Acronyms

| Acronym | Definition |
|----------|---|
| AAR | After-Action Report |
| AB | Assembly Bill |
| ACHQ | Alternate Company Headquarters |
| AEOC | Alternate Emergency Operations Center |
| AGA | American Gas Association |
| ARB | Air Resources Board |
| ARC | American Red Cross |
| ARCOS | Automated Roster Callout System |
| AREP | Agency Representative |
| BCP | Business Continuity Plan |
| BES | Bulk Electric System |
| BOAK | Book of All Knowledge |
| CA-ESF | California Emergency Support Functions |
| CAIDI | Customer Average Interruption Duration Index |
| CAISO | California Independent System Operator |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal OES | California Office of Emergency Services |
| CAP | Corrective Action Program |
| CARB | California Air Resources Board |
| CBO | Community Based Organization |
| CCECC | Customer Contact Emergency Coordination Center |
| CCO | Contact Center Operations |
| CDPH | California Department of Public Health |
| CEC | California Energy Commission |
| CEMA | Catastrophic Event Memorandum Accounting |
| CEMO | Customers Experiencing Momentary Outages |
| CEO | Chief Executive Officer |
| CERP | Company Emergency Response Plan |
| CFR | Code of Federal Regulations |
| CIO | Chief Information Officer |
| CNG | Compressed Natural Gas |
| CNRA | California Natural Resources Agency |
| COO | Chief Operations Officer |
| COP | Common Operating Picture |
| COST | Cost Unit Leader |
| CPR | Cardiopulmonary Resuscitation |

| Acronym | Definition |
|----------|--|
| CPUC | California Public Utilities Commission |
| CRESS | Corporate Real Estate Strategy and Services |
| CRM | Control Room Management |
| CSF | Cybersecurity Framework |
| CS-IMT | Cybersecurity Incident Management Team |
| CS-IRT | Cybersecurity Incident Response Team |
| CSO | Customer Strategy Officer |
| CUEA | California Utilities Emergency Association |
| CWSP | Community Wildfire Safety Program |
| DASH | Dynamic Automated Seismic Hazard |
| DCC | Distribution Control Center |
| DCPP | Diablo Canyon Power Plant |
| DFM | Dead Fuel Moisture |
| DHS | Department of Homeland Security |
| DMOB | Demobilization Unit Leader |
| DO | Distribution Operator |
| DOCL | Documentation Unit Leader |
| DOE | Department of Energy |
| DOT | Department of Transportation |
| DR | Disaster Recovery |
| DRP | Disaster Recovery Plan |
| DSO | Distribution System Operations |
| DSO SOPP | Distribution System Operations Storm Outage Prediction Project |
| DSR | District Storm Room |
| EAP | Emergency Action Plan; Employee Assistance Program |
| EC | Emergency Center |
| ECAP | Enterprise Corrective Action Program |
| ECI | Enterprise Continuous Improvement |
| ECT | Emergency Communications Trailer |
| ED | Electric Distribution |
| S | Electric Distribution Emergency Center |
| EDM | Electric Damage Model |
| EDO | Electric Distribution Operations |
| EEI | Edison Electric Institute |
| ESF | Emergency Support Function |
| E-ISAC | Electricity Information Sharing and Analysis Center |
| EM | Emergency Management |
| EMAP | Emergency Management Advancement Program |
| EMC | Emergency Message Center |
| EMO | Emergency Management Organization |
| EMT | Emergency Medical Technician |

| Acronym | Definition |
|----------|--|
| ENOC | Enterprise Network Operations Center |
| EOC | Emergency Operations Center |
| EOF | Emergency Operations Facility |
| EOP | Emergency Operations Plan |
| EP&R | Emergency Preparedness and Response |
| EPA | Environmental Protection Agency |
| EPC | Emergency Preparedness Coordinator |
| ERIM | Enterprise Records and Information Management |
| ERM | Enterprise Risk Management |
| ERO | Emergency Response Organization |
| ERP | Emergency Response Plan |
| ESF | Emergency Support Functions |
| ET | Electric Transmission |
| ETA | Estimated Time of Arrival |
| ETEC | Electric Transmission Emergency Center |
| ETOR | Estimated Time of Restoration |
| ETRM | Enterprise Technology Risk Management |
| EVBG | Everbridge Notification System |
| EVP | Executive Vice President |
| FAA | Federal Aviation Administration |
| FAS | Field Automation System (SAP) |
| FBI | Federal Bureau of Investigation |
| FCC | Facilities Coordination Center |
| FEMA | Federal Emergency Management Agency |
| FERC | Federal Energy Regulatory Commission |
| FIOC | Fairfield Information Operations Center (see FSCC) |
| FORCE | Field Operations Resource Calculation ETOR |
| FPL | Florida Power and Light |
| FSC | Finance Section Chief |
| FSCC | Fairfield Security Control Center |
| GC | Gas Construction |
| GCC | Gas Control Center |
| GD | Gas Distribution |
| GDCC | Gas Distribution Control Center |
| GDL | Guidance Document Library |
| GEC | Gas Emergency Center |
| GEP | Gas Emergency Preparedness |
| GERP | Gas Emergency Response Plan |
| GHG | Greenhouse Gas |
| GIS | Geographic Information System |
| G.O. 166 | General Order 166 |

| Acronym | Definition |
|---------|---|
| GSR | Gas Service Representative |
| GT | Gas Transmission |
| GT&D | Gas Transmission and Distribution |
| GTCC | Gas Transmission Control Center |
| HAWC | Hazard Awareness & Warning Center |
| HAZMAT | Hazardous Materials |
| HFTD | High Fire Threat District |
| HR | Human Resources |
| HRCC | Human Resources Coordination Center |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| HSPD-5 | Homeland Security Presidential Directive 5 |
| I&I | Intelligence and Investigations |
| IAP | Incident Action Plan |
| IC | Incident Commander |
| ICP | Incident Command Post |
| ICS | Incident Command System |
| IDE | Initial Damage Evaluation |
| ILT | Instructor-Led Training |
| IMT | Incident Management Team |
| IP | Improvement Plan |
| ISFSI | Independent Spent Fuel Storage Installation |
| IT | Information Technology |
| ITCC | Information Technology Coordination Center |
| ITO | Information Technology Officer |
| IVR | Interactive Voice Response (Nuance) |
| JFO | Joint Field Office |
| JIC | Joint Information Center |
| LFM | Live Fuel Moisture |
| LNG | Liquid Natural Gas |
| LNO | Liaison Officer |
| LOB | Line of Business |
| LSC | Logistics Section Chief |
| M&C | Maintenance and Construction |
| MAA | Mutual Assistance Agreement |
| MAC | Multi-Agency Coordination |
| MACS | Multi-Agency Coordination System |
| MCV | Mobile Command Vehicle |
| MEBA | Major Event Balancing Account |
| MFS | Materials Field Services |
| MOA | Meteorology Operations & Analytics |
| MS-ISAC | Multi-State Information Sharing and Analysis Center |

| Acronym | Definition |
|---------|--|
| MTCC | Materials Transportation Coordination Center |
| MW | Megawatt |
| MYTEP | Multi-Year Training and Exercise Planning |
| NCRIC | Northern California Regional Intelligence Center |
| NERC | North American Electrical Reliability Corporation |
| NG-ISAC | Natural Gas Information Sharing and Analysis Center |
| NGO | Non-Governmental Organizations |
| NHAP | Natural Hazard Asset Protection |
| NIMS | National Incident Management System |
| NIST | National Institute of Standards and Technology |
| NMART | National Mutual Assistance Resource Team |
| NPG | Nuclear Power Generation |
| NRC | Nuclear Regulatory Commission |
| NRE | National Response Event |
| NREC | National Response Executive Committee |
| NRF | National Response Framework |
| NTSB | National Transportation Safety Board |
| O&M | Operations and Maintenance |
| OA | Operational Area |
| OEC | Operations Emergency Center |
| OES | Office of Emergency Services |
| OIS/OMT | Outage Information System/Outage Management System |
| OMT | Outage Management System |
| OSC | Operations Section Chief |
| PDCA | Plan-Do-Check-Act |
| PG&E | Pacific Gas and Electric |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| PIO | Public Information Officer |
| PPD | Presidential Policy Directive |
| PROC | Procurement Unit Leader |
| PSC | Planning Section Chief |
| PSPS | Public Safety Power Shutoff |
| PSS | Public Safety Specialist |
| PUD | Public Utility District |
| R&C | Restoration and Control |
| RAMP-UP | Resource Allocation Management Program |
| RCIOC | Rancho Cordova Information Operations Center |
| REC | Regional Emergency Center |
| REOC | Regional Emergency Operations Center |
| RESTAT | Resources Status |
| RGCC | Rocklin Grid Control Center |

| Acronym | Definition |
|---------|--|
| RMAG | Regional Mutual Assistance Group |
| RMC | Resource Management Center |
| RMI | Risk Management Instruction |
| SAIDI | System Average Interruption Duration Index |
| SCADA | Supervisory Control and Data Acquisition |
| SDR | System Dispatch Rocklin |
| SDV | System Dispatch Vacaville |
| SEC | Securities and Exchange Commission |
| SEMS | Standardized Emergency Management System |
| SEP | State Emergency Plan |
| SF-DEM | San Francisco City and County Department of Emergency Management |
| SH&C | Safety, Health and Claims |
| SITL | Situation Unit Leader |
| SME | Subject Matter Expert |
| SO | Safety Officer |
| SOC | State Operations Center |
| SOP | Standard Operating Procedure |
| SOPP | Storm Outage Prediction Program |
| SPUL | Supply Unit Leader |
| SRVCC | San Ramon Valley Conference Center |
| STAM | Staging Area Manager |
| STOEC | Substation and Transmission Operations Emergency Center |
| SUBD | Support Branch Director |
| SVP | Senior Vice President |
| SWN | Send Word Now |
| T&D | Transmission and Distribution |
| TDD/TTY | Telecommunications Device for the Deaf/Teletypewriter |
| TFR | Temporary Flight Restriction |
| TIO | Total Injected Odorant |
| TLCC | Transmission Line Coordination Center |
| TOE | Transmission Operations Engineering |
| TS | Transportation Services |
| TSC | Technology Solution Center |
| UC | Unified Command |
| UOC | Utility Operations Center |
| US-CERT | United States Computer Emergency Readiness Team |
| USCG | United States Coast Guard |
| USGS | United States Geological Survey |
| VGCC | Vacaville Grid Control Center |
| VOAD | Voluntary Organizations Active in Disaster |
| VP | Vice President |

| Acronym | Definition |
|----------------|---|
| WAPAA | Western Area Power Administration Agreement |
| WBT | Web-Based Training |
| WECC | Western Electricity Coordinating Council |
| WEI | Western Energy Institute |
| WFM | Workforce Management |
| WRCC | Wildfire Risk Command Center |
| WRMAA | Western Region Mutual Assistance Agreement |
| WSAC | Weekly Situational Awareness Call |

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A.2 Glossary

ACTION PLAN: (See *Incident Action Plan*.)

AGENCY: Division of government with a specific function, or a non-governmental organization (e.g., private contractor, business) that offers a specific kind of assistance. The Incident Command System defines agencies as jurisdictional (having statutory responsibility for incident mitigation) or assisting or cooperating (providing resources or assistance). (See *Assisting Agency*, *Cooperating Agency* and *Multi-Agency Coordination*.)

ALLOCATED RESOURCES: Resources dispatched to an incident.

REGIONAL EMERGENCY CENTER: An organization established to (1) oversee management of multiple incidents being handled by an Incident Command System organization; or (2) oversee management of a large incident that has multiple Incident Management Teams assigned. Teams operating out of Regional Emergency Centers have the responsibility to set overall strategy and priorities, allocate critical resources based on priorities, ensure that incidents are properly managed and ensure that objectives are met, and strategies followed.

ASSIGNED RESOURCES: Resources checked in and assigned work tasks on an incident.

ASSIGNMENTS: Tasks given to resources to perform in a given operational period, based upon tactical objectives in the Incident Action Plan.

ASSISTANT: Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications and responsibility subordinate to the primary positions. Assistants may be used to supervise unit activities at camps.

ASSISTING AGENCY: Agency or organization providing personnel, services, or other resources to an agency with direct responsibility for incident management.

AVAILABLE RESOURCES: Incident-based resources ready for deployment.

BASE CAMP: Location where primary Logistics functions for an incident are coordinated and administered. An incident name or other designator is added to the words "Base Camp." The Incident Command Post may be co-located with the base camp.

BRANCH: Organizational level having functional or geographic responsibility for major parts of incident operations. The Branch level is organizationally between section and division/group in the Operations Section and between section and units in the Logistics Section. Branches are identified by Roman numerals or by functional name (e.g., medical, security).

CACHE: Pre-determined complement of tools, equipment, or supplies stored in a designated location, available for incident use.

CHAIN OF COMMAND: Series of management positions in order of authority.

CHECK-IN: Process whereby resources first report to an incident.

CHIEF: ICS title of individuals responsible for command of functional sections, including Operations, Planning, Logistics and Finance/Administration.

CLEAR TEXT: Use of plain English in radio communications transmissions. Ten-codes and agency-specific codes are not used when using clear text.

COMMAND: Act of directing or controlling resources by virtue of explicit legal, agency, or delegated authority; may also refer to the Incident Commander.

COMMAND POST: (See *Incident Command Post*.)

COMMAND STAFF: Consists of the Deputy Incident Commander, Chief of Staff, Incident Command Advisor, Public Information Officer, Safety Officer, Liaison Officer, Customer Strategy Officer and Human Resources Officer. Command Staff report directly to the Incident Commander and may have an assistant or assistants, as needed.

COMMUNITY RESOURCE CENTER: Community Resource Centers open to help impacted customers and affected communities during a PSPS event. They are designed to offer customers a safe, energized location to meet their most basic power needs, such as charging cell phones and laptops. They are centers that will offer up-to-date information about the PSPS event and timing of restoration.

COMPACTS: Formal working agreements among agencies to obtain mutual assistance.

COMPENSATION UNIT/CLAIMS UNIT: Functional unit within the Finance/Administration Section responsible for financial concerns resulting from property damage, injuries, or fatalities at the incident.

COMPLEX: Two or more individual incidents located in the same general area assigned to a single Incident Commander or to Unified Command.

COOPERATING AGENCY: Agency supplying assistance other than direct operational or support functions or resources to the incident management effort.

COORDINATION: Process of systematically analyzing a situation, developing relevant information and informing appropriate command authority of viable alternatives for selection of the most effective combination of available resources to meet specific objectives. The coordination process (which can be either intra- or inter-agency) does not involve dispatch action; however, personnel responsible for coordination may perform command or dispatch functions within limits established by specific agency delegations, procedures, or legal authority, etc.

COORDINATION CENTER: Describes any facility used for coordinating agency or jurisdictional resources in support of one or more incidents.

COST SHARING AGREEMENTS: Agreements between agencies or jurisdictions to share designated costs related to incidents. Cost sharing agreements are normally written but can be oral between authorized agency and jurisdictional representatives at the incident.

COST UNIT: Functional unit in the Finance/Administration Section responsible for tracking costs, analyzing cost data, making cost estimates and recommending cost-saving measures.

CREW: (See Single Resource.)

DELEGATION OF AUTHORITY: Statement provided to the Incident Commander by the Agency Executive delegating authority and assigning responsibility. Delegation of Authority can include objectives, priorities, expectations, constraints and other considerations or guidelines as needed. Many agencies require written Delegation of Authority to be given to Incident Commanders prior to their assuming command on larger incidents.

DEMOBILIZATION UNIT: Functional unit in the Planning Section responsible for ensuring orderly, safe and efficient demobilization of incident resources.

DEPUTY: Qualified person who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior and therefore must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff and Branch Directors.

DIRECTOR: Incident Command System title for people responsible for supervising a branch.

DISPATCH: Implementation of a command decision to move one or more resources from one place to another.

DISPATCH CENTER: Facility from which resources are assigned to an incident.

DIVISION: Used to divide an incident into geographical areas of operation. A division is located within the Incident Command System organization between the branch and the task force/strike team. (See *Group*.) Divisions are identified by alphabetic characters for horizontal applications and, often, by floor numbers when used in buildings.

DOCUMENTATION UNIT: Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.

EMERGENCY MANAGEMENT COORDINATOR/DIRECTOR: Person in each political subdivision who has coordination responsibility for jurisdictional emergency management.

EMERGENCY MEDICAL TECHNICIAN (EMT): Health-care specialist with skills and knowledge in pre-hospital emergency medicine.

EMERGENCY OPERATIONS CENTER (EOC): Pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.

EMERGENCY OPERATIONS PLAN (EOP): Plan that each jurisdiction has and maintains for responding to appropriate hazards.

EVENT: Planned, non-emergency activity. The Incident Command System can be used as the management system for a wide range of events, (e.g., parades, concerts, sporting events).

FACILITIES UNIT: Functional unit within the Support branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

FIELD OPERATIONS GUIDE: Pocket-size manual of instructions on the application of the Incident Command System.

FINANCE/ADMINISTRATION SECTION: Responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit.

FUNCTION: In the Incident Command System (ICS), “function” refers to the five major activities in the ICS (i.e., Command, Operations, Planning, Logistics and Finance/Administration). The term “function” is also used when describing the activity involved, (e.g. the planning function).

GENERAL STAFF: Group of incident management personnel reporting to the Incident Commander. Each may have a deputy, as needed. The General Staff consists of: Operations Section Chief, Planning Section Chief, Logistics Section Chief and Finance/Administration Section Chief.

GENERIC ICS: Description of the Incident Command System generally applicable to any kind of incident or event.

GROUP: Established to divide an incident into functional areas of operation. Groups are made of resources assembled to perform a special function not necessarily within a single geographic division. (See *Division*.) Groups are located between branches (when activated) and resources in the Operations Section.

HIERARCHY OF COMMAND: (See *Chain of Command*.)

HOT SITE: Duplicate of the original site of the organization, with full computer systems as well as near-complete backups of user data. Following a disruption to the original site, the hot site exists so that the organization can relocate with minimal losses to normal operations. Ideally, a hot site will be up and running within a matter of hours or even less.

ICS NATIONAL TRAINING CURRICULUM: Series of training modules consisting of instructor guides, visuals, tests and student materials. Modules cover all aspects of

Incident Command System operations and can be intermixed to meet specific training needs.

INCIDENT: An occurrence either human caused or by natural phenomena that requires action by emergency service personnel to prevent or minimize loss of life or damage to property or natural resources.

INCIDENT ACTION PLAN (IAP): Contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. The IAP may be oral or written. When written, the plan may have several forms as attachments, (e.g., traffic plan, safety plan, communications plan and map).

INCIDENT COMMAND POST (ICP): Location where the primary command functions are executed. The ICP may be co-located with the incident base or other incident facilities.

INCIDENT COMMAND SYSTEM (ICS): Standardized on-scene emergency management concept designed to allow its users to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

INCIDENT COMMANDER (IC): Individual responsible for the management of all incident operations at the incident site.

INCIDENT MANAGEMENT TEAM (IMT): Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

INCIDENT OBJECTIVES: Statements of guidance and direction necessary for selection of appropriate strategies and tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

INCIDENT SUPPORT ORGANIZATION: Includes any off-incident support provided to an incident. Examples include agency dispatch centers, airports, mobilization centers, etc.

INITIAL ACTION: Actions taken by resources who are the first to arrive at an incident.

INITIAL RESPONSE: Resources initially committed to an incident.

JURISDICTION: Range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state, or federal boundary lines) or functional (e.g., police department, health department). (See *Multi-Jurisdiction Incident*.)

JURISDICTIONAL AGENCY: Agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.

KIND: Nature of a resource, (e.g., single, strike team).

LEADER: Incident Command System title for the person responsible for a task force, strike team, or functional unit.

LIAISON OFFICER (LNO): Member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

LIFE-SAFETY: Joint consideration of both life and physical well-being of individuals.

LOGISTICS SECTION: Responsible for providing facilities, services and materials for an incident.

MATERIAL LAYDOWN AREA: A materials laydown area serves to provide crews with access to needed materials closer to the work. Materials laydown areas typically only provide materials storage, a place for crews to park, portable restrooms, lighting and security, as required.

MANAGEMENT BY OBJECTIVES: In the Incident Command System, this is a top-down management activity involving a three-step process to achieve the incident goal. The steps are: Establish the incident objectives, select appropriate strategies to achieve the objectives and provide tactical direction associated with the selected strategy. Tactical direction includes selection of tactics, selection of resources, resource assignments and performance monitoring.

MANAGERS: Individuals in Incident Command System organizational units who are assigned specific managerial responsibilities, (e.g. Staging Area manager (STAM) Camp manager).

MESSAGE CENTER: Co-located or adjacent part of the Incident Communications Center. The Message Center receives records and routes information about resources reporting to the incident, resource status and administrative and tactical traffic.

MICRO SITES: Micro sites are set up to function as a satellite workspace to a base camp. These smaller sites avoid the traffic issues present at the larger base camps and are intended to allow for speedier deployment of resources by placing them closer to the damaged areas.

MOBILIZATION: Processes and procedures used by federal, state and local organizations for activating, assembling and transporting all resources requested to respond to or support an incident.

MOBILIZATION CENTER: Off-incident location where emergency service personnel and equipment are temporarily located pending assignment, release, or reassignment.

MULTI-AGENCY COORDINATION (MAC): General term describing the functions and activities of involved agency or jurisdiction representatives who meet to make decisions about prioritizing incidents and sharing/use of critical resources. The MAC organization is not a part of the on-scene Incident Command System or involved in developing incident strategy or tactics.

MULTI-AGENCY COORDINATION SYSTEM (MACS): Combination of personnel, facilities, equipment, procedures and communications integrated into a common system. When activated, the MACS is responsible for coordinating assisting agency resources and providing support in a multi-agency or multijurisdictional environment. A MAC group functions within the MACS.

MULTI-AGENCY INCIDENT: Incident where one or more agencies assist a jurisdictional agency or agencies. May be a Single or Unified Command.

MULTI-JURISDICTION INCIDENT: Incident requiring action from multiple agencies that have a statutory responsibility for incident mitigation. In the Incident Command System, these incidents will be managed under Unified Command.

MUTUAL AID AGREEMENT: Written agreement between agencies or jurisdictions where each agrees to assist one another on request by providing personnel and equipment.

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS): Program consisting of five major subsystems that collectively provide a total systems approach to all-risk incident management.

OFFICER: Incident Command System title for personnel responsible for the Command Staff positions of Safety, Liaison and Information.

OPERATIONAL PERIOD: Period of time scheduled for execution of a given set of operation actions, as specified in the Incident Action Plan. Operational periods can have varying lengths, typically not exceeding 24 hours.

OPERATIONS SECTION: Section responsible for all tactical operations at the incident, which typically includes branches, divisions or groups, task forces, strike teams, single resources and staging areas.

OUT-OF-SERVICE RESOURCES: Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

OVERHEAD PERSONNEL: Personnel assigned to supervisory positions that include Incident Commander, Command Staff, General Staff, directors, supervisors and unit leaders.

PLANNING SECTION: Responsible for the collection, evaluation and dissemination of tactical information related to the incident and for the preparation and documentation of Incident Action Plans. The Planning Section also maintains information on the current and forecasted situation and on the status of resources assigned to the incident. Includes the Situation, Resource, Documentation and Demobilization units, as well as Technical Specialists.

PLANNING MEETING: Meeting held as needed throughout the duration of an incident to select specific strategies and tactics for incident control operations and for service and support planning. On larger incidents, the planning meeting is a major element in the development of the Incident Action Plan.

PUBLIC INFORMATION OFFICER (PIO): Member of the Command Staff responsible for interfacing with the public, media and other agencies requiring information directly from the incident. There is only one PIO per incident. The PIO may have assistants.

RECORDERS: Individuals within the Incident Command System organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics and Finance/Administration units.

REINFORCED RESPONSE: Resources requested in addition to the initial response.

REPORTING LOCATIONS: Location or sites where incoming resources can check-in at the incident. (See *Check-In*.)

RESOURCES: Personnel and equipment available, or potentially available, for assignment to incidents. Resources are described by kind and type, (e.g., ground, water, air) and may be used in tactical support or overhead capacities at an incident.

SAFETY OFFICER: Member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.

SECTION: Organization level with responsibility for a major functional area of the incident (e.g., Operations, Planning, Logistics, Finance/Administration). Organizationally, the section is between Branch Commander and Incident Commander.

SECTOR: Term used in some applications to describe an organizational level like an ICS division or group. Sector is not a part of Incident Command System terminology.

SEGMENT: Geographical area where a task force/strike team leader or supervisor of a single resource is assigned authority and responsibility for the coordination of resources and implementation of planned tactics. A segment may be a portion of a division or an area inside or outside the perimeter of an incident. Segments are identified with Arabic numerals.

SERVICE BRANCH: Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food units.

SINGLE RESOURCE: Individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used at an incident.

SPAN OF CONTROL: Supervisory ratio of three to seven people, with five-to-one being established as optimum.

STAGING AREA: Locations set up at an incident where resources can be placed while awaiting a tactical assignment. Staging areas are managed by the Operations Section.

STRATEGY: General plan or direction selected to accomplish incident objectives.

STRIKE TEAM: Specified combinations of the same kind and type of resources, with common communications and a leader.

SUPERVISOR: Incident Command System title for individuals responsible for command of a division or group.

SUPPORT RESOURCES: Non-tactical resources supervised by the Logistics, Planning, Finance/Administration Sections, or Command Staff.

SUPPORTING MATERIALS: Refers to several attachments that may be included with an Incident Action Plan, (e.g., communications plan, map, safety plan, traffic plan and medical plan).

TACTICAL DIRECTION: Direction given by the Operations Section Chief that includes tactics appropriate for the selected strategy selection and assignment of resources, tactics implementation and performance monitoring for each operational period.

TASK FORCE: Combination of single resources assembled for a particular tactical need, with common communications and a leader.

TEAM: (See Single Resource.)

TECHNICAL SPECIALISTS: Personnel with special skills that can be used anywhere in the Incident Command System organization.

TYPE: Refers to resource capability. “Type 1” resources provide greater overall capability due to power, size, capacity, etc., than would be found in “Type 2” resources. Resource typing provides managers with additional information in selecting the best resource for the task.

UNIFIED AREA COMMAND: Established when incidents under a Regional Emergency Center are multi-jurisdictional. (See Regional Emergency Center and *Unified Command*.)

UNIFIED COMMAND (UC): In the Incident Command System, Unified Command is a unified team effort that allows all agencies with responsibility for an incident, either geographical or functional, to manage an incident by establishing a common set of objectives and strategies. This is accomplished without losing or abdicating agency authority, responsibility, or accountability.

UNIT: Organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity.

UNITY OF COMMAND: Concept by which each person in an organization reports to only one designated person.

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Appendix B. Maps and System Details

Figure 11-1: Electric Transmission



Figure 11-2: Electric Distribution Regions and Divisions



Figure 11-3: Gas Transmission and Distribution Operations and Construction



- | North | South |
|--|---|
| <ul style="list-style-type: none"> ■ Northern Region: ▪ North Valley ▪ Humboldt ▪ Sierra ▪ Sonoma ▪ Sacramento ■ Bay Area ▪ North Bay ▪ East Bay ▪ Diablo ▪ San Francisco | <ul style="list-style-type: none"> ■ Central Coast: ▪ Mission ▪ Peninsula ▪ De Anza ▪ San Jose ▪ Central Coast ▪ Los Padres ■ Central Valley: ▪ Stockton ▪ Yosemite ▪ Fresno ▪ Kern |

Figure 11-4: Gas Transmission System

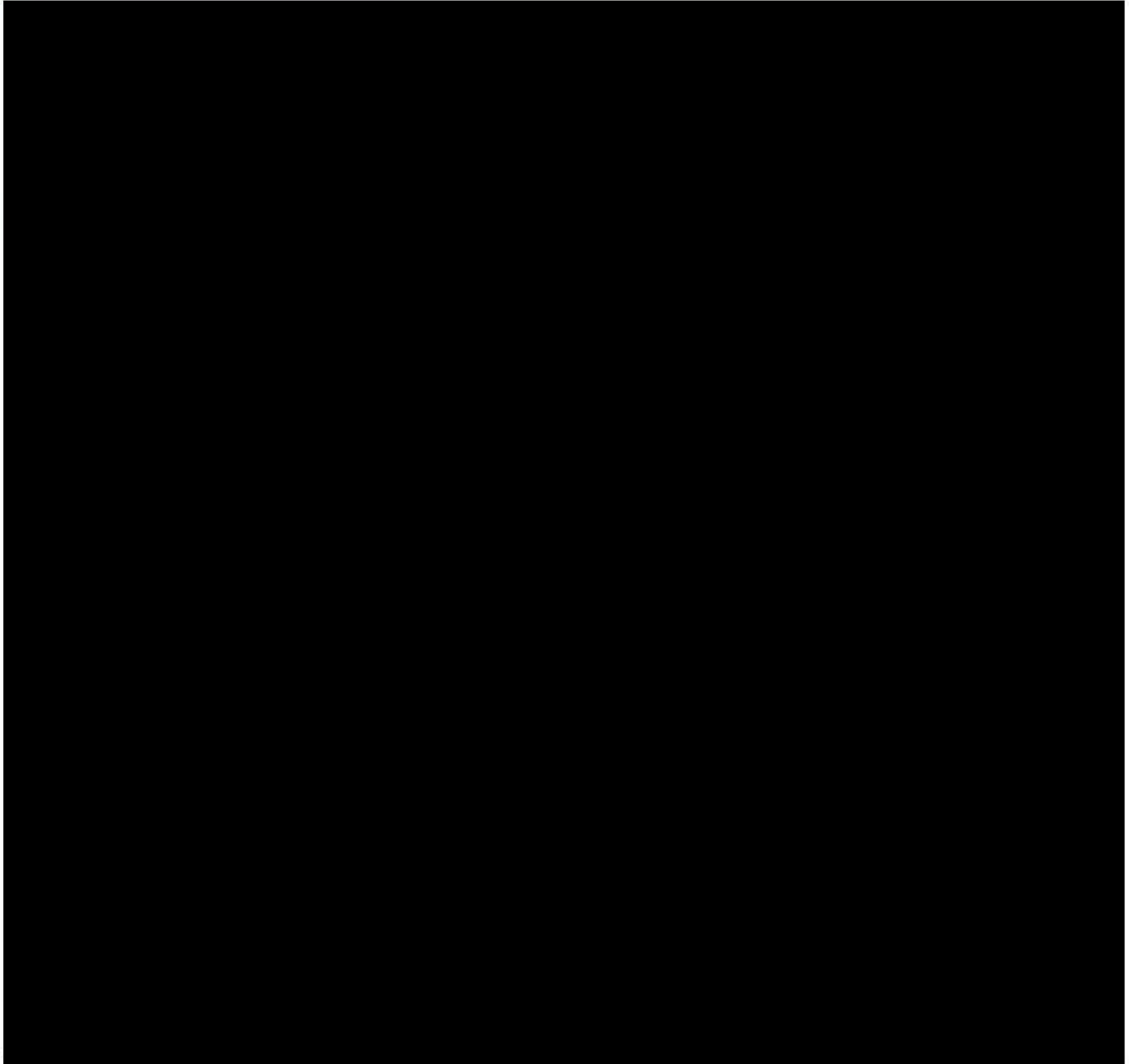
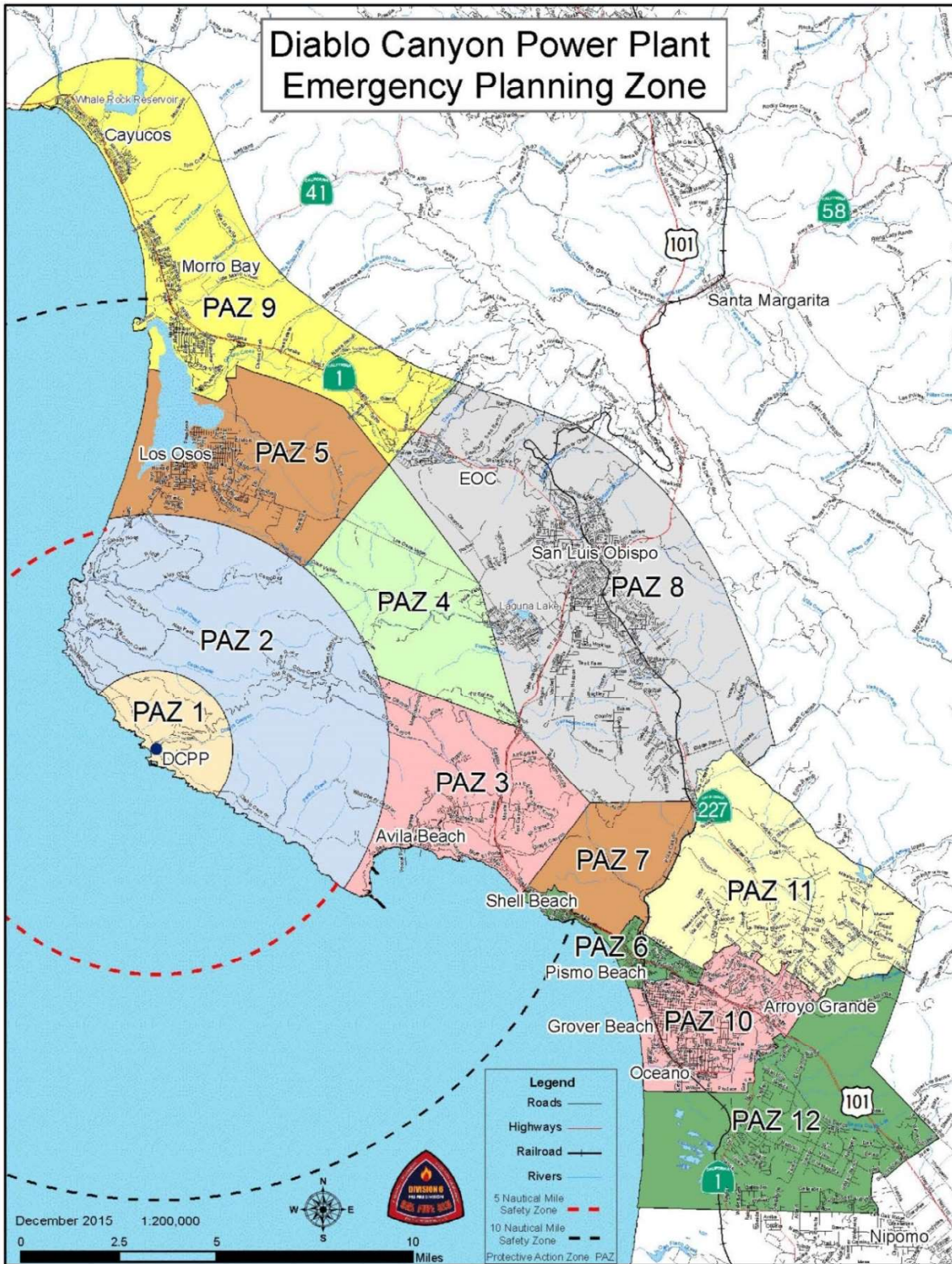


Figure 11-5: Generation System



Figure 11-6: DCPPE Emergency Planning Zone



Appendix C. Levels of Emergency and Activation Criteria for PG&E

Workload is the main factor used to determine the need to escalate. The emergency incident levels are as follows:

| | | |
|---------------------|----------|--|
| Catastrophic | 5 | <ul style="list-style-type: none"> • Incident includes multiple emergencies, affects many customers, business operations <ul style="list-style-type: none"> • Significant cost and infrastructure risk/damage • Full mobilization of PG&E, contractor and mutual aid resources <ul style="list-style-type: none"> • May have heavy media interest and actual reputational risk <ul style="list-style-type: none"> • EOC and Executive Team are activated |
| Severe | 4 | <ul style="list-style-type: none"> • Incident includes extended multiple incidents and affects many customers • Escalating company impact • Resources, contractors and mutual aid may be shared between region • May have heavy media interest and potential reputational risk |
| Serious | 3 | <ul style="list-style-type: none"> • Incident involves large numbers of customers • Resources may need to move between regions • Potential increased, actual or imminent negative media interest |
| Elevated | 2 | <ul style="list-style-type: none"> • A pending or local incident that requires more than routine operations • Resources may need to move within the region • Increased media interest |
| Routine | 1 | <ul style="list-style-type: none"> • Incident involves a relatively small number of customers • Local resources are sufficient • Little to no media coverage |

During an incident in which more than one commodity is impacted, the overall company incident level would default to the highest level. During an incident in which more than one commodity is impacted, the overall company incident level would default to the highest level. For example, if an incident causes Electric to be at a Level 4 and Gas at a Level 2, the company EOC would be at a Level 4.

A mobile command vehicle (MCV) can be activated at any level.

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Table 11-1 Levels of Emergency and Activation Criteria for PG&E

| Type | Level | Impact | Resources | External Interest | Activations (As Needed) | Electric and Gas | Power Generation | Cyber and IT | | | | |
|--------------|-------|---|---|---|--|---|--|---|---|--|---|--|
| Catastrophic | 5 | <ul style="list-style-type: none"> Catastrophic - multiple incidents large # customers significant cost, infrastructure risk and/or damage ability to conduct business impacted | <ul style="list-style-type: none"> full mobilization of company resources mutual aid resources are needed | <ul style="list-style-type: none"> heavy media interest actual reputational risk | <ul style="list-style-type: none"> ICP OEC ETEC STOEC Electric REC GEC EOC | <ul style="list-style-type: none"> >32 times EDO workload >750,000 customers out >14 ET Outages AOR >6 days restoration mutual aid needed OECs, RECs, GEC and EOC activated major to catastrophic storm incident, wind >60 mph (EDO) or >75 mph (ET) >10 days estimated gas restoration rotating shifts implemented mutual aid needed major earthquake with uncontrolled risk of injury or fatality multiple pipeline ruptures with significant public safety issues multiple uncontrolled major gas releases or gas-fed fires across system with long duration gas interruption expected | <ul style="list-style-type: none"> Violent-Extreme Earthquake (MMI IX, X+, M6+) multiple fatalities widespread property damage (e.g. high hazard dam failure) outside assistance needed NUCLEAR (DCPP only) Declaration of General Emergency for an event that has resulted in an actual or imminent release of radioactive material expected to exceed federal exposure limits plant and local, state and federal government Emergency Response Facilities are activated and emergency actions by the public will be necessary real/imminent substantial core damage potential loss containment integrity, site control loss due to hostile action local, state and national media interest | <ul style="list-style-type: none"> Severe risk of hacking, virus, or other malicious activity resulting in widespread outages and/or significantly destructive compromises to systems with no known remedy or that debilitates PG&E's critical infrastructure services Complete network failures, mission or local application failures, compromise or loss of administrative control of or critical system, loss of critical supervisory control and data acquisition (SCADA) systems potential for or actual loss of lives or significant impact on the health or economic security of the state extensive / widespread, prolonged IT events with escalated impact across multiple LOBs critical network and computing infrastructure impacted simultaneously, e.g., data centers, contact centers, transmission and data networks | | | | |
| | | Severe | 4 | <ul style="list-style-type: none"> Severe - large # customers extended multiple incidents company impacted | <ul style="list-style-type: none"> mainly from multiple regions general contractors used mutual aid may be needed | <ul style="list-style-type: none"> heavy media interest potential reputational risk | <ul style="list-style-type: none"> ICP ETEC STOEC OEC Electric REC GEC EOC | <ul style="list-style-type: none"> 10-32 times EDO workload 300,000 to 750,000 customers out 2-6 days restoration, 10-14 ET Outages/AOR OECs, RECs, GEC and EOC activated major windstorm, winds 40-60 mph (EDO) or >60 mph (ET) and significant earthquake >5-day gas restoration rotating shifts implemented GC resources mobilized across regions contractors may be required curtailment of routine work gas-related explosion pipe line rupture with significant public safety issues significant earthquake affecting multiple divisions with confirmed injuries, fatalities or severe property damage major gas transmission impacts with severe gas distribution interruptions | <ul style="list-style-type: none"> Severe Earthquake (MMI VIII, M5.9-M6) affecting more than one - area large chemical release into populated area gas supply line failure/explosion low-hazard dam failure and severe waterway failure NUCLEAR (DCPP only) Declaration of Site Area Emergency for an event in progress that involves major failures of plant functions critical plant operations compromised and possible systems failures hostages/plant damage due to hostile action radiation release beyond site boundary not expected to exceed federal exposure limits Plant and local and state government Emergency Response Facilities are activated and emergency actions by the public may be necessary local, state and national media interest | <ul style="list-style-type: none"> high cyber risk of increased hacking, virus or other malicious cyber activity that targets or compromises PG&E's core infrastructure an exploit for a critical vulnerability exists that has the potential for severe damage a critical vulnerability is being exploited and there has been significant impact attackers have gained administrative privileges on compromised systems multiple damaging or disruptive virus attacks multiple denial of service attacks against critical infrastructure services IT Significant / Large IT events with escalated impact to multiple LOBs or geographic areas unplanned, prolonged data center outage Contact Center down critical Operational Technology (OT) systems or the Utility Data Network (UDN) disrupted for prolonged period | | |
| | | | | Serious | 3 | <ul style="list-style-type: none"> Serious - large # customers | <ul style="list-style-type: none"> mainly within the region may need to move between regions | <ul style="list-style-type: none"> Increased media interest actual or imminent negative coverage | <ul style="list-style-type: none"> ICP OEC Electric REC GEC EOC ETEC STOEC | <ul style="list-style-type: none"> 4-10 times EDO workload 100,000 to 300,000 customers out 7-10 ET Outages/AOR, restoration is 1-3 days significant winter storm, winds 35-50 mph (EDO) or >50 mph (ET) 2-4 day gas restoration resources on 12- to 16-hour schedules outside resources brought in from other divisions gas-related fire, injury or significant property damage earthquake, landslide or wildfire with major gas transmission impacts with severe gas distribution interruptions | <ul style="list-style-type: none"> Very Strong Earthquake (MMI VII, M4.5-M5.9) large chemical release into sparsely populated area gas supply line failure unscheduled or uncontrolled release fatality in waterway, serious dam or waterway leak NUCLEAR Declaration of Alert for events that are in progress or have occurred which involve an actual impact on the level of safety of the plant. Plant and local government Emergency Response Facilities are activated and emergency actions by the public may be necessary. if a radiation release has occurred, it will not exceed federal exposure limits Localized media interest | <ul style="list-style-type: none"> significant cyber risk Increased hacking, virus or other malicious activity could compromise secure or critical systems containing confidential or restricted information or result in a distributed denial of service attack critical IT infrastructure or applications unavailable to >1 LOB or geographical area for a time exceeding their assigned Recovery Time Objective (RTO) significant disruption to critical SCADA, EMS, RAS, etc. systems call center impacted significantly significant voice communications disruption |
| | | | | | | Elevated | 2 | <ul style="list-style-type: none"> Elevated - a pending potential incident local emergency | <ul style="list-style-type: none"> local or within the region more than routine response | <ul style="list-style-type: none"> Increased media interest | <ul style="list-style-type: none"> ICP OEC | <ul style="list-style-type: none"> 2-4 times average EDO workload 20,000 to 100,000 customers out 5-7 ET Outages/Area of Responsibility (AOR) <24-hour restoration is typical but could be up to 2 days OEC Communications Only w/ OEC activation possible moderate winter storm, winds 30-40 mph (EDO) or >35 mph (ET) 1-2 days gas restoration regular shift with some on extended overtime moderate winter storm major over-odorization dig-in equipment failure causing significant interruption or multiple leaks Cold Winter Day (CWD) operations with gas curtailment strategy |
| Routine | 1 | | | | | | | <ul style="list-style-type: none"> Routine - small # customers | <ul style="list-style-type: none"> local routine response | <ul style="list-style-type: none"> little to no interest | <ul style="list-style-type: none"> ICP | <ul style="list-style-type: none"> car/pole accident gas leak routine response |

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Appendix D. Incident Command System

D.1 ICS Overview

PG&E has implemented and integrated key concepts from ICS within our response to emergencies.

The Incident Command System (ICS) is a standardized all-hazard incident management system. It provides a systematic, proactive approach for all levels of government, nongovernmental organizations (NGOs) and the private sector to work together to reduce the loss of life and property and harm to the environment.

An important feature of ICS applicable to all incidents and events is personnel accountability. This is accomplished through Unity of Command and the use of check-in forms, position logs and status keeping systems.

The ICS organization can expand or contract to meet different needs. This flexibility makes it a very cost-effective and efficient management approach for both small and large situations.

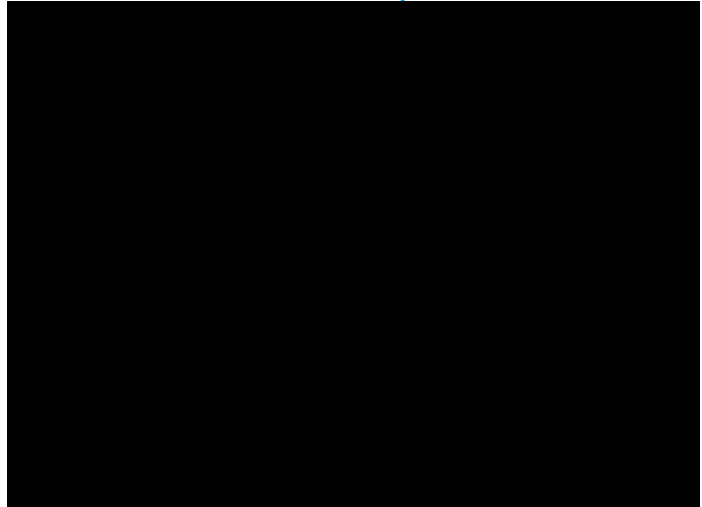
ICS is based on proven management principles, implemented through a wide range of management features including the use of common terminology, clear text and a modular organizational structure. ICS emphasizes effective planning, including management by objectives and reliance on an Incident Action Plan (IAP).

Maintaining a manageable span of control ensures full use of all incident resources.

Finally, ICS supports responders and decision makers by providing the data they need through effective information and intelligence management.

PG&E first responders (Figure 11-7) interface with police, fire and other agencies that are trained to use ICS. If the incident is too large or grows beyond the control of the first responder, they should call for their supervisor or the on-call supervisor.

Figure 11-7: PG&E Public Safety Specialists with San Mateo First Responders



D.1.1 Common Terminology and Clear Text

The ability to communicate within ICS is critical. ICS establishes common terminology, allowing diverse incident management and support entities to work together. Common ICS positions titles are used, such as Officer, Chief, Director, Supervisor, or Leader. ICS titles most likely do not reflect people's "PG&E daytime title."

All communication should:

- Be in plain English
- Use clear text
- Avoid PG&E-specific acronyms, codes or jargon

D.1.2 Modular Organization

The incident command system (ICS) organizational structure is flexible and based on the size and complexity of the incident. In ICS, only those functions or positions necessary for an incident will be filled.

As incident complexity increases, the organization expands as functional responsibilities are delegated. When needed, separate functional elements can be established.

As the ICS organizational structure expands, the number of management positions also expands to address the requirements of the incident adequately.

D.1.3 Planning Process and Incident Action Plan

All levels of the PG&E organizational structure must have a clear understanding of the actions required to manage the incident. Slight variations may be affected in the organization structure to accommodate PG&E's utility model.

Management by objectives is an approach used in incident command to communicate actions throughout the entire PG&E organization. Therefore, considerable emphasis is placed on effective planning. The planning process provides the foundation for successful resolution of incidents. The planning process:

- Provides a clear and accurate picture of the current situation and resource status
- Effectively predicts probable courses of the incident (best and worst case)
- Involves alternative strategies (plan A, B, C and D)
- Creates a foundation for an Incident Action Plan (IAP)

D.1.4 Span of Control

Span of control pertains to the number of individuals that one leader can manage effectively during an emergency. Span of control is the key to effective, efficient and safe incident management. For an effective span of control, one leader should not manage more than five people. The industry standard is 3-7 personnel assigned with 5 personnel being optimal.

Along with span of control, the ICS uses unity of command, meaning that each person is accountable to only one designated leader to whom he/she reports at the scene of an incident. These principles clarify reporting relationships and eliminate the confusion caused by multiple, conflicting directives.

D.1.5 Accountability

Effective accountability during incident operations is essential at all levels. Individuals must abide by PG&E policies and guidelines and any applicable local, state or federal rules and regulations. The following guidelines are suggested:

- **Check-In:** The Check-In/Out form for [ICS 211](#) is used to record all personnel who worked or observed activities in the center. All responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander
- **Incident Action Plan:** Response operations must be directed and coordinated as outlined in the IAP with the recognition that the ICS is flexible and may be adapted to ensure the best response to changing conditions
- **Unity of command:** Each individual involved in an incident operation is assigned to only one supervisor
- **Span of control:** Supervisors must be able to supervise and control their subordinates adequately, as well as communicate with and manage all resources under their supervision
- **Resource tracking:** Supervisors must record and report resource status changes as they occur

ICS is used extensively in PG&E's emergency response, and specific training is offered on the PG&E Intranet under Tools > PG&E@Work For Me > My Learning, including but not limited to:

- **EPRS-9009 – ICS Fundamentals** is offered internally as a web-based training (WBT) and introduces the core principles of the ICS, the emergency response framework PG&E uses to respond to emergency incidents or events
- **EPRS-9010 – Company Emergency Response Plan** is updated annually and a prerequisite for all EOC on-call employees

For additional information on PG&E emergency response training opportunities, see CERP section 3.7 “Training and Exercises Program”.

D.2 Planning Process and the Planning “P”

Effective planning provides the foundation for successful mitigation of incidents. All Command and General Staff participate in the planning process and in developing the incident action plan (IAP). The planning process must:

- Provide a clear and accurate picture of the current situation and resource status
- Effectively predict probable courses of the incident (best and worst cases)
- Involve alternative strategies (plans A, B, C and D)
- Create a foundation for a realistic IAP for the next operational period (**Note:** The IAP is a product of the planning process)

There are five primary phases of the planning process that are generally the same regardless of the type and complexity of the incident. The IC on simple incidents must develop and communicate a simple plan through oral briefings. Incidents that are more complex require a more complete, time-consuming planning process and written IAP prepared by an entire Incident Management Team (IMT).

D.2.1 Five Phases of the Planning Process

1. Understand the Situation

This first phase involves gathering, recording, analyzing and displaying a clear and accurate picture of the incident evolving at the moment.

2. Establish Incident Objectives and Strategy

The second phase involves determining an effective strategy and formulating and prioritizing the incident objectives. The strategy and objectives must consider alternative strategies.

3. Develop the Plan

The third phase involves determining the tactical direction and the specific resources needed for implementing the strategy for one operational period.

Prior to formal planning meetings, each member of the Command and General Staff is responsible for gathering necessary information so that together, they can successfully and collectively develop the plan.

4. Prepare and Disseminate the Plan

The fourth phase involves preparing the plan in a format that is appropriate for the size and complexity of the incident.

For initial response, this will likely be notes for an oral briefing and oral assignments or orders. For incidents with multiple operational periods, more formal written IAPs are necessary.

5. Execute, Evaluate and Revise the Plan

The fifth phase of this cyclical process is to execute and evaluate the plan to ensure success.

The command team must regularly compare planned progress with actual progress. Adjustments in the plan can then be made as new information emerges or conditions change, or adjustments can be implemented in the IAP for the next operational period.

D.2.2 The Planning “P”

The Planning “P” is a guide to the process and steps involved in planning for an incident (see Figure 11-8 on the next page).

The leg of the “P” describes the initial response period. Once the incident begins, the steps are:

- Notifications (using PG&E’s notification matrix for guidance)
- Initial Response and Assessment (using PG&E’s Assessment Matrix for guidance)
- Incident Briefing using ICS 201
- Initial Incident Command (IC)/Unified Command (UC) meeting

At the top of the leg of the “P” is the beginning of the first operational planning period cycle. In this circular sequence, the steps are:

- Initial IC/UC Develop/Update Objectives Meeting
- Command and General Staff Meeting
- Preparing for the Tactics Meeting
- Tactics Meeting
- Preparing for the Planning Meeting
- Planning Meeting
- IAP Prep and Approval
- Operations Briefing

At this point, a new operational period begins. The next steps are to:

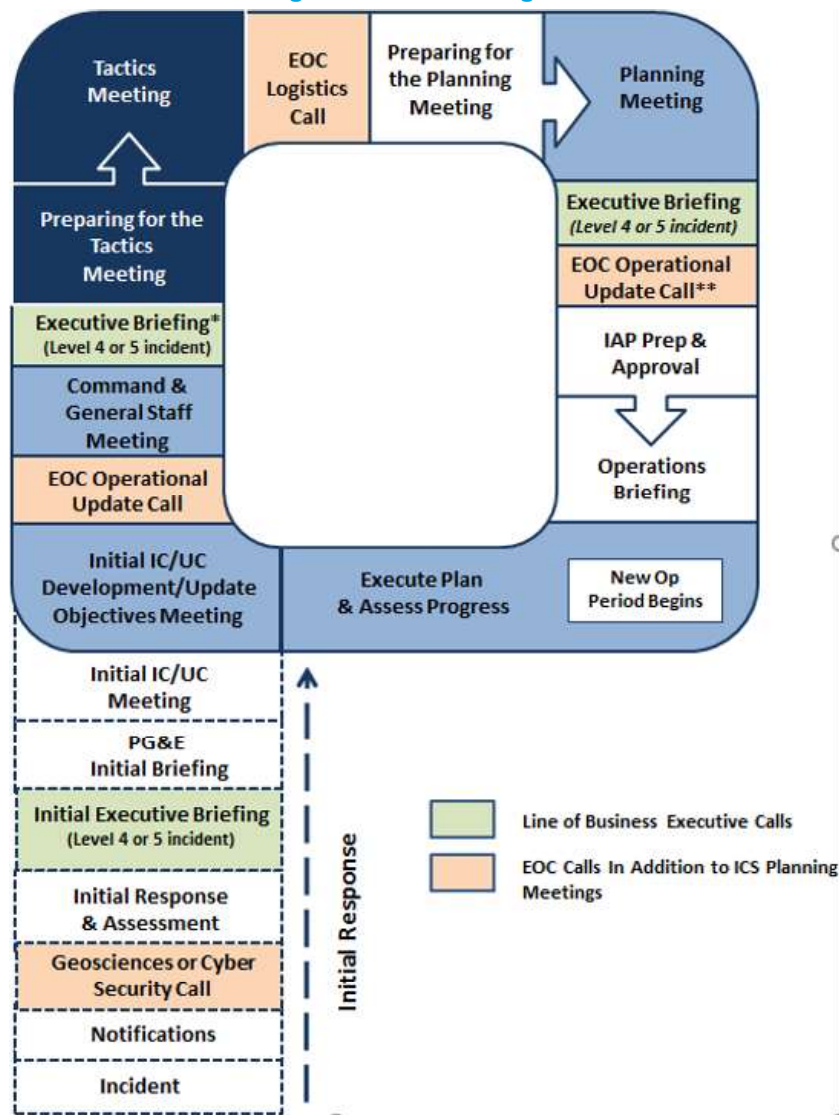
- Execute Plan
- Assess Progress, after which the cycle begins again.

Also included in PG&E’s Planning “P” are additional EOC meetings or calls. Meetings and timing may vary depending on the incident and at the discretion of the EOC Commander. For instance:

- The Initial Executive Briefing may occur during the initial response in Operational Period 1. A follow-up briefing may occur after the Planning Meeting
- EOC Staff Briefing for the night shift may occur before the evening EOC Operational Update Call

See [Appendix E](#) and [Appendix F](#) for additional meeting descriptions, templates, and samples.

Figure 11-8: Planning “P”



Appendix E. Meetings and Agendas

Building on Appendix C's Planning Process and the Planning "P," this section outlines a typical operational period at the EOC. During an incident, the EOC's activities follow the Planning P steps described in detail in [Appendix C, C.2](#), and as noted below.

- Understand the Situation
- Establish Incident Objectives and Strategy
- Develop the Plan
- Prepare and Disseminate the Plan
- Execute, Evaluate and Revise the Plan

The initial cycle involves a series of calls, meetings and briefings to gain an initial understanding of the situation and its impact. Following this period, meetings are interspersed with on-going work in the field and EOC, planning, drafting reports and meetings.

Also included in this section are sample meeting agendas. Agendas are found on the [EOC Resources SharePoint](#) site:

- Executive Briefing Call Agenda (line of business call)
- EOC Operational Update Call Agenda
- EOC Tactics Meeting Agenda (updated 2017.05.08)
- EOC Planning Meeting Agenda
- Additional Agendas by EOC Section:
 - Logistics – EOC Logistics Call, Human Resources, Corporate Security
 - Command Staff – Corporate Communications, Customer Care and External Relations
 - Operations – Diablo Canyon, Electric Operations, Energy Management, Gas Operations, Information Technology, Power Generation

Remember: PG&E's emergency response is scalable. Thus, the meeting and report cycles outlined here are illustrative and may be adjusted to meet the specific needs of an incident.

E.1 Initial Incident Command or Unified Command Meeting

The immediate action following an incident is to understand the situation and conduct a thorough size-up to obtain information needed to make initial management decisions to include the appropriate staff levels.

Table 11-2 outlines the initial meeting agenda for an emergency event or incident at any operational level within the company. Subsequent meeting agendas are presented in this section.

Table 11-2: Initial Incident Briefing

| Activity | When | Purpose | Forms | Facilitator | Attendees |
|-------------------|--|--|---------------------------|------------------------------|--|
| Incident Briefing | Transition from Initial Response to Operations | <ul style="list-style-type: none"> • Brief IC/UC • Assess operational requirements • Determine current and future organizational and response requirements and objectives • Inform staff • Set expectations | ICS 201 Incident Briefing | IC or Planning Section Chief | IC/UC Command staff • General staff |

E.1.1 Initial Unified Command Briefing

Table 11-3 summarizes the initial Unified Command discussion items for an emergent incident involving multiple jurisdictional authorities where there are PG&E facilities involved.

Table 11-3: Initial Unified Command Briefing

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|--------------------|-----------------------|---|---|--|--|
| Initial UC Meeting | When the UC is formed | <ul style="list-style-type: none"> • Determine roles and authorities • Set expectations | Current IC/UC or Planning Section Chief | <ul style="list-style-type: none"> • IC/UC <ul style="list-style-type: none"> ○ Negotiates UC participation ○ Clarifies UC roles & responsibilities ○ Negotiates and agrees on: <ul style="list-style-type: none"> -Jurisdictional boundaries -Incident name -Overall incident management organization -Location of ICP, sites and support -Operational period length and start time -Deputy IC assignments; other key Command and General Staff and technical support, as needed • Safety Officer <ul style="list-style-type: none"> ○ Advises of major safety concerns • Operations Section Chief or designee <ul style="list-style-type: none"> ○ Briefs UC members on current operations • Planning Section Chief or designee <ul style="list-style-type: none"> ○ Facilitates and documents meeting • Logistics Section Chief or designee | Only the ICs who will make up the Unified Command (UC) |

E.1.2 Initial Executive Briefing

Table 11-4 summarizes meeting discussion items for when company executives convene for an emergent incident impacting company operations.

Table 11-4: Initial Executive Briefing

| Activity | When | Purpose | Facilitator | Attendees |
|----------------------------|---|--|-------------------------------|---|
| Initial Executive Briefing | At the onset of a no-notice event, following the Initial Call | <ul style="list-style-type: none"> • Inform leadership • Establish command • Provide initial direction, e.g.: <ul style="list-style-type: none"> ◦ Open the EOC ◦ Report to AEOC in Vacaville ◦ Activate the Executive Mobilization Plan ◦ Stand down, etc. • Obtain information, e.g.: <ul style="list-style-type: none"> ◦ Status of LOB ◦ Have LOBs activated their emergency and/or business continuity plans? ◦ What emergency centers are open? ◦ Do you know of any effects so far on daily operations? ◦ Field staff reporting? ◦ Is the restoration strategy clear? ◦ What are the incident priorities? ◦ What are the anticipated resource needs? ◦ Status of local, state, federal response? ◦ Employee status? • Ask questions • Clarify expectations • Establish time of next call | Director, EP&R SE or designee | <ul style="list-style-type: none"> • EOC Commander • Director, EP&R • LOB Executives/designees • Company Leadership (optional attendance) |

Subsequent incident meetings may follow the meeting agenda format contained in the iterative ICS “Planning P’ process.

E.2 Operational Period Meetings and Work Sessions

After the incident parameters are understood, objectives and planning begin. The IC/UC establishes incident objectives that cover the entire course of the incident. For complex incidents, it may take more than one operational period to accomplish the incident objectives.

The cyclical planning process is designed to take the overall incident objectives and break them down into tactical assignments for each operational period. It is important that this initial overall approach to establishing incident objectives establishes the course of the incident, rather than having incident objectives address only a single operational period.

In addition to establishing the incident objectives, the IC/UC establishes the next operational period. The IC/UC works with the Planning Section Chief to develop a schedule of meetings and reports for the operational period.

Then, the Operations Section directs the implementation of the plan. The plan is evaluated at various stages in its development and implementation. The Operations Section Chief may make the appropriate adjustments during the operational period to ensure that the objectives are met, and effectiveness is ensured.

E.2.1 IC/UC Objectives Meeting

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|--------------------------|--|--|--|--|---------------------------------|
| IC/UC Objectives Meeting | Prior to Command and General Staff Meeting | <ul style="list-style-type: none"> • Identifies priorities, limitations and constraints • Develops objectives • Develops Command and General Staff tasks • Agrees on UC workload | IC/UC member or Planning Section Chief | Command <ul style="list-style-type: none"> • Identifies <ul style="list-style-type: none"> ◦ Priorities ◦ Limitations ◦ Constraints ◦ Key procedures • Develops <ul style="list-style-type: none"> ◦ Incident objectives ◦ Tasks for Command and General Staff • Agrees on division of UC workload Planning <ul style="list-style-type: none"> • Facilitates and documents meeting • Proposes draft objectives Operations <ul style="list-style-type: none"> • May attend/contribute | IC/UC members Selected staff |

E.2.2 EOC Operational Update Call

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|--|--|---|------------------------|--------------|--|
| EOC Operational Update Call | Prior to the Command and General Staff Meeting | <ul style="list-style-type: none"> • Share situation status between EOC, RECs, GEC and ETEC • Discuss <ul style="list-style-type: none"> ◦ Limiting factors ◦ Critical resource needs ◦ Weather ◦ Safety | Planning Section Chief | | Officers EOC Section Chiefs Branch Directors Resource Unit Leader; Electric REC and GEC ICs; SO&C; Sub / Tline Directors; GEC Commander |
| Information from this meeting will be used to later develop restoration strategies and to confirm objectives. For a detailed agenda, refer to the EOC Resources SharePoint . | | | | | |

E.2.3 Executive Briefing

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|---|---|---|---------------------------|--------------|--|
| Executive Briefing | Typically, after the Command and General Staff Meeting and following the Planning Meeting | <ul style="list-style-type: none"> Obtain a status on each LOB Provide situational awareness Identify operational barriers Provide known event details and discussion of critical next steps Communicate policies and decisions consistently | EOC Commander or designee | | EOC Commander Director, EP&R LOB Executives* Company Leadership (optional)** |
| <p>The cadence and timing of Executive Briefings is determined by the EOC Commander.</p> <p>The timing and content of this call may be revised based on factors such as the type and onset of the emergency, magnitude of damage and expected duration.</p> | | | | | |
| <p>The Executive Briefing is a LOB call and is <u>not</u> an EOC operational call.</p> | | | | | |
| <p>It is scheduled by the Sr. Director, EP&R, EOC Commander, Planning Chief, or designee.</p> | | | | | |
| <p>* If a LOB Executive is not available, their designee may attend.</p> | | | | | |
| <p>** Other senior executives not listed (i.e., Company Leadership members) are optional to attend.</p> | | | | | |

E.2.4 Tactics Meeting

E.2.4.1 Preparation

As organizational leads for the Tactics Meeting, Operations Section staff prepare for the meeting by developing tactics based on resources anticipated to be available during the next operational period.

Command and General Staff Tactics Meeting preparations include:

Planning

- Facilitates process
- Reviews objectives and agrees which are the responsibility of the Operations Section
- Ensures Technical Specialists are included and prepared to contribute as appropriate
- Presents situation information and provides projections

Operations

- Develops draft strategies and tactics for each operationally oriented incident objective
- Develops alternative or contingency strategies and tactics
-
- Develops/outlines Operations Section organization for next operational period

Safety Officer

- Develops hazard risk analysis

E.2.4.2 Tactics Meeting Description

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|-----------------|---------------------------|---|--------------------------|--|--|
| Tactics Meeting | Prior to Planning meeting | The purpose of the Tactics meeting is to review the tactics developed by the Operations Section Chief | Operations Section Chief | Planning <ul style="list-style-type: none"> • Sets up meeting room • Facilitates meeting • Presents current situation and projections • Presents resources status (RESTAT) • Documents meeting Operations <ul style="list-style-type: none"> • Briefs current operations • Presents strategies, tactics and resource needs • Identifies alternative strategies • Presents the Operations Section organization • Provides plan and status during Dual Commodity events Safety <ul style="list-style-type: none"> • Identifies potential hazards and recommends mitigation measures Logistics <ul style="list-style-type: none"> • Contributes logistics information as necessary • Determines incident facility support requirements • Prepares to order needed resources • Presents situation information and projections | Safety Officer Section Chiefs (Planning, Operations and Logistics); Unit Leaders (Resources, Situation and Documentation) Technical Specialist, as needed |

E.2.5 Planning Meeting

The Planning meeting provides the opportunity for the Command and General Staff to review and validate the operational plan as proposed by the Operations Section Chief for the next operational period. Like the Tactics Meeting, the planning meeting requires pre-work.

E.2.5.1 Preparation

Checklist Command and General Staff Planning Meeting preparations include:

Command

- Prepares further guidance/clarification
- As needed, meets informally with appropriate staff members

Operations

- Prepares ongoing operations update (ICS form 209)

- Provides overlap plans and status updates, as needed, during dual commodity events⁵¹
- Coordinates with other staff (District Storm Rooms in an electric incident), as needed

Planning

- Sets up meeting room
- Develops resource, support and overhead requests and submits to Logistics after the Planning meeting
- Publishes/distributes meeting schedule and ensures that attendees are prepared (posted agenda)
- Makes duplicate documents for Command that are needed to support presentations
- Evaluates the current situation and decides whether the current planning is adequate for the remainder of the operational period (i.e., until next plan takes effect)
- Advises the IC and the Operations Section Chief of any suggested revisions to the current plan, as necessary
- Establishes a planning cycle for the IC
- Determines Planning meeting attendees in consultation with the Incident Commander
- Establishes the location and time for the Planning meeting
- Ensures that planning boards and forms are available
- Notifies necessary support staff about the meeting and their assignments
- Ensures that a current situation and resource briefing will be available for the meeting
- Obtains an estimate of resource availability for use in planning for the next operational period
- Obtains necessary policy, legal, or fiscal constraints for use in the Planning Meeting

Logistics

- Prepares resources orders to support IAP (submitted after the Planning meeting)
- Prepares for Planning meeting
- Verifies support requirements for Finance/Administration
- Verifies financial and administrative requirements

⁵¹ Dual commodity incidents are most commonly, but not exclusively, Gas and Electric incidents.

E.2.5.2 Planning Meeting

In the Planning Meeting, the Operations Section Chief delineates the amount and types of resources needed to accomplish the plan. The Planning Section’s Resources Unit works with the Logistics Section to accommodate.

After the meeting, the Planning Section staff indicate when all elements of the plan and support documents are required to be submitted so that the plan can be collated, duplicated and made ready for the Operational Period Briefing.

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|------------------|---------------------------|---|------------------------|--|--|
| Planning Meeting | After the Tactics meeting | Review and validate the operational plan proposed by the Operations Section Chief | Planning Section Chief | <p>Command</p> <ul style="list-style-type: none"> Ensures that all of Command’s direction, priorities and objectives have been met Provides further direction and resolves differences as needed Gives tacit approval of proposed plan <p>Operations</p> <ul style="list-style-type: none"> Provides overview of current operations Presents a plan of action that includes strategies, tactics, contingencies, resources, organization structure and overall management considerations (i.e., divisions/groups) <p>Planning</p> <ul style="list-style-type: none"> Facilitates meeting Briefs current situation Provides projections Documents meeting <p>Logistics</p> <ul style="list-style-type: none"> Briefs logistical support/services and resource ordering status Discusses operational facility issues <p>Finance / Admin</p> <ul style="list-style-type: none"> Briefs administrative and financial status/projections, etc. <p>Command Staff</p> <ul style="list-style-type: none"> Discusses and resolves any safety, liaison and media considerations and issues | <p>Attendance is required for all Command and General Staff</p> <p>IC/UC Command and General Staff Situation Unit Leader Documentation Unit Leader Technical Specialists, as needed Additional incident personnel as requested</p> |

E.2.5.3 Agenda



EOC Planning Meeting Agenda

Telephone Conference: *Please fill out with Conference Call #*

Conference Host: EOC

Conference Facilitator: Planning and Intelligence Section Chief

Purpose of Call: The purpose of the call is to finalize strategies to meet incident objectives and review and approve the plan for the next operational period. This meeting/call takes place after the tactics meeting and is generally facilitated by the Planning and Intelligence Section Chief.

| Specific Program Areas to Report On | Topic | Reporting |
|---|-------------------|--|
| <u>Roll Call</u> Brief Attendees on Rules of Conduct | Open Meeting | Planning and Intelligence Section Chief (meeting facilitator) |
| <u>Opening Remarks</u> <u>Prioritize and Set Restoration Objectives</u> <ul style="list-style-type: none"> Prioritized areas for restoration Acceptable ETORs | EOC Commander | EOC Commander |
| <u>Review and Establish Safety Message</u> <ul style="list-style-type: none"> Safety Plan Process for collecting safety data from field for incident | Safety Officer | Safety Officer |
| <u>Current Situation Update</u> <ul style="list-style-type: none"> Customers affected Status of EOC Open Emergency Centers Establish Branch and Division Areas <ul style="list-style-type: none"> Geographic Divisions Damage Modeling Results Specify Resource Need <ul style="list-style-type: none"> Acceptable ETOR XX time will require XX resources GAS Acceptable ETOR XX time will require XX resources Electric Specialty Crews needed: Type and # | Current Situation | Planning Chief |
| <u>Incident Status/ Update</u> Overall situation <ul style="list-style-type: none"> Electric: Damage Assessment/ETOR Transmission & Distribution Gas: Damage Assessment/ ETOR Transmission & Distribution IT: Damage Assessment/ETOR Power Generation: Damage Assessment/ETOR | Current Operation | Operations Section Chief |

| Specific Program Areas to Report On | Topic | Reporting |
|---|---|----------------------------|
| Identify Logistical Issues and Concerns <ul style="list-style-type: none"> • Base Camps • Staging Sites • Crew Movement • Security • Facilities- • PG&E Owned Emergency Centers Review Communication and Transportation Plans <ul style="list-style-type: none"> • IT/TCOMM issues/needs • Medical Plan review of Base Camps • Transportation Plan- road closures and status of highways and emergency routes • Highway Escort issues • Employee Communication: NotiFind Status and known issues | Logistical Support Services and ordering status | Logistics Section Chief |
| Public Information Issues <ul style="list-style-type: none"> • Media • PGE.com | Corporate Relations | Public Information Officer |
| Review Financial Status and Implications <ul style="list-style-type: none"> • Costs to date Emergency Orders & proper billing codes | Finance and Administration Chief | Finance Section Chief |
| Finalize and Approve the Final Plan | All section Chiefs give verbal approval and to support the plan | ALL Section Chiefs |
| Closing Comments | EOC Commander | EOC Commander |
| <ul style="list-style-type: none"> • Adjourn • Summary • Next meeting time/location | | Planning Section Chief |

E.2.6 Operations Period Briefing

| Activity | When | Purpose | Facilitator | Contributors | Attendees |
|----------------------------|---|--|------------------------|---|---|
| Operations Period Briefing | Twice Daily <ul style="list-style-type: none"> At the start of each operational ~1 hour prior to shift change | The Operations Period Briefing is conducted at the beginning of each operational period and presents the IAP to supervisors of tactical resources. | Planning Section Chief | Command <ul style="list-style-type: none"> Provides guidance and clarification Provides leadership presence and motivational remarks Operations <ul style="list-style-type: none"> Provides Operations Briefing for the next operational period Ensures ICS 204 tasking is clear Planning <ul style="list-style-type: none"> Sets up briefing area Facilitates Command and General Staff and other attendee briefing responsibilities Resolves questions Explains support plans as needed Logistics <ul style="list-style-type: none"> Briefs security, environmental, facilities, transportation, supply and field support (base camp, staging area or micro site) issues Finance / Admin <ul style="list-style-type: none"> Briefs administrative issues and provides financial report Staff <ul style="list-style-type: none"> Operations, Logistics, Safety, Public Information and inter-agency and intelligence issues | IC/UC, Command and General Staff, Branch Directors, Division Supervisors, Task Force/Strike Team Leaders, Unit Leaders and others, as appropriate |

E.3 Special Purpose Meetings

Special Purpose meetings are most applicable to larger incidents requiring an operational period planning cycle but may also be useful during the initial response phase.

E.3.1 Business Management

This meeting is used to develop and update the Business Management Plan for finance and logistical support. The agenda could include documentation issues,

cost sharing, cost analysis, finance requirements, resource procurement and financial summary data.

Attendees normally include the Finance/Administration Section Chief (FSC), Cost Unit Leader (COST), Procurement Unit Leader (PROC), Logistics Section Chief (LSC), Situation Unit Leader (SITL) and Documentation Unit Leader (DOCL).

E.3.2 Agency Representative

This meeting is held to update agency representatives (AREPs) and ensure that they can support the IAP. It is conducted by the Liaison Officer (LNO) and attended by AREPs. The meeting is most appropriately held shortly after the Planning meeting to present the IAP for the next operational period. It allows for minor changes should the plan not meet the expectations of the AREPs.

E.3.3 Media Briefing

This meeting is conducted at a field location near the incident or at one of the following rooms: Conference Room A in the General Office, the Auditorium Foyer in the General Office, or the VERC when it is activated. The purpose is to brief the media and the public on the most current and accurate facts. The briefing is set up by the PIO, moderated by an IC/UC spokesperson and features selected spokespersons. Spokespersons should be prepared by the Public Information Office to address anticipated issues. The briefing should be well planned, organized and scheduled to meet the media's needs.

E.3.4 Demobilization Planning

This meeting is held to gather demobilization functional requirements from Command and General Staff. Functional requirements include safety, logistics, fiscal considerations and release priorities that would be addressed in the plan. The DMOB then prepares a draft Demobilization Plan to include the functional requirements and distributes to the Command and General Staff for review and comment.

Attendees normally include Command, Operations, Planning, Logistics and Finance Section Chiefs, LNO, SO, Intelligence Officer, PIO and Demobilization Unit Leader (DMOB).

E.3.5 Public Meetings

Public meetings are held to communicate with the public the progress being made and other important information to keep them informed and understanding the operations and management of the incident.

Appendix F. Reports, Forms, Checklists and Tools

Templates, forms, checklists and other emergency team tools can be found within subfolders on the Emergency Operations Center (EOC) [EOC SharePoint](#) site, organized as follows:

- Communications Resources
- EOC Incidents
- Facility Maps
- EOC On-Call Schedule
- Training and Exercise Schedule
- PSPS Training and Guidance Documents
- ICS Checklist

Information is available for the following areas:

- EOC Training
- PSPS Training and Guidance Documents
- Roles and Responsibilities (includes Position Guides / Checklists)
- Coordination Center Positions and Tools (includes Position Checklists)
- EOC Tech-down Procedures
- ICS Forms
- Documentation Resources

All ICS forms (Table 11-5) are also located in the ICS Checklist subfolder. EOC activation deactivation checklist are located in the Communication Resources subfolder.

Table 11-5: ICS Forms

| EOC Form Name (ICS form name if different) | ICS Form Number | Prepared By |
|--|-----------------|-----------------------------|
| EOC Action Plan Workbook Blank Template | | Planning Documentation Unit |
| EOC Action Plan Workbook Maps | | Planning Documentation Unit |
| EOC Action Plan Workbook with Forms | | Planning Documentation Unit |
| EOC Activation Checklist | | EOC Manager and EOC Admin |
| EOC Deactivation Checklist | | EOC Manager and EOC Admin |
| Initial Incident Briefing and Action Plan (becomes the Initial Action Plan) | 201 | EOC Commander |
| Incident Objectives | 202 | Planning Section Chief |

| EOC Form Name (ICS form name if different) | ICS Form Number | Prepared By |
|--|----------------------------|---|
| EOC Organization List (Organization Alignment List) | 203 | Resources Unit Leader |
| Assignment List | 204 | Resources Unit Lead & Operations Section Chief |
| Communications | 205A | Communications Unit Leader |
| Medical Plan | 206 | Safety Officer |
| Organization Chart | 207 | Resources Unit Leader |
| Safety Message | 208 | Safety Officer |
| Incident Status Summary | 209 | Situation Unit Leader |
| Status Change Card | 210 | Communications Leader |
| Check In and Out Log (Check-in List) | 211 | Resources Unit / Check-in Recorder |
| General Message | 213 | Any message originator |
| Unit Log | 214 | All staff |
| Operational Planning Worksheet | 215 | Chief |
| Incident Safety Analysis (Hazard Risk Analysis Worksheet) | 215A | Operations Sections Chief and Safety Officer |
| Radio Requirements Worksheet | 216 | Communications Unit |
| Radio Frequency Assignment Worksheet | 217 | Communications Unit |
| Support Vehicle Inventory | 218 | Ground Support Unit |
| Resource Status Card | 219 | Resources Unit |
| Air Operations Summary | 220 | Operations Section Chief or Air Branch Chief |
| Field Employee Demobilization Release (Demobilization Checkout) | 221 | Demobilization Unit Leader |
| Crew Performance Rating Form | 224 | n/a |
| Incident Personnel Performance Rating Form | 225 | n/a |
| Individual Performance Rating Form | 226 | n/a |
| Daily Meeting Schedule | 230 | Planning Documentation Unit |
| EOC Report Schedule | 230A | Planning Documentation Unit |

F.1 ICS 201 – Initial Briefing and Incident Action Plan

An Incident Action Plan (IAP) or EOC Action Plan—both using ICS Form 201—is completed at the start of an incident and for each subsequent operational period.

The initial IAP / EOC Action Plan is streamlined and contains essential information. The initial plan is issued as close to the start of the incident as possible to provide critical incident and contact information to the EOC, Electric RECs, GEC and OECs (depending on the activation level).

Plans for Operational Period 2 and beyond are more detailed and are issued according to the agreed-upon report schedule. IAPs are generally approved and distributed at the start of an Operational Period.

F.1.1 Preparation and Approval

For incidents of shorter duration, the Incident Action Plan (IAP) or EOC Action Plan is developed by the IC and communicated to subordinates in a verbal briefing. The planning associated with this level of complexity will not require the formal planning process.

The IAP is developed immediately following the Planning meeting. The Planning Section Chief assigns the deadlines for products such as the IAP. A written IAP should be considered whenever:

- Two or more OECs are involved in the response
- The incident continues into the next operational period
- A number of ICS organizational elements are activated (typically, when General Staff Sections are staffed)
- It is required by PG&E policy
- A hazmat incident is involved

The following sections and roles will participate in the IAP development process:

Command

- Reviews, approves and signs the IAP

Operations

- Provides required information for inclusion into the IAP
- Works with Planning to ensure that the chart and ICS 204(s) are complete

Planning

- Facilitates the gathering of required documents and assembles the IAP
- Reviews the IAP for completeness
- Provides completed IAP to IC/UC for review/approval
- Makes sufficient copies of the IAP
- Distributes IAP to appropriate team members and files the original

Logistics

- Reviews Logistics Section products for completeness (ICS 218, etc.)
- Provides logistics information for IAP
- Verifies resources ordered/status

Finance/Admin

- Verifies financial and administrative requirements for IAP

F.1.2 Initial Incident Action Plan (IAP) / EOC Action Plan

PG&E EOC Initial Briefing includes PG&E versions of the ICS 201 Initial Briefing form, ICS 208 Safety Message, ICS 230 and 230A Meeting and Reports Schedules, respectively. It is appended below or can be downloaded from [EOC Action Plan Workbook Template and ICS Forms](#)

| Brief Description of the Event | | | | | | | | | |
|--|----------|--------------------------|---------------|--------------------------|---------------------------------|--------------------------|--------------------|--------------------------|--------------|
| | | | | | | | | | |
| Operational Period Objectives | | | | | | | | | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| Weather Forecast | | | | | | | | | |
| - Link to DSO weather forecast and SOPP Model: http://weather/dso/ | | | | | | | | | |
| Activations: | | | | | | | | | |
| <input type="checkbox"/> | EOC | <input type="checkbox"/> | Bay Area REC | <input type="checkbox"/> | Central Coast REC | <input type="checkbox"/> | Central Valley REC | <input type="checkbox"/> | Northern REC |
| <input type="checkbox"/> | ETEC | | | | | | | | |
| <input type="checkbox"/> | STOEC | <input type="checkbox"/> | Diablo | <input type="checkbox"/> | CC (Santa Cruz) | <input type="checkbox"/> | Fresno | <input type="checkbox"/> | Humboldt |
| <input type="checkbox"/> | MTCC | <input type="checkbox"/> | East Bay OEC | <input type="checkbox"/> | San Jose/De Anza | <input type="checkbox"/> | Kern | <input type="checkbox"/> | North Valley |
| <input type="checkbox"/> | ITCC | <input type="checkbox"/> | North Bay | <input type="checkbox"/> | Los Padres | <input type="checkbox"/> | Stockton | <input type="checkbox"/> | Sacramento |
| <input type="checkbox"/> | HRCC | <input type="checkbox"/> | San Francisco | <input type="checkbox"/> | Mission | <input type="checkbox"/> | Yosemite | <input type="checkbox"/> | Sierra |
| <input type="checkbox"/> | GEC | | | <input type="checkbox"/> | Peninsula | | | <input type="checkbox"/> | Sonoma |
| <input type="checkbox"/> | CCECC | | | | | | | | |
| <input type="checkbox"/> | FCC Logs | | | | | | | | |
| Command Staff | | | | | General Staff | | | | |
| Position: | | Name: | | | Position: | | Name: | | |
| EOC Commander | | | | | Operations Section Chief | | | | |
| Deputy EOC Commander | | | | | Deputy Operations Section Chief | | | | |
| IC Advisor | | | | | Planning Section Chief | | | | |

| | | | |
|--|--|---------------------------------------|--|
| Liaison Officer | | Deputy Planning Section Chief | |
| Safety Officer | | Logistics Section Chief | |
| Customer Strategy Officer | | Deputy Logistics Section Chief | |
| Public Information Officer (PIO) | | Finance & Admin Section Chief | |
| | | Deputy Finance & Admin Chief | |
| | | Human Resource Branch Director | |
| | | Finance Branch Director | |
| Full EOC Organization List and Emergency Center Communications Phone List (ICS 203, 205A) | | | |
| ICS forms can be on the EOC SharePoint site here . | | | |
| Prepared by: <name here> | | Approved by: <name here> | |

EOC incident activations exceeding one operational period will follow the PG&E EOC Action Plan document format below.

PG&E EOC Action Plan

Operational Period #:

Insert incident picture here

| | | |
|---|-----------------------|---------------------|
| Incident Name: | | OP#: |
| Date Prepared: date | Time Prepared: | |
| Operational Period (Date / Time) | | |
| Start Date: date | Start Time: | |
| End Date: date | End Time: | |
| Prepared By: | | Approved By: |

Accompanying Documents

- | | |
|--|---|
| <input type="checkbox"/> ICS 202 (Incident Objectives) | <input type="checkbox"/> ICS 207 (Organization Chart) |
| <input type="checkbox"/> ICS 203 (EOC Organization list) | <input type="checkbox"/> ICS 208 (Safety Message) |
| <input type="checkbox"/> ICS 204 (Assignment List) | <input type="checkbox"/> ICS 230 (EOC Meeting and Schedule) |
| <input type="checkbox"/> ICS 205A (Communications List) | <input type="checkbox"/> ICS 230A (EOC Report Schedule) |
| <input type="checkbox"/> ICS 206 (Medical Plan EOC) | <input type="checkbox"/> Maps |
| | <input type="checkbox"/> Weather Infrared Imagery and Radar |

F.1.3 ICS 208 – EOC Safety Message

| SAFETY MESSAGE | |
|--------------------------------|---------------------|
| Major Hazards and Risks | |
| • | |
| • | |
| • | |
| Narrative | |
| | |
| Prepared by: | Approved by: |

F.2 ICS 230 – EOC Meeting Schedule

F.2.1 Operational, Period 1

Below is a sample meeting schedule for a Level 4/5 incident for Operational Period 1. The EOC meeting schedule and times change depending on the incident, especially during the first operational period. Note that the sample schedule below is for an operational period of 24 hours and two 12-hour shifts.

| Meeting Schedule (commonly held meetings are included) | | | | | |
|--|--|---|---|--|--------------------------|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees (EOC unless noted) | Call / Location |
| Operational Period 1 | | | | | |
| << ENTER TIME>> | Incident Occurs | | | | |
| << ENTER TIME>> | Geosciences or Cybersecurity Call | Discuss incident and need to activate EOC. | Geosciences Director | VP, Electric Operations, Director, EP&R, Geosciences Director (for earthquake), Director of Cybersecurity (for cybersecurity incident) | Call |
| << ENTER TIME>> | Executive Briefing | Line of business call where the VP Asset and Risk Management, Community Wildfire Safety Program informs the line of business (operating) executives about the incident, activation of the EOC and requests situational information for the next call. | Director, EP&R | Executive Team (Presidents, SVPs, VPs, Chief Risk and Audit Officer, General Counsel), Director, EP&R | Call |
| << ENTER TIME>> | EOC Objectives Meeting | Review priorities, limitations and constraints. Create EOC objectives. | EOC Commander or Planning Section Chief | EOC Commander Planning and Operations Section Chiefs | EOC Exec Conference Room |

| Meeting Schedule (commonly held meetings are included) | | | | | |
|--|--|--|---|---|--------------------------|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees (EOC unless noted) | Call / Location |
| << ENTER TIME >> | EOC Initial Briefing | Provide information on what we know so far, high-level objectives, activities and safety to the first shift. | EOC Commander, Safety Officer | EOC Staff | EOC (room 118) |
| << ENTER TIME >> | EOC Operational Update Call | Share situation status, discuss limiting factors, critical resource needs, weather and safety. (Information will be used to later develop restoration strategies and to confirm objectives.) | Planning Section Chief | Section Chiefs: Planning, Operations, Logistics, Finance Officers: HR, Customer Strategy, Public Information Commanders: Electric REC ICs, SO&C GEC Branch Directors/Unit Leaders: Electric Distribution, Transmission/Substation, Power Generation, Sub / Tline, Resource Unit, Vegetation Management | Call |
| << ENTER TIME >> | EOC Command & General Staff Meeting | Review information from Operational Update Call to validate objectives. IC gives direction to Command & General staff, including incident objectives and priorities. | Planning Section Chief | EOC Commander, Command & General Staff Situation Unit Leader Documentation Unit | EOC Exec Conference Room |
| << ENTER TIME >> | EOC Objectives Meeting | Review priorities, limitations and constraints. Review EOC objectives for the next operational period. | EOC Commander or Planning Section Chief | EOC Commander Planning and Operations Section Chiefs | EOC Exec Conference Room |

| Meeting Schedule (commonly held meetings are included) | | | | | |
|---|---|---|-------------------------------|--|--------------------------|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees (EOC unless noted) | Call / Location |
| << ENTER TIME>> | EOC Tactics Meeting | Discuss crew and other resource needs for the next Operational Period. Develop/review primary and alternate strategies to meet Incident Objectives for the next Operational Period. | Operations Section Chief | Section Chiefs: Operations Planning Logistics Unit Leaders: Resource Management Advance Planning | EOC Operations Room |
| << ENTER TIME>> | EOC Logistics Call | Logistics team discusses material and other resource needs for the next Operational Period to support tactics. (Not crew movement.) | Logistics Section Chief | Logistics: EOC, Electric REC/GEC, MTCC, Base Camp, Staging Area and Micro Site | Call |
| << ENTER TIME>> | EOC Planning Meeting | Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period. | Planning Section Chief | Determined by the IC/UC, e.g.: Planning Section Chief, Documentation Unit Leader, IC, Command & General Staff, Situation Unit Leader, Technical Specialists | EOC Exec Conference Room |
| << ENTER TIME>> | Executive Briefing | PG&E is in a steady-state active restoration and response. This is a Line of Business call where each LOB provides a brief update of assessment, impact, limitations. | Director, EP&R | Executive Team, Director, EP&R | Call |
| << ENTER TIME>> | EOC Staff Briefing – Night Shift | Provide objectives, activities and safety to next shift | EOC Commander, Safety Officer | EOC Staff | Main EOC Floor |
| << ENTER TIME>> | EOC Operational Update Call | See above | See above | See above | Call |
| << ENTER TIME>> next day (subject to change) | EOC Validation Call | Confirm if the plan is still valid or if changes still need to be made | Planning Section Chief | Section Chiefs: Operations, Planning, Logistics Unit Leaders: Resource Management Situation Regions: Electric REC ICs and Logistics Leads | Call |

F.2.2 Operational Period 2 and later

| Meeting Schedule (commonly held meetings are included) | | | | | |
|--|---|---|-------------------------------|---|---|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees | Call / Location |
| Steady State | | | | | |
| << ENTER TIME>> | Operational Period Begins | | | | |
| << ENTER TIME>> | EOC Operational Briefing – Day Shift | Provide objectives, activities, and safety to next shift. | EOC Commander, Safety Officer | EOC Staff | EOC Main Room |
| << ENTER TIME>> | EOC Command Call & General Staff Meeting | IC gives direction to Command & General staff, including incident objectives and priorities. This is also a Line of Business call where each LOB provides a brief update of assessment, impact, limitations. | Deputy EOC Commander | EOC Commander, Command Staff, General Staff Section Chiefs, Technical Specialists as needed and Documentation Unit; COMPANY LEADERSHIP optional | EOC Exec Conference Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Operations Call | Operations status, resource plan, mutual assistance. | Operations Section Chief | EOC Operations and Logistics; Regional ICs, System Operations, Restoration, Transmission, Substation | EOC Operations Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | Company Leadership Call (Level 4/5) | This is a Leadership) call where the executives are informed of the current situation and consulted with, as needed. | Director, EP&R | Executive Team members (Presidents, SVPs, VPs, Chief Risk and Audit Officer, General Counsel), Director, EP&R | EOC Exec Conference Room and Call <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Supply Chain Logistics Call | Logistics team discusses material and other resource needs for the next Operational Period to support tactics. | Logistics Section Chief | EOC Logistics, Electric REC and GEC Logistics, MTCC Logistics, Base Camp Logistics | EOC Meeting Room <<ENTER CONFERENCE CALL # AND CODE>> |

| Meeting Schedule (commonly held meetings are included) | | | | | |
|--|---|---|---|--|--|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees | Call / Location |
| | | (Not crew movement.) | | | |
| << ENTER TIME>> | EOC Objectives Meeting | Review priorities, limitations and constraints. Review EOC objectives for the next operational period. | EOC Commander or Planning Section Chief | EOC Commander, Planning Section Chief, Operations Section Chief | EOC Exec Conference Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Operations Call (can be combined with Tactics Meeting) | Operations status, resource plan, mutual assistance. | Operations Section Chief | EOC Operations and Logistics; Regional ICs, System Operations, Restoration, Transmission, Substation | EOC Operations Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Tactics Meeting | Discuss crew and other resource needs for the next Operational Period. Develop/review primary and alternate strategies to meet Incident Objectives for the next Operational Period. | Operations Section Chief | EOC Staff: Operations Section Chief, Planning Section Chief, Logistics Section Chief, Resource Management Unit Leader, Advanced Planning Unit Leader | EOC Operations Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Supply Chain Logistics Call | Logistics team discusses material and other resource needs for the next Operational Period to support tactics. (Not crew movement.) | Logistics Section Chief | EOC Logistics, Electric REC and GEC Logistics, MTCC Logistics, Base Camp Logistics | EOC Meeting Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Command Call & General Staff Meeting | IC gives direction to Command & General staff, including incident objectives and priorities. | Deputy EOC Commander | EOC Commander, Command Staff, General Staff Section Chiefs, Technical Specialists as needed and Documentation Unit | EOC Exec Conference Room <<ENTER CONFERENCE CALL # AND CODE>> |

| Meeting Schedule (commonly held meetings are included) | | | | | |
|--|--|--|-------------------------------|--|---|
| Time | Call / Meeting Name | Purpose | Facilitator | Attendees | Call / Location |
| << ENTER TIME>> | EOC Planning Meeting | Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period. | Planning Section Chief | Determined by the IC/UC. Often included: Planning Section Chief, IC, Command and General Staff, Situation Unit Leader, Documentation Unit Leader, Technical Specialists, as needed | EOC Exec Conference Room <<ENTER CONFERENCE CALL # AND CODE>> |
| << ENTER TIME>> | EOC Staff Briefing— Night Shift | Provide objectives, activities, and safety to next shift. | EOC Commander, Safety Officer | EOC Staff | EOC Main Room |
| << ENTER TIME>> | Leadership Call (Level 4/5) | This is a Leadership) call where the executives are informed of the current situation and consulted with, as needed. | Director, EP&R | Executive Team members (Presidents, SVPs, VPs, Chief Risk and Audit Officer, General Counsel), Director, EP&R | EOC Exec Conference Room and Call <<ENTER CONFERENCE CALL # AND CODE>> |
| Approved By: | | | | Date/Time: | |

F.3 ICS 230A – EOC Report Schedule

| Sample EOC Report Schedule | | | | |
|---|---|---|---|--|
| Date/Time | Report Name | Purpose | Responsible | Send to |
| As needed | Summary Report | Provides data on customers impacted, restored & remaining | Situation Unit Leader | EOC Command & General Staff |
| << ENTER TIME>> | Weather Forecast Sent | Provide a snapshot in time of the current count & information | Technical Specialist – Weather | EO EOC Out |
| ~ 1 hr. after activation | Initial EOC Action Plan | Contains objectives reflecting incident strategy, actions & supporting information for the next operational period | Documentation Unit Leader | EO EOC Out Gas South Out Gas North Out |
| << ENTER TIME>> | Restoration Work Plan Update Report | Contains crew staffing plan for the next operational period | Advanced Planning Unit Leader | IC & Resource Management & Documentation Unit Leaders |
| << ENTER TIME>> | EOC Intelligence Summary Report | Provides a snapshot in time of the current situation status | Situation Unit Leader | Documentation Unit Leader |
| << ENTER TIME>> | Weather Forecast Sent | Provide a snapshot in time of the current information | Technical Specialist – Weather | EO EOC Out |
| << ENTER TIME>> | Restoration Work Plan (if there are significant changes) | Contains updates, if any, to the crew staffing plan for next operational period | Advanced Planning Unit Leader | IC & Resource Management & Documentation Unit Leaders |
| << ENTER TIME>> | Draft EOC Action Plan for next Op Period | Contains objectives reflecting incident strategy, actions, & supporting information for the next operational period | Documentation Unit Leader | IC & Planning Section Chief, Documentation Unit Leader |
| << ENTER TIME>> | EOC Intelligence Summary Report | Provides a snapshot in time of the current situation status | Situation Unit Leader | Documentation Unit Leader |
| << ENTER TIME>> | EOC Action Plan Draft for next Op Period Approved | Contains objectives reflecting incident strategy, actions, & supporting information for the next operational period | Documentation Unit Leader, IC, Planning Section Chief | IC, Planning Section Chief |
| << ENTER TIME>> | Weather Forecast Sent | Provide a snapshot in time of the current count and information | Technical Specialist – Weather | EO EOC Out |
| << ENTER TIME>> | Final EOC Action Plan for Op Period Sent | Contains objectives reflecting incident strategy, actions, & supporting information for the next operational period | Documentation Unit Leader | EO EOC Out Gas South Out Gas North Out |
| Approved by: (EOC Commander or Planning Section Chief) | | | Date/Time: | |

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Appendix G. Mobile Command Vehicles

A Mobile Command Vehicle (MCV) is a specialized vehicle that can be deployed to and stationed at the scene of an emergency for one or more days. The MCV can act as an incident command post (ICP) or an emergency center if warranted. MCVs help facilitate communication between response crews, command staff and government agencies. Fleet Services (FS) and IT personnel work together to ensure that the MCVs operate properly.

FS personnel:

- Who are properly licensed are the only authorized drivers⁵²
- Remain with the MCV until the emergency is over or they are relieved by other TS personnel
- Are responsible for setup, take down and performance management of the generating equipment while the MCV is operating

IT personnel:

- Operate and troubleshoot issues with MCV computers, communication and peripheral equipment

G.1 MCV Requests

G.1.1 During an Emergency Incident

To request an MCV during or in support of an impending emergency event:

- Contact the EOC On-call Coordinator [REDACTED]
- Press option 1 for Electric or 2 for Gas or 3 for Power Generation

G.1.2 Non-Emergency Incident

To request an MCV to support a non-emergency event such as emergency exercises, demonstrations and public awareness events during non-emergency activations:

- Submit an online reservation at <http://www/MCV/Reservations/Default.aspx>
- **At least five (5) working days before the event date**

⁵² California class "A" driver's license is required to drive a Commander and a California class "C" driver's license is required to drive a Sprinter.

- Non-emergency events may be cancelled, and vehicles may be redeployed in response to an emergency need

G.2 MCV Specifications

G.2.1 Type I MCV Commander

Commander’s vehicle is shown in Figure 11-9; specifications listed in Table 11-6.

Figure 11-9: Commander Mobile Command Vehicle (MCV)



Table 11-6: Commander Specifications and Features

| Category | Specifications / Features | |
|--|---|-----------------|
| Vehicle ID | Fresno B26034 | Davis B26034 |
| Quantity | 2 | |
| Use | <ul style="list-style-type: none"> • Medium - long duration incidents • Personnel near the emergency site | |
| Length/Width/Height (L/W/H) | <ul style="list-style-type: none"> • 39' L • 8.5' W (add 10' on passenger side for awning and slide-outs and add 5' on driver side for slide-outs) • 13.6' H outside clearance needed; 7' H inside | |
| Fuel Capacity | 80 gallons | |
| Run Time for Generator Under Full Load | 96 hours (assuming full tank of fuel, when parked on level ground) | |
| Workstations | <ul style="list-style-type: none"> • 12 Dell laptops, docking stations, external keyboards and mice • 1 Dell desktop, keyboard and mouse • 7 H-P monitors | |

| Category | Specifications / Features |
|--------------------|---|
| TVs and DVD Player | <ul style="list-style-type: none"> • 1 LCD television (42") • 2 LCD televisions (32 ") • 6 LCD televisions (26 ") • 1 Blu-ray DVD player |
| Phones and Radios | <ul style="list-style-type: none"> • 12 Yealink Enterprise SIP-T20P VoIP phones • 1 satellite phone • 5 Verizon mobile phones • 5 AT&T mobile phones • 2 Kenwood radios • 1 Tait radio • Raytheon ACU 2000IP controller • Wireless access point (WAP) • 1 Polycom conference phone |
| Other | <ul style="list-style-type: none"> • 1 plotter • 1 printer/scanner/fax • 1 conference table • 3 roof-mounted HVAC units • 1 refrigerator • 1 toilet • 2 sinks |

G.2.2 Type II Lieutenant (Lt.) MCV Commander

The Type II MCV Lieutenant (Lt.) Commander is a smaller version of the Commander (Figure 11-10); specification listed in Table 11-7.

Figure 11-10: Type II Lieutenant MCV Commander



Table 11-7: Lieutenant Commander Specifications and Onboard Features

| Category | Specifications / Features |
|--|--|
| Vehicle ID | B33896-SLO |
| Length/Width/Height (L/W/H) | <ul style="list-style-type: none"> • 30' L • 8.5' W (add 10' on passenger side for awning and slide-outs and add 5' on driver side for slide-outs) • 13.6' H outside clearance needed; 7' H inside |
| Fuel Capacity | 80 gallons |
| Run Time for Generator Under Full Load | 96 hours |
| Workstations | <ul style="list-style-type: none"> • 2 Dell laptops • 5 monitors • 1 Dell desktop |
| TVs and DirecTV Service | <ul style="list-style-type: none"> • 2 LCD televisions, one at the conference table and one mounted outside • 3 LCD televisions (42", 32", and 24") • DirecTV Service |
| Phones and Radios | <ul style="list-style-type: none"> • 10 Yealink VoIP phones • 1 Iridium Integrated satellite phone • 5 Verizon mobile phones • 5 AT&T mobile phones • 2 Kenwood VHF radios • 2 Tait UHF radios • Raytheon ACU 2000IP audit control unit |

| Category | Specifications / Features |
|----------|--|
| | <ul style="list-style-type: none">• 1 Wireless access point (WAP)• 1 Verizon MiFi• 1 AT&T MiFi• 1 Polycom conference phone |
| Other | <ul style="list-style-type: none">• 1 plotter• 1 printer/scanner/fax• 1 conference table• WTI Sidewinder HD PTZ Camera• Wilson Cellular Amplifier• 3 roof-mounted HVAC units• 1 refrigerator• 1 toilet• 1 sink |

G.2.3 Type III MCV Sprinter

Figure 11-11: Type III MCV Sprinter



Table 11-8: Sprinter Specifications and Features

| Category | Specifications | | | |
|--|--|----------------------|--------------------|--------------------|
| Vehicle ID | San Francisco B26036 | Santa Rosa B26037 | San Jose B26038 | San Jose B26038 |
| Quantity | 4 | | | |
| Use | <ul style="list-style-type: none"> • short-duration incidents • fewer capabilities than the Commander • personnel near the emergency site | | | |
| Length/Width/Height | <ul style="list-style-type: none"> • 24' L • 6.6' W (add 10' on passenger side for awning and add 10' on driver side for data and phone jacks) • 10'6" H outside clearance needed (25' H outside clearance needed if deploying the cell/UHF antenna); 6.5' H inside | | | |
| Fuel Capacity | 26.4 gallons | | | |
| Run Time for Generator under Full Load | 48 hours (assuming full tank of fuel, when parked on level ground) | | | |
| Workstations | <ul style="list-style-type: none"> • 2 laptops, external keyboards, mice and laptop stands • 1 desktop, wireless keyboard and mouse • 1 H-P LCD monitor | | | |
| TVs | 1 LCD television | | | |

| Category | Specifications |
|-------------------|---|
| Radios and Phones | <ul style="list-style-type: none">• 5 Yealink Enterprise SIP-T20P VoIP phones• 1 satellite phone• 5 Verizon mobile phones• 5 AT&T mobile phones• 2 Kenwood radios• 1 Tait radio• Raytheon ACU 2000IP controller• Wireless Access Point (WAP) |
| Other | <ul style="list-style-type: none">• 1 plotter• 1 printer/scanner/fax• 1 roof-mounted HVAC unit |

G.2.4 Emergency Communications Trailer MCV

Figure 11-12: Emergency Communications Trailer MCV



Table 11-9: Emergency Communications Trailer Specifications and Features

| Category | Specifications | | | |
|-------------------|--|----------------------|-------------------|--------------------|
| Vehicle ID | Marysville B24599 | Santa Rosa B27825 | Salinas B27824 | Stockton B24600 |
| Quantity | 4 | | | |
| Radios and Phones | <ul style="list-style-type: none"> • 150 MHz repeaters/radios • 450 MHz repeaters/radios • Multi-band radio scanner • Future expansion to cell or satellite communications | | | |

Appendix H. Phonetic Alphabet and 3-Way Communication

H.1 Phonetic Alphabet

What It Is

The phonetic alphabet specifies a word for each letter of the English alphabet. By using a word for each letter there is less chance that the person listening will confuse the letters. For example, some letters sound alike when spoken and can easily be confused, such as “D” and “B.” Using the phonetic alphabet, “Delta” and “Bravo” are more easily differentiated. The effects of noise, weak telephone or radio signals and an individual’s accent are reduced using the phonetic alphabet.

People use the phonetic alphabet and unit designators when describing unique identifiers for specific components. When the only distinguishing difference between two component labels is a single letter, then the phonetic alphabet form of the letter should be substituted for the distinguishing character. For example, 2UL-18L and 2UL-18F would be stated, “two UNIFORM LIMA eighteen LIMA” and “two UNIFORM LIMA eighteen FOXTROT.” Using the phonetic alphabet is unnecessary when using standard approved acronyms, such as “RHR” (residual heat removal).

When communicating operational information important to safety, people can use key words to convey specific meanings. For instance, individuals use the term “STOP” to terminate, immediately, any action or activity to avoid harm. “CORRECT” confirms understanding. “WRONG” conveys an incorrect understanding of the meaning of the intended message. Similarly, other words can be reserved for special meanings related to the organization’s operational activities.

Why It Is Important

Several letters in the English language sound alike and can be confused in stressful or noisy situations.

When to Apply

- When communicating alphanumeric information related to plant equipment noun names
- When the sender or receiver might misunderstand, such as sound-alike systems, high noise areas, or poor reception during radio or telephone communications

How to Do It

| Letter | Word | Letter | Word | Letter | Word | Letter | Word |
|--------|---------|--------|----------|--------|---------|--------|---------|
| A | Alpha | H | Hotel | O | Oscar | V | Victor |
| B | Bravo | I | India | P | Papa | W | Whiskey |
| C | Charlie | J | Juliet | Q | Quebec | X | X-ray |
| D | Delta | K | Kilo | R | Romeo | Y | Yankee |
| E | Echo | L | Lima | S | Sierra | Z | Zulu |
| F | Foxtrot | M | Mike | T | Tango | | |
| G | Golf | N | November | U | Uniform | | |

Coaching Tips

Observers should coach on the following attributes if they are not adequately demonstrated:

- Use phonetics for equipment labels, channels, safeguard trains or electrical phases
- Use specific or standard terms and avoid slang terminology
- Use a standard list of accepted acronyms and abbreviations
- Avoid similar-sounding words that have different meanings, (e.g., increase and decrease)
- Avoid using phonetic words other than those designated

H.2 Three-Way Communication

What It Is

The three-way communication technique is a human performance tool that helps ensure personal and public safety by promoting a reliable transfer of information and understanding, with the goal of ensuring the correct action (State, Repeat, Confirm). The person originating the communication is the sender and is responsible for enunciating and verifying that the receiver understands the message, as intended. The receiver restates or paraphrases his understanding of the message and repeats it back to the speaker for verification. The sender acknowledges that what the receiver heard and restated is correct.

For example: first, the sender gets the attention of the receiver and clearly states the message. Second, the receiver repeats the message in a paraphrased form, which helps the sender know if the receiver understands the message. The receiver restates equipment-related information exactly as spoken by the sender. Third, the sender confirms the message is properly understood or corrects the receiver and restates the message.

The weakest link of a communication is often the third leg because the sender may assume the receiver heard the message. If unclear, the receiver should ask for clarification, confirmation, or repetition of the message. If practical, it is helpful to support three-way communication with other information aids, such as procedures, work packages and indicators.

Why It Is Important

Three-way communication is used to promote a reliable transfer of information and understanding, with the goal of helping to ensure correct action.

When to Apply

Consider using three-way communication in verbal conversations involving:

- Operation or alteration of plant equipment
- Condition of plant equipment or the value of an important parameter
- Performance of steps or actions using an approved procedure
- Task assignments that impact plant equipment or plant activities
- Safety of personnel, the environment, or the planet

Coaching Tips

Observers should coach on the following attributes if they are not adequately demonstrated:

- Sender uses the receiver's name to get receiver's attention
- Sender speaks facing the receiver or makes eye contact when it is practical to do so
- Sender takes responsibility for what is said and heard
- Sender and receiver state their names and locations when using a telephone or radio
- Sender waits to communicate with someone already engaged in another conversation
- Sender states a manageable amount of information in one message and uses several messages to convey multiple actions
- Sender provides enough information to allow the receiver to understand the message
- Sender verifies that receiver understood the message
- Receiver is not reluctant to ask for clarification of the message
- Receiver permits communication to complete before taking action

- Receiver writes the message on paper when there are more than two items to remember
- Receiver is only given information related to the immediate task
- Receiver is mentally focused with the task at hand
- Workers do not overuse the tool for non-operational communications
- Workers use three-way communication regardless of expediting the task
- Messages are stated loudly enough to be heard
- Workers enunciate words clearly
- Workers are cognizant of miscommunication conflicts that can develop between what is said (content) and how it is said (feelings)

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| California Energy Commission | 8, 1 | CSO | 3, 5, 8, 6, 2 |
| California Independent System Operator | 5, 8, 1 | CUEA | 7, 1, 2, 7, 8, 17, 2 |
| CAISO..... | 4 | customer | 10, 6, 5, 10, 5, 1, 3, 7 |
| California Utilities Emergency Association | 1, 2, 8, 17, 2 | Customers | 9, 8, 6, 1 |
| (CUEA) | 7 | Customer Strategy Officer | 3, 5, 2, 10, 6 |
| call-out | 4 | CWSP | 2 |
| Cal OES | 22, 7, 8, 1 | cyber | 7 |
| catastrophic incident | 1 | Cybersecurity | 10, 11, 7, 8, 2, 9 |
| CBO | 1 | DCC | 3, 2 |
| CCECC | 5, 1, 5 | Demobilization | 6, 20, 11, 12, 18, 19, 2, 15, 14, 2 |
| CDPH | 1 | Demobilization Unit | 20, 12, 19, 2, 14, 2 |
| | | Department of Energy | 2 |

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| Department of Homeland Security | | Environmental Protection Agency | 3 |
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| Department of Transportation | | EOC5, 7, 11, 16, 17, 3, 7, 13, 1, 5, 1, 2, 4, 5, 8, | |
| DOT | 8 | 9, 10, 12, 20, 23, 24, 25, 26, 3, 5, 6, 7, 3, 5, 1, | |
| Deputy IC | 16, 4, 2, 3 | 5, 6, 7, 9, 11, 16, 1, 2, 3, 4, 6, 3, 12, 1, 3, 6, 1, | |
| DHS | 2 | 2, 4, 5, 6, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, | |
| Diablo Canyon | 8, 14, 10, 4, 6, 5, 2, 1 | 14, 15, 1 | |
| Diablo Canyon Power Plant | | EOC Commander17, 2, 6, 2, 6, 4, 6, 5, 9, 10, 11, | |
| DCPP | 14, 12, 5, 6, 4 | 12, 13, 14, 15 | |
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| DOT | 6, 7, 8, 7, 2 | FCC | 24, 5, 3, 5 |
| DSR | 2 | Federal Bureau of Investigation | 8, 3 |
| Dual Commodity | 4, 8 | Federal Emergency Management Agency | 3 |
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| 12, 13, 1 | | Finance and Administration | 1, 3, 26 |
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| EMC | 2 | Forestry and Fire Protection | 1 |
| Emergency Communications Annex | 1, 2, 5 | FSCC | 3 |
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| Emergency Support Functions | | 5, 3, 1, 15, 1 | |
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| HBPP | 12 | Mobile Command Vehicle | 4 |
| I&I, 13, 16, 17, 4 | | MTCC | 7, 16, 5, 11, 12, 13 |
| IC Commander | 16 | Mutual Assistance | 6, 1, 2, 11, 12, 16, 17, 18, 4, 5, 6, 7 |
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| ICS 214 | 23 | National Infrastructure Protection Plan | |
| ICS Fundamentals | 3 | NIPP | 6 |
| Incident Commander | 7, 3, 4, 2, 3, 4, 13, 11, 4, 10, 11, 12, 13, 15, 16, 3, 9, 1 | National Response Event | 5 |
| Incident Command Posts | | National Response Framework | 5 |
| ICP | 9 | National Transportation Safety Board | 5 |
| Incident Command System | 3, 6, 1, 2, 16, 4, 9, 11, 12, 13, 14, 15, 16, 17, 1 | NTSB | 8 |
| Information Technology | ix, 13, 6, 4, 1 | NERC | 7, 8, 5 |

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| NGO | 1 | PSPS | 5 |
| NIMS | 3, 1, 5, 15 | PSS | 5 |
| Nongovernmental organizations; NGO | 1 | Public Information Office | 4, 5, 14 |
| North America Electric Reliability Corporation | | Public Information Officer | 3, 4, 1, 5, 10, 6 |
| NERC..... | 7 | Public Safety Power Shutoff | |
| North American Reliability Corporation | 8 | (PSPS)..... | x, 11, 5 |
| Notification | 4, 5 | Public Safety Specialist | |
| NRC | 7, 5 | (PSS)..... | 5 |
| NRE | 5 | Public Safety Specialist Liaison | 6 |
| NRF | 5 | RAMP-UP | 5 |
| NTSB | 5 | REC | 12, 16, 2, 3, 5, 11, 12, 13 |
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| on-call | 14, 17, 3, 12, 5, 1, 3 | Resource Management Center | 6 |
| Operation | 8, 13, 14, 4, 1, 3 | RGCC | 4 |
| Operations | 6, 5, 7, 8, 6, 11, 12, 13, 14, 3, 19, 1, 4, 1, 3, 7, 8, 9, 10, 12, 13, 16, 17, 3, 4, 6, 7, 3, 1, 6, 7, 16, 1, 3, 4, 1, 2, 3, 5, 6, 9, 10, 12, 16, 17, 5, 1, 3, 5, 6, 7, 8, 9, 10, 13, 14, 2, 4, 5, 9, 10, 11, 12, 13 | risk | 5, 9, 10, 13, 19, 1, 15, 1, 3 |
| Operations Emergency Center | 12, 3, 11, 2, 8, 5 | RMC | 7, 6 |
| Outages | 8, 1, 3 | Rocklin Grid Control Center | |
| P&I | 17, 18 | RGCC..... | 4 |
| PG&E Corporation | 1, 16, 7 | Safety Officer | 3, 4, 6, 10, 16, 3, 7, 8, 2, 6, 10, 11, 12, 14 |
| PHMSA | 5 | San Ramon Valley Conference Center | 6 |
| Phonetic Alphabet | 1 | SEC | 7, 8, 6 |
| Physical Security | 16, 25 | Securities and Exchange Commission | 8 |
| Physical Security Unit | 16, 25 | SEMS | 3, 1, 2, 3, 6 |
| PIO | 3, 4, 5, 6, 8, 1, 2, 4, 5, 6, 5, 16, 14, 6 | SEP | 6 |
| Pipeline and Hazardous Materials Safety Administration | 5 | Service Branch | 23 |
| Planning and Intelligence | 1 | SH&C | 1, 6 |
| Power Generation | 8, 15, 9, 11, 5, 3, 1, 10, 1 | Single Command | 3, 4 |
| | | Situation Unit | 19, 3, 6, 10, 14, 2, 10, 11, 14, 15 |
| | | SO | 3, 6, 5, 14, 10 |
| | | SOC | 7, 4, 6 |

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| Sprinter | 10, 6 | Treasury | 7 |
| Stafford Act | 5 | Tsunamis | 9 |
| Staging Area | 25, 16, 6, 14, 11 | Unified Command | 3, 6, 10, 15, 17, 5, 3 |
| Standard Emergency Management System | | United States Coast Guard | |
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| Supply Unit | 24, 16, 6 | Weekly Situational Awareness Call | 7 |
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| Technical Specialists | 19, 15, 7, 10, 11, 12, 13, 14 | WECC..... | 8 |
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Exhibit B

Electric Annex and Public Safety Power Shutoff Annex



*Pacific Gas and
Electric Company*[®]

Electric Annex

to the Company Emergency Response Plan

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Document Control

Electric Operations maintains this Electric Annex. This section records the revisions made to the Electric Annex to the Company Emergency Response Plan (CERP), the responsible persons for its preparation, maintenance, review, and updates; and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|---------|
| 1.1 | | Incorporated the FEMA Comprehensive Preparedness Guide – CPG 101 into the purpose of the Annex | 6/3/21 |
| 1.4.1 | | Added title of G.O. 166 | 6/3/21 |
| 1.4.1 | | Added references and descriptions of EMER-4510S, EMER-3002P-01, and EMER-3012M. | 8/7/21 |
| 1.4.2 | | Strike current language; added descriptions of FERC, NERC, WECC, CAISO, and CPUC G.O. 166. | 5/25/21 |
| 1.5 | | In the first paragraph: removed “strives to provide” and replaced with “supports the”. Added “delivery of” and “restoration and/or”. In the second paragraph: removed “EM also serves as a liaison with public safety agencies during emergencies.” In the third paragraph: removed “ensure” and replaced with “promote”. Removed “safety”. In the fourth paragraph: added “and events through advising the principles of the Incident Command System (ICS)” to the first bullet. Removed “Trains and coordinates emergency activities with public safety agencies”. Removed “Submits plans and an annual filing to CPUC for G.O. 166” and replaced with “Support EP&R as SMEs in submission of plans and data necessary for the annual G.O. 166 filing.” | 6/2/21 |
| 1.5 | | Remove “Conducts trainings and exercises on electric emergency plans”. Added “Electric Transmission Emergency Center (ETEC), and Substation Transmission Operation Emergency Center (STOEC) personnel”. Removed “Manages” and replaced with “Promotes the use of” for ARCOS. | 6/3/21 |
| 1.6.1 | | Removed “actual” and “planned” from first bullet. | 6/3/21 |
| 1.6.2 | | Added list of emergency centers. | 8/7/21 |
| 2.1.1.1 | | Added “District Storm Room” | 5/10/21 |
| 2.1.1.2 | | Added “Operations Emergency Center” | 5/10/21 |
| 2.1.1.3 | | Added “Regional Emergency Center” | 5/10/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|---------|
| 2.1.2.1 | | Added "Electric Transmission Emergency Center" | 5/10/21 |
| 2.1.2.1 | | Changed "System Dispatch" to "Grid Control Center (GCC)" throughout section. Replaced "Western Energy Coordinating Council" to "Western Electricity Coordinating Council". Removed "In addition, the ETEC serves as a hub coordinating support between Electric Operations, Transmission Line xx, Substation(s), News, other departments, and external entities." | 3/26/21 |
| 2.1.2.2 | | Added "Grid Control Center" | 5/10/21 |
| 2.1.2.3 | | Added "Substation Transmission Operations Emergency Center" | 5/10/21 |
| 2.2.1 | | Added "and have the ability to make the hazard safe." | 4/7/21 |
| 2.2.2 | | Added "but can also be larger in size depending on the nature of the event and available staffing." Added "These crews consisting of foreman and/or linemen". | 4/8/21 |
| 2.2.3 | | Removed "Damage Assessment Crews may not be considered "qualified electric workers"; they may not have equipment, switching skills, nor training to perform this type of work." Added "Damage assessment crews are identified by the emergency centers and approved by the IC." | 8/5/21 |
| 2.2.7 | | Added "Cable Crew Foremen, Cable Spicers" | 4/8/21 |
| 2.2.8 | | Added "(commonly referred to as DO)" | 8/7/21 |
| 2.2.9 | | Removed "Ventyx" and replaced with "ABB". Added "/OMT and work 24/7, 365 days a year." | 4/7/21 |
| 2.3.1 | | Removed "oversees" and replaced with "coordinates with". | 3/26/21 |
| 2.3.2 | | Added "ETEC". Removed "System Dispatch" and replaced with "GCC" | 3/26/21 |
| 3.1.1 | | Removed "and the EOC On Call" | 6/2/21 |
| 3.1.1 | | Added "and the EMS Duty Officer" | 6/25/21 |
| 3.1.1 | | Removed "The EOC On Call" and replaced with "The EMS Team". Added "The EMS Duty Officer notifies the EOC On-Call IC of all emergency center activations Level 2 and above." Added "The electric OEC/REC IC notifies the EMS Duty Officer of all emergency center activations (including Communications Only). The EMS Duty Officer can be reached at 8-223-9999 (internal) or (415) 973-9999 (external)." | 3/26/21 |
| 3.1.1 | | Removed reference to legacy document "OEC Activation Guidelines". | 6/25/21 |
| 3.1.1 | | Removed reference to PSPS and bad weather. Replaced "following an event" with "prior to/during an event". | 7/28/21 |
| 3.1.1 | | Updated Table 3-1: Electric Incident Level Activation Matrix | |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|---|---------|
| 3.1.1 | | Updated Table 3-1: Electric Incident Level Activation Matrix. Removed "Communication Only" from Level 2 and added to Level 1. | 8/9/21 |
| 3.1.2.1 | | Added "For Level 2 activations and above, the OEC On-Call Commander may use" and added link to EMER-4510S | 6/25/21 |
| 3.1.2.1 | | Added "Sr. Director" to authorization list | 3/26/21 |
| 3.1.2.1 | | Removed "Electric Operations Director" and replaced with "Senior Manager of Electric Emergency Restoration". | 6/25/21 |
| 3.1.2.1 | | Replaced "SendWordNow" with "Everbridge" in Table 3-2 | 6/25/21 |
| 3.1.2.1 | | Revised executive leadership titles to align with current organization structure. | 4/8/21 |
| 3.1.2.1 | | Removed "in the primary facility in San Francisco, the alternate facility in San Ramon, the secondary alternate facility in Vacaville, virtually through Internet and telephone, or at some other location" and replaced with "physically (location to be determined by EOC Commander) or virtually." | 3/26/21 |
| 3.1.2.1 | | Removed "EOC On-Call" and replaced with "EOC Commander/EOC On-Call IC". | 7/28/21 |
| 3.1.2.1 | | Added "For Level 3 or greater activations" | 7/28/21 |
| 3.1.2.2 | | Added "in the EOC" and replaced "EOC, System Dispatch, or the ET" with "ETEC Lead or the ETEC Branch Director". | 3/26/21 |
| 3.1.3.1 | | Removed "On-call" and replaced with "Emergency center" | 6/25/21 |
| 3.1.3.1 | | Added link to OMT User Manual, EM Activation Screen Sample (Figure 3-1), EM Activation Screen Close Up (Figure 3-2), and list of updated areas of EM Activation Screen. | 3/26/21 |
| 3.1.3.1 | | Added "Strategy and Execution" | 6/25/21 |
| 3.1.3.1 | | Added "via EO EOC Out and EOC All Teams" | 7/29/21 |
| 3.1.3.1 | | Added "notifies the Senior Director of Distribution Grid Operations, Senior Manager of Emergency Management and Restoration, Director of Distribution Control Centers" | 8/10/21 |
| 3.1.3.2 | | Added "in the GCC" | 3/26/21 |
| 3.2.1.1 | | Added "electric" and replaced "involved with emergency response" with "with roles in emergency centers". | 6/3/21 |
| 3.2.1.2 | | Added "Emergency Center" to section title. | 3/23/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|---------|
| 3.2.1.2 | | Replaced “designated” with “Command and General Staff”. Replaced “three” with “two” and removed “All other centers are also expected to maintain three deep staffing rotations.” Removed “It is recommended to go four deep in all roles, if possible.” Added “In addition, each OEC has a designated Sister Division OEC to support any staffing deficiencies during an activation.” | 6/25/21 |
| 3.2.1.3 | | Removed “EOC personnel” and replaced with “REC and OEC personnel”. Added “Senior Directors and Superintendents of Field Operations maintain”. Added “and/or complexity”. | 6/3/21 |
| 3.2.2.1 | | Removed “EOC Commander” and replaced with “Senior Manager of Emergency Response or the Director of Emergency Preparedness and Response, Strategy and Execution” | 6/3/21 |
| 3.2.2.2.2 | | Added “PG&E Geosciences also provides notifications for debris flows and landslides. For additional information, please see the Wildfire Annex (EMER-3015M), Section 4.4.5.” | 6/23/21 |
| 3.2.2.2.3 | | Added “In accordance with General Order 166, PG&E’s Wildfire Mitigation Plan satisfies the requirement for a Fire Prevention Plan.” Removed language pertaining to PG&E Fire Index. Information can be found in the Wildfire Mitigation Plan. | 6/9/21 |
| 3.2.2.2.3 | | Removed “provides a process overview for” and added “outlines processes and commitments for”. Added reference to Public Safety Power Shutoff (PSPS) Annex (EMER-3106M). Removed second paragraph pertaining to PSPS. | 6/9/21 |
| 3.2.2.2.3 | | Added sub section on Utility Standard: Fire Danger Precautions in Hazardous Fire Areas (TD-1464S). | 7/1/21 |
| 3.2.2.2.3 | | Replaced “Fire Prevention Plan” with “Wildfire Mitigation Plan”. | 8/7/21 |
| 3.2.2.3 | | Added “supervision that supports an incident or event (field support, OEC/REC staff”. Removed “ensure that pre-designated personnel are advised and that” and replaced with “advise pre-designated personnel and take the”. | 3/29/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.2.4 | | Removed "significantly adverse". Added "indicating a Cat 3 weather event, the Senior Manager of Emergency Response will arrange the briefing to be conducted for Electric Operations. In the event we receive a weather forecast indicating a higher level complexity event" and replaced "Director of Emergency Management" with "Director of Emergency Preparedness & Response". Added "Enterprise alignment". | 6/2/21 |
| 3.2.2.5 | | Added "(e.g. PSPS, winter storms, heat events, etc.)" and "Senior Manager of Emergency Response or the Director of Emergency Preparedness & Response, Strategy and Execution". Added "based on SOPP model outputs". Removed "EOC Commander" and "and DSRs". Removed "These counts are often requested" and replaced with "Resource plans are developed". | 6/8/21 |
| 3.2.2.6 | | Removed "EOC Commander" and replaced with and "Senior Manager of Emergency Response or the Director of Emergency Preparedness & Response, Strategy and Execution". | 6/8/21 |
| 3.2.3.1 | | Removed "two". | 5/20/21 |
| 3.2.3.1.1 | | Added "Following a system-wide Electrical Disturbance, PG&E and/or the Reliability Coordinator/Balancing Authority may initiate a restoration plan. The restoration objectives and strategies are covered in PG&E's Electric System Restoration Guidelines (ESRG). The ESRG aligns with the over-arching System Restoration Plan developed by the Reliability Coordinator in accordance with NERC standard EOP-005." Edited prioritization list to align with ESRG. | 5/19/21 |
| 3.2.3.2 | | Added "Recovery – the longer term replacement of damaged infrastructure to support customer rebuild and resumption of load to serve. For additional information, reference the Disaster Rebuild Annex (EMER-3012M)" Added "REC, OEC (depended on the level of emergency)." Added footnote to reference National Incident Management System (NIMS) Doctrine. Removed "in a written plan". Added "operational period objectives" and "In alignment with the ICS construct and specifically with the planning cycle." | 6/8/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.3.2 | | Removed "Critical customers are high impact (in terms of revenue, data, potential for physical damage, etc.) or high-profile (e.g. tourist attractions, arenas, and major community, town, or city facilities). Customers apply to PG&E to be placed on the critical customer list." Replaced with "Critical Customers fall into three categories: Public Safety Impacting, Community Impacting, and Schools." | 4/13/21 |
| 3.2.3.4.1 | | Removed "ES&S" and replaced with "The Business Energy Solutions (BES) and Business Operations teams under Business Development and Customer Engagement." | 4/13/21 |
| 3.2.3.4.2 | | Removed "In localized events" and replaced with "Within Electric Operations there is a parent-child relationship between the different electric organizations as referenced above in Section 3.2.3.1.1. This relationship requires coordination of work and resource prioritization to safely and efficiently restore service to customers. In Level 2 and Level 3 events". Removed "Transmission Operations Section Chief" and replaced with "Transmission Branch within the Operations Section". Removed "Transmission Operations Chief" and replaced with "Transmission Branch Director". Removed "OEC Commander, in collaboration with" and replaced with "EOC will activate and". Removed "Operations Section Chief" and replaced with "EOC Operations Section Chief". | 6/8/21 |
| 3.2.3.5.3 | | Removed previous Section 3.2.3.5.3 Catastrophic Event Electric Damage Model (EDM). | 6/9/21 |
| 3.2.3.5.3 | | Removed "based on the damage model and epicenter of the earthquake, the STOEC Planning and Intelligence Section Chief will work with the Operations Section Chief to create an inspection list for transmission lines in the area. (For details refer to TD-1910P-01 Inspecting Electric Underground Transmission Lines After a Major Earthquake.)" Added "PG&E's Dynamic Automated Seismic Hazard (DASH) notification system will alert lines of business of the potential risk and assets that may require inspection within 15 minutes of the earthquake. More information regarding DASH and PG&E's process for earthquake response can be found in the Earthquake Annex EMER-3101M." | 6/9/21 |
| 3.2.3.5.4 | | Removed Earthquake content from section and added to Earthquake Annex (EMER-3101M). | 6/23/21 |
| 3.2.3.5.5 | | Removed "Substation personnel" and added "Make Safe and assessment). | 6/9/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.3.5.7 | | <p>Added “The job package process is a critical element of PG&E’s response to electric emergencies. The job package and job package process provides critical review steps and information to support employee and contractor safety.”</p> <p>Added “SCADA”.</p> <p>Added “make safe”.</p> <p>Removed “to the incoming assessment desk” and replaced with “via either FAS or the Inspect Application. In the event that technology is unavailable, the following information will be communicated to the incoming assessment desk”.</p> <p>Removed “if a smartphone is available.”</p> <p>Added “via phone and manually entered into OMT.”</p> <p>Added “or use OMT mobile and indicate”.</p> <p>Added “and EC Notification(s). The DSR will then review the job package for completeness and identification of any incomplete documentation (IDOC) errors.”</p> <p>Removed “and EC Notification(s) and”.</p> <p>Added “and the work location log is updated to document the return of the job package.”</p> <p>Spelled out “Public Safety & Regulatory”.</p> | 6/10/21 |
| 3.2.3.5.7 | | <p>Added “Customer online report of power outage”.</p> <p>Added “in a Trouble Report” and “OMT Trouble Reports are also generated direct from customers who report an outage via the automated phone system (IVR) or online at www.pge.com/outage.”</p> | 6/28/21 |
| 3.2.3.5.7 | | <p>Added “Job Package Cover Sheet (Form TD-2060P-01-F01)”.</p> <p>Added “Circuit Map Change Sheet (If Needed)”.</p> | 3/25/21 |
| 3.2.3.6 | | <p>Added “the first notification is through 911 and”.</p> <p>Added “PG&E provides a dedicated phone line, supported 24 hours a day 7 days a week, for public safety agencies to provide notification when they are standing by a utility emergency.”</p> | 6/15/21 |
| 3.2.3.6.1 | | <p>Removed “Gas Service Dispatch” and replaced with “Gas Dispatch”.</p> <p>Removed “asking for 911 standby relief” and replaced with “notifying PG&E they are standing by an emergency”.</p> <p>Added “Gas Dispatch sends this information to”.</p> | 6/15/21 |
| 3.2.3.6.2 | | <p>Added “make safe crew”</p> | 6/15/21 |
| 3.2.3.6.3 | | <p>Added “and PPE” to section title.</p> <p>Added “In addition to the items contained in the standby kit above, 911 standby personnel are required to wear FR clothing, and EH rated boots in alignment with PG&E safety procedures.”</p> | 6/15/21 |
| 3.2.3.6.4 | | <p>Added “to dispatch tags to 911 standby personnel”.</p> | 6/15/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.3.8.1 | | Added "Once the T-man completes their assessment, estimating develops the job package which is then assigned to a crew to repair or replace damaged infrastructure and restore customers." | 6/15/21 |
| 3.2.3.8.2 | | Added "Impact to critical and essential customers". Added "and EOC Operations Section". Removed "Strike Teams" and replaced with "make safe". Added "Rapid assessment teams/estimators assess damage or leverage assessment information to develop job packages including loading and sizing materials and equipment ." Removed "Strike Teams" and replaced with "crews". Added "and estimators" and "any of the tasks below". Added "rapid assessment team, or estimator". Added "and in alignment with estimating design when appropriate." | 6/15/21 |
| 3.2.3.8.2 | | Removed reference to Circuit-Based Structure and Strategy Guidance Document. | 8/7/21 |
| 3.2.3.8.3 | | Added "This approach leverages the scalability of ICS and positions the emergency management organization to mitigate incident complexity resulting from the overlap of geographic area responsibilities." Removed "damage model is run based on the United States Geological Survey (USGS) shake maps." Replaced with "DASH report is published within 15 minutes and provides information and estimates of damage to support assessment prioritizations. For more information on earthquake response please see the Earthquake Annex (EMER-3101M)." Removed "Refer to Figure 3.7 below for example branches for a catastrophic event and Figure 3.8 for an example area command organization structure." Replaced with "For additional information and graphical examples, please see the CERP." Removed previous Figure 3-7 Example Areas (or Branches) For a Catastrophic Event. | 6/15/21 |
| 3.2.3.8.4 | | Added "in the GCC". | 3/26/21 |
| 3.2.3.8.6 | | Removed "care". | 6/15/21 |
| 3.2.3.9 | | Removed "System Dispatcher's" and replaced with "GCC". | 3/26/21 |
| 3.2.3.9 | | Added "For additional information, please refer to PG&E's 2020 Electric Emergency Plan Revision 26.0 ." | 6/15/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.3.11 | | Removed “using the Strategic Worksheet as a tool”. Removed “Dispatch Leader” and replaced with “Operations Section Chief”. Added “supervisor in the DSR”. Removed “thoughtful”. Removed “Circuit Branch Director” and replaced with “Operations Section Chief”. Added reference and link to EMER-3002P-01. | 6/24/21 |
| 3.2.3.11 | | Removed “and will verify the ETOR with the work assignment desk” and replaced with “via Mobile Outage Dispatch Tool (ODT) or by contacting Central Dispatch. If the outage will last beyond the ETOR, crews must update the ETOR time and date.” Removed “if a proactive call from the crew is not received” and replaced with “when the ETOR reaches Yellow status (30 minutes prior to expiration).” | 8/7/21 |
| 3.2.4 | | Added “As in any work situation, but especially in an emergency event, work must be prioritized in an emergency event. These priorities, noted as the operational period objectives in the Incident Action Plan (IAP), are operationally driven and are primarily focused on restoring as many customers and responding to the emergency as safely, efficiently and quickly as possible. However, to complete the work, resources must be managed. This includes organizing, assigning, and tracking resources (personnel, equipment, materials).” | 6/21/21 |
| 3.2.4.1 | | Removed “Keeping accurate accounts of all checked-in personnel” and replaced with “Maintaining and tracking the status of all personnel through the check-in process”. Added “incident location (e.g. EOC, REC, OEC, Base Camp, Staging Area, etc.) facility. All responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander. Arriving field personnel should report to the Incident Command Post (ICP), which may be in an Emergency Center, other facility, or in the field.” | 4/30/21 |
| 3.2.4.1.1 | | Added new section. | 5/3/21 |
| 3.2.4.2.2 | | Removed “Logistics Manager” and replaced with “Resource Owner (Major Projects & Programs, Field Operations, T-line)”. Added reference and link to EMER-3002P-01. | 4/30/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.4.2.3 | | Removed "MP&P Contract Logistics Manager works with the EOC Crew Logistics Unit Leader to dispatch all contract/mutual assistance crews to local areas." Replaced with "Contract Resource Owner dispatches contract resources based on the direction of the EOC Operations Section". Removed "MP&P Contract Logistics Manager" and replaced with "Contract Resource Owner". Removed "EOC Crew Logistics" and replaced with "EOC Resource Management". Removed "MP&P" and replaced with "the Contract Resource Owner". Removed "The Operations Section in the OECs/RECs". Replaced with "the Contract Resource Owner". | 4/30/21 |
| 3.2.4.3.2 | | Removed "Refer to Section 3.2.4.2.3 for details" and replaced with "Refer to CERP Section 5.5.2.6.1 for more information." | 6/16/21 |
| 3.2.4.4 | | Removed "M&C" and replaced with "Field Ops". | 6/15/21 |
| 3.2.4.4 | | Removed "(contract crews may be used before GC Transmission Line, depending on the incident)" and replaced with "to support our emergencies". | 6/24/21 |
| 3.2.4.5 | | Removed "Director of Emergency Management" and replaced with "Senior Manager of Emergency Management". Added "when the EOC is not activated". Removed "or greater emergency" and "(Region Service Planning and Maintenance Director". Added "The on-call EOC Commander or Director of Emergency Preparedness and Response, Strategy and Execution, has the authority to move resources across region boundaries. In this case, the EOC Resource Management Unit Leader will activate to support the mobilization of resources." In second to last paragraph, changed "Level 3 or greater" to "Level 4 or greater". | 6/15/21 |
| 3.2.4.5 | | Updated Figure 3-11. | 4/28/21 |
| 3.2.4.6 | | Added "OEC" to Level 3 or greater Activation Level. | 6/24/21 |
| 3.2.4.6 | | Removed "ETEC" from Level 3 or greater Activation Level. | 3/26/21 |
| 3.2.4.7 | | Removed "ETEC" and replaced with "the EOC Electric Transmission Branch Director". | 3/26/21 |
| 3.2.4.7 | | Removed "Crew Logistics Unit Leader" and replaced with "Resource Management Unit Leader". Removed "Logistics Chief" and replaced with "Planning Section Chief". | 6/24/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 3.2.4.8.1 | | <p>Removed "If more resources are needed outside the Region, the M&C Superintendent will call the EOC On Call to request support. The EOC On Call will then engage EOC Crew Logistics Leader to facilitate meeting the request."</p> <p>Added "If more resources are needed outside the Region, the M&C Superintendent will call the EM Duty Officer to request support. The Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader."</p> | 6/24/21 |
| 3.2.4.8.2 | | <p>Added "REC" to "Resource Unit".</p> <p>Removed "contacts the EOC On Call, who will then engage the EOC Crew Logistics Leader to meet the request" and replaced with "will call the EM Duty Officer to request support. The Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader."</p> <p>Removed "resources are needed outside the region" and replaced with "the EOC is activated".</p> <p>Removed "Crew Logistics Unit Leader" and replaced with "Resource Management Unit Leader".</p> <p>Added "personnel resource requests are validated during the daily Tactics Meeting held by the EOC Operations Section to align on system priorities and objective execution. The EOC Resource Management Unit Leader will".</p> | 6/24/21 |
| 3.2.4.9 | | <p>Added "OECs".</p> <p>Added "micro sites, and material laydown areas".</p> <p>Removed "base camps and staging areas are determined, an Electric Incident Management Team (IMT) is dispatched to each base camp to" and "An Electric Staging Area Manager, Dispatchers, Distribution Operators and support personnel are also deployed to the base camps and staging areas, as needed."</p> <p>Added "Once the request for the site is approved by the EOC commander, Operations determines the appropriate resources including personnel to dispatch to each site to".</p> <p>Removed "staging areas" from second paragraph.</p> <p>Added "and material laydown areas" to third paragraph.</p> | 5/10/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 4.1.1 | | Removed "reporting" and replaced with "planning". Removed "Emergency Management Director" and replaced with "Senior Manager of Emergency Response during a system level 3 or Director of Emergency Preparedness and Response, Strategy and Execution, during a system level 4 or 5". Added "A pre-event Director Alignment Call is held between 48 and 72 hours prior to the forecasted weather impact. The intent of this call is to align the lines of business for a safe, effective, and coordinated response." | 6/25/21 |
| 4.1.2 | | Added new section, "Electric Distribution Operations Daily Briefing". | 4/27/21 |
| 4.1.3 | | Added "As documented in CERP Section 4, Incident Management Concepts and Guidelines, PG&E aligns its emergency preparedness and response practices with the public constructs NIMS, SEMS, and Incident Command System (ICS). One of the cornerstones of ICS is the coordination of multiple stakeholders in a single response using the concept of management by objectives. This requires a high level of coordination and situational awareness to develop a common operating picture. This is supported by using the Incident Action Plan and the Intelligence Summary, both of which support alignment of members of the incident management team and key supporting stakeholders." Removed reporting schedules language. Added "During a Level 1 and Level 2 not exceeding one operational period, an oral IAP may be used." Added "During a Level 2 or greater and exceeding one operational period a written IAP must be developed and disseminated." Removed "EOC Operations Chief and P&I Section Chief" and replaced with "EOC Situation Status Unit". Added "During a Level 2 or greater, an Intelligence Summary must be developed and disseminated." | 6/25/21 |
| 4.1.3 | | Removed "artifacts" and replaced with "documentation". Removed "situation reports". | 8/7/21 |
| 4.1.4 | | Changed section title and aligned content with CERP Appendix Section E.1.2, Initial Executive Briefing . | 8/23/21 |
| 4.1.5 | | Removed "Report" and replaced with "Spreadsheet" for entire section. Added "and maintained by". Removed "updated by both ETEC and" and replaced with "shared with". | 3/26/21 |
| 4.1.6.1 | | Added "Application for Work" | 4/23/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 4.1.6.2 | | <p>Removed “or Transmission Management System” and “system dispatchers and transmission system operators”. Replaced with “Grid Control Center (GCC)”.</p> <p>Removed “Primate is a real time mapping tool which uses and reads information from SCADA and TMS. It contains a situational awareness display and operational detail display.”</p> <p>Removed “RMT (Reliability Messaging Tool) is a data messaging system used to convey information related to WECC electrical system elements including, but not limited to: informational 116 notices, outages, emergency and abnormal conditions, as well as restorations. It is used by WECC participating entities, dispatchers and network administrators, and monitored by PG&E’s System Dispatchers.” Replaced with “Grid Messaging System (GMS) is a data messaging system used to convey information related to WECC-wide events.”</p> | 3/26/21 |
| 4.1.6.2 | | <p>Removed “PI is a data historian tool that allows System Dispatchers, real time Operations Engineers, and Transmission System Operators to perform load flow analysis, monitor clearances, and view trend data.”</p> <p>Removed “TOTL (Transmissions Operations Tracking & Logging) is a web based electric transmission information management system currently used by the CAISO and our System Dispatchers and Transmission System Operators.” Replaced with “Transmission Outage Tracking and Logging Tool (TOTL) – An application used by the Transmission Grid Control Center to track and log event information that includes office items report, work cards, interruption reports, and log details and notifications.”</p> | 5/27/21 |
| 4.2.1 | | Removed title “Customer Strategy and Contact Center” and replaced with “Customer Outage Communications” | 3/30/21 |
| 4.2.1 | | Added “When available, PG&E provides situational messaging up front on the Toll Free Numbers.” | 5/14/21 |
| 4.2.1 | | In the first bullet, removed “available” and replaced with “provided”. Removed “they call about an outage” and replaced with “available”. | 3/30/21 |
| 4.2.3 | | Removed “System Dispatch” and replaced with “GCC” | 3/26/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
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| 4.2.3 | | Updated CAISO coordination language to “In Level 1 and 2 emergencies involving electric transmission, GCC is the designated PG&E single point of contact with CAISO. During any outage activity, GCC is in communication with the ISO and provides them with operational information. GCC is also in daily contact with CAISO to monitor power flows and receive clearance requests. In a Level 2 or greater emergency, the ETEC may be activated to assist GCC with transmission related outages and to facilitate communications with the CAISO. During a system-wide capacity event, the GCC receives notifications and instructions from the CAISO. Refer to Appendix P, Electric Emergency Plan (EEP) For Capacity Emergencies.” | 5/27/21 |
| 5.2 | | Added “and all applicable regulations” to the second bullet. Added “Near miss incidents” | 3/31/21 |
| 5.2 | | Removed “Vehicle Accidents” and replaced with “Preventable motor vehicle incidents (PMVIs)”. Added “Work procedure errors or human performance events” | 4/8/21 |
| 5.4 | | Added “Outbound Messaging Attempt Results” and “Customer Sentiment Data” | 3/26/21 |
| 6.1 | | Removed “and the CAISO” from the first paragraph. Removed “System” and replaced with “Grid” in second paragraph. Removed all bullets and replaced with descriptions of restoration training exercises, capacity exercises, transfers of control, and continuing education. | 3/26/21 |
| 6.2 | | Added “The PG&E Learning Governance Committee authorized the requirement that all company emergency responders complete California Specialized Training Institute (CSTI) Type III credentialing for their assigned Emergency Operations Center (EOC) positions. Based upon the assigned emergency role in OECs and RECs, employee training should include some, or all, of the following:” Added “G-606 California Standardized Emergency Management System (SEMS) Introductory Course” Added “EPRS-9010 – Company Emergency Response Plan (CERP) is an introduction to the CERP and an overview of current-year changes” Removed “Clerical Support”. | 8/7/21 |
| 7 | | Removed “reviews” and replaced with “meetings” | 4/23/21 |
| 7 | | Added “AAMs are not conducted for Level 1 – Routine emergencies (including Communications Only activations).” | 8/10/21 |
| 7.1 | | Removed “Reviews” in title and section text and replaced with “Meetings” | 4/23/21 |
| 7.2 | | Removed “Review” in title and replaced with “Report” | 4/23/21 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|---|---------|
| 7.2 | | Removed "Director of Emergency Management" and replaced with "Senior Manager of Emergency Restoration". Added "for incorporation into plans, training, and exercises". | 8/7/21 |
| 7.3 | | Added "The length of time the company must retain records is established in the Enterprise Records Retention Schedule (ERRS), GOV-7101S, Attachment 1. | 4/8/21 |
| 7.4 | | Removed "Keeping" from title and section and replaced with "Management". | 4/8/21 |
| 7.4 | | Added "Planning Section Chiefs are responsible to:" Added "Upload documentation to the SharePoint site in the designated folders". Removed "records" and replaced with "The maintenance of accurate documentation" Added "audits, and data requests, all of which". | 8/7/21 |
| 7.5 | | Removed "time and related expenses" and replaced with "work and costs incurred in responding to emergency events". Removed "Also, the Finance and Administration Chief in the OEC shall track and maintain records of expenses associated with response and restoration. (Refer to PG&E's records retention policy for more details.)" Replaced with "All charging should be consistent with the Electric Major Event Charging Guidelines." | 3/31/21 |
| 7.6 | | Removed prior language, added current language. | 7/2/21 |
| C.1 | | Removed content. Replaced with "The OEC, REC, and EOC Activation/Deactivation Checklists are under development." | 5/24/21 |
| C.2 | | Removed content. Replaced with "Emergency center, alternate locations, and contact information lists are under development." | 5/24/21 |
| C.4 | | Removed link. Replaced with "Under development." | 5/24/21 |
| C.7 | | Removed link. | 5/24/21 |
| C.8 | | Removed content. Replaced with "ICS position checklists for Command and General Staff are under development." | 5/24/21 |

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Change Request Form

To request changes, corrections, or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of [EMER-2001S-F01](#), Change Request Form, to EPRCERP@pge.com. [EMER-2001S-F01](#) is located on the Guidance Document Library (GDL):



Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once the Bulletin is communicated, a copy will be placed under the respective Annex located in the GDL and be included as content in the next Annex update.

1 Introduction

1.1 Purpose of Annex

The Electric Annex provides an outline of Pacific Gas and Electric Company's (PG&E's) electric emergency management organizational structure, roles, and responsibilities, and describes the activities undertaken in response to electric emergency outage situations.

The Annex is a key element to ensure the company is prepared for emergencies to minimize damage and inconvenience to the public, which may occur because of:

- Electric system failures
- Major outages
- Hazards posed by damage to electric facilities

The Electric Annex's purpose is to execute all phases of the preparedness cycle (see [Figure 1-1](#)) ([Federal Emergency Management Agency \(FEMA\) Comprehensive Preparedness Guide – CPG 101](#))¹ within Electric Operations, including to:

- Serve as the response and recovery plan to govern electric operations during emergency incidents and events
- Guide the development of an overall strategy for managing a response
- Educate and train the electric emergency center personnel and key stakeholders on how to execute the plan
- Provide the foundation for annual drills and exercises to test the organization's ability to execute electric emergency response
- Facilitate execution of the after-action process in order to continuously improve response execution.

¹ https://www.fema.gov/sites/default/files/2020-05/CPG_101_V2_30NOV2010_FINAL_508.pdf

Figure 1-1: Preparedness Cycle



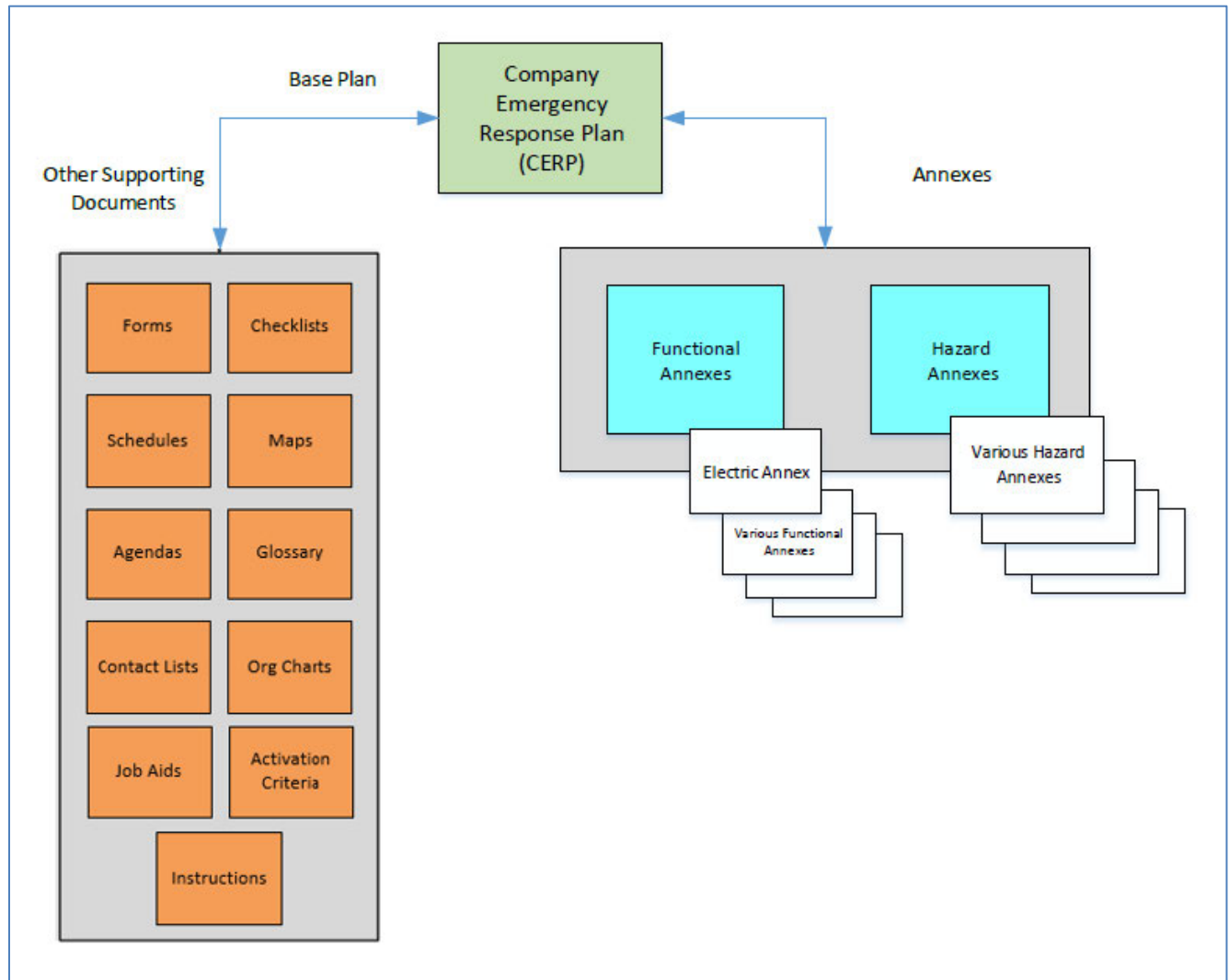
1.2 Scope

The scope of the Annex includes emergency response and restoration activities for electric distribution, transmission, and substation operations.

1.3 Electric Annex Overview

The Electric Annex is a functional annex to the Company Emergency Response Plan (CERP). Figure 1-2 illustrates the relation between this Annex, the CERP, other annexes, and supporting documents. The following is not an all-inclusive list.

Figure 1-2: Electric Annex Relation to CERP and Supporting Documents



1.4 Regulations and Authorities

This Annex, as part of the CERP, complies with the regulations and authorities listed below.

1.4.1 Electric Distribution

California Public Utility Commission ([CPUC](https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html)) [General Order Number 166 \(G.O. 166\) Standards for Operation, Reliability, and Safety During Emergencies and Disasters](https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html)² helps ensure that electric utilities are prepared for emergencies and disasters to minimize damage and inconvenience to the public, which may occur because of electric system failures, major outages, or hazards posed by damage to electric distribution facilities.

Standard one of G.O. 166 states the utility prepares an emergency response plan setting forth anticipated responses to emergencies and major outages. It indicates the plan should

² https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html

help to ensure the utility is best able to protect life and property during an emergency or major outage and communicate the scope and expected duration of an outage. The required plan elements outlined in Standard one are included in PG&E’s Company Emergency Response Plan (CERP) and Annexes.

[Operations Emergency Center \(OEC\) Activation Requirements Standard \(EMER-4510S\)](#)³ defines PG&E’s OEC activation criteria, as well as the key roles and responsibilities for proactively managing customer restoration and communication, accelerating PG&E’s response time to emergency events, and reducing subjectivity in the decision-making process.

[Electric Operations Estimated Time of Restoration Procedure \(EMER-3002P-01\)](#)⁴ provides our customers validation that PG&E is aware of a service interruption, is responding to the outage, and to provide an initial estimation of when service will be restored.

The [Disaster Rebuild Annex \(EMER-3012M\)](#)⁵ is a comprehensive repository of plans, procedures, processes, and activities suggested for rebuilding and recovering, including restoring significantly interrupted services caused by disasters, such as wildfires or earthquakes.

The [Electric Emergency Plan \(EEP\) for Capacity Emergencies](#)⁶ describes the actions PG&E will take upon receiving orders from the CAISO to address electric supply and/or capacity shortages.

1.4.2 Electric Transmission

Federal Energy Regulatory Commission (FERC) regulates the transmission and wholesale sale of electricity. FERC oversees North American Electric Reliability Corporation (NERC) in the United States. FERC has delegated to NERC the authority to create and enforce compliance with Reliability Standards.

NERC establishes and enforces Reliability Standards which define the mandatory reliability requirements for planning and operating the North American Bulk Power System. NERC works closely with six regional reliability organizations (RRO) and has delegated each RRO specific authorities and responsibilities, as approved by FERC, to enforce NERC and regional reliability standards, and perform other standards-related functions assigned by NERC. NERC oversees the RROs in this role to ensure consistency of delegated functions

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[Redacted]

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[Redacted]

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⁶ Pe [Redacted]

across North America, while allowing for an appropriate degree of flexibility to accommodate regional differences.

Western Electricity Coordinating Council (WECC) is one of the six RROs in the United States with delegated authority to create, monitor and enforce mandatory reliability standards within its' geographical area known as the Western Interconnection through a Delegation Agreement with NERC.

California Independent System Operator (CAISO) and RC West are registered with NERC to perform specified reliability functions which align to the mandatory requirements of the reliability standards. The CAISO is registered as a Balancing Authority (BA), Reliability Coordinator (RC), Transmission Operator (TOP) and Transmission System Provider (TSP). As a registered BA and RC, the CAISO must coordinate with other registered entities in their territory on several of the reliability standards.

PG&E is registered with NERC for specified reliability functions that align with its' business operations and meet or exceed the mandatory requirements of the reliability standards. PG&E's NERC registrations include Distribution Provider (DP), Generator Owner (G.O.), Generator Operator (GOP), Resource Planner (RP), Transmission Owner (TO), Transmission Operator (TOP), and Transmission Planner (TP). PG&E is one of several registered entities required to coordinate with the CAISO and other registered entities within the Western Interconnection.

CPUC G.O. 166 standards are applicable to Electric Transmission when unplanned outages may cause damage to transmission lines or substations due to events such as storms, fires, accidents, or terrorism. Rotating outages may be planned and utilized on rare occasions to reduce demand and prevent uncontrolled spread of outages when power supply is inadequate.

1.5 Role of Electric Emergency Management and Preparedness

Electric Operations Emergency Management (EM) supports the safe, efficient, and affordable delivery of electric service to the customers of our electric infrastructure and our communities.

To support the recovery of our communities, EM works with the lines of business and other leaders across Electric Operations to develop and recommend a strategic direction for electric emergency preparedness, emergency response and public partnerships. The team is involved in the implementation of emergency plans & processes, training, emergency exercises/drills, communication, and incident management.

In addition, the team helps promote compliance with company and regulatory policies and practices, as well as continually identify and promote continuous improvement opportunities.

Electric Operations EM:

- Responds to emergency centers and supports electric emergency incidents and events through advising the principles of the Incident Command System (ICS).

- Facilitates emergency response and business continuity planning; maintains related documents, such as the Electric Annex, Electric Emergency Plan for Capacity Emergencies, and business continuity plans
- Conducts trainings and exercises to ensure the readiness of Regional Emergency Center (REC), Operations Emergency Center (OEC), Electric Transmission Emergency Center (ETEC), and Substation Transmission Operation Emergency Center (STOEC) personnel
- Conducts performance monitoring of key operations and reliability metrics
- Supports Emergency Preparedness and Response (EP&R) as subject matter experts (SMEs) in submission of plans and data necessary for the annual G.O. 166 filing and other data requests
- Promotes the use of the Automated Roster Callout System (ARCOS), an automated callout and scheduling system that Pacific Gas & Electric (PG&E) uses to assemble and track first responders and repair crews
- Distributes hard copies of the Electric Annex to all applicable facilities

More information about EM is available on the [EM website](#)⁷.

1.6 Annex Maintenance

1.6.1 Annex Development and Updates

The Emergency Preparedness and Response (EP&R) Department is responsible for developing, updating, and maintaining the Company Emergency Response Plan (CERP).

CPUC General Order (G.O.) 166 Standard 1D states: The plan shall be updated annually to incorporate changes in procedures, conditions, law or Commission policy. The utility shall submit plan updates as part of the annual report required by Standard 11.

The Electric Annex will be reviewed and revised, as necessary, on an annual basis and submitted to EP&R by end of the Second Quarter (Q2) each year per the [Company Emergency Response Standard \(EMER-2001S\)](#).⁸ Electric Distribution Emergency Management will initiate the process, in collaboration with Electric Transmission Emergency Management, and will engage the support of departments with relevant responsibilities in this plan.

The Electric Annex may be modified due to:

- Lessons learned from exercises, incidents, and events.
- Key changes to emergency response processes, structure, responsibilities, assessment/restoration strategies, etc.

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- Feedback generated by PG&E subject matter experts, planning team, internal and external key stakeholders, and users of the annex.
- Changes to laws or regulations pertaining to electric operations emergency management.

Each revision of the annex will be approved by the Vice President of Electric Distribution Operations and the Vice President of Electric Transmission Operations. Records of revisions to the Electric Annex will be maintained in the change register at the beginning of this document.

Those departments having assigned responsibilities under this annex are obligated to inform Electric Distribution Emergency Management when organizational or operational changes affecting this plan occur or are imminent.

1.6.2 Annex Distribution

The Electric Annex is distributed to the Senior Vice President of Electric Operations and specific leadership positions in Electric Transmission, Electric Distribution, and various support organization leaders. Hard copies can be found in each emergency center location, including:

- Operations Emergency Centers (OECs)
- Regional Emergency Centers (RECs)
- Emergency Operations Center (EOC)
- Grid Control Center (GCC)
- Distribution Control Centers (DCCs)
- Central Dispatch

This Annex is also available electronically in [PG&E's Guidance Document Library](#)⁹ and on the Emergency Management website under Emergency Plans.

⁹ [REDACTED]

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2 Emergency Organization and Responsibilities

2.1 Emergency Facilities

2.1.1 Electric Distribution Emergency Facilities

2.1.1.1 District Storm Room

The District Storm Room (DSR) responds to local and escalated emergency events and is generally located in a Service Planning and Maintenance yard. The main function of the DSR is to manage the local restoration effort during all levels of emergencies. The DSR is staffed with local support, such as troublemen, gas service reps, meter techs, estimators, mappers, service planning reps and construction crews. Clerical support inputs data into the Outage Management Tool (OMT) at this location. Information from assessment resources is added to the job packet and then handed off to construction crews for repairs to be performed. DSRs report to their division's Operations Emergency Center (OEC).

2.1.1.2 Operations Emergency Center

The OEC provides oversight and support at a divisional level. The OEC directs and coordinates the personnel necessary to assess damages, secure hazardous situations, restore service, and communicate status information internally and externally. OECs report to their Regional Emergency Centers.

G.O. 166 Standard 1A stipulates that utilities coordinate internal activities in an emergency operations center or use some other arrangement suitable for the purposes of internal coordination.

2.1.1.3 Regional Emergency Center

The Regional Emergency Center (REC) provides oversight and support to the OEC(s) at a regional level. As an event escalates, the REC becomes the point of contact for information and managing escalated OEC(s) issues. When PG&E's Emergency Operations Center (EOC) is activated, the REC communicates operational status, resource requests, and logistical needs to the EOC.

2.1.1.4 Central Dispatch

Central Dispatch is open 24/7, 365 days each year located in Fresno and is responsible for dispatching and scheduling Troublemen resources to outages, compliance equipment inspections, customer committed work, etc. Central Dispatch also receives 911 stand-by requests from public agencies and dispatches Troublemen to respond as quickly as possible.

2.1.1.5 Electric Distribution Control Centers

Electric Distribution Control Centers (DCCs) are located in Concord, Fresno, and Rocklin where the real-time operation of the electric distribution grid is monitored and managed – this includes both planned and emergency outages. If an outage occurs, the Distribution Operator (DO) in the DCC helps to restore service to customers by directing field resources

to operate distribution devices in the field and to substations to reconfigure or re-energize the distribution grid.

2.1.2 Electric Transmission and Substation Emergency Facilities

2.1.2.1 Electric Transmission Emergency Center

The Electric Transmission Emergency Center (ETEC) is responsible for providing support to PG&E Grid Control Center (GCC). ETEC's support includes; system restoration support, transmission outage prioritization in collaboration with California Independent System Operator (CAISO) and the EOC, as well as internal and external communications. For example, the ETEC maintains communication with the CAISO, Western Electricity Coordinating Council (WECC), and other utilities involved in transmission system emergencies.

In a Level 2 or greater emergency, the ETEC may be activated to assist GCC with transmission related outages and to facilitate communications with the CAISO's EOC. The ETEC is also activated when the CAISO calls for load curtailments. In a level 3 or greater emergency where the PG&E EOC is activated, the ETEC reports to the Electric Transmission Branch in the PG&E EOC.

2.1.2.2 Grid Control Center

Real-time operation of the PG&E Transmission System takes place at the GCC in Vacaville and Rocklin, and is staffed 24 hours per day, 365 days per year. The GCC is in daily contact with the CAISO to monitor power flows, receive clearance requests, and establish system restoration priorities, etc. The CAISO has overall operational control of our electric transmission facilities, as well as those of Southern California Edison, San Diego Gas & Electric, and others. The GCC deals with Level 1 and Level 2 emergencies involving electric transmission and is the designated PG&E single point of contact with CAISO.

2.1.2.3 Substation Transmission Operations Emergency Center

In a Level 2 or greater emergency, the Substation Transmission Operations Emergency Center (STOEC) coordinates damage assessment, information dissemination, and movement of Transmission Line and Substation manpower and equipment to assist operating departments in restoring service. The STOEC reports to ETEC and responds to the priorities and strategies set by the ETEC. Once activated, the STOEC tracks substation and transmission line (T-Line) resources and provides ETEC with restoration information and regular situational updates regarding quantity, type, and location of resources within the T-Line organization. The STOEC also provides technical support to the field, when activated.

2.1.3 PG&E Emergency Centers

For details on all PG&E Emergency Centers and Support Centers, please refer to Emergency and Coordination Centers in the Company Emergency Response Plan (CERP).

2.2 Electric Distribution Emergency Roles and Responsibilities

This section includes information on Electric Distribution emergency roles and responsibilities. For the ICS positions that are used throughout all PG&E's emergency centers, refer to the CERP, Emergency Organization and Responsibilities Section.

2.2.1 Troublemens

Troublemens (T-men) are emergency response employees who usually work alone and whose primary responsibility is to assess an outage situation and identify basic cause, hazard considerations, and repair requirements, primarily on substation, circuit, and mainline outages. This individual can perform some repairs and/or correct minor equipment failures. During the initial response, the T-man is the Incident Commander. T-men are Qualified Electrical Worker (QEWs) and have the ability to make the hazard safe.

2.2.2 Make Safe Crews

Make Safe crews focus on situations where hazardous conditions have been reported by customers, agencies, etc. and require prompt attention (i.e., wire down, cut in the clear). They are typically two-person crews but can also be larger in size depending on the nature of the event and available staffing. These crews consist of foreman and/or linemen who are QEWs. Depending on their experience and training level, they have skill sets similar to T-men. They perform make safe activities and complete assessment assignments under the direction of the Dispatch Leader located in the OEC or DSR.

G.O. 166 Standard 1F states: The plan shall describe how the utility will assure the safety of the public and utility employees and the utility's procedures for safety standby. The plan shall include contingency measures regarding the resources required to respond to an increased number of reports concerning unsafe conditions.

2.2.3 Assessment Crews and Rapid Assessment Strike Teams

Damage Assessment Crews are one or two-person crews with knowledge of electric field equipment. These crews often include gas service employees who are paired with electric estimators, compliance inspectors, or work and resource coordinators who are familiar with the territory. When there are a significant number of outages, damage assessment crews can be formed into Rapid Assessment Strike Teams.

The Rapid Assessment Strike Teams include estimators, an Associate Distribution Engineer (ADE), a supervisor, and support personnel. The strike teams are responsible for quickly patrolling damaged areas, conducting damage assessments, and relaying information to the Incoming Assessment Desk at the OEC or DSR. Rapid Assessment Strike Team members may also be assigned to the Incoming Assessment Desk to receive assessment information from the field and build job packets for the crews.

Damage assessment crews are identified by the emergency centers and approved by the IC. These Assessment Crews/Strike Teams are used primarily to determine if the problem is located on PG&E equipment, assess the damage, and determine general magnitude of the repair. This assessment may include what equipment and resources may be required to

repair the damage. An estimator can size equipment necessary for repairs. Assessment Crews may also serve as 911 standby until a QEW appears on site.

2.2.4 Incoming Assessment Desk Leader

The incoming assessment desk is where estimators receive incoming damage assessment information from the field and build job packages that are provided to the DSR for crew assignment. The Incoming Assessment Desk Leader oversees all personnel and staffing for the incoming assessment desk and prioritizes the creation of job packages at the OEC/DSR. The position is staffed by either an Electric ADE or Estimating Supervisor and reports to the Operations Section Chief (OSC) in the OEC.

2.2.5 Check In / Out Desk Recorder

The Check In / Out Recorders establish and manage the check in/out desk in each emergency center and base camp. They are responsible for ensuring that all personnel that come on site to support an incident are checked in each time they arrive and are checked out at the end of each work shift and at the end of their assignment. The Recorder reports to the Resource Unit Leader (RUL) in the Planning Section in each emergency center.

2.2.6 Circuit-Based Branch Supervisor

Circuit-Based Branch Supervisors can be staffed by Distribution Supervisors, Estimating Supervisors, Mapping Supervisors, Operation Engineers, or Planning Engineers with operational knowledge who are trained to support a circuit-based assessment/restoration strategy. They provide direction to the Task Force Leaders (TFLs), coordinate and prioritize work, establish communication between TFLs and the DSR to ensure situational awareness and safety, and participate with the Planning Section in the development of objectives for the action plan for the Circuit-Based Strategy. (Refer to section 3.2.3.8.2 for details on circuit-based assessment/restoration.)

2.2.7 Standby Personnel

Standby personnel are responsible for cordoning off a hazardous condition and/or relieving a 911 agency until a qualified electric crew or T-man arrives to clear and/or repair the hazard. They are one or two-person crews with limited knowledge of field equipment, and often are staffed by Cable Crew Foremen, Cable Splicers, meter readers, meter technicians, gas service representatives, gas construction workers, and various other employees. Standby crews generally do not have equipment switching skills, or the ability to estimate the magnitude of the repair and restoration timeframe.

2.2.8 Distribution System Operator

A Distribution System Operator (commonly referred to as DO) is responsible for operating and monitoring an assigned electric distribution jurisdiction. The Distribution System Operator directs switching and issues clearances, moves electric distribution load, and restores service when trouble occurs. Distribution System Operators can open and close devices to reconfigure the circuit or restore customers using Supervisory Control and Data

Acquisition (SCADA) enabled devices. The Distribution System Operator also directs field personnel for switching and restoration on the electric distribution grid.

2.2.9 Central Dispatcher

Central Dispatchers are emergency response employees. They are responsible for dispatching all work to T-Men, including; outages, reliability-related tags, compliance inspections, customer-related work, and streetlights. They operate out of two separate dispatch systems: (1) ABB Mobile Application and (2) Outage Information System (OIS)/OMT and work 24/7, 365 days a year.

2.3 Electric Transmission and Substation Emergency Roles and Responsibilities

2.3.1 Electric Transmission Branch Director

The Electric Transmission (ET) Branch Director in the EOC coordinates with ETEC, which provides system restoration support, transmission outage prioritization, block calculator support, study support for de-energization of equipment due to Public Safety Power Shutoff (PSPS) and internal and external communications. The ET Branch Director position is staffed by Directors or Senior Directors and reports to the Operations Section Chief in the EOC.

2.3.2 ETEC Lead

The ETEC Lead position is staffed by supervisors and managers in Electric Transmission Operations and reports to the ETEC Branch Director. ETEC supports the GCC with outage prioritization and serve as the liaison for GCC during an event. The ETEC Lead is also responsible for providing direction to STOEC on outage priorities.

2.3.3 Transmission Troublemens

The description for a Transmission T-man is the same as an Electric Distribution T-man, as listed in section [2.2.1](#).

2.3.4 Substation Maintenance Electricians

Substation Maintenance Electricians are emergency response employees who may work alone and whose primary responsibility is to assess the substation to identify basic cause, hazard considerations, and repair requirements. This individual can make some repairs and/or correcting minor equipment failures. These personnel are QEWs.

2.3.5 Substation Teams Used in Level 5 Incidents

2.3.5.1 Substation Damage Assessment Teams

Substation Damage Assessment Teams are made up of two people (electrical and civil engineers, project managers or Maintenance Engineers) with knowledge of electric

substation equipment. These teams consist of non-QEW personnel and are responsible for initial damage assessment inside substations.

2.3.5.2 Substation Make Safe Teams

The Substation Make Safe Teams are made up of maintenance electricians and electrical inspectors and are QEW. Their primary function is to assess damage to substation equipment and to make safe, if necessary.

2.3.5.3 Substation Restoration Teams

The Substation Restoration Teams are one to two-person teams that work with the transmission and distribution control centers to restore customers and transmission paths. These teams are made up of maintenance electricians / switching electricians and electrical technicians. They are qualified to perform substation switching and are under the jurisdiction of the GCC and/or the appropriate DCC.

2.3.5.4 Substation Repair Team

The primary function of a Substation Repair Team is to repair or replace damaged substation equipment. These teams are made up of station construction, substation maintenance, Insulation and Coating, and test department employees.

2.3.5.5 Substation Standby Team

The primary function of the Substation Standby Team is to stand by damaged equipment and facilities which may present a safety hazard to the public. In most cases, the fence surrounding a substation will keep the public away from substation hazards, but there may be cases where the fence is down or damaged. In these cases, standby teams are used to ensure public safety, and are comprised of Insulating and Coating and substation maintenance and construction personnel.

3 Concept of Operations

3.1 Emergency Plan Activation

PG&E's Incident Levels are a useful decision support tool that helps support PG&E in understanding the complexity of an incident and the actions that may be employed at each level (e.g., emergency center activations, resources needed, etc.).

To ensure a consistent and well-coordinated response to emergencies, the company has adopted the following incident classification system:

- Level 1 – Routine
- Level 2 – Elevated
- Level 3 – Serious
- Level 4 – Severe
- Level 5 – Catastrophic

For additional details on PG&E's Incident Levels, refer to the Levels of Emergency Section in PG&E's [CERP](#)¹⁰.

3.1.1 Electric Activation Matrix

The Electric Incident Level Activation Matrix in Table 3-1 contains specific triggers that are used by the Emergency Center Commanders and the Emergency Management Specialist (EMS) Team to determine whether to activate the Electric Annex and which if any emergency centers will or should be activated. The Activation Matrix can be used prior to, during, or in anticipation of an event.

G.O. 166 Standard 1D states: Within one hour of the identification of a major outage, the utility shall begin coordinating its internal resources as set forth in its emergency plan.

The EOC On-Call Incident Commander (IC) and employees with an emergency response leadership role (Commanders, Operations, Planning, Logistics, Finance and Administration Section Chiefs, and the Public Information Officer) have the authority to call a meeting to review the activation matrix.

The electric OEC/REC IC notifies the Emergency Management Specialist (EMS) Duty Officer of all emergency center activations (including Communications Only). The EMS Duty Officer can be reached at [REDACTED]. The EMS Duty Officer notifies the EOC On-Call IC of all emergency center activations Level 2 and above.

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Table 3-1: Electric Incident Level Activation Matrix

Note that workload is the primary unit used to determine the need to escalate for Electric Distribution and # of outages/Area of Responsibility (AOR) for Electric Transmission. OEC activations may occur depending on incident complexity and the need to support customer communications, to mobilize resources, or to coordinate response.

| Severity | Level | Expected Field Resources | Restoration Duration | EDO Workload ¹ | Expected Customers Out (Electric) ² | # ET Outages/AOR ¹ | Load Shed – EEP ⁴ | Actions ⁵ | Emergency Centers | External Interest / Media / Reputation | Incident / Weather Examples |
|--------------|-------|--------------------------|---|-------------------------------------|--|-------------------------------|---|---|--|---|--|
| Routine | 1 | T-men 44 Crews 25 | <24 hours | Normal – 2x Workload (<130 SOs) | <20,000 Customers Out | <5 | N/A | Local Resources Only | No Activation; Communication Only | Routine local incident with no to little public or media interest | Car pole, normal operations, light weather, virus detected, or phishing directed at electric operations, single circuit outage |
| Elevated | 2 | T-men 75 Crews 55 | <24 hours Typically, could be up to 2 days | 2x – 4x Workload (130 – 260 SOs) | >20,000 Customers Out | 5 – 7 | Restricted Maintenance Operations (A) | Resources mainly local, may need to move within Region A - Workplan Adjustments | OEC and STOEAC activation possible | Local emergency or customer issue with increased public, media, government, and/or regulatory interest | Moderate heat or winter storm, wind 30-40 mph (EDO) or > 35 mph (ET), wildland fire that results in de-energizing customers and minor damage to infrastructure, Cyber Incident – virus detected or DMS or EMS system with loss of 3 or more substations' visibility in SCADA |
| Serious | 3 | T-men 120 Crews 100 | 1 – 3 Days | 4x – 10x workload (261 – 650 SOs) | >100,000 Customers Out | 7 – 10 | Localized Flex Alert (A, B, D) Alert (EEA Watch) (C, D) Warning (EEA1) (C, D, F) Stage 1 Emergency (EEA 2) (C, D, G) Stage 2 Emergency (EEA3) (C, D, H) | Resources moved within Region, may need to move between Regions A - Workplan Adjustments, B - Readiness Posture, C - EOC Activation, D -Temp Gen, E - Islanding, F - Communicate with Public Safety Partners, G - Communicate to Customers, H - Capable to shed load in 10 minutes | OEC or STOEAC activation; REC, ETEC, and EOC activation possible | Local/Regional emergency or customer issue with increased public, media, government and/or regulatory interest. Potential reputational risk. | Significant heat or winter storm, wind 35-50 mph (EDO) or >50 mph (ET), significant earthquake ³ , wildland fire that results in de-energizing customers and significant damage to infrastructure, Cyber Incident – malware affecting SCADA, EMS, DMS systems, ET: total loss of EMS or SCADA loss of 500kV or 230kV substation |
| Severe | 4 | T-men 220 Crews 170 | 2 – 6 Days | 10x – 32x workload (651 – 2080 SOs) | >300,000 Customers Out | 10 – 14 | System Wide / Single Day Event Stage 3 Emergency (EEA3) (C, D, E, I) | Resources move between regions, contractors, may require Mutual Aid C - EOC Activation, D - Temp Gen, E -Islanding, I - Drop requested load | OEC, REC, STOEAC, ETEC, and EOC Activation | Severe emergency or customer issue with considerable public, media, regulatory and government interest across multiple regions, and at the state and national level. Potential reputational risk. | Major heat or winter storm, wind 40 – 60 mph (EDO) or >60 mph (ET), significant earthquake, wildland fire that results in de-energizing customers and major damage to infrastructure, fire affecting major paths, Cyber Incident – slow system response times, limited awareness at grid control. |
| Catastrophic | 5 | T-men 710 Crews 560 | >6 Days | >32x Workload (>2080 SOs) | >750,000 Customers Out | >14 | System Wide / Multiple Day Event Stage 3 Emergency (EEA3) (C, D, E, I) | Mutual Aid C - EOC Activation, D - Temp Gen, E -Islanding, I - Drop requested load | OEC, REC, STOEAC, ETEC, EOC, and IST Activation | Catastrophic emergency or customer issue with extensive public, media, government, and regulator interest across multiple regions and at the state, national, and international level. Potential reputational risk. | Major to catastrophic storm event, wind 60+ mph (EDO) or >75 mph (ET), significant earthquake, firestorm with catastrophic impact to infrastructure, Cyber Incident – control of grid assets by foreign group |

| Severity | Level | Expected Field Resources | Restoration Duration | EDO Workload ¹ | Expected Customers Out (Electric) ² | # ET Outages/AOR ¹ | Load Shed – EEP ⁴ | Actions ⁵ | Emergency Centers | External Interest / Media / Reputation | Incident / Weather Examples |
|---|-------|--------------------------|----------------------|---------------------------|--|-------------------------------|------------------------------|----------------------|-------------------|--|-----------------------------|
| <p>¹ Workload is the primary unit used to determine the need to escalate and is based on the number of unplanned sustained outages (SOs) for Electric Distribution Operations (EDO) and # outages/Area of Responsibility (AOR) for Electric Transmission (ET).</p> <p>² Customer counts are an SOPP output based on workload.</p> <p>³ Geosciences recommended the qualitative description of "significant earthquake" rather than listing a specific magnitude for Levels 3 – 5.</p> <p>⁴ Load Shed-EEP column reflects the CAISO Alert, Warning, and Emergency Levels are aligned to the respective item in the Actions column.</p> <p>⁵ Actions column reflects the legend for the CAISO Alert, Warning, and Emergency Levels which are aligned to the respective item in the Load Shed-EEP column.</p> | | | | | | | | | | | |

3.1.2 Activation Process and the Authority to Activate

3.1.2.1 OEC, REC and EOC

The Emergency Center Commanders and the EOC Commander/EOC On-Call IC utilize the Electric Incident Level Activation Matrix in Table 3-1 and the [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)¹¹ to determine whether to activate the Electric Annex, and at what level to activate. While the EOC On-Call IC can conduct an initial assessment and recommend the activation of a plan/facility to the appropriate Emergency Center Commander, the decision to activate an emergency center is at the discretion of the Emergency Center Commander and is based on the complexity of the incident. Emergency center personnel roles and responsibilities are included in Table 3-2.

A Level 1 emergency requires no special trigger and is managed locally following existing procedures. In an escalating event, or if a division's outage thresholds are met, Central Dispatch or the On-Call Supervisor notifies the On-Call OEC Commander about the nature of the event and the potential need to activate the OEC.

For Level 2 activations and above, the On-Call OEC Commander (e.g., field operations Superintendent) may authorize activation of an OEC for reasons including, but not limited to, the following:

- A Level 2 or greater emergency
- A division exceeds their division's outage threshold, and field resources (e.g., T-men and crews) are not readily available.
- A division's SOPP Model Forecast predicts inclement weather at Level 2 or above, which may result in a proactive activation
- At the direction of the regional Field Operations Sr. Director/Director
- At the request of the Senior Manager of Emergency Management and Restoration, Control Center Supervisor, Central Dispatch Shift Supervisor, EOC On-Call IC, EOC Commander, or Field Operations On-Call Supervisor

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Table 3-2: OEC Activation Position Roles and Responsibilities

| OEC Role | Responsibilities | Ideal Characteristics | Pull/Review names from 2020 OEC roster |
|--------------------|--|--|--|
| Incident Commander | <ul style="list-style-type: none"> Overall management of the Incident Managing the command staff and the section chiefs Establish incident objectives Ensure adequate safety measures and messages are in place Ensure adherence to the planning P process Approve and authorize all internal and external communications Determine the operation period timeframe Coordinate with external entities, if necessary Participate in appropriate planning P meetings Ensure the After-Action Meeting is scheduled and completed | <ul style="list-style-type: none"> Electric T&D Construction, Electric T&D Operations (superintendent) Detailed knowledge of the Electric OPS organizational structure Decision-making authority Ability to manage limited resources effectively | Incident Commander |
| Safety Officer | <ul style="list-style-type: none"> Assess and communicate risks/hazards and unsafe situations Ensure a site safety and health plan is developed Developed safety measures or communications to ensure personnel safety Correct unsafe acts or conditions Maintain awareness of active and developing situations Prepare and include safety messages in the Incident Action Plan Assign a safety officer for each incident site and or emergency center Participate in appropriate planning P meetings | <ul style="list-style-type: none"> Electric safety, corporate safety, and grassroots safety team members | Safety Officer |
| OEC IC Advisor | <ul style="list-style-type: none"> Responsible for the OEC facility Provides guidance on ICS processes Provides guidance on emergency preparedness plans Participate in appropriate planning P meetings Utilizes the notification system(s) (e.g., Everbridge) to activate OEC teams and communicates for follow up of OEC staffing | <ul style="list-style-type: none"> Electric emergency/restoration Manager and direct reports | OEC IC Advisor |

| OEC Role | Responsibilities | Ideal Characteristics | Pull/Review names from 2020 OEC roster |
|------------------------|---|---|--|
| Operations Chief | <ul style="list-style-type: none"> Organize the operations section effectively to ensure manageable span of control and safe operations for all personnel Direct the preparation of unit operational plan Request and release resources as required by incident objectives Participate in the planning P meetings Make recommendations to the Planning Section for demobilization plan Provide periodic status reports to the OEC commander | <ul style="list-style-type: none"> Supervisor or above Operational focus Electric T&D Construction, Electric T&D Operations (superintendent) Detailed knowledge of the Electric OPS organizational structure Decision-making authority Ability to manage limited resources effectively | Operations Chief |
| Planning Section Chief | <ul style="list-style-type: none"> Work with the operations section chief and the incident commander in evaluating the current situation Work with the operations section chief and the Incident commander in determining the incident strategy and tactical objectives Staff, organize, and supervise the plans section Plan for relief and replacement of staff as appropriate Schedule/Facilitate the planning P meetings Ensure completion of the Situation Status Report and Incident Action Plan (IAP) as required Ensure all hands have knowledge of the Situation Status Report and Incident Action Plan Provide periodic status reports to the OEC Commander | <ul style="list-style-type: none"> Engineers, supervisors, superintendents, and managers Electric T&D Construction, Electric T&D Operations (superintendent) Detailed knowledge of the Electric OPS organizational structure Decision-making authority Ability to manage limited resources effectively | Planning Section Chief |
| Situation Unit Lead | <ul style="list-style-type: none"> Participate in planning P meetings Collect and analyze incident information Conduct situation updates at meetings and briefings Work with the documentation unit lead to create/update the Incident Action Plan (IAP) Situation Status Report Liaison between section chiefs OEC/IC commander and technical specialist with information sharing | <ul style="list-style-type: none"> Engineers, supervisors, and managers Electric T&D Construction, Electric T&D Operations Detailed knowledge of the Electric OPS organizational structure | Situation Unit Lead |

| OEC Role | Responsibilities | Ideal Characteristics | Pull/Review names from 2020 OEC roster |
|-------------------------|---|---|--|
| Resource Unit Lead | <ul style="list-style-type: none"> • Establish contact with the operations section chief to determine what personnel resources have been assigned to the incident, their status, and potential needs for further resources • Establish and maintain resource tracking system • Compile, maintain, and display resource status on personnel • Participate in the planning P meetings | <ul style="list-style-type: none"> • Clerk, supervisor, and Manager familiar with the organizational structure of the electric clerical LOB • Familiar with ARCOS | Resource Unit Lead |
| Documentation Unit Lead | <ul style="list-style-type: none"> • Oversee the collection, organization, analysis, and distribution of incident information • Ensure proper storage and identification of all documentation within the OEC • Assist with the analysis of all incident information • Ensure that information from all sources is validated before being placed on any status board or reported out • Create/update and disseminate the Situation Status Report • Create/update the Incident Action Plan (IAP) for each operational period | <ul style="list-style-type: none"> • Individual contributor, (Record analyst, RIM Network) supervisor, and manager for ERIM LOB | Documentation Unit Lead |
| Logistics Chief | <ul style="list-style-type: none"> • Work with the OEC Commander, Operations Section Chief, Planning Section Chief, in anticipating and providing all incident report requirements • Order resources (equipment and materials) through the appropriate procurement methods • Provide and establish all incident facilities, transportation, supplies, equipment maintenance and fueling, food services, communications, and medical services for incident personnel • Prepare for and participate in planning P meetings • Coordinate with the corresponding logistics chiefs in other Emergency centers as needed | <ul style="list-style-type: none"> • GC supervisor or superintendent • Electric T&D Construction, Electric T&D Operations • Sourcing/Category • Detailed knowledge of the Electric OPS organizational structure • Decision-making authority • Ability to manage limited resources effectively | Logistics Chief |

| OEC Role | Responsibilities | Ideal Characteristics | Pull/Review names from 2020 OEC roster |
|-------------------------|--|---|--|
| Service Branch | <ul style="list-style-type: none"> Work with Logistics chief in anticipating and providing support for all incident report requirements | <ul style="list-style-type: none"> GC supervisor or superintendent Electric T&D Construction, Electric T&D Operations Sourcing/Category Detailed knowledge of the Electric OPS organizational structure Decision-making authority Ability to manage limited resources effectively | Service Branch |
| Support Branch | <ul style="list-style-type: none"> Work with Logistics chief in coordination with mutual aid and contracted personnel Prepare initial organization and assignments for support operations | <ul style="list-style-type: none"> GC supervisor or superintendent Electric T&D Construction, Electric T&D Operations Sourcing/Category Detailed knowledge of the Electric OPS organizational structure Decision-making authority Ability to manage limited resources effectively | Support Branch |
| Finance and Admin Chief | <ul style="list-style-type: none"> Work with the OEC Commander and the general staff in estimating, tracking, and approving all incident expenses Monitor and coordinate funding from multiple Sources Ensure completion with all Local, State, and Federal rules and laws are complied with in reference to spending Staff, organize, and supervise the finance section Provide periodic status reports to the OEC Commander Participate in the planning P meetings | <ul style="list-style-type: none"> Electric T&D Construction, Electric T&D Operations Sourcing/Category Detailed knowledge of the Electric OPS organizational structure Decision-making authority | Finance & Admin Chief |

| OEC Role | Responsibilities | Ideal Characteristics | Pull/Review names from 2020 OEC roster |
|-------------|--|--|--|
| Cost Branch | <ul style="list-style-type: none"> • Work with Finance Section Chief in anticipating and providing support for all incident report requirements • Obtain and record all cost data • Prepare incident cost summaries (CEMA) • Make recommendations for cost savings • Maintain cumulative cost records | <ul style="list-style-type: none"> • Electric T&D Construction, Electric T&D Operations • Sourcing/Category • Detailed knowledge of the Electric OPS organizational structure • Knowledge Of SAP | Cost Branch |
| Time Branch | <ul style="list-style-type: none"> • Work with Finance Section Chief in anticipating and providing support for all incident report requirements • Establish and maintain personnel time reports daily • Provide guidance to responding personnel on time keeping requirements | <ul style="list-style-type: none"> • Electric T&D Construction, Electric T&D Operations • Sourcing/Category • Detailed knowledge of the Electric OPS organizational structure | Time Branch |

For Level 3 or greater activations, the REC Commander may authorize activation of an REC for reasons including, but not limited to, the following:

- A Level 3 or greater emergency
- A Region's SOPP Model Forecast predicts inclement weather at Level 3 or above, which may result in a proactive activation
- Multiple OECs are activated
- At the request of the OEC Commander, EOC Commander, EOC On-Call IC, or Senior Manager of Emergency Management and Restoration

The EOC Commander may authorize activation of the EOC and needed support centers for reasons including, but not limited to, the following:

- Multiple REC's are activated
- At the request of the EOC On-Call IC or REC Commander
- Response to the emergency would be better served by managing resources and operations centrally
- Prioritization for the use of resources across regions is necessary

In addition to the EOC Commander, the Senior Vice President of Electric Operations has pre-designated the following personnel to activate the EOC: Vice President of Electric Distribution Operations, Director of Electric Operations Emergency Management, Director of System Operations and Control, and the Director of EP&R. The Senior Vice President of Electric Operations delegates to Electric Distribution and Electric Transmission Officers and Directors the responsibility for managing emergencies within their assigned areas of responsibilities.

Personnel with the authority to activate the EOC also have the authority to determine if the EOC will activate physically (location to be determined by EOC Commander) or virtually. See [CERP](#)¹² for additional information.

Refer to [Appendix C](#) for the Emergency Center Activation Checklists.

3.1.2.2 Electric Transmission Emergency Center and Substation Transmission Operations Center

The Electric Transmission Branch Director in the EOC and the Substation Transmission Operations Emergency Center (STOEC) IC use the Electric Incident Level Activation Matrix in Table 3-1 as a guideline to determine whether to activate the Electric Annex, and at what level to activate. The Electric Transmission Emergency Center (ETEC) is activated due to a

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[REDACTED]

system emergency, at the request of the ETEC Lead or the ETEC Branch Director in the EOC. The STOEC IC can also determine whether to activate the STOEC.

3.1.3 Notifications

3.1.3.1 Internal

The Emergency Center Commander, or designee, ensures:

- Emergency center personnel are notified about the emergency and reporting information according to that emergency center's call-out procedure
- Emergency center email distribution lists and paging lists are used to inform key stakeholders
- Outage Management Tool (OMT) ([OMT User Manual](#)¹³) is updated:
 - Auto Estimated Time of Restoration (ETORs)
 - Activation Status
 - Storm Orders

See Figure 3-1 and Figure 3-2 for examples of the updates in OMT.

¹³<https://pge.sharepoint.com/sites/BATs/Procedures%20%20Internal%20Only/Forms/AllItems.aspx?id=%2Fsites%2FBATs%2FProcedures%20%20Internal%20Only%2FOMT%20Support%20Documentation%2FOMT%20User%20Manual%20%2D%20Enhanced%2Epdf&parent=%2Fsites%2FBATs%2FProcedures%20%20Internal%20Only%2FOMT%20Support%20Documentation&p=true&originalPath=aHR0cHM6Ly9wZ2Uuc2hhcmVwb2ludC5jb20vOml6L3MvQkFUCy9FUkprYU5QekI5UkVtcWd3WjZ0WTRfd0JVVmk4Z2U0d01CQzBGZFI3T1RmWHZnP3J0aW1IPURKMEI4NTQxMlVn>

Figure 3-1: EM Activation Screen Sample

Current Database: **ems1p.world** EM Activation Screen
Last Refresh: 4:52:43 PM 05/25/2021

EOC Activated? Time Activated Time Deactivated

Important Note:
 REC Activation - Check the Notice to Advise the REC from Dispatch and the 911 Standby Handling Desk if activating REC for communications, Customer, or Case Movement Support only, enter comments and then activate the appropriate desk.
 EOC Activation - Check the Notice to Advise the EOC from Dispatch and the 911 Standby Handling Desk if activating EOC for communications, Customer, or Case Movement Support only, enter comments and then activate the appropriate desk.
 IVRU Storm Message - Check the Notice to Advise the IVRU Storm Message.

| Region / Headquarter | Auto ETOR | | | | Emergency Center Activations Level 2-3 | | | Enable Storm Orders | 911 Standby Handling Desk | IVRU Message | | | Communication Only Activations Level 1 | | | Comment |
|------------------------|-------------------------------------|-------------------|--------------|---------------|--|----------------|------------------|--------------------------|---------------------------|--------------------------|------------|------------------|--|------------|----------------|---------|
| | Enable | Time Enable | Time Disable | By Circuit | Activation | Time Activated | Time Deactivated | | | Activation | Activation | Time Implemented | Time Canceled | Activation | Time Activated | |
| Bay/Central REC | | | | | | | | | | | | | | | | |
| Oakland | <input checked="" type="checkbox"/> | 14:02:00/03/2021 | - | Diablo | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Elk 1 Bay | <input checked="" type="checkbox"/> | 21:02:01/08/2021 | - | Bay Central | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Mission | <input checked="" type="checkbox"/> | 09:36:09/16/2021 | - | Mission | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Plattsburgh | <input checked="" type="checkbox"/> | 08:49:09/21/2021 | - | Plattsburgh | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| San Francisco | <input checked="" type="checkbox"/> | 11:43:06/21/08/21 | - | San Francisco | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Stockton | <input checked="" type="checkbox"/> | 10:30:03/04/2021 | - | Stockton | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Yosemite | <input checked="" type="checkbox"/> | 12:54:03/11/2021 | - | Yosemite | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| North REC | | | | | | | | | | | | | | | | |
| Humboldt | <input checked="" type="checkbox"/> | 07:02:06/17/2021 | - | Humboldt | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| North Bay | <input checked="" type="checkbox"/> | 20:00:09/19/2021 | - | North Bay | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| North Valley | <input checked="" type="checkbox"/> | 08:12:05/19/2021 | - | North Valley | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Sacramento | <input checked="" type="checkbox"/> | 01:05:06/21/02/21 | - | Sacramento | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Sierra | <input checked="" type="checkbox"/> | 12:08:03/12/2021 | - | Sierra | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Sonoma | <input checked="" type="checkbox"/> | 18:06:03/07/2021 | - | Sonoma | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| South REC | | | | | | | | | | | | | | | | |
| Central Coast | <input checked="" type="checkbox"/> | 19:08:02/02/2021 | - | Central Coast | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Die Arca | <input checked="" type="checkbox"/> | 07:34:06/19/2021 | - | Die Arca | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Presno | <input checked="" type="checkbox"/> | 21:20:08/21/2021 | - | Presno | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Yarn | <input checked="" type="checkbox"/> | 12:25:09/21/2021 | - | Yarn | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| Los Padres | <input checked="" type="checkbox"/> | 11:18:01/30/2021 | - | Los Padres | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |
| San Jose | <input checked="" type="checkbox"/> | 08:40:06/19/2021 | - | San Jose | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |

| Region / Headquarter | Auto ETOR | | | | Emergency Center Activations Level 2-3 | | | Enable Storm Orders | 911 Standby Handling Desk | IVRU Message | | | Communication Only Activations Level 1 | | | Comment |
|------------------------|-------------------------------------|------------------|--------------|------------|--|----------------|------------------|--------------------------|---------------------------|--------------------------|------------|------------------|--|------------|----------------|---------|
| | Enable | Time Enable | Time Disable | By Circuit | Activation | Time Activated | Time Deactivated | | | Activation | Activation | Time Implemented | Time Canceled | Activation | Time Activated | |
| Bay/Central REC | | | | | | | | | | | | | | | | |
| Diablo | <input checked="" type="checkbox"/> | 07:02:07/12/2021 | - | Diablo | <input type="checkbox"/> | - | - | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | - | <input type="checkbox"/> | - | - | |

Figure 3-2: EM Activation Screen Close Up

Additional notifications are made when the following emergency centers are activated:

- OEC/REC: EOC On-Call IC is notified.
- EOC for an electric operations response: EOC Commander notifies the Director of Emergency Preparedness and Response, Strategy and Execution (EP&R).
- ETEC: ETEC staff notifies the EOC via EO EOC Out and EOC All Teams. (Refer to the ETEC Activation Quick Start Guideline for notification details.)
- STOEC: The IC or delegate of the STOEC notifies the Senior Director of Distribution Grid Operations, Senior Manager of Emergency Management and Restoration, Director of Distribution Control Centers, ETEC Lead, GCC, EOC Transmission Branch Director.

3.1.3.2 External

In compliance with Standard Six of G.O. 166, within one hour of the identification of a major outage or other newsworthy event, PG&E notifies the CPUC and the Warning Center at California Office of Emergency Services (Cal OES) of the location, possible cause, and expected duration of the outage. PG&E generally treats “newsworthy events” as incidents

within the category of Level 3 or greater emergency, where the EOC is activated. (Refer to section 4.2.4 for additional details on major outage reporting.)

When ETEC is activated, the supervising system dispatcher in the GCC notifies the CAISO.

3.2 Emergency Response Process

3.2.1 Readiness

3.2.1.1 Readiness Expectations

All electric employees with roles in emergency centers will be oriented to the Electric Annex, applicable department emergency plans, and their respective emergency centers' contact list. The following sections provide guidelines to prepare for an emergency event.

Refer to the [Emergency Management Website](#)¹⁴ for additional information on Electric Distribution's Emergency Management Organization (EMO) staffing plans, contact lists, training, job aids and processes. Refer to [SharePoint](#)¹⁵ for additional Transmission Operations contact lists.

3.2.1.2 Primary and Alternate Emergency Center Positions

Command and General Staff positions for emergency response activities are to be at a minimum two deep at the REC and OEC level. The alternates must be qualified to assume the designated roles and responsibilities. Staffing plans and contact lists must be reviewed and updated regularly to account for organizational changes within the Electric EMO. In addition, each OEC has a designated Sister Division OEC to support any staffing deficiencies during an activation.

3.2.1.3 Call-Out Procedures

Each emergency center will maintain an emergency staffing plan and execute the call-out procedure to ensure adequate staffing levels for every emergency. For REC and OEC personnel, the Senior Directors and Superintendents of Field Operations maintain a roster for a Level 2 and above response, with appropriate contact information. When warranted by the magnitude and/or complexity of an emergency (e.g., earthquake), all levels of the Electric EMO are expected to report immediately for emergency assignment. The on-call staffing plans are located in ARCOS Crew Manager. E-page is used to call in OEC staff when an OEC is activated.

PG&E will adhere to International Brotherhood of Electrical Workers (IBEW) and Engineers and Scientist of California (ESC) Company union agreements regarding call-out of bargaining unit classifications for augmentation of resources.

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Refer to section [3.2.4.10](#) for more information on ARCOS (Automated Roster Callout System), an automated callout and scheduling system that PG&E uses to assemble and track first responders and repair crews in response to electric emergency outage situations and/or unplanned events.

3.2.1.4 Emergency Center On-Call Responsibilities

A staffing plan and/or contact list will identify on-call individuals for each emergency center. The on-call responsibilities include the following:

- Ensure availability during defined schedule.
- Maintain a heightened level of awareness of all potential, forecasted, and in-process emergency events.
- Be knowledgeable of the triggers and activities of the respective emergency coordination center or department for each emergency level.

3.2.2 Pre-Event

3.2.2.1 Pre-Event Preparation – Summary

Pre-event preparations shall be incorporated into the emergency response and restoration operations at every level of the Electric EMO. Appropriate pro-active measures shall be taken when identified triggers detailed in [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)¹⁶ have been met at the direction of the Senior Manager of Emergency Management and Restoration or the Director of Emergency Preparedness and Response, Strategy and Execution. The Distribution System Operations Storm Outage Prediction Project (DSO SOPP), and TD 1464S (Fire Danger Precautions and Fire Index) are intended to assist the Electric EMO with weather prediction, outage prediction, resource guidelines, and fire awareness.

3.2.2.2 Hazard Forecasting and Prediction

3.2.2.2.1 Damage Modeling and Storm Outage Prediction Project Model

The Distribution and Transmission System Operations Storm Outage Prediction Project (DSO SOPP and T-SOPP) model (Figure 3-3) was developed to link adverse weather conditions to outage and resource needs. The model combines historical weather and outage data with weather forecasts to predict the number of transformer level and above sustained outages (SOs) per division for each of the next four days. The model also provides an estimate of the resources needed to respond to the level of predicted outages. The primary adverse weather threats modeled are wind, rain, low snow, and heat. SOPP model outage forecasts are assigned a category level 1, 2, 3, 4 or 5 based on how the predicted level of SOs compares with long-term historical level of SOs for each specific

¹⁶

[REDACTED]

Division or Area. The model provides specific quantitative forecasts for SOs, customer counts, and resource requirements. An example forecast, as well as a qualitative description of the categories is presented in Table 3-3, Table 3-4, and Table 3-5.

Figure 3-3: DSO and T-SOPP Model Forecasts

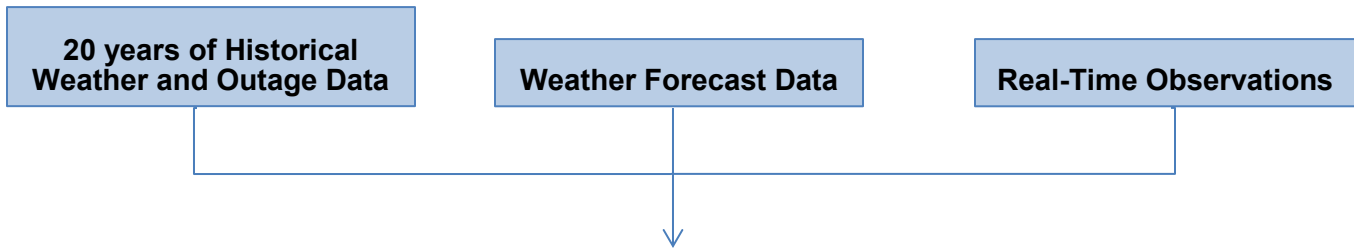


Table 3-3: DSO SOP Model Forecast

[Redacted content]

Table 3-4: DSO SOP Model Forecast Timing by Division

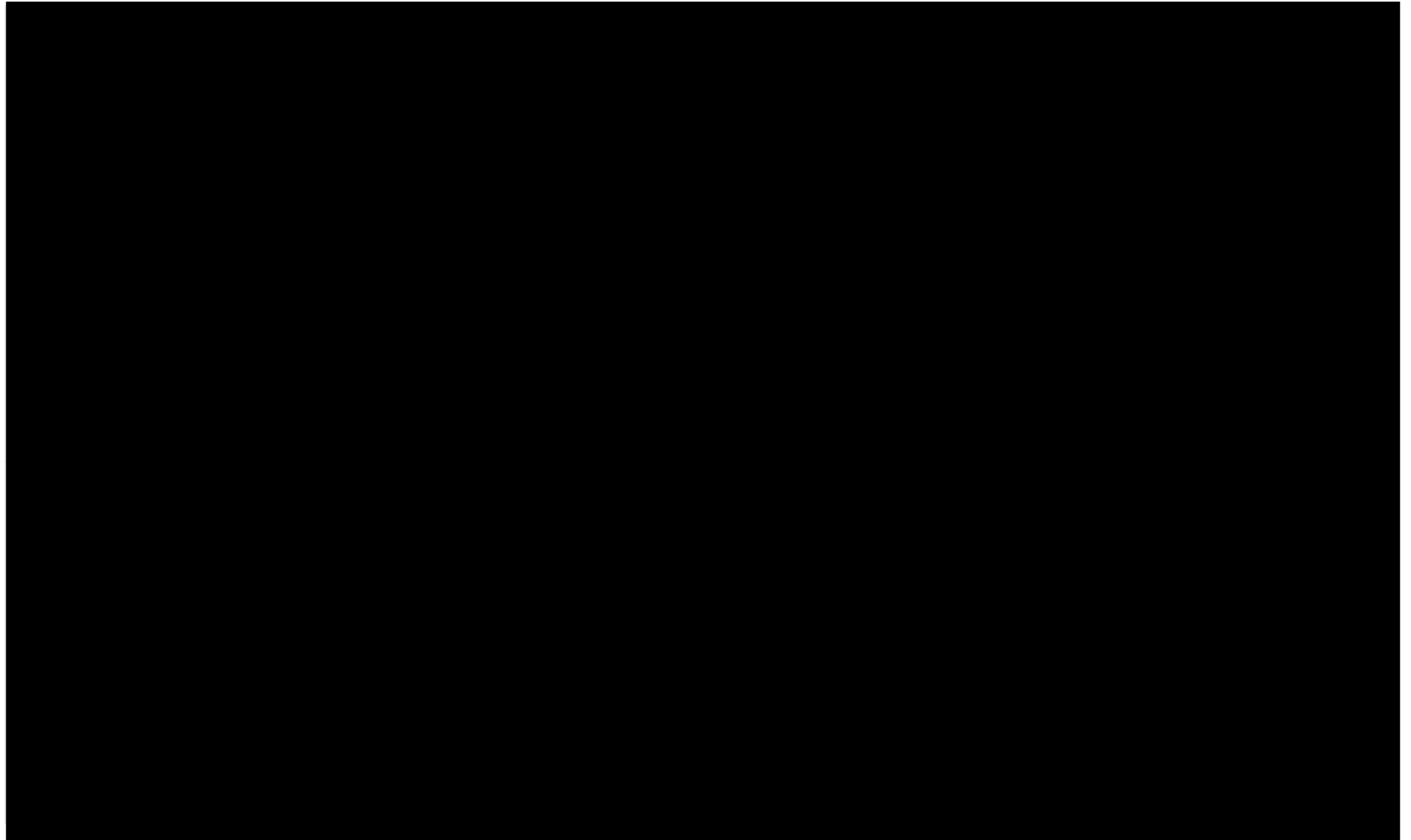
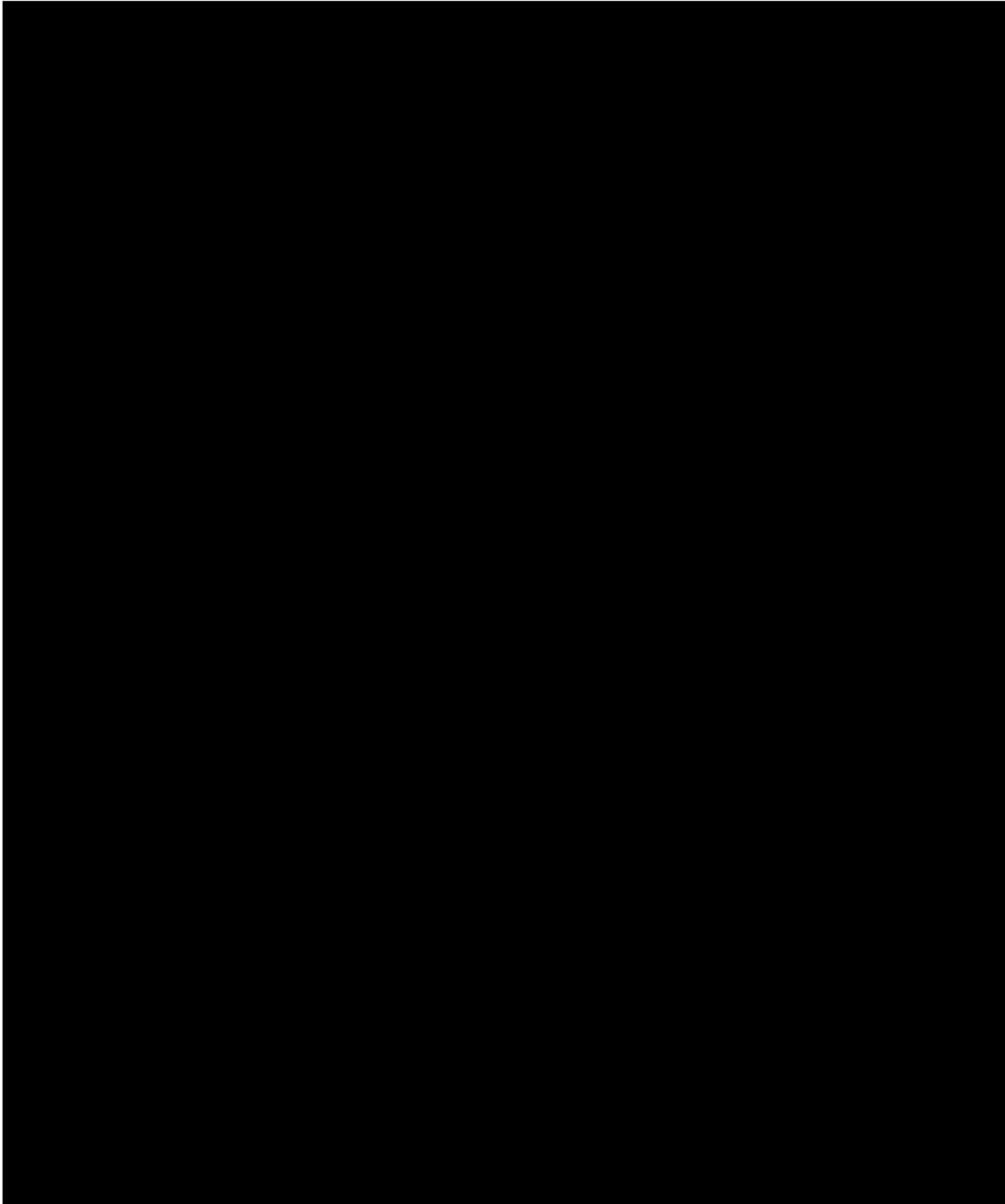


Table 3-5: Transmission SOPP



3.2.2.2.2 Severe Weather Notifications

Weather Warnings will be issued for any division where there is an imminent threat of severe weather within the next 12 hours unless the imminent threat was already anticipated and/or communicated through the regular DSO SOPP Model dissemination.

Thunderstorm Warnings are a special case and will be issued for any division where there is an imminent threat of lightning within the next 12 hours, regardless of whether this threat was anticipated or communicated in the regular DSO SOPP Model dissemination.

PG&E Geosciences also provides notifications for debris flows and landslides. For additional information, please see [Wildfire Annex](#),¹⁷ [EMER-3105M](#) (section 4.4.5).

3.2.2.2.3 Weather-Related Plans (Wildfire Mitigation Plan, TD-1464S, Public Safety Power Shutoff)

[PG&E Wildfire Mitigation Plan](#)

PG&E's Wildfire Mitigation Plan reflects PG&E's policy on fire prevention pre-planning, threat mitigation, and fire readiness and response. The plan also outlines the actions that PG&E takes to prevent and mitigate the risk of fire ignitions associated with the operation of overhead electric power facilities. In accordance with General Order 166, PG&E's Wildfire Mitigation Plan satisfies the requirement for a Fire Prevention Plan.

G.O. 166 Standard 1E states: Those electric utilities identified below shall have a Fire Prevention Plan that describes the measures the electric utility intends to implement, both in the short run and in the long run, to mitigate the threat of power-line fire ignitions in situations that meet all of the following criteria: (i) The force of 3-second wind gusts exceeds the maximum working stress specified in General Order 95, Section IV, for installed overhead electric facilities; (ii) the installed overhead electric facilities affected by these 3-second wind gusts are located in geographic areas designated as the first or second highest fire threat area on a fire-threat map adopted by the Commission in Rulemaking (R.) 08-11-005; and (iii) the 3-second wind gusts occur at the time and place of a Red Flag Warning issued by United States National Weather Service. The requirement to prepare a fire-prevention plan applies to: (1) Electric utilities in Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties; and (2) electric utilities in all other counties with overhead electric facilities located in areas of high fire risk as determined by such utilities in accordance with Decision 12-01-032 issued in Phase 2 of R.08-11-005.

[Utility Standard: Fire Danger Precautions in Hazardous Fire Areas \(TD-1464S\)](#)

This standard establishes precautions for PG&E employees and contractors performing work on behalf of PG&E to follow when traveling to or performing work on any forest, brush, or grass-covered land. The standard outlines requirements that must be taken when performing work using equipment, tools, and/or vehicles whose use could result in the ignition of a fire.

Automatic notification via e-mail and e-page has been made available to PG&E employees and contractors to enhance fire danger awareness.

[Public Safety Power Shutoff \(PSPS\)](#)

The Public Safety Power Shutoff (PSPS) Annex (EMER-3106M) outlines processes and commitments for implementing a PSPS. Given the continued and growing threat of extreme weather and wildfires, and as an additional precautionary measure following the 2017 and 2018 wildfires, PG&E developed its PSPS program in 2018. A PSPS is a proactive de-energization of PG&E equipment as a measure of last resort to reduce wildfire risk. A PSPS will only be done when gusty winds and dry conditions, combined with a heightened

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fire risk, are forecasted to threaten a portion of PG&E's electric system. For additional information regarding the PSPS process, please see the [PSPS Annex, EMER-3106M](#)¹⁸.

3.2.2.2.4 Non Weather-Related Warnings

Non-weather-related warnings may be obtained from several sources, including operations reports covering load status and alerts from the state or local Office of Emergency Services (OES).

3.2.2.3 Pre-Event Notification

Upon receipt of a weather warning, weather watch, weather advisory, or non-weather-related warning, each level of supervision that supports an incident or event (field support, OEC/REC staff, DCC staff) the Electric Operations' EMO (Emergency Management Organization) will advise pre-designated personnel and take the appropriate pre-event actions. Such actions include placing personnel on alert status; advising employees to pack overnight bags in advance; reviewing emergency plans; identifying key personnel available for restoration activities; pre-staging personnel; evaluating supplies and equipment; and canceling non-critical meetings. Affected emergency centers may activate in anticipation of an event occurrence.

3.2.2.4 Briefings and Conference Calls

Regional Sr. Directors (REC Commander), Superintendents (OEC Commander), and Construction Supervisors (Branch Directors) will coordinate and conduct pre-event conference calls within their regions to discuss activation, staffing, materials, pre-staging, and pre-arranged overtime (POT) resources.

Upon receipt of a weather forecast indicating a Cat 3 weather event, the Senior Manager of Emergency Management and Restoration conducts a briefing for Electric Operations. In the event we receive a weather forecast indicating a higher level complexity event (Cat 4 or 5), the Director of Emergency Preparedness and Response conducts an Enterprise alignment briefing for Electric Operations Officers, Sr. Directors, and key emergency response personnel to discuss the situation and to identify pre-event actions.

3.2.2.5 Available and Pre-Arranged Resources

When forecasted conditions warrant (e.g., PSPS, winter storms, heat events, etc.), the Senior Manager of Emergency Management and Restoration or the Director of Emergency Preparedness and Response, Strategy and Execution, may request that RECs and OECs submit plans in advance of the event for the number and classification of personnel who will be available to respond based on SOPP model outputs. Resource plans are developed two to three days in advance of a forecasted event and updated daily until the event occurs. Available resources include all personnel who are available to respond, including personnel scheduled for normal shifts, those pre-arranged or held-over, and those signed up for the

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212 call-out list. Depending on the event, pre-arranged resources (either crews on shift or those held over) can be expected to meet the minimum staffing levels as identified in the DSO SOPP model. In this case, 212 call-out lists provide supplemental personnel should they be needed.

3.2.2.6 Pre-Staging Resources

When indicated by the nature and severity of the pre-event forecast, the Senior Manager of Emergency Management and Restoration or the Director of Emergency Preparedness and Response, Strategy and Execution may direct pre-staging of crews, personnel and/or certain equipment in areas expected to be severely impacted. Electric Operations Officers will be advised of all pre-event actions. REC Commanders, OEC Commanders, with support from their respective logistics sections, may also activate local staging areas.

As necessary, EOC Logistics will work with the Material and Transportation Coordination Center (MTCC) to support resource requirements including pre-arranging personnel at the distribution centers, specialty stores and service centers, as well as verifying service center inventory stocking levels are adequate to support the event.

3.2.3 Assessment, Restoration and 911 Emergency Response

3.2.3.1 Prioritization Guidelines

A system-wide disturbance has significant differences from a localized event, which results in prioritization guidelines for a system-wide disturbance versus individual outages, as listed below. The priorities below may change depending on the complexity of the incident.

3.2.3.1.1 System-wide Electrical Disturbance

Following a system-wide electrical disturbance, PG&E and/or the Reliability Coordinator/Balancing Authority may initiate a restoration plan. The restoration objectives and strategies are covered in PG&E's Electric System Restoration Guidelines (ESRG). The ESRG aligns with the over-arching System Restoration Plan developed by the Reliability Coordinator in accordance with [NERC standard EOP-005](#).¹⁹ Assessment and restoration priorities are as follows (in order of prioritization from highest to lowest, but note some of the following may be executed simultaneously):

- Safety
- Restoration of off-site power to Diablo Canyon Power Plant (DCPP) Restoration of power to major generating stations
- Restoration of the transmission system backbone

G.O. 166 Standard 1H states: The plan shall include guidelines for setting priorities for service restoration. In general, the utility shall set priorities so that service is restored first to critical and essential customers, and so that the largest number of customers receive service in the shortest amount of time.

¹⁹ <https://www.nerc.net/standardsreports/standardssummary.aspx>

- Restoration of power to peaking plants
- Restoration of control centers
- Restoration of local transmission
- Restoration of interconnected operation
- Restoration of customer load
- Restoration of Defense Critical Electrical Infrastructure

Consideration should be given to requests for priority restoration of customers such as individuals on life support, hospitals, fire departments, police stations, critical communications centers, emergency shelters, sewage treatment plants, and critical water pumping stations. During emergency events, it is imperative that all levels of the organization coordinate its efforts with local and state governments.

3.2.3.1.2 Transmission and Distribution Outages

The following priorities are applicable for any unplanned transmission outages:

- Safety
- Potential equipment overload
- Generation
- Source outage time (More than 24 hours)
- Customers (number) impacted and length of outage
- Load (MW) impacted
- Customers (number) at risk for additional outage(s)
- Load (MW) at risk for additional outage(s)

3.2.3.2 Response and Restoration Criteria

Utilizing available information and sound judgment, the emergency centers will allocate resources to support established restoration criteria and priorities. Restoration priorities are to be re-evaluated throughout the event to ensure optimum allocation and deployment of resources. Response and restoration criteria have been established, which are based on the following priorities:

- **Make Safe** - respond and make safe for the public and PG&E personnel.
- **Assess** - assess outages and damages.
- **Communicate** – communicate timely and accurately, both internally and externally.
- **Restore** – balance the need to provide service to the greatest number of customers in the least amount of time with the need to restore service to small numbers of customers out of power for long durations.

- **Recovery** – the longer-term replacement of damaged infrastructure to support customer rebuild and resumption of load to serve. For additional information, reference the [Disaster Rebuild Annex \(EMER-3012M\)](#).²⁰

Following an event at any level, PG&E’s first priority is to “make safe,” including protecting health and property. The “PG&E Emergency Response Objectives / Priorities” stated in the Company Emergency Response Plan (CERP) are maintained through all phases of response to an emergency.

In larger emergencies when resources are constrained, it may be necessary to establish work priorities for restoration of service. These priorities are operationally driven and are primarily focused on restoring as many customers as soon as possible. Priorities may need to be modified, however, to accommodate the needs of the communities we serve. Work may also need to be coordinated with other infrastructure repairs that may be occurring simultaneously by other utilities, government, and property owners. The EOC, REC, OEC (dependent on the level of emergency) will manage priority/objective-setting in a coordinated manner whenever possible, working with local government and other impacted utilities.

The Incident Action Plan (IAP)²¹ documents the incident and operational period objectives. These represent the strategies and tactics necessary to manage an incident during an operational period²². In alignment with the ICS construct and specifically with the planning cycle, changes to an incident’s objectives/priorities are reflected in updates to the IAP.

PG&E maintains lists of Essential and Critical Customers. Essential customers require electric service to provide essential public health and safety services or meet other criteria set by the California Public Utility Commission (CPUC). To be classified as Essential, a customer must apply to PG&E for this designation. Critical Customers fall into three categories: Public Safety Impacting, Community Impacting, and Schools. This designation is determined solely by PG&E and is internal only.

Both essential and critical customers are highlighted in the Outage Management Tool reports, and their status and restoration can be tracked by the OEC/REC/EOC, customer relationship managers, and other company personnel.

3.2.3.3 Outage Duration Guidelines

Outage duration will be considered when prioritizing outages. The objective is to ensure that ALL customers are addressed within the first 24 hours of the beginning of their outage.

²⁰

https://edrm.comp.pge.com/D2/servlet/Download?auth=basic&event_name=open&version=PUBLISHED&id=09131aad8c982296&format=pdf&_docbase=pge_ecm

²¹ A Level 3 or above activation requires a written IAP. For more information, see the National Incident Management System (NIMS) Doctrine.

²² An operational period is the period scheduled for executing a given set of actions in the IAP. (For example, the length of the operational period may be 12 hours at the start of the incident and adjusted over time, as operations require. PG&E traditionally uses a 24 hour operational period.)

The Electric EMO leadership (e.g., EOC, REC, OEC Commander) will continually monitor the event and the affected outages of extended duration. At a certain point during the event, based on the EMO leadership's judgment, dedicated resources will be assigned to extended duration multiple or single customer outages.

The Electric EMO leadership will:

- Define the number of assessment crews that will be dedicated to single customer outages and extended duration outages (i.e., 1-T-man and 2-Make Safe).
- Define the number of repair crews that will be dedicated to single customer outages and extended duration outages (i.e., 2-Headquarter Crews).
- Engage Customer Strategy to ensure appropriate Interactive Voice Response (IVR), Media and Contact Center messaging is accurate and timely.

3.2.3.4 Coordination Between Transmission, Distribution and Substation

3.2.3.4.1 Level 1 Coordination

Sustained Transmission-Level Outages

If there is a sustained transmission level outage, the GCC will coordinate with T-line, Substation, Distribution, System Protection, and Transmission Operations Engineering to come up with a comprehensive plan on how to assess and restore the system (e.g., Distribution back ties, alternate transmission sources, generator, etc.).

Below are the responsibilities by line of business:

- GCC—initiates call out for evaluation of incident, notifies internal and external stakeholders, initiates IC call, as needed, determines personnel requirements for restoration strategies
- T-line—patrols line for cause
- Substation—statuses and assesses substation
- System protection—provides fault location and relay information
- Transmission Operations Engineering—evaluates current system conditions for additional system reliability issues and restoration strategies
- Distribution—if transmission source to distribution remains out of service for greater than five minutes, distribution will immediately start working on back ties for customer restoration, if available. Distribution will also coordinate with the Customer Care Organization for customer communications and manage ETORs.

Sustained Distribution-Level Outages

Electric Distribution may initiate an IC call during Level 1 operations with a focus on the restoration of customers, the identification of the fault location, and materials and resources needed for repair if there is a sustained distribution-level outage that includes one or more of the following:

- Large mainline outages over 1000 customers
- Large media event—brand-level impact, Electric Reporting Criteria
- Sensitive or commercial customers
- Distribution feeder integrity—deliberate load shedding due to system conditions
- Load at risk—high customer impact for emergency repairs

Key participants in the IC call include:

- Field Operations Superintendent as IC to support mobilization of repair crews
- Restoration Manager, or designee
- Corporate Communications representative to support information through media channels
- The Business Energy Solutions (BES) and Business Operations teams under Business Development and Customer Engagement support communication to critical and essential customers
- Government Relations for communication to our public partners
- Other stakeholders, such as Transmission and Substation leadership, may participate to support engagement from their respective organizations, depending on incident complexity

3.2.3.4.2 Level 2 or Above Coordination

Within Electric Operations there is a parent-child relationship between the different electric organizations as referenced above in Section 2.3. This relationship requires coordination of work and resource prioritization to safely and efficiently restore service to customers. In Level 2 and Level 3 events where an OEC and/or STOEC are activated, the OEC works directly with STOEC to coordinate actions. When the REC and ETEC are activated, the OEC and STOEC summarize their actions to ETEC and the REC.

When the STOEC/ETEC is activated, ETEC provides STOEC with the priorities. STOEC then initiates a situation call with the GCC, STOEC Operations Section Chief, STOEC Planning Section Chief, and the OEC Commander to develop the operational period objectives and implementation plan. Next, STOEC initiates an IC call to communicate the plan to needed stakeholders.

Depending on incident complexity when there are both transmission and distribution outages, Electric Transmission may be included as a Transmission Branch within the Operations Section in an OEC's Incident Management Team (IMT). This Transmission Branch Director helps serve as a key liaison between STOEC and Electric Distribution, which results in improved coordination and assessment/restoration time.

During more complex events where there is a significant number of outages or damage, the EOC will activate and the EOC Operations Section Chief will designate Transmission, Distribution and Substation Branches in the EOC Operations Section to more effectively

manage the response. See Section 5 of the [Company Emergency Response Plan \(CERP\)](#)²³ for additional information.

3.2.3.5 Damage Assessment

3.2.3.5.1 Assessment Goals and Guidelines

The guidelines and goals of Assessment Teams will be consistent with the restoration criteria and prioritization guidelines. Within those guidelines, the following will be considered:

- Safety
- Hazards
- Customer count
- Outage duration
- Crew type and availability
- Current crew activity
- Efficient routing of crews
- Other priority considerations identified by external sources (i.e., critical customers, requirements of government agencies)
- Weather conditions

G.O. 166 Standard 1G states: The plan shall describe the process for assessing damage and, where appropriate, the use of contingency resources required to expedite a response to the emergency. The plan will generally describe how the utility will set priorities, facilitate communication, and restore service.

3.2.3.5.2 Assessment Functions

There are two key functions to the assessment process:

- Field personnel initially assess the damage and make repairs if possible.
- Office personnel manage the information using OMT to ensure the assessment information is timely and accurate throughout the restoration process. By ensuring accurate information, the customer will receive quality information.

As a general guideline, T-men and Make Safe Crews should attempt to restore power if the repair can be conducted within one hour of determining the problem. This guideline excludes sectionalizing, as directed by the distribution control centers, or to make the location safe.

3.2.3.5.3 Transmission Assessment Process

During Level 1 incidents, the GCC contacts a Transmission T-man to respond, as well as system protection to provide the fault location information. The Transmission T-man goes

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to the fault location, conducts an assessment, and reports back to the GCC. If there is a repair location, they report their findings to the GCC and the T-line Supervisor. The T-line Supervisor then determines the resources needed and implements a callout for crew assembly.

During STOEC / ETEC activations, the ETEC Lead works with the GCC to prioritize the order in which the assessment takes place. The ETEC Lead then provides direction to the STOEC IC, so they can prioritize resources for dispatch to execute the assessment plan.

In the event of an earthquake, PG&E's Dynamic Automated Seismic Hazard (DASH) notification system will alert lines of business of the potential risk and assets that may require inspection within 15 minutes of the earthquake. More information regarding DASH and PG&E's process for earthquake response can be found in the [Earthquake Annex \(EMER-3101M\)](#).²⁴

3.2.3.5.4 Substation Assessment Process

During Level 1 incidents, the GCC or DCC contacts an electrician to respond, as well as system protection to provide the fault location information. The electrician statuses the substation, assesses any substation trouble, and reports their findings to the GCC or DCC and the Substation Supervisor. The Substation Supervisor then determines the resources needed and implements a callout for crew assembly.

During STOEC / ETEC activations, the ETEC Lead works with the GCC to prioritize the order in which the assessment takes place. The ETEC Lead then provides direction to the STOEC IC so they can prioritize resources for dispatch to execute the assessment plan.

System Protection supports all outages and protection questions, and provides an on-call Protection Engineer, whenever assistance is needed. For smaller issues, the GCC or DCC directly calls the Protection Engineers that support the area.

3.2.3.5.5 Distribution Assessment Process

The assessment process begins with Central Dispatch in Fresno, which handles dispatching all electric work to T-men. T-men then assess the outage situation and use the Field Automated System (FAS) units in their vehicles to update information in OMT. In the event the circuit has Fault Location Isolation and Service Restoration (FLISR) technology installed and enabled, the FLISR devices automatically isolate the fault location and restore customers in non-faulted zones. A troubleman is also concurrently dispatched to validate the outage location, identify the specific damage, and manually perform further switching and restoration of customers, where possible.

T-men primarily focus on substation, circuit, and mainline outages, which are frequently restored by the operation of switching equipment. Under the direction of the control center, the T-men perform most switching assignments necessary to locate and isolate outages. If

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the T-men are not able to conduct the repair on their own and a repair crew is needed, the Service Planning and Maintenance Supervisor dispatches the repair crew.

During a Level 2 or greater activation, if additional assessment teams are needed (Make Safe and assessment), the OEC Commander determines, in collaboration with the Operations Section Chief and Planning Section Chief, what assessment teams will be needed and where they will be deployed to support the response.

The additional assessment crews are managed by the OEC Dispatch Leader, with support from the Incoming Assessment Desk Leader. The field assessment personnel assess damage and report information to the Incoming Assessment Desk Leader in the OEC or DSR. The Incoming Assessment Desk Leader monitors OMT and ensures work requiring design and compliance specifications are processed by estimating. Assessment information is placed in a job packet and is handed off to the Repair Branch Director of the local service yard in the District Storm Room (DSR). The Repair Branch Director then assigns work to crews for repairs.

As indicated in section 2.2, often during Level 2 or greater emergencies, non-Qualified Electrical Workers (non-QEW) resources serve as standby and damage assessment teams to perform specific functions. These non-QEW resources can be paired with a gas service employee who has an FAS unit in the vehicle. The FAS unit can then be used to communicate outage information, resource deployment status, and materials to OMT, and immediately supports accurate messaging to the customer.

When there are a significant number of outages, Rapid Assessment Strike Teams are requested through the OEC or REC Logistics Section (after local estimator resources have been exhausted). These teams quickly patrol damaged areas, conduct damage assessments, and relay the information to the Incoming Assessment Desk at the DSR/OEC. This assessment information enables the efficient dispatch of crews to make repairs and restore power to customers in a timely manner when there is a high outage volume.

During OEC activations where Central Dispatch retains control of dispatching all T-men and 911 Standby personnel, the Restoration Supervisor is located at the OEC and coordinates and communicates the assessment priority and status with Central Dispatch.

3.2.3.5.6 Dispatch and Increased Outage Volume

Central Dispatch retains dispatch of all tags and T-men until the outage volume overwhelms their available resources and bandwidth. At that point, Central Dispatch can delegate part or all of their dispatch responsibilities to the OEC Dispatch.

Restoration Dispatch will determine if additional resources are needed to field the increase outage volume. Restoration dispatchers and Troublemans will be called in to support and meet customer safety requirements. The Restoration Dispatch Manager or Supervisor(s) will work with the OEC Commander to evaluate the need for additional resources. Once this has been determined, the Field Operations Superintendent or Distribution Control Manager or Supervisor(s) will reach out to the Field Operations Superintendent to request that the OEC is activated in the appropriate division.

In addition to assisting with the dispatch of T-men and 911 Standby, the OEC will also dispatch non-T-men assessment resources (i.e., estimators, crews, etc.) to assess outages.

3.2.3.5.7 Job Package Process

The job package process is a critical element of PG&E's response to electric emergencies. The job package and job package process provides critical review steps and information to support employee and contractor safety. Refer to Figure 3-4 for a high-level process flow diagram on the following job package process.

Outage information comes into PG&E in the following ways:

- Customer call to report power outages and hazards
- Customer online report of power outage
- 911 agency call to report hazards
- Smart meter
- SCADA

The CCOutage (Customer Care Outage) is used by the Customer Service Representatives to enter customer call information in a Trouble Report, and by Gas Dispatch to enter 911 agency call information. This entry automatically generates an OMT Trouble Report. Central Dispatch then dispatches T-men to make safe and perform the assessment. OMT Trouble Reports are also generated direct from customers who report an outage via the automated phone system (IVR) or online at www.pge.com/outage. (During larger events, the OEC may instead dispatch damage assessors or Rapid Assessment Strike Teams to conduct the assessment.) The field personnel (i.e., T-men, damage assessors, or Rapid Assessment Strike Teams) conduct the assessment and provide the following via either FAS or the Inspect Application. In the event that technology is unavailable, the following information will be communicated to the incoming assessment desk at the DSR²⁵ via phone and manually entered into OMT:

- List of materials needed
- Damage information
- Photos
- Location information

The way information is provided to the incoming assessment desk depends on the technology available. For example:

- T-men and GSRs can enter the following information in FAS—ETA or ETOR, comments for the Customer Service Representative (CSR), repair time, IVR cause, and materials information. The data entered in FAS / Mobile Application (MA) is

²⁵ Note an incoming assessment desk may also be located at a base camp or in the field during a circuit or area-based strategy.

automatically updated in OMT, and an EC Notification is automatically created for the incoming assessment desk to view.

- Damage assessors and Rapid Assessment Strike Teams may call or bring the information in to the incoming assessment desk, if a smartphone is not available.
- If a smartphone is available, damage assessors and Rapid Assessment Strike Teams take pictures of the damage, the material list, and the location details (latitude/longitude and address) and email it to the incoming assessment desk.

The incoming assessment desk validates the information, starts the Electric Corrective (EC) Form (or prints the EC Form if received electronically), logs the information on the work location log, and enters or validates the information in OMT. After this:

- If it involves facilities that require loading or sizing (e.g., transformers, poles, etc.), an estimator's input is needed, and they create the job package.
- If an estimator's input is not needed, a Field Compliance Specialist, Estimator or Clerk provides the EC Form and Map to the Work Assignment Desk for dispatch of a repair crew.

Job packages include the following information:

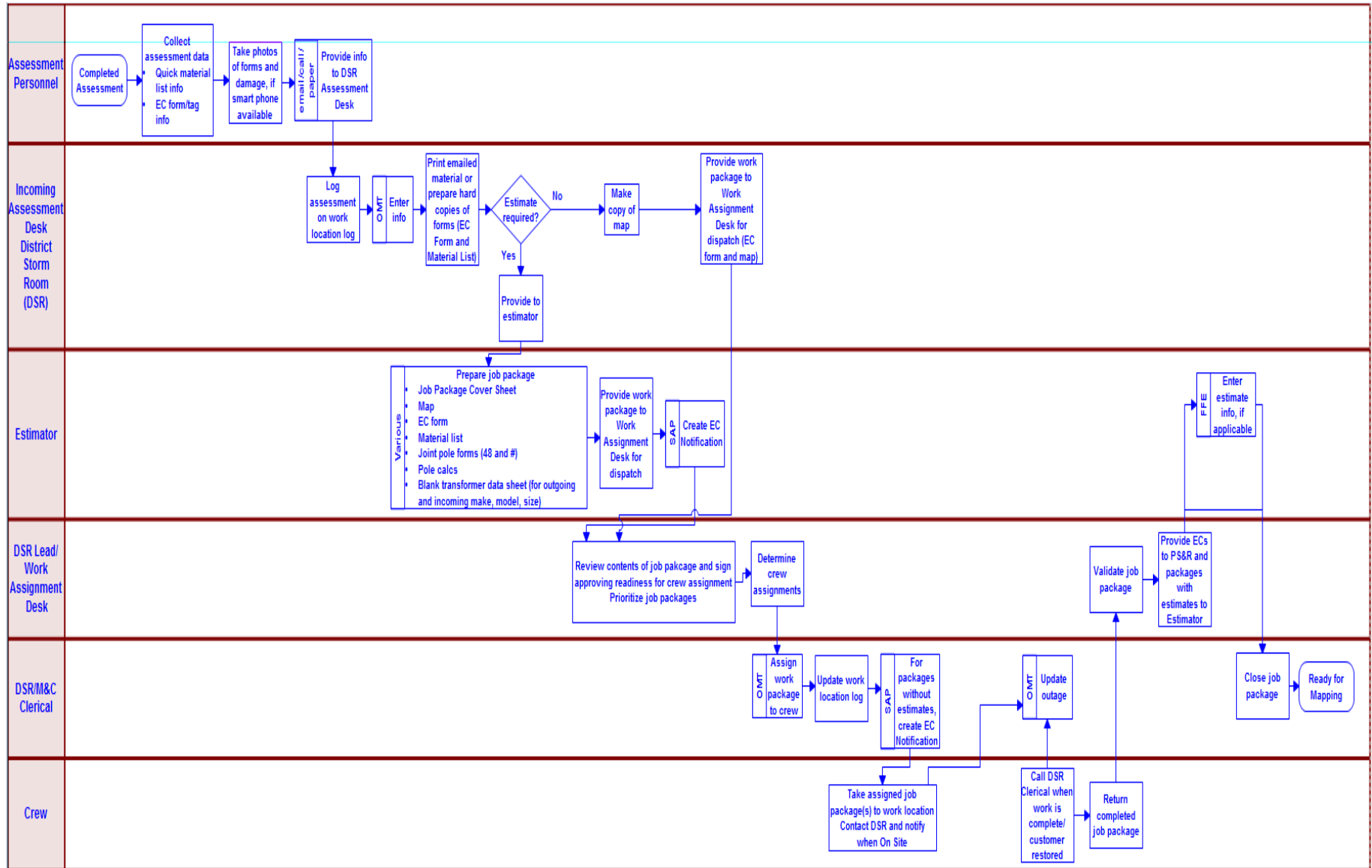
- Job Package Cover Sheet (Form TD-2060P-01-F01)
- EC Form
- Map
- Material List
- Transformer / Equipment Data Sheet
- Pole Numbering Form
- Form 48: Emergency / Urgent Joint Pole Replacements
- Incident Report Form (62-0719) and Hazardous Waste Form, if needed
- Pictures (Latitude / longitude readings are included on pictures or on the map)
- Circuit Map Change Sheet (If Needed)

Once the job package/EC Notification creation is completed, it is provided directly to the DSR Lead or, for larger events, to the work assignment desk. Next, the DSR Lead or work assignment desk reviews each job package for completeness, approves the job package by signing the cover sheet, prioritizes the job packages and determines crew assignments. Clerical support then enters job package crew assignments in OMT and maintains the work location log. Refer to Figure 3-4.

Crews take their assigned job packages to the work location and contact the DSR or use OMT mobile and indicate that they are on site. The DSR will update OMT indicating the onsite of the crew. The crew will then complete the work in accordance with PG&E construction standards and call the clerk in the DSR or use OMT mobile and indicate when the customers are restored/work is completed. The clerk then updates OMT indicating the work is completed. The crews bring the completed job package back in to the DSR when

they return from the field, the crew foreman signs the job package and EC notification as completed, ensures any redline changes are properly documented on the job sketch and EC Notification(s). The DSR will then review the job package for completeness and identification of any incomplete documentation (IDOC) errors. The EC Notification(s) and job package process are then validated and closed out and the work location log is updated to document the return of the job package.

Figure 3-4: Job Package Process



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In a circuit-based strategy, the task force conducts the process in [Figure 3-4](#) out in the field or at a base camp. Additional details include:

- Estimators may be integrated with task forces to create and assign job packages/EC Notifications in the field or at a base camp.
- The TFL calls the control center to true up outage locations with OMT.
- The TFL also brings the information in to the DSR, where they validate and provide quality control, and then send the EC Notification to Public Safety & Regulatory to conduct the close out process.

In larger events, an area-based strategy may be used where a district or division may be divided into smaller geographic areas or branches. (Refer to Area-Based Strategy in section [3.2.3.8.3](#) for details.) In this case, the process above remains the same, whether the incoming assessment desk and work assignment desk are located at the DSR, in the field, or at a base camp.

As mentioned previously, Transmission may be integrated into the DSR/OEC when there are both transmission and distribution outages. When there is a transmission line outage that does not impact distribution, the main steps of the process above are still followed. (A log is created at an incoming assessment desk, transmission estimators provide needed input to the job packages, and the work assignment desk dispatches the job packages to the crews).

3.2.3.6 911 Standby Call Response

During emergency events, downed utility equipment can pose a public safety hazard. Often in these scenarios, the first notification is through 911 and governmental agencies such as fire and police personnel will arrive at the site of the hazard to protect the public. In these situations, the agencies need to be relieved by PG&E personnel so that they can be free to respond to additional priorities. PG&E provides a dedicated phone line²⁶, supported 24/7 365 days a year, for public safety agencies to provide notification when they are standing by a utility emergency. During large-scale events when a significant number of hazards may exist, promptly relieving these agencies becomes critical for public safety. Therefore, PG&E operates a 911 Standby Process, where PG&E personnel relieve on-site agency personnel and, in turn, protect the public from any hazards.

G.O. 166 Standard 1F states: The plan shall describe how the utility will assure the safety of the public and utility employees and the utility's procedures for safety standby. The plan shall include contingency measures regarding the resources required to respond to an increased number of reports concerning unsafe conditions.

3.2.3.6.1 911 Standby Process

After Gas Dispatch receives a call from an agency notifying PG&E they are standing by an emergency, Gas Dispatch sends this information to PG&E Central Dispatch who

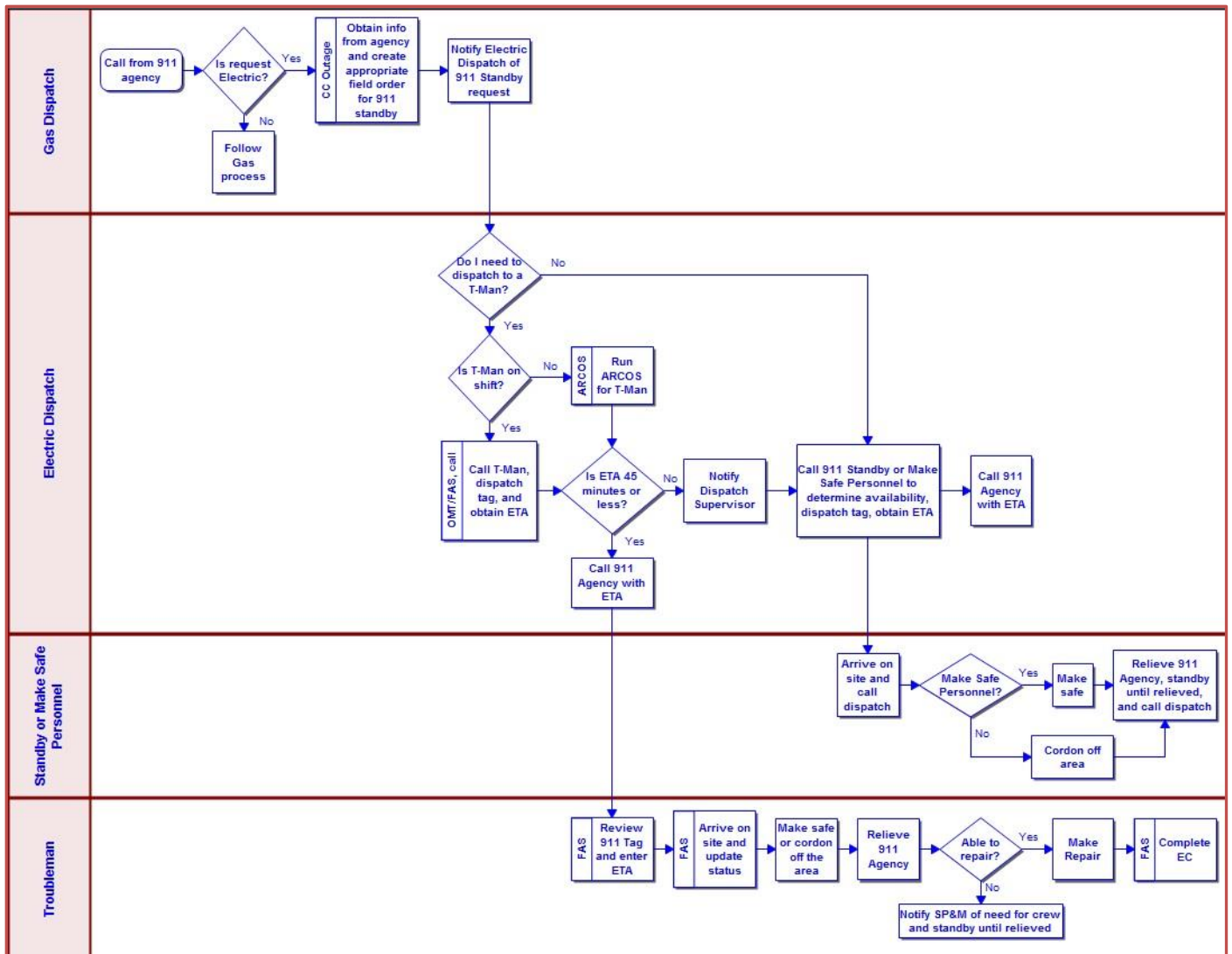
²⁶ (888) 743-4911

dispatches PG&E personnel to the site. (Refer to Figure 3-5 for a high-level 911 standby process flow diagram.)

For a Level 1 incident, a T-man is called to respond. If the T-man is not available, or their ETA is greater than 45 minutes, 911 standby or make safe personnel are dispatched. During larger events, such as a storm, Central Dispatch may first call the following to determine if 911 standby resources are available:

- Restoration Supervisor
- Field Operations
- Field Metering Operations
- Gas Operations

Figure 3-5: 911 Standby Process



To ensure a timely response to agencies, PG&E uses a 911 agency callback process. When agencies call PG&E requesting on-site relief, they may request a callback to confirm relief personnel have been dispatched and receive an estimated time of arrival (ETA).

PG&E has established callback expectations, as follows:

- Contact the requesting agency within 20 minutes of their initial request
- Provide the agency with an estimated time of arrival for PG&E relief personnel
- Update the information and call notification in OMT and monitor until the agency has been relieved

3.2.3.6.2 911 Standby Personnel

In accordance with General Order 166 Standard 9; Personnel Redeployment Standard, PG&E trains additional personnel to support 911 standby request during storm and catastrophic events. When possible, resources are pre-staged based on forecasted SOPP model impact. These employees guard a location until a qualified electric crew, make safe crew, or T-man arrives to clear and or repair the hazard.

G.O. 166 Standard 9 states: The utility shall maintain a training and redeployment plan for performing safety standby activities and assessing damage during a major outage. The utility should plan to have personnel available to augment the number of employees whose duties include safety standby and damage assessment activities. The utility shall identify and train additional employees to perform safety standby activities and assess damage during emergencies requiring such activities and major outages, and in lieu of their normal duties.

Standby personnel are one or two-person crews with limited knowledge of field equipment. These crews often consist of meter readers, meter technicians, gas service representatives, or gas construction workers. Standby crews generally do not have equipment switching skills, or the ability to estimate the magnitude of the repair and restoration timeframe. They are used primarily as “standby” to relieve a 911 agency. 911 Standby training is facilitated by PG&E leadership using established training material and including the presence of a qualified electrical worker to assist in training facilitation.

911 Standby personnel are dispatched to each location using the Outage Dispatch Tool (ODT) in OMT. Personnel are dispatched using the crew type “Standby”. Outage orders with a crew type of “Standby” will be prioritized to ensure a T-man or make safe is dispatched to address to public safety condition and relieve the 911 standby personnel.

3.2.3.6.3 911 Calls on Large Events

In large events, such as earthquakes, Gas Dispatch will staff the appropriate amount of resources to take incoming 911 agency calls. Central Dispatch also has personnel, if needed, to take 911 standby calls at the Fresno RMC, which consists of clerical employees.

When the outage volume from the number of 911 calls overwhelms Central Dispatch’s available resources and bandwidth to dispatch tags to 911 standby personnel, Central Dispatch can delegate part or all their dispatch responsibilities to the OEC. Refer to section [3.2.3.5.6](#) for details.

3.2.3.7 Make Safe

If the volume of outages exceeds the number of T-men, Title 200 (M&C division) crews can be broken up into two-person teams to address hazardous conditions. These teams are

managed by the Dispatch Leader in the OEC, who is responsible for prioritizing, dispatching, and tracking all work performed. When outage volumes reduce to the point manageable by the T-men, these make safe teams are remobilized as crews and redeployed to repair and restore service.

3.2.3.8 Response Strategies

PG&E may use different assessment and restoration strategies based on the complexity of each incident. For example, if there is a small number of outages during a routine response, PG&E uses an order-based strategy. In larger incidents with a greater number of outages, it may no longer be efficient to assign work by individual orders. In this case, work may be assigned by areas or circuits to improve coordination and assessment/restoration time.

3.2.3.8.1 Order-based Strategy

In an order-based strategy, in alignment with the above-mentioned priorities and depending on the amount of damage, T-men or repair crews are assigned to each individual outage order, as appropriate. For example, in Electric Distribution, as outages come into OMT, a unique OIS number is automatically created for each outage. Central Dispatch then prioritizes and assigns each outage order to a T-man. Once the T-man completes their assessment, estimating develops the job package which is then assigned to a crew to repair or replace damaged infrastructure and restore customers.

3.2.3.8.2 Distribution Circuit or Transmission Line-Based Strategy

In Electric Distribution, a Circuit-Based Strategy is designed to improve coordination, assessment, and restoration of highly impacted circuits with multiple cases of trouble and can be used on any circuit identified as high risk. These circuits may warrant a circuit-based assessment and restoration strategy depending on characteristics including, but not limited to, the following:

- Weather forecast
- Actual conditions
- Significant number of outages and damage locations
- Control center call volume
- Management of outage communications
- Impact to critical and essential customers

The circuit-based strategy is implemented at the request of the OEC or REC Commander, and EOC Operations Section. In a circuit-based strategy, a task force may be assigned to an entire substation, a specific circuit, or source side device to manage either pre-identified high-risk circuits, or circuits that meet outage and/or hazard thresholds during a storm event. This task force may be comprised of a TFL and the following strike teams: T-men, rapid assessment, vegetation management, 911 standby, and make safe. (Refer to Figure 3-6 for an example circuit-based task force organization structure.)

T-men make safe/assess the primary line damage starting from the circuit breaker (CB) or source side device, at the direction of dispatch, the DCC Distribution Operator, or the TFL. They then identify damaged equipment locations, make locations safe, and report findings to the Incoming Assessment Desk.

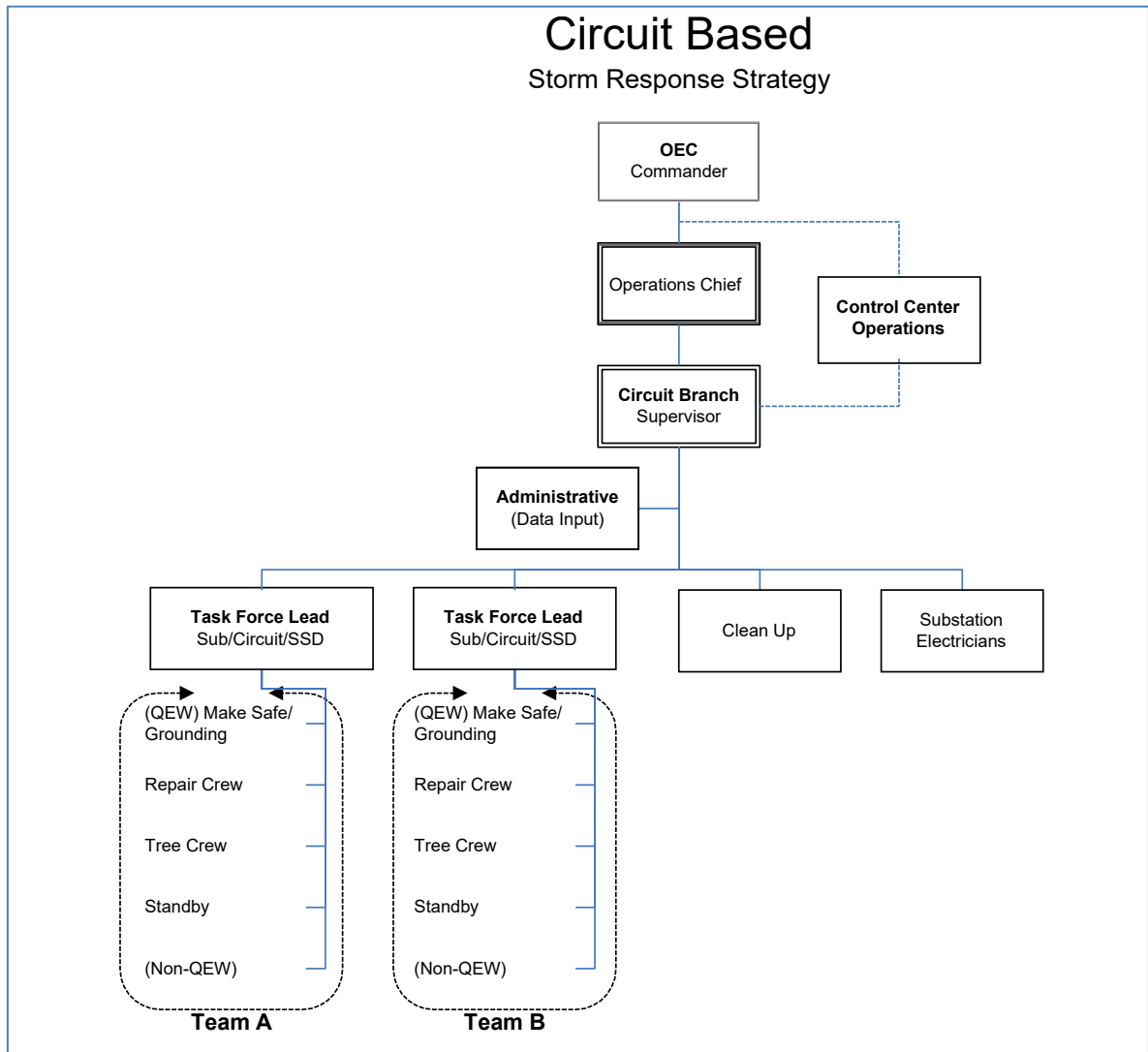
Rapid assessment teams/estimators assess damage or leverage assessment information to develop job packages including loading and sizing materials and equipment. For more information, refer to Section [2.2.3](#).

Repair crews follow the T-men and estimators, under the direction of the TFL, and can be responsible for any of the tasks below:

- Making the primary main line safe
- Reporting damage to the DSR, rapid assessment team, or estimator
- Making repairs and restoring primary main line sections, as they become available, under the direction of the Distribution Operator and in alignment with estimating design when appropriate
- Assessing radial/tap lines for damage, report, repair, and restore

For Electric Transmission, a Line-Based Strategy may be followed to improve coordination, assessment, and restoration of highly impacted lines with multiple cases of trouble. The Line-Based Strategy is implemented at the request of STOEC/ETEC, and additional crews are assigned to the highly impacted lines.

Figure 3-6: Example Circuit-Based Organization Structure



3.2.3.8.3 Area-Based Assessment / Restoration Strategy (Branches)

When there is a larger volume of outages or damage in an area, it is no longer efficient to assign work based on individual orders. Instead, an area-based restoration strategy is used to assign work by geographic areas or circuits. This approach leverages the scalability of ICS and positions the emergency management organization to mitigate incident complexity resulting from the overlap of geographic area responsibilities.

The positions listed in Table 3-6 determine how to divide an area, based on:

- The location and volume of damage or projected damage
- Geography (e.g., an area is divided by a river, mountain range, etc.)
- Customer density

Where possible, the determination of the areas is made using the SOPP Model prior to an event, such as an incoming storm, etc.

Table 3-6: Electric Authority to Determine Areas

| Area Being Divided | Who Determines Areas? | Who Approves Areas? |
|---|---|---------------------|
| Divide district or division into smaller areas/branches ²⁷ | REC Planning Section Chief in collaboration with the Operations Section Chief (OSC), and with input from the Logistics Section Chief (LSC). | REC Commander |
| Divide STOEC into areas/branches ²⁸ | ETEC Lead working with STOEC IC | ETEC Lead |
| Divide region into smaller areas/branches | EOC Planning Section Chief in collaboration with the OSC, and with input from LSC on support. | EOC Commander |
| Any divisions made due to an earthquake | EOC Planning Section Chief working together with the OSC, after reviewing the damage model. The LSC also provides input on support. | EOC Commander |

In the field, Task Force Teams are assigned to Branches and are responsible for all damages in their area until restoration is completed.

Following a Level 4 or 5 event, such as a significant storm or earthquake, damages will be widespread, multiple commodities will be impacted, and thousands of personnel may be required to restore the system. It is not enough for one local OEC to manage many major incidents with extensive damage in one division, for example.

To effectively manage the event and maintain an adequate span of control, the REC's, OEC's, or STOEC's operational control may be divided into smaller areas (or Branches), as needed. (Refer to Figure 3-6, Figure 3-7, and Figure 3-8 for example branches.)

²⁷ If the EOC is activated, the determination and approval of the areas are made at the EOC, with input from the REC and ETEC.

²⁸ Ibid.

Figure 3-7: Example of OEC or REC Divided into Branches

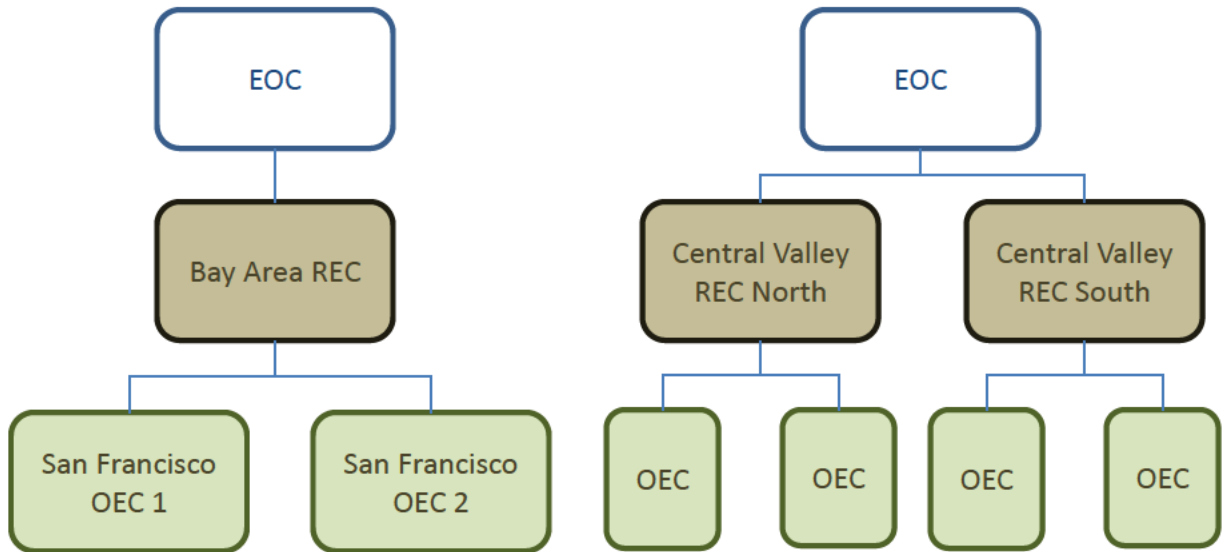
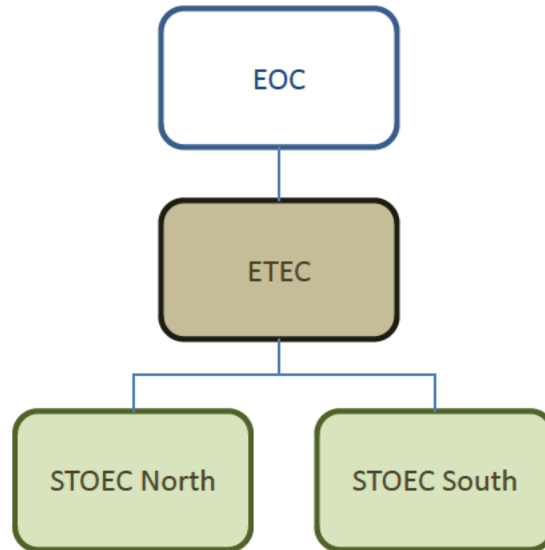


Figure 3-8: Example of STOEC Divided into Branches



Following a significant earthquake, a DASH report is published within 15 minutes and provides information and estimates of damage to support assessment prioritizations. For more information on earthquake response please see the [Earthquake Annex \(EMER-3101M\)](#).²⁹ The EOC Planning Section Chief, in collaboration with the EOC Operations Section Chief, will review the damage model information and identify if additional RECs,

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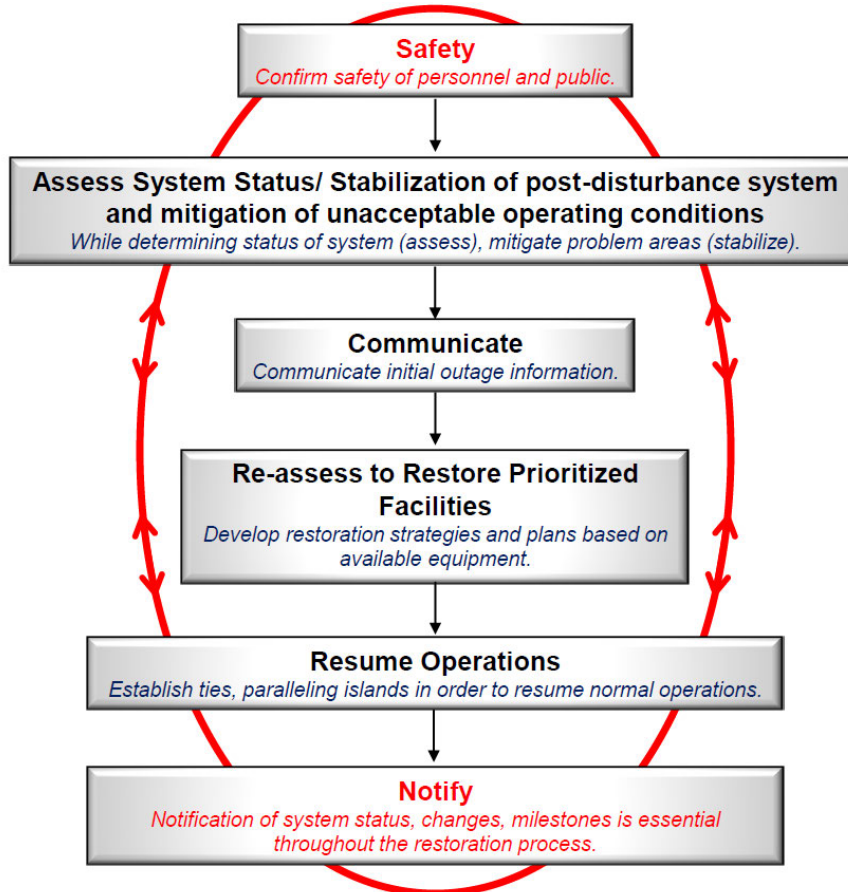
OECs and STOECs are needed. The EOC Logistics Section Chief also provides input on whether they can support the areas, and the EOC Commander approves the plan.

The EOC Commander, or designee, then notifies the REC Commander and the ETEC Lead of any needed changes to the organization or jurisdictional control, such that pre-identified teams (leadership, administrative, assessors, Service Planning and Maintenance crews, etc.) can mobilize and make their way to the affected area. (For additional information and graphical examples, please see the [CERP](#)³⁰).

Once a divided area has completed restoration of its responsible area, or if the existing REC, OEC or STOEC is ready to resume responsibility, the divided area will return to the existing emergency center for jurisdictional control.

When an operator becomes aware of a system disturbance and large-scale outage, Figure 3-9 (as taken from the Electric System Restoration Guidelines) provides a strategic and prioritized approach to system restoration.

Figure 3-9: Electric Transmission Restoration Strategy for Large Scale Blackouts / Post Disturbance



The first priority is to confirm the safety of personnel and the public. Next, in the event of a partial or complete system outage, the system must be assessed to determine the status and state of the system and facilities, and if conditions exist that require the mitigation of unacceptable operating conditions.

Initial outage information is then communicated to the following (not necessarily in this order):

- CAISO
- System Dispatchers in the GCC
- Transmission and Distribution Operators
- Short-Term Electric Supply
- Federal, State, and Local authorities and agencies
- Generating plant personnel
- Substation personnel
- Management
- Exterior Generating entities
- Corporate Public Relations

In alignment with the prioritization guidelines mentioned in section [3.2.3.1](#), re-assessment is then conducted to restore prioritized facilities, generation, and loads. (Note the utilization of load focuses on the stabilization of the system rather than the immediate need to restore customers.)

PG&E and CAISO can resume normal operations once the system restoration emergency has been terminated, authority has been returned to CAISO, and CAISO has lifted the suspension on CAISO markets. Normal operations can resume at the point in the restoration process when the next load to be restored is not driven by the need to control frequency or voltage.

Steps for resuming normal operations include:

- Establishing additional transmission ties, starting with restoring the strongest ties first.
- Synchronizing/paralleling islands

It is essential throughout the restoration process that changes in system status, changes, and milestones, etc. are communicated. Notifications should be made to:

- Reliability Coordinator
- WECC
- Balancing Authorities
- Transmission and Distribution Operators

- External Government agencies
- Corporate entities
- Internal News media

For additional information on black start resources and restoration principles, refer to the Electric System Restoration Guidelines (ESRG).³¹

3.2.3.8.4 Electric Transmission Restoration Strategy for Large Scale Blackouts / Post Disturbance

During Levels 1 and 2 incidents, assessment and restoration priorities are established locally between the Substation Maintenance and Construction (SM&C) Superintendent and the GCC. When STOEC is activated during Level 3 or greater incidents, priorities are established between the STOEC and the GCC, or ETEC, if activated. In the event of only localized damage, the local Distribution Operations organizations may suggest or request priority for restoring distribution customers.

SM&C provides a resource pool that can assist in performing switching inside substations, demolition, cleanup, reconstruction work, and other functions. Substation Engineering Services, System Protection, and Automation/SCADA provide engineering services to support restoration activities, as needed.

The following are some of the strategies to restore customers impacted by a substation emergency:

- Splitting of buses
- Step restoration supported by Transmission and Distribution field level switching
- Bypassing of substations to restore downline capacity
- Above ground cabling
- Mobile substation generation
- Transmission-level islanding conditions

Execution of these strategies will be facilitated in the IC call process, as stated in section 3.2.3.4.1.

3.2.3.8.5 Electric Distribution Critical Customer Strategy

PG&E currently maintains in OMT lists of critical and essential customers (as defined in section and the [CERP](#)³²). When an outage occurs involving a critical or essential customer, it is noted in OMT, and those circuits are considered for priority assessment and

³¹ Contact Electric Transmission for access.

³²

restoration. During the outage event, the Customer Care Organization will assign a Customer Strategy Officer (CSO) in the REC or OEC to serve as the affected customer's point of contact.

To facilitate efficient restoration of a county's prioritized customers, Emergency Management, in collaboration with each division's Superintendent, has put together critical customer packages that include key information on the customer (e.g., map, equipment information, key pictures, contact information, etc.). These packages will be kept at the OEC. When an outage occurs that impacts one of the prioritized customers, the appropriate customer package is quickly assigned to field personnel to begin assessment and restoration efforts.

PG&E has also further prioritized its internal list of essential and critical customers for restoration following a catastrophic event. These priorities are reflected in OMT reports, and their status and restoration can be tracked by the EOC/REC/OEC, customer relationship managers, and other company personnel. PG&E's prioritized lists of critical and essential customers will be shared with County governments for their review if the County signs a non-disclosure agreement.

3.2.3.8.6 Electric Distribution Catastrophic Event Strategy

When there is a significant volume of outages related to a catastrophic event, leadership may decide to implement a resource allocation strategy called "60-30-10". This strategy directs resources according to the following model:

- 60% of resources are dedicated to addressing outages that have the highest number of customers out of power and/or length of outage, including considerations for equipment with extensive damage or equipment that is especially critical (e.g., certain substations, etc.).
- 30% of resources are dedicated to the assessment and restoration of the prioritized customers, that were determined in collaboration with our government partners, and PG&E's prioritized critical and essential customers. Depending on the type of catastrophic event and the situation in the community, this percentage may also include dedicating resources to key customers that are required to stand up a community quickly (i.e., community normalcy customers).
- 10% of resources are dedicated for priority or unique issues encountered throughout the ongoing assessment and restoration process.

3.2.3.9 Capacity Emergencies

During a system-wide capacity event, it is the GCC duty to direct the execution of the CAISO's orders. In a localized event, the GCC is responsible for maintaining the integrity of the electric system. For additional information, please refer to [PG&E's 2020 Electric Emergency Plan Revision 26.0](#)³³.

³³Access permission required for this site: [REDACTED]

3.2.3.10 Restoration Work Plan and Strategic Worksheet

To support the development of a restoration and resource movement strategy during an event, PG&E uses a tool to forecast the system-wide Estimated Time of Arrival (ETA) and Estimated Time of Restoration (ETOR). The Restoration Work Plan was built to identify geographic areas that may be in need of more personnel to support restoration efforts. The tool utilizes current and forecasted outage and resource counts to estimate the total time of restoration on system-wide, regional, and divisional levels. Historical assessment and restoration times for the current type of weather event and geography drive resource productivity assumptions. By comparing the ETOR across all PG&E divisions, incremental resources can be directed towards those geographies that need them most. The Restoration Work Plan can also be used to analyze the impact of any number of scenarios. For example, the impact on the overall ETOR due to an incoming storm or the addition of mutual assistance crews can be forecasted.

G.O. 166 Standard 2 requires California electric utilities to enter into mutual assistance agreement(s) to the extent that such agreements are practical and would improve emergency response. G.O. 166 Standard 2 stipulates that agreements include:

- A. Resources that are available to be shared
- B. Procedures for requesting and providing assistance
- C. Provisions for payment, cost recovery, liability, and other financial arrangements
- D. Activation and deactivation criteria review

The Emergency Response Strategic Worksheet (located in the [Emergency Management Website](#) under Templates) works in tandem with the Restoration Work Plan by enhancing the ability of Emergency Management personnel to develop local tactical plans. By supporting the development of ETORs and ETAs, the Strategic Worksheet enhances the development of local resource allocation plans. Estimates are created by inputting resources, outages, and equipment damage into the worksheet and can be utilized and continually updated during an event.

3.2.3.11 ETA and ETOR

In accordance with G.O. 166, it is important to regularly provide accurate and timely Estimated Time of Arrivals (ETAs) and Estimated Time of Restorations (ETORs) to our customers, in addition to quickly and safely restoring their service. This can only be achieved with the participation and partnership of the following during Level 1 incidents:

- DCC leadership has oversight responsibilities and ensures action is taken to provide accurate and timely outage communications.
- Central Dispatch dispatches tags to the T-men and contacts them if an ETA has not been entered in a timely manner, or if the Automatic ETOR (Auto-ETOR) is about to expire.
- T-men enter an ETA, enroute, and onsite status in FAS. They also update the ETOR in FAS if they are restoring power to the customers. If a crew is required, T-men update the Estimated Repair Time (ERT).
- When a crew is needed, the crew communicates their ETA, enroute and onsite times via ODT or by contacting Central Dispatch. If the outage will last beyond the ETOR, crews must update the ETOR time and date. Communication will be made directly

with the assigned crew confirming on site status when the ETOR reaches Yellow status (30 minutes prior to expiration).

- During Transmission/Substation sustained outages, Transmission/Substation provides an ETOR to the control center on a coordination call.

During escalated events, it is essential to continue to provide accurate communications to our customers. In these more complex events, the Auto-ETOR is disabled and an outage communications strategy is determined to provide more realistic estimates to our customers.

Listed below are the roles and responsibilities in developing an ETA/ETOR Strategy:

- Planning Section develops the ETA/ETOR strategy and operational period objective recommendations.
- The emergency center commander reviews and approves the ETA/ETOR strategy and objectives.
- The Operations Section Chief directs data entry for ETA input, using the forecasted assessment time as a guideline.
- Once assessment has taken place and the outage is in the restoration filter in OMT, the supervisor in the DSR directs data entry of an ETOR that accounts for resource availability, repair time, and weather conditions.
- When a circuit-based strategy is used, the Operations Section Chief, or their Deputy, directs data entry input for ETA/ETOR.
- Customer Care works with Government Relations, External Media and Contact Centers to use other forms of communications to provide outage information to customers in OMT and to escalate issues to the emergency center commander.

For additional details on communicating ETORs to our customers, refer to section [4.2.1 Customer Outage Communications](#) and section [4.2.4 Major Outage Reporting](#) or [EMER-3002P-01 – Electric Operations Estimated Time of Restoration Procedure](#)³⁴.

3.2.4 Resource Management

As in any work situation, work must be prioritized in an emergency event. These priorities, noted as the operational period objectives in the Incident Action Plan (IAP), are operationally driven and are primarily focused on restoring as many customers and responding to the emergency as safely, efficiently, and quickly as possible. However, to complete the work, resources must be managed. This includes organizing, assigning, and tracking resources (personnel, equipment, materials). The following describes PG&E's approach in Electric Operations to resource management during emergency events.

G.O. 166 Standard 7 requires PG&E to evaluate the need for mutual assistance during a Major Outage, as defined by the CPUC. PG&E's evaluation of the need for mutual assistance involves a multi-step process that is repeated for the duration of events or incidents. Generally, PG&E considers the use of mutual assistance based on the following conditions:

- In advance of an impending storm that could cause significant damage based on DSO SOPP model and PSPS forecasts
- Whether or not the number of available PG&E resources and contractors are adequate in relation to the size and scale of an emergency and the restoration timeline
- Travel time for supporting utilities

The type of work is also a factor. Personnel needed to support the emergency response may require specialized training on PG&E assets.

3.2.4.1 Check-In and Check-Out Process

Resource management begins with an accurate check-in and out process of responding personnel. Understanding the resources available during an event is critical to an effective response.

CAP# 120600375
(Yosemite) – Serious
Injury and Fatality (SIF)
Recommendation –
Resource Track and
accountability

The Resource Unit will establish and oversee the check-in/out function at designated incident locations. To establish a check-in/out desk, the Resource Unit Leader will assign a Recorder to each location where resources will check-in and out daily. If the Resource Unit has not been activated, the Commander or Planning Section Chief owns the responsibility for setting up the check-in/out process.

After designating a Recorder to manage a check-in/out desk at each facility, the Recorder ensures that all personnel arriving to work an event must check themselves into the event before working. Recorders must have an adequate supply of check-in forms, access and training in ARCOS Crew Manager and be briefed on the frequency for reporting check-in information to the Resource Unit. Maintaining and tracking the status of all personnel through the check-in process is vital and essential for personnel safety, accountability, and fiscal control.

All resources must check in/out daily through the check in/out desk at their assigned incident location (e.g., EOC, REC, OEC, Base Camp, Staging Area, etc.). All responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander. Arriving field personnel should report to the Incident Command Post (ICP), which may be in an Emergency Center, other

facility, or in the field. Refer to section 3.2.4.10.1 on tracking crews in ARCOS Crew Manager.

Once checked in, crews will receive work packages from the DSR Lead or their delegate. Refer to section 3.2.3.5.7 for details on creation, distribution, and completion of job packages.

3.2.4.1.1 Incident Related Injury Reporting

All personnel will receive a safety briefing before commencement of work. The ICS uses unity of command, meaning that each person is accountable to only one designated leader to whom he/she reports at the scene of an incident. These principles clarify reporting relationships and eliminate the confusion caused by multiple, conflicting directives. Once assigned to an incident, personnel report only to their designated supervisor in the ICS structure. All personnel assigned in response to incidents must immediately notify their direct lead, supervisor, etc. (i.e., to whom they are assigned during the incident) of any incident related injuries, their home base supervisor, etc., and/or the Nurse Care Line per their program, department or LOB procedures. Leads, supervisors, etc., who are notified of any incident related injury or illness must notify the Safety Officer assigned to the activated Emergency Center. The Safety Officer must track and report all incident related injuries or illnesses in a timely manner.

CAP# 120600375
(Yosemite) – Serious Injury
and Fatality (SIF)
Recommendation – Safety

3.2.4.2 PG&E Contract Crew Support

PG&E has contracts in place to use contract crew and/or equipment resources during incidents where company resources alone are not able to restore our electric infrastructure in a timely manner.

3.2.4.2.1 Contracts for Emergency Response

The Sourcing Department issues contract agreements on an annual basis to help in restoring electric service during an emergency response. Agreements are established with contractors to provide assistance upon request, and includes furnishing personnel, equipment, and/or expertise in a specified manner. During an emergency event, Logistics is responsible for managing the contracts and issuing emergency purchase orders.

3.2.4.2.2 Contract Crew Request

Once a need arises for contract crews, the Contract Resource Owner (Major Projects & Programs, Field Operations, T-line) makes an initial call to determine current contractor availability on property. If more contract crews are needed, the Contract Logistics Manager contacts the contractors for additional resources. If there is still a shortage of resources, the EEI/Mutual Assistance process is followed to release contract crews from other utilities.

3.2.4.2.3 Dispatch and Supervision of Contract Crews

The Contract Resource Owner dispatches contract resources based on the direction of the EOC Operations Section (Contract Resource Owner provides crew counts and availability

to the EOC Resource Management Unit Leader. The EOC Resource Management Unit Leader directs the Contract Resource Owner on where to send the contract crews.)

Contract Resource Owner manages contract crew support and works with the Operations Section in the OECs/RECs to provide supervisors/inspectors to support contract crews when they arrive at a base camp or alternative work location.

The Contract Resource Owner is responsible for providing supervisors/inspectors of contract crews after they check in at the local area.

3.2.4.2.4 Record Keeping

The MP&P Central Administration ensures all applicable time for contract crew personnel is logged and tracked, including any associated costs for equipment repairs and required personnel expenses. The MP&P Central Administration, in conjunction with the Distribution Supervisor, reviews and approves Labor, Material and Equipment (LM&E) sheets to validate time and work completion. The MP&P Central Administration enters and tracks costs in their tracking data base and enters goods receipts into SRM/SAP to initiate the payment process.

Refer to section 3.2.4.10.1 on tracking contract crews in ARCOS Crew Manager.

3.2.4.3 Mutual Assistance

G.O. 166 Standard 2 states: The utility shall enter into mutual assistance agreement(s), such as those facilitated by the California Utilities Emergency Association, to the extent that such agreements are practical and would improve emergency response. The utility shall submit the agreements annually to CPUC designated staff as part of the report required by Standard 11.

3.2.4.3.1 Agreements and Requesting Mutual Assistance

The term “Mutual Assistance,” in the context of this Annex, is intended to mean any crew from another utility. The company has established agreements [i.e., California Utilities Emergency Association (CUEA) and Western Region Mutual Assistance Agreement (WRMAA), etc.] with other utilities to provide or receive assistance to help restore electric and gas service during a major emergency. There are written agreements with other utilities for providing assistance, upon request, and includes furnishing personnel, equipment, and/or expertise in a specified manner.

G.O. 166 Standard 11 states: The plan shall describe how the utility intends to employ resources available pursuant to mutual assistance agreements for emergency response. Mutual assistance shall be requested when local resources are inadequate to assure timely restoration of service or public safety. Mutual assistance need not be requested if it would not substantially improve restoration times or mitigate safety hazards. The plan shall recognize the need to communicate mutual assistance activities with the State Office of Emergency Services, through the UOC/OES Utility Branch, during an emergency.

Refer to the CERP on how to evaluate the need for mutual assistance, the request process, and record keeping.

3.2.4.3.2 Supervision of Mutual Assistance Crews

The supervision of mutual assistance crews is the same as for contract crews. Refer to the [CERP](#)³⁵ for more information on Mutual Assistance.

G.O. 166 Standard 7 states: No later than 4 hours after the onset of a major outage, the utility shall begin the process of evaluating and documenting the need for mutual assistance. The utility is not required to seek assistance if it would not substantially expedite restoration of electric service or promote public safety. The utility should reevaluate the need for assistance throughout the period of the outage.

3.2.4.4 Deployment Order and Priorities

Decisions regarding allocation and deployment of resources should be based on priorities that govern assessment or restoration. Refer to the [CERP](#)³⁶ for additional details on deployment priorities.

The order for requesting and deploying personnel resources includes, but is not limited to:

- Division
 - T200 distribution (Field Ops division crews) from within the impacted division
 - T300 distribution (General Construction crews) from within the impacted division
 - T300 transmission and T200 transmission from within the impacted division (given there are no transmission impacts or risk)
 - Contract from within the impacted division
- Region
 - T300 distribution from within the impacted region
 - T200 distribution from within the impacted region
 - Contract from within the impacted region
- System
 - T300 distribution from less impacted regions
 - T300 transmission and T200 transmission from less impacted regions (given there are no transmission impacts or risk)
 - T200 distribution from less impacted regions

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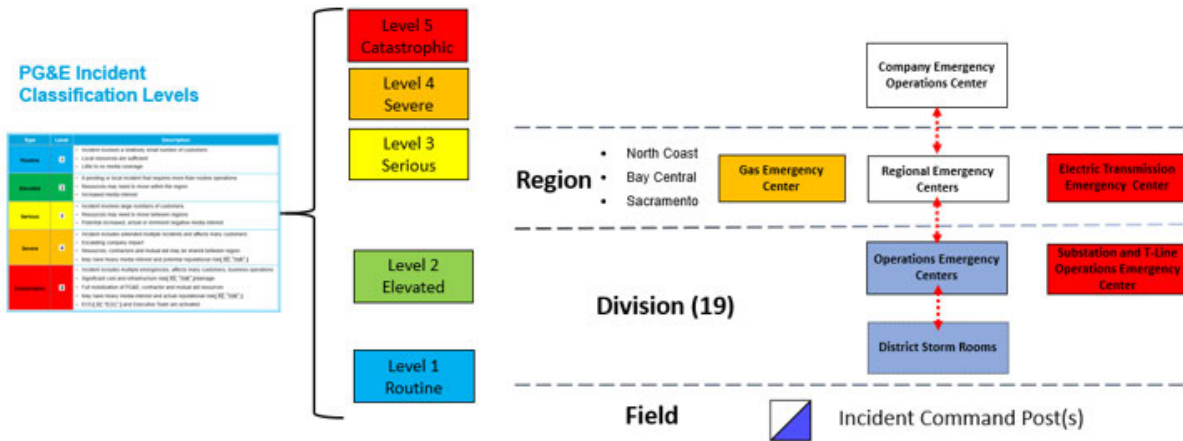
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- Contract from less impacted regions
- Non-electric resources
- Non-PG&E Resources
 - Contract crews released from outside utilities to support our emergencies
 - Mutual assistance crews

3.2.4.5 Resource Movement Authorization

The Senior Manager of Emergency Management and Restoration has the authority to move resources across region boundaries during a Level 2 or greater emergency when the EOC is not activated, and in pre-event preparations. In Level 2 emergencies, the OEC Commander has the authority to move resources within their respective division to facilitate restoration of service. In a Level 3 where the REC is activated, the REC Commander has the authority to move resources within their respective region. The on-call EOC Commander or Director of Emergency Preparedness and Response, Strategy and Execution, has the authority to move resources across region boundaries. In this case, the EOC Resource Management Unit Leader will activate to support the mobilization of resources.

Figure 3-10: PG&E Incident Levels and Emergency Facilities



In a Level 4 or greater emergency where the EOC is activated (Figure 3-10), the EOC Commander has the authority for all resource allocation and deployment. Resources are deployed in accordance with priorities and strategies recommended by the Operations Section, Planning Section, and Logistics Section. In addition, upon obtaining necessary officer approval, contractors and mutual assistance can be activated.

For Electric Transmission, ETEC develops the resource plan, based on input from electric distribution and transmission. When the ETEC Lead approves the plan, ETEC then communicates the plan to STOEC to execute. (STOEC is responsible for managing the transmission repair workforce during an incident.)

3.2.4.6 Resource Movement Management

During emergencies, resource movement logistics are managed by different roles. Table 3-7 defines which party executes this responsibility.

Table 3-7: Resource Managing and Ordering Authorities

| Activation Level | Ordering Authority (Distribution) | Managing Authority (Distribution) | Ordering Authority (Transmission & Substation) | Managing Authority (Transmission & Substation) |
|-------------------------------------|---|-----------------------------------|---|--|
| Level 1 Division / Area | Local Supervisor or above | Local Supervisor or above | Local Supervisor or above | Local Supervisor or above |
| Level 2 OEC / STOEC | OEC Logistics Section Chief | OEC Resource Unit | STOEC Logistics Section Chief | STOEC Resource Unit |
| Level 3 or greater OEC / REC / ETEC | REC Logistics Section Chief | REC Resource Unit | Logistics Section Chief | Resource Unit |
| Level 3 or greater EOC | EOC Logistics Section Chief (non-personnel request); EOC Crew Logistics (personnel) | EOC Resource Unit | EOC Logistics Section (non-personnel request); EOC Crew Logistics (personnel) | EOC Resource Unit |

3.2.4.7 Resource Request Process for Electric Transmission and Substation

For Electric Transmission and Substation during Level 1 incidents, the Supervisor secures resources locally. If additional resources are needed, it is escalated to the superintendent, who assists with securing additional resources.

If STOEC or ETEC is activated, a request for additional resources is called in from the field to STOEC's Operations Section. The Operations Section then makes the request to Logistics for additional resources. Upon receipt of the request, Logistics looks within the same area first to secure additional resources. If resources are not available in the same area, Logistics looks to fulfill the request from adjacent areas. If no resources are available, the STOEC Logistics Section Chief submits the request to the EOC Electric Transmission Branch Director, and the Electric Transmission Branch Director provides the request to the EOC Resource Management Unit Leader for personnel and the EOC Planning Section Chief for non-personnel resources.

3.2.4.8 Resource Request Process for Electric Distribution

3.2.4.8.1 For Level 1 Incidents

For Electric Distribution local headquarters, the on-call supervisor uses the 212 process to secure Title 200 resources locally. If additional resources are needed, the on-call supervisor calls neighboring headquarters or the local GC Superintendent, and then utilizes the local contract crew callout list.

If more resources are needed outside the division, the on-call supervisor contacts the on-call supervisors from adjacent divisions within the Region. Then ARCOS can be used to callout resources from the 212 list in neighboring divisions.

If more resources are needed outside the Region, the Maintenance and Construction (M&C) Superintendent will call the EMS Duty Officer to request support. The EMS Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader. For Level 2 or greater incidents

The DSR submits a resource request to the OEC Logistics Section. The OEC Logistics Section works with the REC Resource Unit to determine which resources to move.

- If they do not have enough resources within the division/region and the:
 - REC is not activated, the OEC Logistics Chief will call the EMS Duty Officer to request support. The Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader or the Senior Manager of Emergency Management and Restoration.
 - REC is activated, the OEC Logistics Chief will call the REC Logistics Chief with the request. The REC Logistics Chief then works with the REC Resource Unit to determine the availability of resources.
- If the EOC is activated,
 - The REC Logistics Chief submits the request to the EOC Resource Management Unit for personnel and the EOC Logistics Chief for non-personnel resources.
 - The personnel resource requests are validated during the daily Tactics Meeting held by the EOC Operations Section to align on system priorities and objective execution.
 - The EOC Resource Management Unit Leader will determine if there are resources available in another region. If the request can be filled, both the sending and receiving REC Logistics Chiefs are informed.
- If existing resources are not available,
 - The EOC Resource Management Unit Leader requests available resource numbers from the Contracting Manager and the Mutual Assistance Manager, and decides which resources to activate, upon obtaining needed EOC Commander/Officer approvals.

3.2.4.9 Base Camp Determination and Electric Operations Staffing

Based on the Electric Damage Model and submitted requests for base camps to the EOC, the EOC Operations Section works collaboratively with the OECs, RECs, the EOC Planning Section, and the EOC Logistics Section to determine the number and locations of base camps, staging areas, micro sites, and material laydown areas if needed. Once the request for the site is approved by the EOC commander, Operations determines the appropriate resources including personnel to dispatch to each site to support the incident.

In the event of a catastrophic incident, several IMTs are pre-identified, paired with IMTs from a different Region, and pre-trained on each other's areas. As a result, these IMTs can be quickly secured from outside the impacted area to staff the base camps.

For additional details on base camps, staging areas, micro sites, and material laydown areas refer to the Logistics Annex. For details on IMTs, refer to the CERP.

3.2.4.10 ARCOS—Automated Roster Callout System

ARCOS, or Automated Roster Callout System, is an automated callout and scheduling system that PG&E uses to assemble and track first responders and repair crews in response to electric emergency outage situations / unplanned events. By using ARCOS over manual methods, PG&E can automate and streamline the callout process and reduce outage duration times for customers (due to faster callout and on-site times).

PG&E uses the following modules of the ARCOS Suite for day-to-day operations, as well as major storm events:

- ARCOS Callout is used to call union employees via phone, email, and text messaging services to respond to unplanned events, in adherence with their bargaining agreements.
- System Outage Staffing (SOS) is used to identify and call out resources based on qualifications or location. It is also utilized to conduct an interactive callout where employees can respond to targeted questions, such as, "Can you respond?"
- SIREN is used to broadcast mass notifications to employees, partners, and other organizations in the event of an emergency.

3.2.4.10.1 ARCOS Crew Manager

Tracking resources (i.e., personnel) efficiently is essential for safety, accountability, and fiscal control. Failing to effectively track resources can lead to accidents and injuries. Furthermore, resources must be organized, assigned, and directed to accomplish incident objectives and managed to adjust to changing conditions.

Crew Manager is a module of the ARCOS software suite that incorporates real-time, touch screen, drag and drop management of crews – for both day-to-day operations and major storm events. It also centralizes crews into a single database while providing distributed access to Operations Managers, Field Supervisors and Crew Leaders via touch-screen, interactive whiteboards, tablets, smartphones, and personal computers.

PG&E requires that ALL resources working an event are to be tracked in the ARCOS Crew Manager. This tracking ensures visibility of resources and reinforces personnel safety. Tracking includes documenting all resource check-ins and check-outs daily in Crew Manager, as well as any transfers across division lines.

3.2.4.11 Out-of-Region Crew Packets

All headquarters maintain crew packets, containing region-specific information to assist out-of-region crews and Mutual Aid Crews participating in the local restoration effort. The

division superintendent ensures that the information contained in the packet is current and available in sufficient quantities.

At a minimum, the following information will be provided:

- Local radio frequencies
- Location of medical facilities (ICS 206)
- Location and layout of base camps (Logistics provides this)
- Phone numbers of appropriate emergency centers and control centers
- Local maps
- Additional information may include unique safety information (ICS 208), local restaurants, etc.

3.2.5 Demobilization/Release of Resources

3.2.5.1 Demobilization Process

Demobilization includes overseeing and validating the safe and efficient return of resources to their original location and status when they are no longer needed to support the response. Planning for demobilization starts soon after the resource mobilization process begins to facilitate accountability of resources. See Figure 3-11 on page 3-59 for an example of the demobilization process.

The order for demobilization is executed in reverse of the deployment order and includes, but is not limited to³⁷:

- Non-PG&E Resources
 - Mutual assistance crews
 - Contract crews from outside utilities
- Non-electric resources – System
 - Contract from less impacted regions
 - T200 distribution from less impacted regions
 - T300 transmission and T200 transmission from less impacted regions
 - T300 distribution from less impacted regions
- Non-electric resources – Region
 - Contract from within the impacted region
 - T200 distribution from within the impacted region

³⁷ The demobilization of resources should follow the order outlined in this section. There may be exceptions to the demobilization order based on the timing of outages and assigned resources.

- T300 distribution from within the impacted region
- Non-electric resources – Division
 - Contract from within the impacted division
 - T300 transmission and T200 transmission from within the impacted division
 - T300 distribution from within the impacted division
 - T200 distribution from within the impacted division

The demobilization process involves two-way communications. It can be initiated from the bottom up or from the top down. Ultimately, the highest-level activated emergency center makes decisions on whether resources can demobilize or should be reallocated. This decision is based both on information passed up from the lower level emergency centers, as well as from information garnered through analytic tools.

To ensure personnel safety and to prevent resources from being released in one area when they are needed in another, it is essential that a demobilization process is followed. Below are the responsibilities by Section/Unit in the demobilization process:

Resource Unit³⁸:

- Identifies excess resources in collaboration with the Section Chiefs and Demobilization Unit and informs their emergency center commander.
- Checks with the Resource Unit at the next level's emergency center to see if resources are needed elsewhere and whether demobilization is authorized. The highest-level activated emergency center makes the ultimate decision to demobilize resources. For example, when open, the EOC considers information and recommendations from the REC/OEC, but it ultimately makes final demobilization decisions.
- Once approval is secured to demobilize, the Resource Unit notifies their Logistics Section and the Demobilization Unit of the excess resources.

REC/OEC Demobilization Function³:

- In collaboration with the Resource Unit, assesses the current and projected resource needs and obtains the identification of surplus resources and probable release times.
- Forwards demobilization instructions for field resources from the EOC.
- Creates the demobilization plan and monitors its implementation for their emergency center. The demobilization plan includes the release priorities, demobilization process, any specific release procedures, responsibilities for implementing the demobilization plan, and directories, if needed (e.g., maps, telephone listings, etc.).

³⁸ If the Resource Unit and Demobilization Unit are not staffed during an incident, the Planning Section Chief is responsible for these functions.

- Communicates with the sending and receiving offices, as well as the released personnel, to ensure the safe and efficient return of resources.

EOC Demobilization Unit:

- Creates the demobilization plan for the EOC.
- Work with Ops Section Chief and Resource Unit to identify excess resources.
- Creates instructions for the RECs to direct REC and OEC demobilization of field resources (e.g., order for the demobilization of resources, demobilization checklist, safety considerations).
- Is responsible for the demobilization of outside contract, mutual assistance crews, and out of region PG&E crews (i.e., communicates with the RECs who is coming back and when, notifies the contract unit to release crews, calls outside utilities to notify them when resources have been released, confirms the number acquired equals number released).
- Keeps the sending and receiving REC Logistics Chiefs and Resource Units apprised of resource movement during the demobilization process.

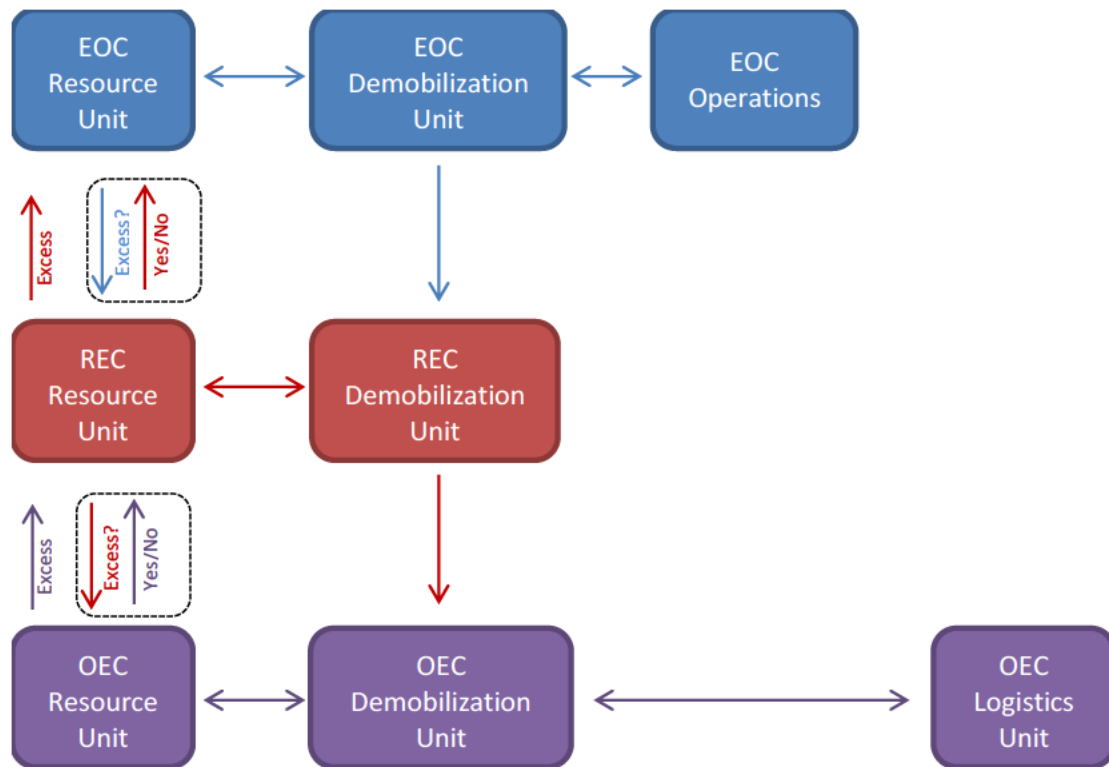
Emergency Center Commander:

- Approves the demobilization plan for their emergency center.

Logistics Section:

- Orders and/or restocks supplies/equipment to ensure operational readiness.

Figure 3-11: Example Demobilization Process



Example Process for When Excess Resources Are Identified At the OEC³⁹

- The OEC Resource Unit identifies excess resources in collaboration with Operations and the Demobilization Unit, informs the OEC Commander, and contacts the REC Resource Unit before approving the demobilization of resources.
- The REC Resource Unit checks to see if the resources can be used elsewhere in the region. If not, it initially checks with the EOC, if activated, to see if the resources are needed elsewhere in the system.
- If the resources are not needed elsewhere, and the EOC provides permission to demobilize resources, the REC Resource Unit informs the OEC Resource Unit that they can demobilize.
- The OEC Resource Unit informs the OEC Demobilization Unit and Logistics of the excess resources.
- The OEC Demobilization Unit communicates with the sending and receiving offices to ensure the safe return of personnel, and Logistics orders and/or restocks supplies/equipment.

³⁹ For Electric Transmission, the process is the same. For example, excess resources are identified at the DSR and communicated to STOEC, the Electric Transmission Branch Director, and then the EOC to ensure resources are not needed elsewhere before demobilizing.

Example Process for When Excess Resources Are Identified In the EOC

- The EOC Resource Unit identifies excess resources system-wide in collaboration with Operations and the Demobilization Unit. It then informs the EOC Commander and contacts the respective REC Resource Unit(s) to confirm if the REC or OECs in its area have excess resources.
- The REC Resource Unit checks to see if the resources referenced by the EOC are considered excess, working with the OEC(s) Resource Unit(s). The REC Resource Unit then reports this finding to the EOC Resource Unit.
- The EOC Resource Unit reconvenes with the EOC Operations and EOC Demobilization Unit, and they make a final decision on which resources to demobilize or reassign. The EOC Commander is also informed.
- If the decision is made to demobilize, the EOC Resource Unit instructs the EOC Demobilization Unit to work with the REC Demobilization Unit(s) to demobilize the selected excess resources.
- The REC Demobilization Unit(s) informs the appropriate OEC Demobilization Unit(s) to work with their respective Logistics sections to coordinate demobilization of the identified excess resources.
- The OEC Demobilization Unit communicates with the sending and receiving offices to ensure the safe return of personnel, and Logistics orders and/or restocks supplies/equipment.

3.2.5.2 System Restoration to Normal Configuration

Following a catastrophic disaster, there may be equipment shortages, and non-standard equipment may be used at first to efficiently restore customers. As much as possible, the system should be brought back in compliance before fully demobilizing.

4 Coordination and Communication

4.1 Internal Coordination and Communication

4.1.1 Pre-event Planning

Depending on the system emergency level (i.e. 2-5), pre-event planning provides the Senior Manager of Emergency Management and Restoration, the Director of Emergency Preparedness and Response, Strategy and Execution, and/or the OEC/REC/EOC Commander an assessment of readiness activities. Planning includes crew availability counts (pre-arranged, normal staffed and call-out resources) as well ICS role staffing lists. Safety tailboards, weather updates and the current DSO SOPP model are included to help pre-planning efforts. Pre-activation checklists provide guidance on the steps required for preparation and activation. A pre-event Director Alignment Call is held between 48 and 72 hours prior to the forecasted weather impact. The intent of this call is to align the lines of business for a safe, effective, and coordinated response. Checklists are available at the [Emergency Management Website](#).⁴⁰

G.O. 166 Standard 1A stipulates that utilities coordinate internal activities in an emergency operations center or use some other arrangement suitable for the purposes of internal coordination.

4.1.2 Electric Distribution Operations Daily Briefing

Electric Distribution Operations holds a daily operational awareness call covering the Code of Safe Practices rule of the day, weather, wildfire risk, Electric Transmission Grid Operations, and Distribution grid operations. The call is held each weekday with the exception of Thursday, so that electric operations leaders can conduct field observations and provide feedback to crew and leadership. The call supports compliance with the 2020 Wildfire Safety Plan and lasts between 10-15 minutes. The Electric Operations Daily Briefing content and/or meeting times may be changed and/or cancelled due to operational need.

4.1.3 Incident Action Plan and Intelligence Summary Reports

As documented in [CERP](#)⁴¹, PG&E aligns its emergency preparedness and response practices with the public constructs National Incident Management System (NIMS), Standardized Emergency Management System (SEMS), and ICS. One of the cornerstones of ICS is the coordination of multiple stakeholders in a single response using the concept of management by objectives. This requires a high level of coordination and situational awareness to develop a Common Operating Picture (COP). This is supported by using the Incident Action Plan and the Intelligence Summary, both of which support alignment of members of the incident management team and key supporting stakeholders. The Planning

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Section Chief is responsible for the preparation and dissemination of both of these documents. For details on these reports and links to templates, refer to the [CERP](#).⁴² Below is information on some key plans and reports produced in the OEC/REC/EOC.

The Incident Action Plan (IAP) is an oral or written plan for the next operational period that ensures a common understanding of objectives, communications, resources, etc. and reflects the overall strategy for managing an incident.

- During a Level 1 and Level 2 not exceeding one operational period, an oral IAP **may be used.**
- During a Level 2 or greater and exceeding one operational period a written IAP **must be developed and disseminated.**

The Intelligence Summary typically includes information on customer impact, damaged equipment or assets, weather, and other incident summary information. Upon request, all identified Emergency Centers provide intelligence summaries to EOC Situation Status Unit. The EOC Situation Unit also creates a system-level intelligence summary, at intervals determined by the Planning Section Chief.

- During a Level 2 or greater, an Intelligence Summary **must be developed and disseminated.**
- The Situation Unit creates other incident documentation as determined by the Planning Section Chief.

4.1.4 Initial Executive Briefing

The initial Executive Briefing consolidates pertinent information to provide a succinct review of an emergency event for company executives. Details may include a weather summary, safety incidents, environmental risk and compliance, activated emergency centers, external partner and/or cooperative operations, financial cost and reliability metrics including customer outages and minutes. As needed, system damage and significant outages summaries may also be provided. This report is distributed by the EOC Commander to PG&E leadership to summarize the event. See [CERP Appendix Section E.1.2](#) for details.

4.1.5 ETEC Spreadsheet

The ETEC Spreadsheet is created initially and maintained by ETEC and shared with STOEC to reflect the status of all transmission outages during an event. The information is summarized and provided to the EOC for inclusion in the EOC Intelligence Summary.

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4.1.6 Systems Information Management

PG&E uses the following critical software applications during emergencies to manage the electric system and to share information. For technical support information, refer to Appendix C.6.

4.1.6.1 Electric Distribution

The following systems are some of the critical applications used in Electric Distribution Operations during emergency events:

- The Outage Management Tool (OMT) is a web-based application that is used by the emergency management organization to gather and report information on customer outages, damage assessments, service restoration, and crew movements in emergency events affecting the PG&E system. Refer to Appendix C.5 for an OMT Job Aid.
- The Field Automated System (FAS) is a software application developed by Ventyx. Work Orders are input by (Customer Care and Billing, Application for Work, SAP, or OIS) and then sent to FAS. FAS is then used by Electric Restoration T-men, Gas Service Representatives, Field Meter Technicians, Dispatchers and Supervisors to assign, dispatch and complete field work orders.
- Distribution Management System (DMS) is an application designed to assist the control center and field operating personnel to monitor & control the entire distribution network efficiently and reliably. DMS has a network component / connectivity model of the distribution system. It is integrated with Customer Information System (CIS), Geographical Information System (GIS), and Interactive Voice Response (IVR) System. By combining the locations of outage calls from customers with knowledge of the locations of the protection devices (such as circuit breakers) on the network, a rule engine is used to predict the locations of outages. Based on this, restoration activities are charted out and crews are dispatched. This results in improved reliability and quality of service, in terms of reducing outages, minimizing outage time, and providing timely outage communications to our customers.
- SCADA (Supervisory Control and Data Acquisition) allows the operator to analyze and control the electrical system from a remote location.
- Systems Applications and Products in Data Process (SAP) is used to track emergency jobs as they move through their life cycle. It is a tool that is used to plan, track, and charge labor and to schedule work. SAP is integrated with FAS, so damaged locations that are assessed by field resources and entered into FAS are automatically sent to SAP.

4.1.6.2 Electric Transmission

The following systems are some of the critical applications used in Electric Transmission Operations during emergency events:

- Energy Management System (EMS) is a tool used by Grid Control Center (GCC) to monitor the Bulk Electric System (BES). EMS has a contingency analysis application

that allows for the analysis of the power system in order to identify the overloads and problems that can occur due to a contingency. (A contingency is the failure or loss of an element or a change of state of a device in the power system.) This application uses a computer simulation to evaluate the effects of removing individual elements from a power system. EMS also provides SCADA functions, alarm categories, network study capability, state estimator, and exception reports.

- SCADA (Supervisory Control and Data Acquisition) allows the operator to analyze and control the electrical system from a remote location.
- Grid Messaging System (GMS) is a data messaging system used to convey information related to WECC-wide events.
- RAS (Remedial Action Scheme) is a protection scheme designed to detect pre-determined System conditions and automatically take corrective actions that may include, but are not limited to, curtailing or tripping generation or other sources, curtailing or tripping load, or reconfiguring the system.
- Transmission Outage Tracking and Logging Tool (TOTL) – An application used by the Transmission Grid Control Center to track and log event information that includes office items report, work cards, interruption reports, and log details and notifications.

4.2 External Coordination

4.2.1 Customer Outage Communications

PG&E deploys several methods to communicate with customers when they experience an outage, including via Customer Service Representatives, the PG&E website, social media, Customer Preference and Notification (CPAN) via email, text, or voice message, and Automated IVR telecom systems. When available, PG&E provides situational messaging up front on the toll-free numbers.

G.O. 166 Standard 8 stipulates that within four hours of the identification of a major outage that California electric utilities make information available on the expected duration and cause of customer outages. G.O. 166 Standard 8 further stipulates that restoration priorities be provided within four hours of initial damage assessment.

PG&E attempts to provide customers with the following set of details on their specific outage, as soon as they are available:

- **Cause of Outage:** Once an assessment is complete, PG&E assessment personnel provide information on the cause of the outage. This information is provided to customers when available.
- **Estimated Time of Restoration (ETOR):** ETORs are provided to customers when available. ETORs and their accuracy are important components of customer

G.O. 166 Standard 4A states: The communications strategy shall describe how the utility will provide information to customers by way of its call center and other communications media before, during and immediately following a major outage. The strategy shall anticipate the use of radio and television.

satisfaction. As such, providing accurate ETORs are a key focus for outage dispatchers, assessment, and repair personnel.

- **Estimated Time of Information (ETOI):** During larger events, accurate ETORs may not immediately be available due to the large influx of outages. In these events, PG&E can provide customers with ETOIs that forecast when additional information on their outage will be available.
- **Crew Status:** When available, crew status information can be provided to customers. Statuses such as “Awaiting T-men”, “T-men On-Site”, “Awaiting Crew”, and “Crew On-Site” give customers additional context for the progress of the restoration effort.
- **Other Customer Comments:** T-men and Assessment teams can provide additional comments about an outage to a customer to convey additional information.

When using proactive outage communications via CPAN, the following is communicated:

- Acknowledgement: PG&E is aware your power is out, number of customers affected
- ETA: A crew is on the way
- Cause and ETOR(s): Cause of the outage, when power will be restored
- Conditional: A new condition may impact your outage
- Restoration: Your power was restored

Accurate and timely customer outage communications are a vital component of improving customer satisfaction, especially during large events.

4.2.2 Public Information and Government Coordination

Refer to the Company Emergency Response Plan (CERP), [Emergency Communications Annex \(EMER-3008M\)](#)⁴³, and the Emergency Communications Plan (The Book of All Knowledge) for details on how PG&E coordinates public information. The CERP also contains information on how PG&E coordinates with governmental agencies.

G.O. 166 Standard 1C states: The plan shall address the utility’s provision of timely and complete information available to the media before, during and immediately after a major outage. Such information shall include estimated restoration times and a description of potential safety hazards if they exist.

G.O. 166 Standard 4B states: The communications strategy shall include pre-event coordination with appropriate state and local government agencies, including the appropriate methods for information exchange, to enhance communications activities during and immediately following a Major Outage.

G.O. 166 Standard 1D states: The plan shall address the utility’s efforts to coordinate emergency activities with appropriate state and local government agencies. The utility shall maintain lists of contacts at each agency which shall be included in the plan and readily accessible to employees responsible for coordinating emergency communications. The utilities may address the use by governmental agencies of California’s Standardized Emergency Management System (SEMS).

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4.2.3 CAISO Coordination

In Level 1 and 2 emergencies involving electric transmission, GCC is the designated PG&E single point of contact with CAISO. During any outage activity, GCC is in communication with the ISO and provides them with operational information. GCC is also in daily contact with CAISO to monitor power flows and receive clearance requests.

G.O. 166 Standard 1B states: The plan shall provide for utility coordination with the ISO, including gathering, processing, and disseminating information from the ISO, and providing information regarding how the utility will establish priorities and estimates of service restoration. A utility that does not deal directly with the ISO shall describe how it will coordinate its efforts with the TO.

In a Level 2 or greater emergency, the ETEC may be activated to assist GCC with transmission related outages and to facilitate communications with the CAISO.

During a system-wide capacity event, the GCC receives notifications and instructions from the CAISO. Refer to Appendix P, [Electric Emergency Plan \(EEP\) For Capacity Emergencies](#)⁴⁴.

G.O. 166 Standard 4C states: The communications strategy will describe how the utility will coordinate its communications with the ISO and/or the TO. The utility shall cooperate with the ISO/TO to coordinate the information provided to customers, media, and governmental agencies when the operation of the transmission system affects customer service.

4.2.4 Major Outage Reporting

CPUC General Order No. 166 (G.O. 166), states that a major outage occurs when 10 percent of PG&E's serviceable customers experience a simultaneous, non-momentary interruption of service. A measured event is defined as a major outage resulting from non-earthquake, weather-related causes, affecting between 10% (simultaneous) and 40% (cumulative) of PG&E's customer base. (Refer to G.O. 166 for details on when a measured event begins and ends.)

Per Standard Six of G.O. 166, within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the CPUC and the Warning Center at Cal OES of the location, possible cause, and expected duration of the outage. For purposes of this standard, PG&E generally treats "newsworthy events" as incidents within the category of Level 3 or greater emergency where the EOC is activated.

G.O. 166 Standard 6 specifies that within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the Commission and Warning Center at the State Office of Emergency Services of the location, possible cause and expected duration of the outage. The Warning Center at the OES is expected to notify other state and local agencies of the outage.

For major outages, PG&E may activate its EOC. PG&E's EOC Activation and Deactivation Checklist will be used upon activation of the EOC, including emergency reporting to CPUC, the Cal OES Warning Center, and the CUEA. In addition, PG&E will describe major outages and measured events that occur within the reporting period in its G.O. 166 report to the Commission each year.

⁴⁴ [REDACTED]

Standard Eight of G.O. 166, “Major Outage and Restoration Estimate Communication Standard,” states the following:

- Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.
- Within 4 hours of the initial damage assessment and the establishment of priorities for restoring service, the utility shall make available through its call center and to the media the estimated service restoration times by geographic area. If the utility is unable to estimate a restoration time for a certain area, the utility shall so state.

G.O. 166 Standard 8A states: Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.

G.O. 166 Standard 8A states: Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.

PG&E has established technology interfaces to allow outage information and restoration times to be made immediately available to customers through the call center’s IVR system as soon as T-men in the field enter the ETOR. The outage information is also supplied automatically to the pge.com website, where customers and the media can secure real-time access information on outages.

G.O. 166 Standard 13A states: A utility’s call center performance during a Measured Event shall be presumed reasonable if the percent busies calculation is lower than Level-1, and presumed unreasonable if the percent busies calculation is greater than Level-2. These presumptions are rebuttable. Performance equal to or between Level-1 and Level-2 is subject to no presumption.
Level-1 is defined as 30% busies over the day of the outage (12:00 a.m. to 11:59 p.m.).
Level-2 is defined as 50% busies over the day of the outage (12:00 a.m. to 11:59 p.m.) plus at least 50% busies in each of six one-hour increments (these increments need not be consecutive).

In addition, depending on incident complexity, PG&E may conduct targeted outbound calling, live agent calling, door-to-door outreach, and facilitate town hall meetings.

G.O. 166 Standard 13B states: Percent busies calculation measures the levels of busy signals encountered by customers at the utility's switch and that of its contractors. Mutual aid partners are not considered "contractors" for purposes of this standard, and busies encountered as a result of mutual aid assistance are not included in measurements to which this standard applies.

Percent busies indicator is measured on a 24-hour basis for outage-related calls (on energy outage and general call lines) from the time the Measured Event begins (12:00 a.m. to 11:59 p.m.), and separately for each 24-hour period until the Measured Event ends.

Either of the following methods for calculating percent busies is acceptable:

- Percent of call attempts reaching the utility which receive a busy signal
- Percent of time that trunk line capacity is exhausted.

PG&E's Public Information Office coordinates external communications with the media. Following a major outage, the Public Information Office continues to provide outage information to the media. (Refer to the Emergency Communication (The Book of All Knowledge) and the Workforce Management/Contact Center Operations Annex (WFM/CCO) for additional details on customer and media communications.)

G.O. 166 Standard 13B states: Percent busies calculation measures the levels of busy signals encountered by customers at the utility's switch and that of its contractors. Mutual aid partners are not considered "contractors" for purposes of this standard, and busies encountered as a result of mutual aid assistance are not included in measurements to which this standard applies.

Percent busies indicator is measured on a 24-hour basis for outage-related calls (on energy outage and general call lines) from the time the Measured Event begins (12:00 a.m. to 11:59 p.m.), and separately for each 24-hour period until the Measured Event ends.

Either of the following methods for calculating percent busies is acceptable:

- Percent of call attempts reaching the utility which receive a busy signal
- Percent of time that trunk line capacity is exhausted.

PG&E includes a description of our compliance with Standard Eight in the annual G.O. 166 report.

G.O. 166 Standard 11 states: The utility shall annually report to the CPUC and other appropriate governmental agencies by October 31 regarding its compliance with this general order for the previous twelve months ending June 30. The annual report shall identify and describe any modifications to the utility's emergency plan.

Further, the utility shall report on the number of repair and maintenance personnel in each personnel classification in each county (and total throughout the company), as of June 30 of the current and previous year.

4.2.5 Other Thresholds for Regulatory Reporting

The following are other thresholds for regulatory reporting:

- The Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 titled IEEE Guide for Electric Power Distribution Reliability Indices covers the methodology used for calculating thresholds for identifying and adjusting for excludable major event days to evaluate performance of the electric transmission and distribution system.
- Commission Resolution E-4184 covers reporting incidents that result in fatalities, personal injuries, media coverage, and damage to property.

- Electric Emergency Incident and Disturbance Report (Form OE 417) from Department of Energy (DOE)
- NERC Reliability Standard EOP-004-4

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5 Performance Indicators

5.1 Indicator Evaluation

Performance indicators are used to monitor response and recovery performance during Level 2 or greater emergencies. Key indicators are monitored and evaluated during an event so that actions can be taken to quickly adjust the response plan. Post-event evaluation of indicators is used to improve processes, increase efficiency and revise emergency plans. Some indicators have established measurements while others are subjectively evaluated during the event or during post-event critiques.

5.2 Safety and Environmental

Indicators will be used to:

- Monitor safety practices and environmental compliance.
- Determine if safety and environmental practices are consistent with established company standards and all applicable regulations.
- Ensure that hazardous or at-risk environmental conditions reported to PG&E are identified for response.

Indicator:

- Employee injuries or public injuries
- Hazardous material spill or release
- Preventable motor vehicle incidents (PMVIs)
- Response time to immediate response notifications
- Near miss incidents
- Work procedure errors or human performance events

5.3 Assessment

Indicators will be used to:

- Monitor the timeliness of compiling a comprehensive damage assessment.
- Determine resource movement needs.
- Determine restoration forecast.
- Determine the need for Mutual Assistance and Contractor Crews.
- Monitor the timeliness of 911 Agency Relief.

Indicator:

- Outage assessment rate
- Appropriate prioritization of outages, to include duration
- Use of non-traditional assessment teams
- Number of standby crews utilized to relieve 911 Agencies
- Number of Mutual Assistance and Contractor resources

5.4 Internal and External Communications

Indicators will be used to:

- Ensure that timely and consistent information is being communicated to internal and external entities
- Gauge the quality of outage information reported to our customers.

Indicator:

- Contact Center Average Speed of Answer (ASA)
- IVR Take Rate performance
- Outbound Messaging Attempt Results
- Customer Sentiment Data
- Estimated Time of Restoration (ETOR) Accuracy
- ETOR Timeliness
- Number of ETOR updates
- Outage Basic 5 Information (five basic pieces of information to complete in OMT— materials, estimated repair time (ERT), ETA, or ETOR, customer comments, and cause)

5.5 Restoration

Indicators will be used to:

- Monitor the timeliness of customer restoration.
- Evaluate the effectiveness of resource management.
- Monitor forecast vs. actual restoration times.

Indicator:

- Customer restoration times
- Critical Transmission Line restored against forecast
- Outage restoration rate against forecast
- Number of customers experiencing extended duration outages

5.6 Reliability Metrics

Customer Average Interruption Duration Index (CAIDI)

- Number of sustained customer outage minutes of interruption divided by the total number of customers interrupted.

G.O. 166 Standard 12A states: A utility's restoration performance during a Measure Event shall be presumed reasonable if the CAIDI is 570 or below, and presumed unreasonable if the CAIDI is above 570. These presumptions are rebuttable.

G.O. 166 Standard 12B states: CAIDI stands for Customer Average Interruption Duration Index and is computed using the following equation:

$$\frac{\text{total customer minutes of interruption}}{\text{total number of customer interruptions}}$$

If a single customer experiences more than one sustained interruption during a Measured Event, each interruption shall count as a separate customer interruption. CAIDI shall be measured from the beginning of the Measured Event and shall continue until all customers experiencing interruptions during the Measured Event have been restored.

G.O. 166 Standard 12C states: Customer minutes of interruption caused by outages of Transmission Facilities owned by the utility during a Measured Event are included in the calculation of CAIDI for purposes of this standard.

Customer minutes of interruption attributable to utility compliance with ISO directives, including its protocols, tariffs, transmission agreements or other written or verbal instructions specific to the event, which prevent the utility from restoring service it is otherwise able to provide shall be excluded in the calculation of CAIDI for purposes of this standard.

System Average Interruption Duration Index (SAIDI)

- SAIDI is the sum of all sustained customer outage minutes divided by the total number of customers served.

System Average Interruption Frequency Index (SAIFI)

- SAIFI is the number of sustained customer interruptions divided by the total number of customers served.

Momentary Average Interruption Frequency Index (MAIFI)

- MAIFI is the total number of customer momentary interruptions divided by the total number of customers served.

Note: A momentary outage lasts 5 minutes or less and a sustained outage lasts more than 5 minutes.

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6 Training and Exercises

Under CPUC's *General Order (G.O.) 166* and as mandated by PG&E *Business Continuity Planning, Training, Exercise, and Improvement Planning Standard (EMER-1001S)*, employees with an emergency role are trained and participate in an annual exercise. For additional information regarding training, see section 3.7 of EMER-3001M, [Company Emergency Response Plan \(CERP\)](#).

G.O. 166 Standard 10 states: The utility shall annually coordinate emergency preparations with appropriate state, county and local agencies and the ISO/TO. As part of such activities, the utility shall establish and confirm contacts and communication channels, plan the exchange of emergency planning and response information, and participate in emergency exercises or training.

6.1 Electric Transmission Training and Exercise Program

Electric Transmission Operations department is responsible for annually conducting an [Electric Emergency Plan \(EEP\)](#)⁴⁵ exercise with Transmission and Distribution (T&D) departments, other departments identified in the EEP.

Transmission Grid Operations also conducts:

- Restoration training exercises (multiple) — system-wide exercises on grid restoration concepts, principles, and protocols.
- Capacity exercises (multiple) that review system-wide and smaller localized areas of concern procedures
- Transfers of control from Vacaville (primary location) to Rocklin (back up) to ensure Grid Control Center (GCC) System Dispatcher has executed the process each year.
- Continuing education session training to provides education hours for System Dispatchers, to comply with NERC regulations and to maintain NERC Certification.

G.O. 166 Standard 3 states: (3A)The utility shall conduct an exercise annually using the procedures set forth in the utility's emergency plan. If the utility uses the plan during the twelve-month period in responding to an event or major outage, the utility is not required to conduct an exercise for that period. Resources that are available to be shared. (3B) The utility shall annually evaluate its response to an exercise or major outage. The evaluation shall be provided to the CPUC as part of the report required by Standard 11. (3C) The utility shall annually train designated personnel in preparation for emergencies and major outages. The training shall be designed to overcome problems identified in the evaluations of responses to a major outage or exercise and shall reflect relevant changes to the plan. (3D)The utility shall provide no less than ten days notice of its annual exercise to appropriate state and local authorities, including the CPUC, state and regional offices of the OES or its successor, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed. The utility shall participate in other emergency exercises designed to address problems on electric distribution facilities or services, including those emergency exercises of the state and regional offices of the OES or its successor, and county emergency offices.

6.2 Electric Distribution Training Program

The Sr. Manager of Emergency Restoration is responsible for maintaining an ongoing training program for Electric EMO personnel. The intent of the program is to ensure

⁴⁵ [REDACTED]

understanding of emergency response procedures and practices. Position-based training and use of technology are key focus areas of the training program. The use of ICS is emphasized in the training program to ensure an effective overall response and alignment with public agencies.

Each Sr. Director and Superintendent responsible for emergency planning and response is also responsible for ensuring that personnel identified in emergency plans are trained annually and that the training is documented. Sr. Directors and superintendents with emergency response roles are expected to maintain adequate workforce redundancy for each emergency response position. Cross-training of new or less experienced personnel in various emergency roles, and the involvement of less experienced personnel in emergency exercises and events, facilitates the development of an adequate emergency response workforce.

The PG&E Learning Governance Committee authorized the requirement that all company emergency responders complete California Specialized Training Institute (CSTI) Type III credentialing for their assigned Emergency Operations Center (EOC) positions. Based upon the assigned emergency role in OECs and RECs, employee training should include some, or all, of the following:

- G-606 California Standardized Emergency Management System (SEMS) Introductory Course
- IS-100 Introduction to the Incident Command System, ICS 100
- IS-200 ICS for Single Resources and Initial Action Incidents, ICS 200
- IS-700 An Introduction to the National Incident Management System
- IS-800 National Response Framework – An Introduction
- EPRS-9010 – Company Emergency Response Plan (CERP) is an introduction to the CERP and an overview of current-year changes.

In addition to the above training, electric emergency center personnel will be provided:

- Role-based/position specific Training
- Outage Management Tool (OMT)
- Event Strategy Workshops
- Technology Down Processes
- 911 Standby Training
- Emergency Management SharePoint
- ARCOS Crew Manager
- Assessment, Repair, and Restore Process and Procedures

6.3 Electric Distribution Exercise Program

The Sr. Manager of Emergency Restoration is responsible for scheduling, conducting, and evaluating the required exercises. Exercises are intended to examine the effectiveness of

the emergency plans. Performance will be evaluated against established objectives and processes. Gaps identified during the exercises must be documented. Actions to close gaps must be tracked to completion.

6.3.1 Testing of Plan

Company policy and the California Public Utilities Commission (CPUC) General Order 166 require annual exercises with appropriate departments and public agencies based on simulated emergency events. This requirement can be waived in lieu of an actual event dependent upon the event's scope and structure. Electric Operations Emergency Management oversees and manages the testing of the Electric Annex. The documentation of training and exercises are submitted to EP&R to facilitate alignment of response processes and procedures across the enterprise and included in the annual G.O. 166 filing.

G.O. 166 Standard 3D states: The utility shall provide no less than ten days notice of its annual exercise to appropriate state and local authorities, including the CPUC, state and regional offices of the OES or its successor, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed. The utility shall participate in other emergency exercises designed to address problems on electric distribution facilities or services, including those emergency exercises of the state and regional offices of the OES or its successor, and county emergency offices.

6.3.2 Quarterly Exercise Requirements

The Sr. Manager of Emergency Restoration recommends quarterly region-based exercises. This requirement acknowledges that at a minimum, one Regional Emergency Center (REC) may exercise its plan and/or one facet of that plan each quarter (e.g., an OEC's overall operations is exercised one quarter and then the dispatch process is exercised the following quarter). A tabletop exercise can fulfill the quarterly exercise requirement. It is prudent to exercise each Region's Emergency Center (REC, OEC, and DSR) and their critical processes (e.g., Dispatching T-man and Assessment Crews) often enough to ensure that the participants are proficient in their roles and responsibilities. The quarterly exercise policy can be waived if there has been an actual incident and agreement has been reached with the Region Sr. Director and the Sr. Manager of Emergency Restoration.

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7 After-Action Reports, Event Logs, and Records

After-Action Meetings (AAM) are to be conducted by each emergency center within 20 business days of deactivation of the center for all activations meeting the criteria outlined in EMER-4510S, “Operations Emergency Center (OEC) Activation Requirements” for Level 2-5 incidents. AAMs are not conducted for Level 1 – Routine emergencies (including Communications Only activations).

G.O. 166 Standard 3 requires California utilities to annually evaluate their response to exercises or major outages as part of the utility’s annual G.O. 166 filing.

7.1 Preparation for Formal After-Action Meetings

Emergency centers may conduct separate hotwashes and/or after-action meetings in preparation for the formal after-action meeting. For example, control centers and district storm rooms (DSRs) may perform their own after-action meeting and/or hotwash following an event. The frontline supervisors will lead the Control Center and DSR critiques. These emergency centers will send a point of contact to represent their findings during the formal after-action meeting. A hotwash form can be found [here](#).⁴⁶

7.2 Emergency Center After-Action Report

Emergency centers identify corrective actions, assign action item leads, and designate due dates. These action items are entered into the Corrective Action Program (CAP). REC Strengths and opportunities identified during after action reviews will be communicated to the affected EMO stakeholders for future reference. Significant strengths will be communicated to the Senior Manager of Emergency Management and Restoration for incorporation into plans, training, and exercises and will be shared system wide as “Best Practices” by the emergency management specialists. Improvement opportunities will be addressed in a prioritized manner.

7.3 ICS 214 Unit Log

All positions in the emergency centers are responsible to maintain an ICS-214 Unit Log to document aspects of the restoration effort. This will include the date and time of key activities, decisions, contacts made, and similar topics. Archive completed logs in accordance with the company’s policies for record retention. The length of time the company must retain records is established in the [Enterprise Records Retention Schedule \(ERRS\)](#), GOV-7101S, Attachment 1.

7.4 Records Management

All departments and headquarters, as outlined throughout this plan, shall follow Emergency Operations reporting procedures and records management. Documentation of all significant

⁴⁶ [REDACTED]

events is required to effectively document response and restoration efforts. Planning Section Chiefs are responsible to:

- Archive IAPs on a SharePoint site as determined by the Senior Manager of Emergency Management and Restoration.
- Upload documentation to the SharePoint site in the designated folders.
- Observe established PG&E requirements governing reporting, records management and record retention.

The maintenance of accurate documentation will assist in the development of post-event critiques, the Event Summary Report, audits, and data requests, all of which will be used to document and continuously improve the emergency response and restoration process.

7.5 Financial Considerations and Financial Records

The Finance and Administration Chief in the OEC, in conjunction with the Emergency Recovery Program Manager, shall monitor all work and costs incurred in responding to the emergency event are properly captured and recorded to each appropriate Plant Maintenance (PM) Event Order designated for each respective emergency event. All charging should be consistent with the Electric Major Event Charging Guidelines.

7.6 Cost Recovery

PG&E forecasts all emergency related expenditures using two categories: routine emergencies (Level 1) and major emergencies (Levels 2-5). Within these categories, PG&E uses major work categories (MWC) to record expenditures for capital and expense.

Routine - Routine emergency work is recorded in MWCs BH – Corrective Maintenance Expense and MWC 17 – Emergency Response Capital.

- **MWC BH:** Corrective Maintenance Expense: During routine (Level 1) conditions, overhead or underground- related outages occur for many reasons. In response to these outages, T-men and crews make the situation safe, restore power to customers and isolate the trouble location so repairs can be made. Activities of this nature are expense related and the costs are recorded in MWC BH.
- **MWC 17:** Emergency Response Capital: The work in MWC 17 is similar to that of MWC BH and involves routine emergency work that meets capital accounting criteria, such as equipment replacements, rather than repairs

Major Emergency Balancing Account (MEBA) – The purpose of MEBA is to recover actual expenses and capital revenue requirements resulting from responding to major emergencies, not otherwise recoverable through the Catastrophic Emergency Memorandum Account (CEMA) mechanism. Orders must be created by county. Costs related to CEMA eligible events may be recorded to the MEBA only if authority is expressly provided by the CPUC through a decision on a CEMA application or similar type of relief request. PG&E will return to customers any unspent MEBA amounts or recover from customers any actual amounts above the authorized amounts annually as part of Annual Electric True-up (AET) advice letter.

Catastrophic Emergency Memorandum Account (CEMA) – A utility may not use the CEMA unless an event is declared a disaster by the appropriate federal or state authorities. The utility must seek recovery of the costs recorded in the CEMA through a General Rate Case (GRC) or other formal rate-setting application. The CPUC examines closely all costs recorded in the account for reasonableness, as well as other sources of recovery such as insurance, before allowing for recovery of costs in rates. A provision for a CEMA was approved in 1991 by the CPUC for energy and water utilities under its jurisdiction. The purpose of the account is to allow utilities to record for eventual recovery (through rates) the reasonable costs they incur in restoring service, repairing or replacing facilities, and complying with government orders following a catastrophic event.

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8 Appendices

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Appendix A. Acronyms and Glossary

A.1 Acronym List

| Acronym | Definition |
|---------|--|
| AAM | After-Action Meeting |
| ADE | Associate Distribution Engineer |
| ARCOS | Automate Roster Callout System |
| ASA | Average Speed of Answer |
| BES | Business Energy Solutions |
| BES | Bulk Electric System |
| CAIDI | Customer Average Interruption Duration Index |
| CAISO | California Independent System Operator |
| Cal OES | California Office of Emergency Services |
| CAP | Corrective Action Program |
| CEMA | Catastrophic Emergency Memorandum Account |
| CERP | Company Emergency Response Plan |
| CIS | Customer Information System |
| COP | Common Operating Picture |
| CPAN | Customer Preference and Notification |
| CPUC | California Public Utilities Commission |
| CSR | Customer Service Representative |
| CUEA | California Utilities Emergency Association |
| DASH | Dynamic Automated Seismic Hazard |
| DCC | Distribution Control Center |
| DCPP | Diablo Canyon Power Plant |
| DMS | Distribution Management System |
| DO | Distribution Operator |
| DOE | Department of Energy |
| DSO | Distribution System Operations |
| DSR | District Storm Room |
| EC | Electric Corrective |
| EEP | Electric Emergency Plan |
| EM | Emergency Management (Electric Operations) |
| EMO | Emergency Management Organization |
| EMS | Emergency Management Specialist |
| EMS | Energy Management System |
| EO | Electric Operations |
| EOC | Emergency Operations Center |
| EP&R | Emergency Preparedness and Response |
| ERT | Estimated Repair Time |
| ESRG | Electric System Restoration Guidelines |
| ET | Electric Transmission |

| Acronym | Definition |
|---------|---|
| ETA | Estimated Time of Arrival |
| ETEC | Electric Transmission Emergency Center |
| ETOI | Estimated Time of Information |
| ETOR | Estimated Time of Restoration |
| FAS | Field Automated System |
| FEMA | Federal Emergency Management Agency |
| FERC | Federal Emergency Regulatory Commission |
| FLISR | Fault Location Isolation and Service Restoration |
| GCC | Grid Control Center |
| GDL | Guidance Document Library |
| GIS | Geographical Information System |
| GMS | Grid Messaging System |
| G.O. | General Order (for CPUC) |
| GRC | General Rate Case |
| IAP | Incident Action Plan |
| IC | Incident Commander |
| ICS | Incident Command System |
| IDOC | Incomplete Documentation |
| IEEE | Institute of Electrical and Electronics Engineers |
| IMT | Incident Management Team |
| IVR | Interactive Voice Response |
| M&C | Maintenance and Construction |
| MA | Mobile Application |
| MAIFI | Momentary Average Interruption Frequency Index |
| MEBA | Major Emergency Balancing Account |
| MTCC | Material and Transportation Coordination Center |
| MW | Megawatt |
| MWC | Major Work Categories |
| NERC | North American Electric Reliability Corporation |
| NIMS | National Incident Management System |
| OEC | Operations Emergency Center |
| OES | Office of Emergency Services |
| OIS | Outage Information System |
| OMT | Outage Management Tool |
| OSC | Operations Section Chief |
| PM | Plant Maintenance |
| PMVI | Preventable Motor Vehicle Incidents |
| POT | Pre-arranged Overtime |
| PSPS | Public Safety Power Shutoff |
| QEW | Qualified Electrical Worker |
| RAS | Remedial Action Scheme |
| RC | Reliability Coordinator |
| REC | Reginal Emergency Center |

| Acronym | Definition |
|---------|--|
| RMT | Resource Management Tool |
| RRO | Regional Reliability Organizations |
| RUL | Resource Unit Leader |
| SAIDI | System Average Interruption Duration Index |
| SAIFI | System Average Interruption Frequency Index |
| SAP | Systems Applications and Products in Data Process |
| SCADA | Supervisory Control and Data Acquisition |
| SEMS | Standardized Emergency Management System |
| SO | Sustained Outages |
| SOPP | Storm Outage Prediction Project |
| SOS | System Outage Staffing |
| STOEC | Substation Transmission Operations Emergency Center |
| T&D | Transmission and Distribution |
| T-line | Transmission Line |
| T-men | Troublemens |
| T-SOPP | Transmission System Operations Storm Outage Prediction Project |
| TFL | Task Force Lead |
| TO | Transmission Owner |
| TOP | Transmission Operator |
| TOTL | Transmission Outage Tracking and Logging Tool |
| TP | Transmission Planner |
| TSP | Transmission System Provider |
| WECC | Western Electric Coordinating Council |
| WRMAA | Western Region Mutual Assistance Agreement |

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Appendix B. Contact / Notification Lists

B.1 Emergency Response Personnel Contact Lists

On Call Lists for OEC/REC personnel are located on the Emergency Management Website under “OEC/REC Roster” located [here](#).

[On Call list for EOC members](#)

Transmission Operations Contact Lists are located on [SharePoint](#).

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Appendix C. TOOLS, JOB AIDS, TRAINING AIDS, AND OTHER REFERENCE MATERIALS

C.1 Emergency Center Activation Checklists

The OEC, REC, and EOC Activation/Deactivation Checklists are under development.

C.2 Electric Distribution Emergency Center Locations

Emergency center, alternate locations, and contact information lists are under development.

C.3 Electric Conference Call Agendas for Activation

- **EOC Pre-Event, Planning, Tactics and Logistics Meeting Agendas:** Click [REDACTED] then select Section Chief Meeting Agendas.
- **REC/OEC Meeting Agendas:** Under development.

C.4 After Action Report Template and Instructions

After Action Report template and instructions can be found [here](#):

[REDACTED]

C.5 Outage Management Tool Job Aids

The Outage Management Tool (OMT) is a web-based application that is used by the emergency management organization to gather and report information on customer outages, damage assessments, service restoration, and crew movements in emergency events affecting the PG&E system.

OMT Overview Job Aids are under development. at the following link provides information on all the reports and tools available in OMT, system requirements, login, and technical support information. Detailed job aids on OMT are also provided at:

[REDACTED]

C.6 Technical Support

- For FAS or DMS Support, contact the TSC at [REDACTED] PG&E Line at [REDACTED] [REDACTED] The TSC Analyst will then contact the On Call DMS Admin [REDACTED]
- For OMT issues related to OMT installation and setup and OMT Tech Down contact: TSC at [REDACTED]

Normal Work Hours

- Primary contact - Technology Service Center (TSC at 4 [REDACTED])
- Secondary contact - Local Emergency Management Specialist (EMS)
- If unknown, contact the EMS Duty Officer at [REDACTED] or EMS Duty Officer at [REDACTED] Option 1.

After Work Hours and Weekends

- Primary contact - Telecommunications Control Center (TCC)
- ENOC Shift [REDACTED]
- Secondary contact - Technology Service Center (TSC at 4 [REDACTED])
- For OMT issues related to creating, modifying, or removing OMT User Accounts, formal OMT Training, Operational Support, ideas, suggestions and general inquiries, contact your local EMS. [REDACTED] or EMS Duty Officer at [REDACTED], Option 1).

C.7 ICS, Planning Process, and Key CERP Job Aids

Refer to the Company Emergency Response Plan (CERP) for additional details and job aids for the following:

- Incident Command System (ICS)
- Planning Process
- Three-Way Communication
- Phonetic Alphabet

C.8 Position Checklists

ICS position checklists for Command and General Staff are under development.

Appendix D. Electric Emergency Plan for Capacity Emergencies

The California Independent System Operator (CAISO) operates the state’s transmission grid. When it is determined that operating reserves are inadequate to meet the Western Electricity Coordinating Council (WECC) Standards, the CAISO initiates actions to address the imbalance between available system resources and system demand.

The Electric Emergency Plan (EEP) for Capacity Emergencies describes the actions PG&E will take upon receiving orders from the CAISO to address electric supply and/or capacity shortages. This plan is located at:

[REDACTED]

⁴⁷ Access permission required for this site

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Appendix E. Other Useful Links

- [Federal Emergency Management Agency \(FEMA\) Comprehensive Preparedness Guide\(CPG\) 101](#)
- [California Public Utilities Commission \(CPUC\) General Order Number 166 \(G.O. 166\) Standards for Operation, Reliability, and Safety During Emergencies and Disasters](#)
- [Emergency Management website](#)
- [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)
- [Outage Management Tool \(OMT\) User Manual](#)
- [Transmission Operations Contact Lists](#)
- [Wildfire Annex \(EMER-3015M\)](#)
- [PSPS Annex \(EMER-3106M\)](#)
- [Disaster Rebuild Annex \(EMER-3012M\)](#)
- [Routine Emergency – Emergency Estimate Required \(TD-2060P-01\)](#)

CAP# 113077017 – Serious Injury
and Fatality (SIF)
Recommendation – add a link to
TD-2060P-01

Appendix F. Primary and Alternate Sites and Contact (EOC, RECs, OECs, ETEC, and STOEC)

| | |
|---|--|
| Division/Name | |
| Emergency Operations Center (Vacaville Emergency Response Center) | |
| ETEC | |
| STOEC | |
| Northern REC | |
| Humboldt | |
| North Bay | |
| North Valley | |
| Sacramento | |
| Sierra | |
| Sonoma | |
| Bay/Central REC | |
| Diablo | |
| East Bay | |
| Mission | |
| Peninsula | |
| San Francisco | |
| Stockton | |
| Yosemite | |
| Southern REC | |
| Central Coast | |
| De Anza | |
| Fresno | |
| Kern | |
| Los Padres | |
| San Jose | |



*Pacific Gas and
Electric Company*[®]

Electric Annex

to the Company Emergency Response Plan

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Document Control

Electric Operations maintains this Electric Annex. This section records the revisions made to the Electric Annex to the Company Emergency Response Plan (CERP), the responsible persons for its preparation, maintenance, review, and updates; and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|---|-----------|
| 1.1 | ██████████ | Added "and G.O. 166" to third paragraph | 6/2/2022 |
| 1.1 | ██████████ | Replaced preparedness cycle graphic with updated graphic from HSEEP (January 2020) | 6/2/2022 |
| Throughout document | ██████████ | Lines of business removed; replaced with Functional Business Units | 6/2/2022 |
| 1.5 | ██████████ | Replaced Electric Transmission Operations Emergency Management with Transmission System Operations (TSO) | 6/16/2022 |
| 1.5 | ██████████ | Added "Participate in industry benchmarking on Emergency Management solutions and best practices" | 4/13/2022 |
| 1.5.1 | ██████████ | Added new section | 5/19/2022 |
| 1.6.1 | ██████████ | Changed document approver to VP of Emergency Preparedness & Response | 6/30/2022 |
| Throughout document | ██████████ | Replaced "Central Dispatch" with "Restoration Dispatch" | 5/15/2022 |
| 2.1.3.3 | ██████████ | Changed to reflect STOEC reports to the Transmission Branch Director and works with ETEC to respond to priorities and strategies. | 4/14/2022 |
| 2.2 | ██████████ | Added "When assigned to an incident or event, personnel are dedicated to their emergency role and their day-to-day duties become secondary." | 6/24/2022 |
| 2.2.2 | ██████████ | Added definitions for "Emergency Make Safe" and "Infrastructure & Repopulation" Make Safe. | 6/24/2022 |
| 2.2.5 | ██████████ | Added "In addition, the Check In / Out Recorders disseminate appropriate forms and refer incoming staff to safety officers for safety onboarding and tailboarding prior to commencing work. Reference section 3.2.4.1 for details on the Check-In and Check-Out Process." | 4/15/2022 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|-----------|
| 2.2.6 | ██████████ ██████████ | Replaced “can be staffed Distribution Supervisors, Estimating Supervisors, Mapping Supervisors, Operation Engineers, or Planning Engineers with operational knowledge who are trained to support a circuit based assessment/restoration strategy” with “are assigned by the Incident Commander”. | 6/2/2022 |
| 2.2.7 | ██████████ | Added “911” to title | 6/2/2022 |
| 2.2.7 | ██████████ | Added “Staff, including non-electric operations personnel, must not self-deploy to incident response. All staff must obtain approval from their management prior to responding to electric incidents. When responding to incidents, staff should not be engaging in response activities outside of the incident command structure. Staff must be integrated into the response under direction of Central Dispatch and/or the OEC, if activated.” | 6/2/2022 |
| 2.2.9 | ██████████ | Added “911 stand-by requests from public agencies” and SAP | 4/15/2022 |
| 2.2.10 | ██████████ | Added new section | 4/11/2022 |
| 2.3.1 | ██████████ | Added STOEC, removed “Directors or Senior Directors” and replaced with “Superintendents and above” | 4/14/2022 |
| 2.3.4 | ██████████ | Added “anomalies, basic cause for equipment alarms” and “repair/replace equipment” | 4/7/2022 |
| 2.3.6 | ██████████ | Added new section, including subsections 2.3.6.1 Vegetation Management, 2.3.6.2 Safety Infrastructure Protection Team (SIPT), 2.3.6.3 Debris Removal, 2.3.6.4 Temporary Generation | 4/12/2022 |
| 3.1 | ██████████ | Added “Communications Only” under Level 1 – Routine | 4/1/2022 |
| Throughout document | ██████████ | Replaced “Director of EP&R, Strategy and Execution” and/or “Senior Manager of Emergency and Restoration” and replaced with “EP&R Vice President” or “Supervisor of Electric Distribution Operations Emergency Management” | 6/2/2022 |
| 3-1 | ██████████ | Adjusted Load Shed – EEP column to align with CAISO Operating Procedure 4420 (converted AWE levels Alert, Warning, Stage 1, 2, and 3 to EEA Watch, EEA 1, 2, and 3). | 6/9/2022 |
| 3.1.1 | ██████████ | Removed “call a meeting to review the activation matrix” and replaced with “initiate a Director’s Alignment Call” | 5/5/2022 |
| 3.1.1 | ██████████ | Removed “EOC On Call” and replaced with “Electric Distribution Operations Emergency Management Supervisor and Emergency/Restoration Team” and added “(including Communications Only).” Added “In addition, the Electric Distribution Operations Emergency Management Team Supervisor or designee notifies the EP&R Vice President of OEC/REC activations Level 2 or above.” | 5/5/2022 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|---|-----------|
| 3.1.2.1 | ████████ | Added paragraph and bullet points on Communications Only status | 5/5/2022 |
| 3.1.2.1 | ████████ | Added "Incidents resulting in financial cost beyond routine emergencies (e.g. 2021 X-1111 San Francisco OEC activation requiring extensive onsite generation support)" | 5/5/2022 |
| 3.1.2.1 | ████████ | Removed "In addition to the EOC Commander, the Senior Vice President of Electric Operations has pre-designated the following personnel to activate the EOC: Vice President of Electric Distribution Operations, Director of Electric Operations Emergency Management, Director of System Operations and Control, and the Director of EP&R. The Senior Vice President of Electric Operations delegates to Electric Distribution and Electric Transmission Officers and Directors the responsibility for managing emergencies within their assigned areas of responsibilities." | 6/21/2022 |
| 3.1.2.1 | ████████ | Added "When the DSO SOPP Model forecasts divisions at Level 3 or greater impacts, OEC ICs must proactively activate prior to incoming weather/impacts for the purposes of actively monitoring impacts and staffing appropriately when outage thresholds are met per Operations Emergency Center (OEC) Activation Requirements (EMER-4510S)." | 6/24/2022 |
| 3.1.3.1 | ████████ | Added "911 Standby Handling Desk, IVRU Message, Communications Only Activations Level 1". Added "Comment, to include: Incident/event name and type, OEC Commander and phone number, Activation Level, If activated for multiple incidents/events, specify activation/deactivation date/time for each individual incident/event" | 5/5/2022 |
| 3.1.3.1 | ████████ | Removed "EOC On Call IC is notified" and replaced with "EMS Duty Officer, Electric Distribution Operations Emergency Management Supervisor, and EP&R Vice President". Removed "Senior Manager of Emergency and Restoration" and replaced with "Vice President of EP&R" | 5/5/2022 |
| 3.2.1.2 | ████████ | Added "Electric Operations maintains three preidentified Incident Management Teams (IMTs) to support further staffing needs." | 5/5/2022 |
| 3.2.1.2 | ████████ | Removed "In addition, each OEC has a designated Sister Division OEC to support any staffing deficiencies during an activation." | 5/12/2022 |
| 3.2.1.3 | ████████ | Added "E-page is used to call in OEC staff when an OEC is activated." | 5/12/2022 |
| 3.2.3.2 | ████████ | Added language to clarify three levels for Critical Facility & Infrastructure. | 5/19/2022 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|-----------|
| 3.2.3.4.1 | ██████████ | Added "Electric Distribution Emergency Management Duty Officer (IC Advisor)" and "Distribution Control Center Supervisor" | 5/12/2022 |
| 3.2.3.5 | ██████████ | Added new section "Enhanced Powerline Safety Settings (EPSS)" | 4/12/2022 |
| 3.2.3.7.1 | ██████████ | Added "For Level 2 and above incidents, the Public Safety Specialist (PSS) may work with local government emergency management and the OEC to coordinate 911 standby resources." | 5/19/2022 |
| 3.2.3.10 | ██████████ | Added new section "Electric Incident Management Teams (IMTs) Activation and Transfer of Command" | 4/11/2022 |
| 3.2.3.13 | ██████████ | Removed Level 1 Incidents language and replaced with language from EMER-3002P-01 | 5/29/2022 |
| 3.2.4.1.1 | ██████████ | Added new section "Safety Tailboard" | 5/19/2022 |
| 3.2.4.1.2 | ██████████ | Added new section "Work Assignment" | 5/19/2022 |
| 3.2.4.1.3 | ██████████ | Added incident related injury reporting graphic from Electric Annex WBT | 5/19/2022 |
| 3.2.4.2 | ██████████ | Added "The Senior Director for General Construction (GC) and Contractors is the resource owner for contract crews in Distribution and the Senior Director for Transmission and Substation is the resource owner for contract crews in Transmission." | 5/19/2022 |
| 3.2.4.8 | ██████████ | Clarified language to specify M&C supervisor and notification responsibility. | 5/19/2022 |
| 3.2.5.1 | ██████████ | Added "All resources, including local personnel, must demobilize from an incident/event." | 5/25/2022 |
| 3.2.6 | ██████████ | Added new section | 5/18/2022 |
| 4.1.2 | ██████████ | Added new section "Director's Alignment Call" | 5/2/2022 |
| 4.1.3 | ██████████ | Removed section "Daily Operations Briefing" | 5/2/2022 |
| 4.1.3 | ██████████ | Added "after the review by the IC Advisor" and an IAP must be developed and disseminated "for each operational period" | 5/20/2022 |
| 5.2 | ██████████ | Added "Coworker injuries, contractor injuries or public injuries" and "Job Safety Analyses performed, Tailboards completed, Safety observations performed" | 6/2/2022 |
| 5.6 | ██████████ | Added definitions for Major Outage and Measured Event | 3/30/2022 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|--|----------|
| 7 | ██████████ | Added "For Level 2 activations, the OEC Commander may choose to provide written feedback rather than hold a formal meeting. After action items may be provided directly to the IC Advisor and/or the OEC Commander for consideration. For Level 3-5 activations, an IC Advisor will coordinate and facilitate an AAM, including at minimum all Command and General Staff. The IC Advisor will also invite Contact Center, Distribution Control Center(s), Dispatch and other FBU representatives as needed for Level 3-5 activations." | 6/1/2022 |
| 7.5 | ██████████ | Added "There is a hand-off back to the Emergency Program when the OEC/REC deactivates so the Finance Section Chief can demobilize. For finance questions related to MEBA/CEMA/routine, refer to the Emergency/Restoration Electric Program Manager. For finance questions related to timekeeping, capital vs. expense, financial policies (mutual aid, contracts) etc., refer to BF EO Wildfire / Affordability Business Finance Analyst." | 6/1/2022 |
| 7.6 | ██████████ | Added "Note: Communications Only activations fall under routine emergencies (Level 1) and therefore do not qualify for MEBA and/or CEMA." | 6/1/2022 |
| Appendix C.1 | ██████████ | Added location for OEC Activation/Deactivation Checklists. | 6/3/2022 |
| Appendix C.2 | ██████████ | Updated location for contact information. | 6/3/2022 |
| Appendix C.3 | ██████████ | Added Meeting Agendas | 6/3/2022 |
| Appendix D | ██████████ | Added new appendix, "Directors' Alignment Call Agenda Template" | 6/5/2022 |
| Appendix H | ██████████ | Added new appendix, "Activation Position Roles and Responsibilities" | 6/9/2022 |
| Appendix I | ██████████ | OEC Meeting/Briefing Agenda Template | 6/9/2022 |
| Appendix J | ██████████ | Added new appendix, "Electric Annex Regulatory Crosswalk" | 6/9/2022 |

Recision Log

| Number | Title |
|--------|-------|
| NA | NA |

Reference Documents

| Document Number | Title |
|-----------------|-------|
|-----------------|-------|

| Document Number | Title |
|-----------------|---|
| EMER-1001S | Business Continuity Planning, Training, Exercise, and Improvement Planning Standard |
| EMER-2001S-F01 | Change Request Form |
| EMER-2001S | Company Emergency Response Plans Standard |
| EMER-3001M | Company Emergency Response Plan (CERP) |
| EMER-3002P-01 | Electric Operation Estimated Time of Restoration Procedure |
| EMER-3008M | Emergency Communications Annex |
| EMER-3012M | Disaster Rebuild Annex |
| EMER-3101M | Earthquake Annex |
| EMER-3105M | Wildfire Annex |
| EMER-3106M | Public Safety Power Shutoff (PSPS) Annex |
| EMER-4501S | Framework for Electric Incident Management Teams Standard |
| EMER-4510S | Operations Emergency Center (OEC) Activation Requirements Standard |
| TD-1464S | Public Safety Power Shutoff Standard |
| TD-2060P-01 | Routine Emergency – Emergency Estimate Required |
| TD-2060P-01-F01 | Electric Emergency Construction Package |

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| Angie Gibson | VP, Emergency Preparedness & Response |

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Comments

Change Request Form

To request changes, corrections, or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of [EMER-2001S-F01](#), Change Request Form, to EPRCERP@pge.com. [EMER-2001S-F01](#) is located on the Guidance Document Library (GDL):



Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once the Bulletin is communicated, a copy will be placed under the respective Annex located in the GDL and be included as content in the next Annex update.

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1 Introduction

1.1 Purpose of Annex

The Electric Annex provides an outline of Pacific Gas and Electric Company's (PG&E's) electric emergency management organizational structure, roles, and responsibilities, and describes the activities undertaken in response to electric emergency outage situations.

The Electric Annex is a key element to ensure the company is *prepared for emergencies to safely minimize damage and inconvenience to the public, which may occur as a result of:*

- *Electric system failures*
- *Major outages*
- *Hazards posed by damage to electric facilities¹*

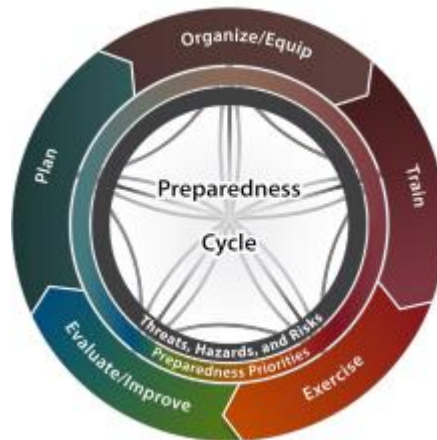
The Electric Annex's purpose is to execute all phases of the preparedness cycle (see [Figure 1-1](#)) ([Federal Emergency Management Agency \(FEMA\) Comprehensive Preparedness Guide – CPG 101](#))² and G.O. 166 within Electric Operations, including to:

- Serve as the response and recovery plan to govern electric operations during emergency incidents and events
- Guide the development of an overall strategy for managing a response
- Educate and train the electric emergency center personnel and key stakeholders on how to execute the plan
- Provide the foundation for annual drills and exercises to test the organization's ability to execute electric emergency response
- Facilitate execution of the after-action process in order to continuously improve response execution.

¹ See G.O. 166 Purpose

² https://www.fema.gov/sites/default/files/2020-05/CPG_101_V2_30NOV2010_FINAL_508.pdf

Figure 1-1: Preparedness Cycle



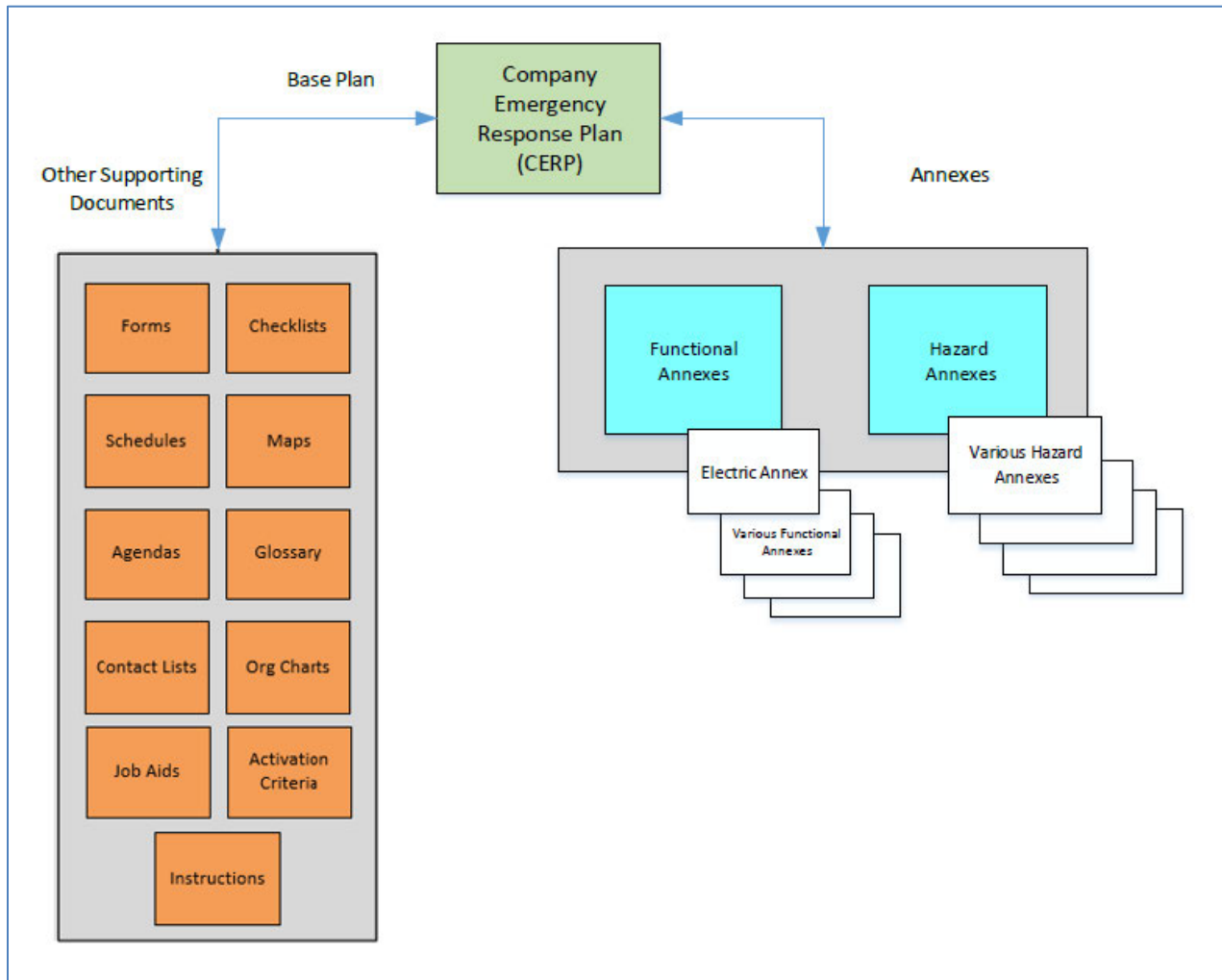
1.2 Scope

The scope of this Electric Annex includes emergency response and restoration activities for electric distribution, transmission, and substation operations.

1.3 Electric Annex Overview

The Electric Annex is a functional annex to the Company Emergency Response Plan (CERP). [Figure 1-2](#) illustrates the relation between this Annex, the CERP, other annexes, and supporting documents. The following is not an all-inclusive list.

Figure 1-2: Electric Annex Relation to CERP and Supporting Documents



1.4 Regulations and Authorities

This Annex, as part of the CERP, complies with the regulations and authorities listed below.

1.4.1 Electric Distribution

California Public Utilities Commission ([CPUC](https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html)) [General Order Number 166 \(G.O. 166\) Standards for Operation, Reliability, and Safety During Emergencies and Disasters](https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html)³ helps ensure that electric utilities are *prepared for emergencies and disasters in order to minimize damage and inconvenience to the public which may occur as a result of electric system failures, major outages, or hazards posed by damage to electric distribution facilities.*⁴

Standard one of G.O. 166 states the utility prepares an emergency response plan setting forth anticipated responses to emergencies and major outages. It indicates the plan should

³ https://ia.cpuc.ca.gov/gos/GO166/GO166_startup_page.html

⁴ See G.O. 166 Purpose for further information.

help to ensure the utility is best able to protect life and property during an emergency or major outage and communicate the scope and expected duration of an outage. The required plan elements outlined in Standard one are included in PG&E's Company Emergency Response Plan (CERP) and Annexes.

[Operations Emergency Center \(OEC\) Activation Requirements Standard \(EMER-4510S\)](#)⁵ defines PG&E's OEC activation criteria, as well as the key roles and responsibilities for proactively managing customer restoration and communication, accelerating PG&E's response time to emergency events, and reducing subjectivity in the decision-making process.

[Electric Operations Estimated Time of Restoration Procedure \(EMER-3002P-01\)](#)⁶ provides our customers validation that PG&E is aware of a service interruption, is responding to the outage, and to provide an initial estimation of when service will be restored.

The [Disaster Rebuild Annex \(EMER-3012M\)](#)⁷ is a comprehensive repository of plans, procedures, processes, and activities suggested for rebuilding and recovering, including restoring significantly interrupted services caused by disasters, such as wildfires or earthquakes.

The [Electric Emergency Plan \(EEP\) for Capacity Emergencies](#)⁸ describes the actions PG&E will take upon receiving orders from the CAISO to address electric supply and/or capacity shortages.

1.4.2 Electric Transmission

Federal Energy Regulatory Commission (FERC) regulates the transmission and wholesale sale of electricity. FERC oversees North American Electric Reliability Corporation (NERC) in the United States. FERC has delegated to NERC the authority to create and enforce compliance with Reliability Standards.

NERC establishes and enforces Reliability Standards which define the mandatory reliability requirements for planning and operating the North American Bulk Power System. NERC works closely with six Regional Reliability Organizations (RRO) and has delegated each RRO specific authorities and responsibilities, as approved by FERC, to enforce NERC and regional reliability standards, and perform other standards-related functions assigned by NERC. NERC oversees the RROs in this role to ensure consistency of delegated functions

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[Redacted]

6

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⁸ Permission must be granted for access: [Redacted]

across North America, while allowing for an appropriate degree of flexibility to accommodate regional differences.

Western Electricity Coordinating Council (WECC) is one of the six RROs in the United States with delegated authority to create, monitor and enforce mandatory reliability standards within its' geographical area known as the Western Interconnection through a Delegation Agreement with NERC.

California Independent System Operator (CAISO) and RC West are registered with NERC to perform specified reliability functions which align to the mandatory requirements of the reliability standards. The CAISO is registered as a Balancing Authority (BA), Reliability Coordinator (RC), Transmission Operator (TOP) and Transmission System Provider (TSP). As a registered BA and RC, the CAISO must coordinate with other registered entities in their territory on several of the reliability standards.

PG&E is registered with NERC for specified reliability functions that align with its business operations and meet or exceed the mandatory requirements of the reliability standards. PG&E's NERC registrations include Distribution Provider (DP), Generator Owner (G.O.), Generator Operator (GOP), Resource Planner (RP), Transmission Owner (TO), Transmission Operator (TOP), and Transmission Planner (TP). PG&E is one of several registered entities required to coordinate with the CAISO and other registered entities within the Western Interconnection.

CPUC G.O. 166 standards are applicable to Electric Transmission when unplanned outages may cause damage to transmission lines or substations due to events such as storms, fires, accidents, or terrorism. Rotating outages may be planned and utilized on rare occasions to reduce demand and prevent uncontrolled spread of outages when power supply is inadequate.

1.5 Role of Electric Emergency Management and Preparedness

Electric Operations Emergency Management teams, including Electric Transmission System Operations (TSO) and Electric Distribution Operations Emergency Management (EDO EM), support the safe, efficient, and affordable delivery of electric service to the customers of our electric infrastructure and our communities.

To support the recovery of our communities, TSO and EDO EM work with the functional business units (FBUs) and other leaders across Electric Operations to develop and recommend a strategic direction for electric emergency preparedness, emergency response and public partnerships. The team is involved in the implementation of emergency plans and processes, training, emergency exercises/drills, communication, and incident management.

In addition, the team helps promote compliance with company and regulatory policies and practices, as well as continually identify and promote continuous improvement opportunities.

TSO and EDO EM:

- Respond to emergency centers and supports electric emergency incidents and events through advising the principles of the Incident Command System (ICS)
- Facilitate emergency response and business continuity planning; maintains related documents, such as the Electric Annex, Electric Emergency Plan for Capacity Emergencies, and Business Continuity Plans (BCPs)
- Conduct trainings and exercises to ensure the readiness of Regional Emergency Center (REC), Operations Emergency Center (OEC), Electric Transmission Emergency Center (ETEC), and Substation Transmission Operations Emergency Center (STOEC) personnel
- Conduct performance monitoring of key operations and reliability metrics
- Support Emergency Preparedness and Response (EP&R) as subject matter experts (SMEs) in submission of plans and data necessary for the annual G.O. 166 filing and other data requests
- Promote the use of the Automated Roster Callout System (ARCOS), an automated callout and scheduling system that Pacific Gas & Electric (PG&E) uses to assemble and track first responders and repair crews
- Participate in industry benchmarking on Emergency Management solutions and best practices
- Distribute hard copies of the Electric Annex to all applicable facilities

More information about TSO and EDO EM is available on the [EDO EM website](#)⁹.

1.5.1 Electric Operations Emergency Management Organization

The Electric Operations Emergency Management Organization (EO EMO) consist of the following:

- DSR
- OEC
- REC
- EDEC
- ETEC
- STOEC
- GCC
- DCC
- Central Dispatch
- EDO EM
- TSO

Refer to Section 2.6 of CERP for additional information on EO EMO.

1.6 Annex Maintenance

⁹ [REDACTED]

1.6.1 Annex Development and Updates

The Emergency Preparedness and Response (EP&R) Department is responsible for developing, updating, and maintaining the Company Emergency Response Plan (CERP).

The Electric Annex will be reviewed and revised, as necessary, on an annual basis and submitted to EP&R by end of the Second Quarter (Q2) each year per the [Company Emergency Response Plans Standard \(EMER-2001S\)](#).¹⁰ EDO EM will initiate the process, in collaboration with TSO, and will engage the support of departments with relevant responsibilities in this plan.

CPUC General Order (G.O.) 166 Standard 1D states: The plan shall be updated annually to incorporate changes in procedures, conditions, law or Commission policy. The utility shall submit plan updates as part of the annual report required by Standard 11.

The Electric Annex may be modified due to:

- Lessons learned from exercises, incidents, and events.
- Key changes to emergency response processes, structure, responsibilities, assessment/restoration strategies, etc.
- Feedback generated by PG&E subject matter experts, planning team, internal and external key stakeholders, and users of the annex.
- Changes to laws or regulations pertaining to electric operations emergency management.

Each revision of the Electric Annex will be approved by the Vice President of Emergency Preparedness & Response. Records of revisions to the Electric Annex will be maintained in the change register at the beginning of this document.

Those departments having assigned responsibilities under this annex are obligated to inform EDO EM when organizational or operational changes affecting this plan occur or are imminent.

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[REDACTED]

1.6.2 Annex Distribution

The Electric Annex is distributed to the Senior Vice President of Electric Operations and specific leadership positions in Electric Transmission, Electric Distribution, and various support organization leaders. Hard copies can be found in each emergency center location, including:

- Operations Emergency Centers (OECs)
- Regional Emergency Centers (RECs)
- Emergency Operations Center (EOC)
- Grid Control Center (GCC)
- Distribution Control Centers (DCCs)
- Restoration Dispatch

This Annex is also available electronically in [PG&E's Guidance Document Library](#)¹¹ and on the [Emergency Management website](#) under Emergency Plans.

11

2 Emergency Organization and Responsibilities

2.1 Emergency Facilities

2.1.1 PG&E Emergency Centers

PG&E relies on multiple emergency centers at multiple operational levels.

In general, the Company EOC will not activate for an incident that can be managed out of an Operations Emergency Center (OEC), the Gas Emergency Center (GEC) or at an Electric Regional Emergency Center (REC) facility activated in support of one or more OECs.

For details on emergency centers outside of electric distribution and transmission, see the CERP functional annex for that FBU.

2.1.2 Electric Distribution Emergency Facilities

2.1.2.1 District Storm Room

The District Storm Room (DSR) responds to local and escalated emergency events and is generally located in a Service Planning and Maintenance yard. The main function of the DSR is to manage the local restoration effort during all levels of emergencies. The DSR is staffed with local support, such as Troublemens, gas service reps, meter techs, estimators, mappers, service planning reps and construction crews. Clerical support inputs data into the Outage Management Tool (OMT) at this location. Information from assessment resources is added to the job packet and then handed off to construction crews for repairs to be performed. DSRs report to their division's Operations Emergency Center (OEC).

2.1.2.2 Operations Emergency Center

The OEC provides oversight and support at a divisional level. The OEC directs and coordinates the personnel necessary to assess damages, secure hazardous situations, restore service, and communicate status information internally and externally. OECs report to their Regional Emergency Centers.

G.O. 166 Standard 1A stipulates that utilities coordinate internal activities in an emergency operations center or use some other arrangement suitable for the purposes of internal coordination.

2.1.2.3 Regional Emergency Center

The Regional Emergency Center (REC) provides oversight and support to the OEC(s) at a regional level. As an event escalates, the REC becomes the point of contact for information and managing escalated OEC(s) issues. When PG&E's Emergency Operations Center (EOC) is activated, the REC communicates operational status, resource requests, and logistical needs to the EOC.

2.1.2.4 Restoration Dispatch

Restoration Dispatch is open 24/7, 365 days each year located in Fresno and is responsible for dispatching and scheduling Troublemens resources to outages, compliance equipment inspections, customer committed work, etc. Restoration Dispatch also receives 911 stand-by requests from public agencies and dispatches Troublemens to respond as quickly as possible.

2.1.2.5 Electric Distribution Control Centers

Electric Distribution Control Centers (DCCs) are located in Concord, Fresno, and Rocklin where the real-time operation of the electric distribution grid is monitored and managed – this includes both planned and emergency outages. If an outage occurs, the Distribution Operator (DO) in the DCC helps to restore service to customers by directing field resources to operate distribution devices in the field and to substations to reconfigure or re-energize the distribution grid.

2.1.3 Electric Transmission and Substation Emergency Facilities

2.1.3.1 Electric Transmission Emergency Center

The Electric Transmission Emergency Center (ETEC) is responsible for providing support to PG&E Grid Control Center (GCC). ETEC's support includes system restoration support, transmission outage prioritization in collaboration with California Independent System Operator (CAISO) and the EOC, as well as internal and external communications. For example, the ETEC maintains communication with the CAISO, Western Electricity Coordinating Council (WECC), and other utilities involved in transmission system emergencies.

In a Level 2 or greater emergency, the ETEC may be activated to assist GCC with transmission related outages and to facilitate communications with the CAISO's EOC. The ETEC is also activated when the CAISO calls for load curtailments. In a level 3 or greater emergency where the PG&E EOC is activated, the ETEC reports to the Electric Transmission Branch in the PG&E EOC.

2.1.3.2 Grid Control Center

Real-time operation of the PG&E Transmission System takes place at the GCC in Vacaville and Rocklin, and is staffed 24 hours per day, 365 days per year. The GCC is in daily contact with the CAISO to monitor power flows, receive clearance requests, and establish system restoration priorities, etc. The CAISO has overall operational control of our electric transmission facilities, as well as those of Southern California Edison, San Diego Gas & Electric, and others. The GCC deals with Level 1 and Level 2 emergencies involving electric transmission and is the designated PG&E single point of contact with CAISO.

2.1.3.3 Substation Transmission Operations Emergency Center

In a Level 2 or greater emergency, the Substation Transmission Operations Emergency Center (STOEC) coordinates damage assessment, information dissemination, and movement of Transmission Line and Substation manpower and equipment to assist

operating departments in restoring service. The STOEC reports to the EOC Transmission Branch Director and responds to the priorities and strategies set by the EOC Operations Section Chief. Once activated, the STOEC tracks substation and transmission line (T-Line) resources and provides the EOC with restoration information and regular situational updates regarding quantity, type, and location of resources within the TSM&C organization. The STOEC also provides technical support to the field, when activated.

2.2 Electric Distribution Emergency Roles and Responsibilities

This section includes information on Electric Distribution emergency roles and responsibilities. When assigned to an incident or event, personnel are dedicated to their emergency role and their day-to-day duties become secondary. For the ICS positions that are used throughout all PG&E's emergency centers, refer to the CERP, Emergency Organization and Responsibilities Section.

2.2.1 Troublemens

Troublemens (T-men) are emergency response employees who usually work alone and whose primary responsibility is to assess an outage situation and identify basic cause, hazard considerations, and repair requirements, primarily on substation, circuit, and mainline outages. This individual can perform some repairs and/or correct minor equipment failures. During the initial response, the T-man is the Incident Commander. T-men are Qualified Electrical Worker (QEWs) and have the ability to make the hazard safe.

2.2.2 Make Safe Crews

Make Safe crews focus on situations where hazardous conditions have been reported by customers, agencies, etc. and require prompt attention (i.e., wire down, cut in the clear). They are typically two-person crews but can also be larger in size depending on the nature of the event and available staffing. These crews consist of foreman and/or linemen who are QEWs. Depending on their experience and training level, they have skill sets similar to T-men. They perform make safe activities and complete assessment assignments under the direction of the Dispatch Leader located in the OEC or DSR.

G.O. 166 Standard 1F states: The plan shall describe how the utility will assure the safety of the public and utility employees and the utility's procedures for safety standby. The plan shall include contingency measures regarding the resources required to respond to an increased number of reports concerning unsafe conditions.

"Emergency Make Safe" are focused actions taken by utility personnel, authorized by the AHJ, during an active wildfire to abate conditions where utility infrastructure creates a hazardous condition for evacuees and emergency responders.

This would include but is not limited to de-energization, removal of damaged utility equipment from roadways, stabilization of damaged equipment that threatens access, etc. to facilitate evacuations and emergency operations by law enforcement and firefighters.

"Repopulation Make Safe" are thorough actions taken by utility personnel, in response to priorities established by the AHJ during the "Infrastructure and Repopulation" meetings to

abate conditions where utility infrastructure creates a hazardous condition for the safe repopulation of an area.

This would include but is not limited to wreck-out/removal of all damaged utility infrastructure that presents a hazard in areas where the public could reasonably be expected to repopulate, (e.g., roadways, homes, neighborhoods), but would exclude remote areas not generally accessible to the public.

During the “Infrastructure & Repopulation” meetings the AHJ will prioritize zones/areas for repopulation recognizing repopulation may occur with or without the restoration of power; therefore, repopulation make safe this does not include completion of temporary or permanent utility reconstruction.

2.2.3 Assessment Crews and Rapid Assessment Strike Teams

Damage Assessment Crews are one or two-person crews with knowledge of electric field equipment. These crews often include gas service employees who are paired with electric estimators, compliance inspectors, or work and resource coordinators who are familiar with the territory. When there are a significant number of outages, damage assessment crews can be formed into Rapid Assessment Strike Teams.

The Rapid Assessment Strike Teams include estimators, an Associate Distribution Engineer (ADE), a supervisor, and support personnel. The strike teams are responsible for quickly patrolling damaged areas, conducting damage assessments, and relaying information to the Incoming Assessment Desk at the OEC or DSR. Rapid Assessment Strike Team members may also be assigned to the Incoming Assessment Desk to receive assessment information from the field and build job packets for the crews.

Damage assessment crews are identified by the emergency centers and approved by the IC. These Assessment Crews/Strike Teams are used primarily to determine if the problem is located on PG&E equipment, assess the damage, and determine general magnitude of the repair. This assessment may include what equipment and resources may be required to repair the damage. An estimator can size equipment necessary for repairs. Assessment Crews may also serve as 911 standby until a QEW appears on site.

2.2.4 Incoming Assessment Desk Leader

The incoming assessment desk is where estimators receive incoming damage assessment information from the field and build job packages that are provided to the DSR for crew assignment. The Incoming Assessment Desk Leader oversees all personnel and staffing for the incoming assessment desk and prioritizes the creation of job packages at the OEC/DSR. The position is staffed by either an Electric ADE or Estimating Supervisor and reports to the Operations Section Chief (OSC) in the OEC.

2.2.5 Check In / Out Desk Recorder

The Check In / Out Recorders establish and manage the check in/out desk in each emergency center and base camp. They are responsible for ensuring that all personnel that come on site to support an incident are checked in each time they arrive and are checked

out at the end of each work shift and at the end of their assignment. The Recorder reports to the Resource Unit Leader (RESL) in the Planning Section in each emergency center. In addition, the Check In / Out Recorders disseminate appropriate forms and refer incoming staff to safety officers for safety onboarding and tailboarding prior to commencing work. Reference section [3.2.4.1](#) for details on the Check-In and Check-Out Process.

2.2.6 Circuit-Based Branch Supervisor

Circuit-Based Branch Supervisors are assigned by the Incident Commander. They provide direction to the Task Force Leaders (TFLs), coordinate and prioritize work, establish communication between TFLs and the DSR to ensure situational awareness and safety, and participate with the Planning Section in the development of objectives for the action plan for the Circuit-Based Strategy. (Refer to section [3.2.3.9.2](#) for details on circuit-based assessment/restoration.)

2.2.7 911 Standby Personnel

Standby personnel are responsible for cordoning off a hazardous condition and/or relieving a 911 agency until a qualified electric crew or T-man arrives to clear and/or repair the hazard. They are one or two-person crews with limited knowledge of field equipment, and often are staffed by Cable Crew Foremen, Cable Splicers, meter readers, meter technicians, gas service representatives, gas construction workers, and various other employees. Standby crews generally do not have equipment switching skills, or the ability to estimate the magnitude of the repair and restoration timeframe.

Staff, including non-electric operations personnel, must not self-deploy to incident response. All staff must obtain approval from their management prior to responding to electric incidents. When responding to incidents, staff should not be engaging in response activities outside of the incident command structure. Staff must be integrated into the response under direction of Central Dispatch and/or the OEC, if activated.

2.2.8 Distribution System Operator

A Distribution System Operator (commonly referred to as DO) is responsible for operating and monitoring an assigned electric distribution jurisdiction. The Distribution System Operator directs switching and issues clearances, moves electric distribution load, and restores service when trouble occurs. Distribution System Operators can open and close devices to reconfigure the circuit or restore customers using Supervisory Control and Data Acquisition (SCADA) enabled devices. The Distribution System Operator also directs field personnel for switching and restoration on the electric distribution grid.

2.2.9 Restoration Dispatcher

Central Dispatchers are emergency response employees. They are responsible for dispatching all work to T-Men, including:

- 911 stand-by requests from public agencies
- Outages
- Reliability-related tags

- Compliance inspections
- Customer-related work
- Streetlights

They operate out of three separate dispatch systems: (1) ABB Mobile Application and (2) Outage Information System (OIS)/OMT, (3) SAP and work 24/7, 365 days a year.

2.2.10 Electric Incident Management Teams

PG&E maintains three pre-identified Electric Incident Management Teams (IMTs). These teams eliminate ad hoc resource/staffing challenges when multiple events occur simultaneously. An Incident Management Team is comprised of an Emergency Center Commander (IC or EOC Commander) and the Command and General Staff personnel assigned to an incident. Incident teams, when assembled, have direct authority to plan and execute a response. The three teams may deploy anywhere within the service territory where incident management is needed. Pre-identified incident management teams increase operational capabilities that are scalable and flexible and ensures adequate continuous coverage. Refer to EMER-4501S Framework for Electric Incident Management Teams Standard for additional information. See CERP Section 2.8 for additional information on IMTs.

2.3 Electric Transmission and Substation Emergency Roles and Responsibilities

2.3.1 Electric Transmission Branch Director

The Electric Transmission (ET) Branch Director in the EOC coordinates with ETEC and STOEC, which provide system restoration support, transmission outage prioritization, block calculator support, study support for de-energization of equipment due to Public Safety Power Shutoff (PSPS) and internal and external communications. The ET Branch Director position is staffed by Superintendents and above and reports to the Operations Section Chief in the EOC.

2.3.2 ETEC Lead

The ETEC Lead position is staffed by supervisors and above in Electric Transmission System Operations and reports to the ETEC Branch Director. ETEC supports the GCC with outage prioritization and serve as the liaison for GCC during an event. The ETEC Lead is also responsible for providing direction to STOEC on outage priorities.

2.3.3 Transmission Troublemens

The description for a Transmission T-man is the same as an Electric Distribution T-man, as listed in section [2.2.1](#).

2.3.4 Substation Maintenance Electricians

Substation Maintenance Electricians are emergency response employees who may work alone and whose primary responsibility is to assess the substation to identify anomalies, basic cause for equipment alarms, hazard considerations, and repair/replace equipment requirement. This individual can make some repairs and/or correcting minor equipment failures. These personnel are QEWs.

2.3.5 Substation Teams Used in Level 5 Incidents

2.3.5.1 Substation Damage Assessment Teams

Substation Damage Assessment Teams are made up of two people (electrical and civil engineers, project managers or Maintenance Engineers) with knowledge of electric substation equipment. These teams consist of non-QEW personnel and are responsible for initial damage assessment inside substations.

2.3.5.2 Substation Make Safe Teams

The Substation Make Safe Teams are made up of maintenance electricians and electrical inspectors and are QEW. Their primary function is to assess damage to substation equipment and to make safe, if necessary.

2.3.5.3 Substation Restoration Teams

The Substation Restoration Teams are one to two-person teams that work with the transmission and distribution Control Centers to restore customers and transmission paths. These teams are made up of maintenance electricians / switching electricians and electrical technicians. They are qualified to perform substation switching and are under the jurisdiction of the GCC and/or the appropriate DCC.

2.3.5.4 Substation Repair Team

The primary function of a Substation Repair Team is to repair or replace damaged substation equipment. These teams are made up of station construction, substation maintenance, Insulation and Coating, and test department employees.

2.3.5.5 Substation Standby Team

The primary function of the Substation Standby Team is to stand by damaged equipment and facilities which may present a safety hazard to the public. In most cases, the fence surrounding a substation will keep the public away from substation hazards, but there may be cases where the fence is down or damaged. In these cases, standby teams are used to ensure public safety, and are comprised of Insulating and Coating and substation maintenance and construction personnel.

2.3.6 Other Functional Business Units (FBUs)

2.3.6.1 Vegetation Management

Vegetation Management (VM) is responsible for planning and implementing vegetation strategies and tactics for the Operations Section of an emergency center. The VM Lead oversees the coordination and implementation of requested VM field operations to ensure they are performed in a safe, effective, and timely manner. The VM Lead maintains communication on needs and progress with field crews, other Emergency Center personnel, the Emergency Operation Center (EOC) VM Branch Director and VM Leadership.

Other functions of VM include planning and implementing vegetation patrols to identify abatement and clearing/fuel reduction opportunities as requested, ensuring all work is performed in compliance with State and Federal vegetation clearance requirements and ensuring all resources have proper training and equipment to complete assignments safely in coordination with the Safety Officer.

2.3.6.2 Safety Infrastructure Protection Team (SIPT)

During wildfires or other emergencies, SIPT activities will be coordinated with the Authority Having Jurisdiction (AHJ) and the PG&E Incident Commander (IC) and will follow guidelines established for private fire prevention resources as required under AB 2380. While these teams will not engage in active wildfires without authorization, they help suppress any potential ignition at the work site when protecting PG&E crews and assets. When first responders arrive on scene, SIPT will follow the Incident Command System established by the responding agency.¹²

SIPT resources report to the Asset Protection Branch Director (APBD). The APBD is responsible for protecting PG&E assets from incident damage. The Asset Protection Branch, under the direction of the Operations Section Chief (OSC), manages asset protection as part of the operations section. The APBD develops asset protection strategy in consultation with members of the operations section, the Public Safety Specialist team, impacted PG&E FBUs, and the Authority Having Jurisdiction (AHJ). The APBD leads the development and execution of the tactical assignments documented in the Incident Action Plan (IAP) and may establish divisions, groups, and units as necessary to support asset protection operations. During non-wildfire incidents (all-hazards), or after a wildfire is declared controlled, the APBD coordinates SIPT activities as requested by the OSC.

For additional details on both typical work and emergency activities performed by SIPTs, please refer to CERP section 3.1.2

¹² See Wildfire Annex Section 2.2.2.2 for further information.

2.3.6.3 Debris Removal

The Debris Removal Branch of an emergency center is responsible for managing the overall debris removal process. The Debris Removal Branch identifies property locations to store debris removal equipment and debris, completes an Intake Form to acquire land used for debris removal equipment and debris, and coordinates with the Safety Officer to initiate site safety evaluation at the debris sites.

In addition, this branch provides timely updates/coordinate activities with other FBUs related to debris removal and requests and/or releases resources as required by incident objectives with approval from the Incident Commander. During emergencies, to track and ensure all debris has been removed after repairs, debris removal staff complete Form TD-2060P-01-F01, which was updated to account for debris removal on all job packages. If debris needs to be removed by Electric and/or Gas Operations staff, a job package will remain open until the debris is removed as safely as possible.

2.3.6.4 Temporary Generation

Temporary generation is responsible for collaborating with emergency center OEC/REC during incidents/events to provide temporary generation for critical and essential customers to include critical infrastructure (hospitals, fire stations, warming/cooling centers, PR1s, etc.). Temporary Generation staff are responsible for maintaining communications with CSOs, DSR Leads, and the OEC Temporary Generation Branch, providing updates from Authority Having Jurisdiction (AHJ) on current situational status, and working with engineers to determine location and load requirements.

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3 Concept of Operations

3.1 Emergency Plan Activation

PG&E's Incident Levels are a useful decision support tool that helps support PG&E in understanding the complexity of an incident and the actions that may be employed at each level (e.g., emergency center activations, resources needed, etc.).

For additional details on PG&E's Incident Levels, refer to the Levels of Emergency Section in PG&E's [CERP](#)¹³.

3.1.1 Electric Activation Matrix

The Electric Incident Level Activation Matrix in Table 3-1 contains specific triggers that are used by the Emergency Center Commanders and the Emergency Management Specialist (EMS) Team to determine whether any emergency centers should activate. The Activation Matrix is used in anticipation of an event or during an incident.

G.O. 166 Standard 1D states: Within one hour of the identification of a major outage, the utility shall begin coordinating its internal resources as set forth in its emergency plan.

The EP&R Vice President, EOC On-Call Incident Commander (IC), and employees with an EOC emergency response leadership role (Commanders, Operations, Planning, Logistics, Finance and Administration Section Chiefs, and the Public Information Officer) have the authority to initiate a Directors' Alignment Call (for more information see [Section 4.1.2](#)).

The OEC/REC notifies the Emergency Management Specialist (EMS) Duty Officer of all emergency center activations (including Communications Only). The EMS Duty Officer can be reached at [REDACTED]. The EMS Duty Officer notifies the Electric Distribution Operations Emergency Management Supervisor and Emergency/Restoration Team of all emergency center activations (including Communications Only). In addition, the Electric Distribution Operations Emergency Management Supervisor or designee notifies the EP&R Vice President of OEC/REC activations Level 2 or above.

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[REDACTED]

Table 3-1: Electric Incident Level Activation Matrix

Note that workload is the primary unit used to determine the need to escalate for Electric Distribution and # of outages/Area of Responsibility (AOR) for Electric Transmission. OEC activations may occur depending on incident complexity and the need to support customer communications, to mobilize resources, or to coordinate response.

| Severity | Level | Expected Field Resources | Restoration Duration | EDO Workload ¹ | Expected Customers Out (Electric) ² | # ET Outages/ AOR ¹ | Load Shed – EEP ⁴ | Actions ⁵ | Emergency Centers | External Interest / Media / Reputation | Incident / Weather Examples |
|--------------|-------|--------------------------|---|-------------------------------------|--|--------------------------------|--|--|---|---|--|
| Catastrophic | 5 | T-men 710 Crews 560 | >6 Days | >32x Workload (>2080 SOs) | >750,000 Customers Out | >14 | System Wide / Multiple Day Event EEA3 – Firm Load Interruptions (C, D, E, I) | Mutual Aid C - EOC Activation, D -Temp Gen, E -Islanding, I -Drop requested load | OEC, REC, STOEC, ETEC, EOC, and IST Activation | Catastrophic emergency or customer issue with extensive public, media, government, and regulator interest across multiple regions and at the state, national, and international level. Potential reputational risk. | Major to catastrophic storm event, wind 60+ mph (EDO) or >75 mph (ET), significant earthquake, firestorm with catastrophic impact to infrastructure, Cyber Incident – control of grid assets by foreign group |
| Severe | 4 | T-men 220 Crews 170 | 2 – 6 Days | 10x – 32x workload (651 – 2080 SOs) | >300,000 Customers Out | 10 – 14 | System Wide / Single Day Event EEA3 – Firm Load Interruptions (C, D, E, I) | Resources move between regions, contractors, may require Mutual Aid C - EOC Activation, D - Temp Gen, E -Islanding, I -Drop requested load | OEC, REC, STOEC, ETEC, and EOC Activation | Severe emergency or customer issue with considerable public, media, regulatory and government interest across multiple regions, and at the state and national level. Potential reputational risk. | Major heat or winter storm, wind 40 – 60 mph (EDO) or >60 mph (ET), significant earthquake, wildland fire that results in de-energizing customers and major damage to infrastructure, fire affecting major paths, Cyber Incident – slow system response times, limited awareness at grid control. |
| Serious | 3 | T-men 120 Crews 100 | 1 – 3 Days | 4x – 10x workload (261 – 650 SOs) | >100,000 Customers Out | 7 – 10 | Localized Flex Alert (A, B, D) EEA Watch (C, D) EEA1 (C, D, F) EEA 2 (C, D, G) (EEA3 (C, D, H) | Resources moved within Region, may need to move between Regions A - Workplan Adjustments, B - Readiness Posture, C -EOC Activation, D -Temp Gen, E -Islanding, F -Communicate with Public Safety Partners, G - Communicate to Customers, H - Capable to shed load in 10 minutes | OEC or STOEC activation; REC, ETEC, and EOC activation possible | Local/Regional emergency or customer issue with increased public, media, government and/or regulatory interest. Potential reputational risk. | Significant heat or winter storm, wind 35-50 mph (EDO) or >50 mph (ET), significant earthquake ³ , wildland fire that results in de-energizing customers and significant damage to infrastructure, Cyber Incident – malware affecting SCADA, EMS, DMS systems, ET: total loss of EMS or SCADA loss of 500kV or 230kV substation |
| Elevated | 2 | T-men 75 Crews 55 | <24 hours Typically, could be up to 2 days | 2x – 4x Workload (130 – 260 SOs) | >20,000 Customers Out | 5 – 7 | Restricted Maintenance Operations (A) | Resources mainly local, may need to move within Region A - Workplan Adjustments | OEC and STOEC activation possible | Local emergency or customer issue with increased public, media, government, and/or regulatory interest | Moderate heat or winter storm, wind 30-40 mph (EDO) or > 35 mph (ET), wildland fire that results in de-energizing customers and minor damage to infrastructure, Cyber Incident – virus detected or DMS or EMS system with loss of 3 or more substations' visibility in SCADA |
| Routine | 1 | T-men 44 Crews 25 | <24 hours | Normal – 2x Workload (<130 SOs) | <20,000 Customers Out | <5 | N/A | Local Resources Only | No Activation; Communication Only | Routine local incident with no to little public or media interest | Car pole, normal operations, light weather, virus detected, or phishing directed at electric operations, single circuit outage |

¹ Workload is the primary unit used to determine the need to escalate and is based on the number of unplanned sustained outages (SOs) for Electric Distribution Operations (EDO) and # outages/Area of Responsibility (AOR) for Electric Transmission (ET).

² Customer counts are an SOPP output based on workload.

³ Geosciences recommended the qualitative description of "significant earthquake" rather than listing a specific magnitude for Levels 3 – 5.

⁴ Load Shed-EEP column reflects the CAISO Energy Emergency Alert (EEA) Levels are aligned to the respective item in the Actions column.

⁵ Actions column reflects the legend for the CAISO Energy Emergency Alert Levels which are aligned to the respective item in the Load Shed-EEP column.

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3.1.2 Activation Process and the Authority to Activate

3.1.2.1 OEC, REC, and EOC

The Emergency Center Commanders and the EOC Commander/EOC On-Call IC utilize the Electric Incident Level Activation Matrix in Table 3-1 and the [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)¹⁴ to determine whether to activate an emergency center, and at what level to activate. While the EOC On-Call IC can conduct an initial assessment and recommend the activation of a plan/facility to the appropriate Emergency Center Commander, the decision to activate an emergency center is at the discretion of the Emergency Center Commander and is based on the complexity of the incident. Emergency center personnel roles and responsibilities are included in [Appendix H](#).

A Level 1 emergency is managed locally by following existing procedures and does not involve the activation of an emergency center. In an escalating event, or if a division's outage thresholds are met, Central Dispatch or the On-Call Supervisor notifies the On-Call OEC Commander about the nature of the event and the potential need to activate the OEC.

Communications Only status can be initiated from two conditions. First, Communications Only status may be when an OEC decreases from Level 2 or above to Communications only to maintain basic communications and close all job packages and activation documentation. Second, Communications Only status may be when an OEC increases from routine status because of a need for increased communication and awareness due to potential emergency activations or weather events.

Communications Only is used in the following cases:

- Pre-staging of resources based on EOC direction.
- Resource support for other impacted OECs.
- Significant media impacts.
- Large non-incident major events (e. g., conventions).
- Outages involving potentially significant environmental impact(s).

¹⁴ [REDACTED]

- Emergencies requiring additional support, but not meeting MEBA criteria. See Section 7.6 of this document for additional information.¹⁵

For Level 2 activations and above, the On-Call OEC Commander (e.g., field operations Superintendent) may authorize activation of an OEC for reasons including, but not limited to, the following:

- A Level 2 or greater emergency
- A division exceeds their division's outage threshold, and field resources (e.g., T-men and crews) are not readily available.
- A division's SOPP Model Forecast predicts inclement weather at Level 2 or above, which may result in a proactive activation
- Incidents resulting in financial cost beyond routine emergencies (e.g. 2021 X-1111 San Francisco OEC activation requiring extensive onsite generation support)
- At the direction of the regional Field Operations Sr. Director/Director
- At the request of the EP&R Vice President, Control Center leadership, Restoration Dispatch leadership, EOC On-Call IC, EOC Commander, or Field Operations On-Call Supervisor

¹⁵ For further information see 4510S Operations Emergency Center Activation Requirements

When the DSO SOPP Model forecasts divisions at Level 3 or greater impacts, OEC ICs must proactively activate prior to incoming weather/impacts for the purposes of actively monitoring impacts and staffing appropriately when outage thresholds are met per Operations Emergency Center (OEC) Activation Requirements (EMER-4510S).

For Level 3 or greater activations, the REC Commander may authorize activation of an REC for reasons including, but not limited to, the following:

- A Level 3 or greater emergency
- A Region's SOPP Model Forecast predicts inclement weather at Level 3 or above, which may result in a proactive activation
- Multiple OECs are activated
- At the request of the OEC Commander, EOC Commander, EOC On-Call IC, or the EP&R Vice President

The EOC Commander may authorize activation of the EOC and needed support centers for reasons including, but not limited to, the following:

- Multiple RECs are activated
- At the request of the EOC On-Call IC or REC Commander
- Response to the emergency would be better served by managing resources and operations centrally
- Prioritization for the use of resources across regions is necessary

Personnel with the authority to activate the EOC also have the authority to determine if the EOC will activate physically (location to be determined by EOC Commander) or virtually. See [CERP](#)¹⁶ for additional information.

Refer to [Appendix D](#) for the Emergency Center Activation Checklists.

3.1.2.2 Electric Transmission Emergency Center and Substation Transmission Operations Center

The Electric Transmission Branch Director in the EOC and the Substation Transmission Operations Emergency Center (STOEC) IC use the Electric Incident Level Activation Matrix in Table 3-1 as a guideline to determine whether to activate the Electric Annex, and at what level to activate. The Electric Transmission Emergency Center (ETEC) is activated due to a system emergency, at the request of the ETEC Lead or the ETEC Branch Director. The STOEC IC can also determine whether to activate the STOEC.

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[REDACTED]

3.1.3 Notifications

3.1.3.1 Internal

The Emergency Center Commander ensures:

- All emergency center personnel are notified about the emergency, OEC/REC activation, and reporting information according to that emergency center's call-out procedure
- Emergency center email distribution lists and paging lists are used to inform key stakeholders
- Outage Management Tool (OMT) EM Activation Screen ([OMT User Manual](#)¹⁷) is updated:
 - Auto Estimated Time of Restoration (ETORs)
 - Activation Status
 - Enable Storm Orders
 - 911 Standby Handling Desk
 - IVRU Message
 - Communications Only Activations Level 1
 - Comment, to include:
 - Incident/event name and type
 - OEC Commander and phone number
 - Activation Level
 - If activated for multiple incidents/events, specify activation/deactivation date/time for each individual incident/event

¹⁷<https://pge.sharepoint.com/sites/BATs/Procedures%20%20Internal%20Only/Forms/AllItems.aspx?id=%2Fsites%2FBATs%2FProcedures%20%20Internal%20Only%2FOMT%20Support%20Documentation%2FOMT%20User%20Manual%20%2D%20Enhanced%2Epdf&parent=%2Fsites%2FBATs%2FProcedures%20%20Internal%20Only%2FOMT%20Support%20Documentation&p=true&originalPath=aHR0cHM6Ly9wZ2Uuc2hhcmVwb2ludC5jb20vOmI6L3MvQkFUCy9FUkprYU5QekI5UkVtcWd3WjZ0WTRfd0JVVmk4Z2U0d01CQzBGZFI3T1RmWHZnP3J0aW1IPURKMEI4NTQxMlVn>

See Figure 3-1 and Figure 3-2 for examples of the updates in OMT.

Figure 3-1: EM Activation Screen Sample

The screenshot shows the 'EM Activation Screen' with a title bar indicating 'Last Refresh: 4:42:43 PM 07/26/2021'. Below the title bar are three columns: 'EOC Activated?', 'Time Activated', and 'Time Deactivated'. An 'Important Note' is displayed, explaining the functions of REC, EOC, and IVRU Storm Message. The main table lists various regions and headquarters, including Diablo, East Bay, Mission, Peninsula, San Francisco, Stockton, Yosemite, Humboldt, North Bay, North Valley, Sacramento, Sierra, Sonoma, Central Coast, and the Diez Area. Each row includes columns for 'Auto ETOR' (Enable, Time Enable, Time Disable, By Circuit), 'Emergency Center Activations Level 2-3' (Activation, Time Activated, Time Deactivated), 'Enable Storm Orders', '911 Standby Handling Desk' (Activation), 'IVRU Message' (Activation, Time Implemented, Time Canceled), and 'Communication Only Activations Level 1' (Activation, Time Activated, Time Deactivated). A 'Comment' column is also present.

This close-up view shows the 'Diablo' region selected. The 'Auto ETOR' section has 'Enable' checked, 'Time Enable' set to '07:02 07/12/2021', and 'Time Disable' set to 'Diablo'. The 'Emergency Center Activations Level 2-3' section shows 'Activation' as a checked box. The 'Enable Storm Orders' and '911 Standby Handling Desk' sections also show checked boxes. The 'IVRU Message' and 'Communication Only Activations Level 1' sections show 'Activation' as a checked box. The 'Comment' column is empty.

Figure 3-2: EM Activation Screen Close Up

Additional notifications are made when the following emergency centers are activated:

- OEC/REC: EMS Duty Officer, Electric Distribution Operations Emergency Management Supervisor, and EP&R Vice President.
- EOC for an electric operations response: EOC Commander notifies the Vice President of EP&R
- ETEC: ETEC staff notifies the EOC via EO EOC Out and EOC All Teams. (Refer to the ETEC Activation Quick Start Guideline for notification details.)
- STOEC: The IC or delegate of the STOEC notifies the Senior Director of Distribution Grid Operations, Vice President of EP&R, Director of Distribution Control Centers, ETEC Lead, GCC, EOC Transmission Branch Director.

3.1.3.2 External

In compliance with Standard Six of G.O. 166, within one hour of the identification of a major outage or other newsworthy event, PG&E notifies the CPUC and the Warning Center at

California Office of Emergency Services (Cal OES) of the location, possible cause, and expected duration of the outage. PG&E generally treats “newsworthy events” as incidents within the category of Level 3 or greater emergency, where the EOC is activated. (Refer to section 4.2.4 for additional details on major outage reporting.)

When ETEC is activated, the supervising system dispatcher in the GCC notifies the CAISO.

3.2 Emergency Response Process

3.2.1 Readiness

3.2.1.1 Readiness Expectations

All electric employees with roles in emergency centers and/or supporting electric emergencies will be oriented to the Electric Annex, applicable department emergency plans, and their respective emergency centers’ contact list. The following sections provide guidelines to prepare for an emergency event.

Refer to the [Emergency Management Website](#)¹⁸ for additional information on Electric Distribution’s Emergency Management Organization (EDO EM) staffing plans, contact lists, training, job aids and processes. Refer to [SharePoint](#)¹⁹ for additional Transmission Operations contact lists.

3.2.1.2 Primary and Alternate Emergency Center Positions

Emergency center rosters identify a minimum of two personnel for each Command and General Staff position in the OECs and RECs. The alternates must be qualified to assume the designated roles and responsibilities. Staffing plans and contact lists must be reviewed and updated regularly to account for organizational changes within the Electric EMO. Electric Operations maintains three preidentified Incident Management Teams (IMTs) to support further staffing needs.

3.2.1.3 Call-Out Processes

Each emergency center maintains an emergency staffing plan and execute the call-out process to ensure adequate staffing levels for every emergency. For OEC and REC personnel, the Senior Directors and Superintendents of Field Operations maintain a roster for a Level 2 and above response, with appropriate contact information. When warranted by the magnitude and/or complexity of an emergency (e.g., earthquake), all levels of the Electric EMO are expected to report immediately for emergency assignment. E-page is used to call in OEC staff when an OEC is activated.

¹⁸

¹⁹

PG&E adheres to International Brotherhood of Electrical Workers (IBEW) and Engineers and Scientists of California (ESC) Company union agreements regarding call-out of bargaining unit classifications for augmentation of resources. The on-call staffing plans are located in ARCOS Crew Manager.

Refer to section 3.2.4.10 for more information on ARCOS (Automated Roster Callout System), an automated callout and scheduling system that PG&E uses to assemble and track first responders and repair crews in response to electric emergency outage situations and/or unplanned events.

3.2.1.4 Emergency Center Personnel Responsibilities

A staffing plan and/or contact list identifies individuals for each emergency center. Their responsibilities include the following:

- Ensures availability during defined schedule.
- Maintains a heightened level of awareness of all potential, forecasted, and in-process emergency events.
- Maintains awareness of the triggers and activities of the respective emergency center or department for each emergency level.

3.2.2 Pre-Event

3.2.2.1 Pre-Event Preparation

Pre-event preparations shall be incorporated into the emergency response and restoration operations at every level of the EO EMO. Appropriate pro-active measures shall be taken when identified triggers detailed in [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)²⁰ are expected to be met at the direction of the Supervisor of Electric Distribution Emergency Management or the Vice President of EP&R. The Distribution System Operations Storm Outage Prediction Project (DSO SOPP), and TD 1464S (Fire Danger Precautions and Fire Index) are intended to assist the Electric EMO with weather prediction, outage prediction, resource guidelines, and fire awareness.

3.2.2.2 Hazard Forecasting and Prediction

3.2.2.2.1 Damage Modeling and Storm Outage Prediction Project Model

The Distribution and Transmission System Operations Storm Outage Prediction Project (DSO SOPP and T-SOPP) model (Figure 3-3) was developed to link adverse weather conditions to outage and resource needs. The model combines historical weather and outage data with weather forecasts to predict the number of transformer level and above sustained outages (SOs) per division for each of the next four days. The model also provides an estimate of the resources needed to respond to the level of predicted outages.

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The primary adverse weather threats modeled are wind, rain, low snow, and heat. SOPP model outage forecasts are assigned a category level 1, 2, 3, 4 or 5 based on how the predicted level of SOs compares with long-term historical level of SOs for each specific Division or Area. The model provides specific quantitative forecasts for SOs, customer counts, and resource requirements. An example forecast, as well as a qualitative description of the categories is presented in Table 3-2, Table 3-3, and Table 3-4.

Figure 3-3: DSO and T-SOPP Model Forecasts

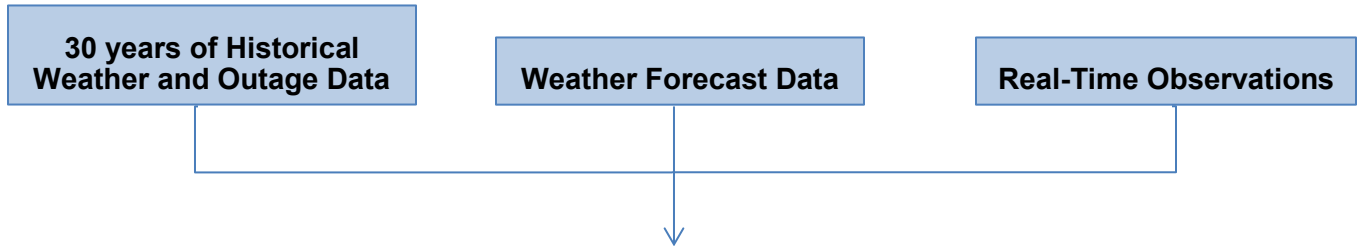


Table 3-2: DSO SOPP Model Forecast

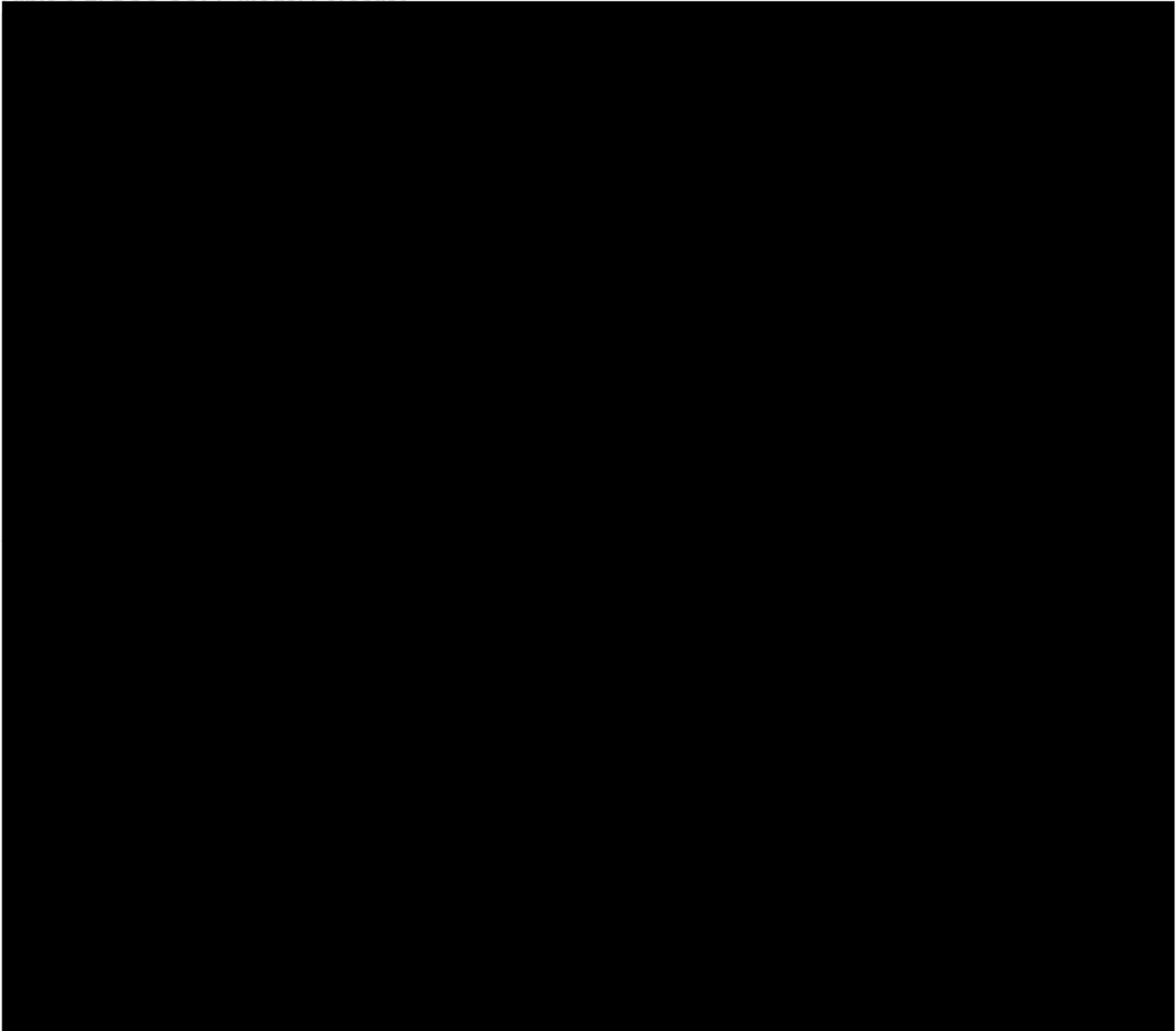


Table 3-3: DSO SOP Model Forecast Timing by Division

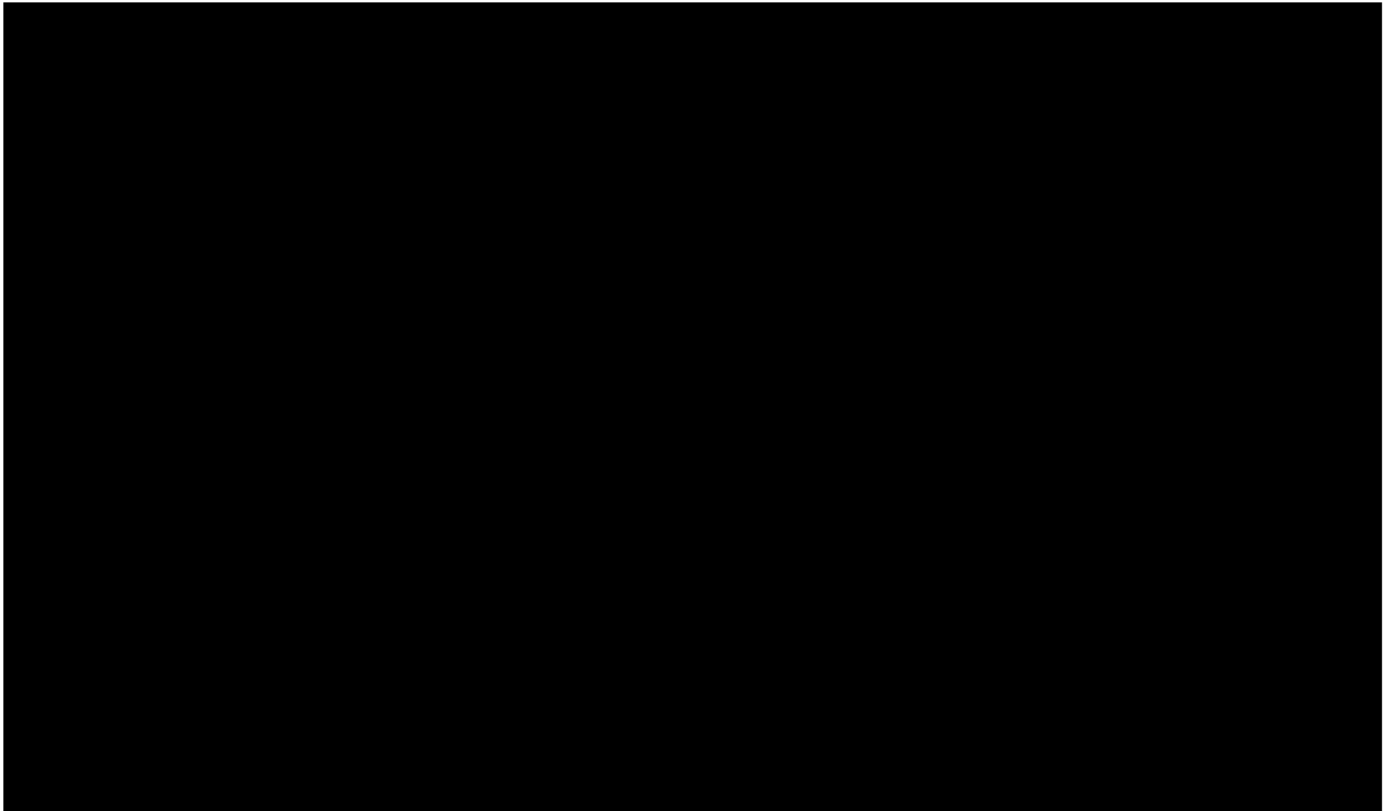
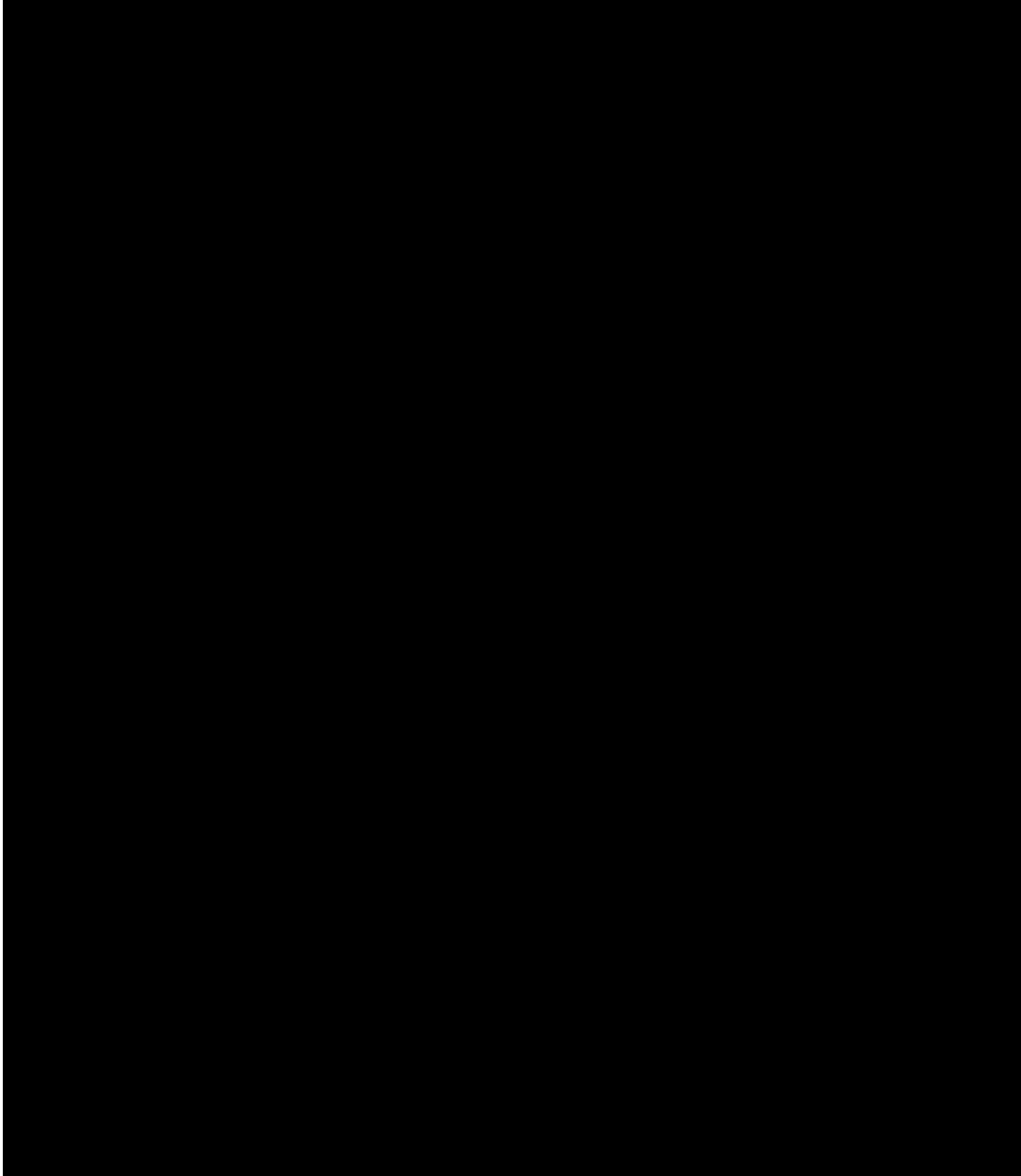


Table 3-4: Transmission SOPP



3.2.2.2.2 Severe Weather Notifications

Weather Warnings will be issued for any division where there is an imminent threat of severe weather within the next 12 hours unless the imminent threat was already anticipated and/or communicated through the regular DSO SOPP Model dissemination.

Thunderstorm Warnings are a special case and will be issued for any division where there is an imminent threat of lightning within the next 12 hours, regardless of whether this threat was anticipated or communicated in the regular DSO SOPP Model dissemination.

PG&E Geosciences also provides notifications for debris flows and landslides. For additional information, please see [Wildfire Annex](#),²¹ [EMER-3105M](#) (section 4.4.5).

3.2.2.2.3 Weather-Related Plans (Wildfire Mitigation Plan, TD-1464S, Public Safety Power Shutoff)

[PG&E Wildfire Mitigation Plan](#)

PG&E's Wildfire Mitigation Plan reflects PG&E's policy on fire prevention pre-planning, threat mitigation, and fire readiness and response. The plan also outlines the actions that PG&E takes to prevent and mitigate the risk of fire ignitions associated with the operation of overhead electric power facilities. In accordance with General Order 166, PG&E's Wildfire Mitigation Plan satisfies the requirement for a Fire Prevention Plan.

G.O. 166 Standard 1E states: Those electric utilities identified below shall have a Fire Prevention Plan that describes the measures the electric utility intends to implement, both in the short run and in the long run, to mitigate the threat of power-line fire ignitions in situations that meet all of the following criteria: (i) The force of 3-second wind gusts exceeds the maximum working stress specified in General Order 95, Section IV, for installed overhead electric facilities; (ii) the installed overhead electric facilities affected by these 3-second wind gusts are located in geographic areas designated as the first or second highest fire threat area on a fire-threat map adopted by the Commission in Rulemaking (R.) 08-11-005; and (iii) the 3-second wind gusts occur at the time and place of a Red Flag Warning issued by United States National Weather Service. The requirement to prepare a fire-prevention plan applies to: (1) Electric utilities in Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties; and (2) electric utilities in all other counties with overhead electric facilities located in areas of high fire risk as determined by such utilities in accordance with Decision 12-01-032 issued in Phase 2 of R.08-11-005.

[Utility Standard: Fire Danger Precautions in Hazardous Fire Areas \(TD-1464S\)](#)

This standard establishes precautions for PG&E employees and contractors performing work on behalf of PG&E to follow when traveling to or performing work on any forest, brush, or grass-covered land. The standard outlines requirements that must be taken when performing work using equipment, tools, and/or vehicles whose use could result in the ignition of a fire.

Automatic notification via e-mail and e-page has been made available to PG&E employees and contractors to enhance fire danger awareness.

[Public Safety Power Shutoff \(PSPS\)](#)

The *Public Safety Power Shutoff (PSPS) Annex* (EMER-3106M) outlines processes and commitments for implementing a PSPS. Given the continued and growing threat of extreme weather and wildfires, and as an additional precautionary measure following the 2017 and 2018 wildfires, PG&E developed its PSPS program in 2018. A PSPS is a proactive de-energization of PG&E equipment as a measure of last resort to reduce wildfire risk. A PSPS will only be done when gusty winds and dry conditions, combined with a heightened

fire risk, are forecasted to threaten a portion of PG&E's electric system. For additional information regarding the PSPS process, please see the [PSPS Annex, EMER-3106M](#)²².

3.2.2.2.4 Non Weather-Related Warnings

Non-weather-related warnings may be obtained from several sources, including operations reports covering load status and alerts from the state or local Office of Emergency Services (OES).

3.2.2.3 Pre-Event Notification

Upon receipt of a weather warning, weather watch, weather advisory, or non-weather-related warning, each level of supervision that supports an incident or event (field support, OEC/REC staff, DCC staff, Restoration Dispatch) the Electric Operations' EMO (Emergency Management Organization) will advise pre-designated personnel and take the appropriate pre-event actions. Such actions include placing personnel on alert status; advising employees to pack overnight bags in advance; reviewing emergency plans; identifying key personnel available for assessment and restoration activities; pre-staging personnel; evaluating supplies and equipment; and canceling non-critical meetings. Affected emergency centers may activate in anticipation of an event occurrence.

3.2.2.4 Briefings and Conference Calls

Regional Sr. Directors (REC Commander), Superintendents (OEC Commander), and Construction Supervisors (Branch Directors) coordinate and conduct pre-event conference calls within their regions/divisions to discuss activation, staffing, materials, pre-staging, and pre-arranged overtime (POT) resources.

Upon receipt of a weather forecast indicating a system Cat 3 weather event, the Supervisor of Electric Distribution Emergency Management conducts a briefing for Electric Operations. In the event we receive a weather forecast indicating a higher level complexity event (Cat 4 or 5), the Director of Emergency Preparedness and Response conducts an Enterprise alignment briefing for Electric Operations Officers, Sr. Directors, and key emergency response personnel to discuss the situation and to identify pre-event actions (see section 4.1.2 for more information).

3.2.2.5 Available and Pre-Arranged Resources

When forecasted conditions warrant (e.g., PSPS, winter storms, heat events, etc.), the Supervisor of Electric Distribution Emergency Management or the Vice President of Emergency Preparedness and Response, may request that RECs and OECs submit plans in advance of the event for the number and classification of personnel who will be available to respond based on SOPP model outputs. Resource plans are developed two to three days in advance of a forecasted event and updated daily until the event occurs. Available resources include all personnel who are available to respond, including personnel

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scheduled for normal shifts, those pre-arranged or held-over, and those signed up for the 212 call-out list. Depending on the event, pre-arranged resources (either crews on shift or those held over) can be expected to meet the minimum staffing levels as identified in the DSO SOPP model. In this case, 212 call-out lists provide supplemental personnel should they be needed.

3.2.2.6 Pre-Staging Resources

When indicated by the nature and severity of the pre-event forecast, the Supervisor of Electric Distribution Emergency Management or the Vice President of Emergency Preparedness and Response may direct pre-staging of crews, personnel and/or certain equipment in areas expected to be severely impacted. Electric Operations Officers will be advised of all pre-event actions. REC Commanders, OEC Commanders, with support from their respective logistics sections, may also activate local staging areas.

As necessary, EOC Logistics will work with the Material and Transportation Coordination Center (MTCC) to support resource requirements including pre-arranging personnel at the distribution centers, specialty stores and service centers, as well as verifying service center inventory stocking levels are adequate to support the event.

3.2.3 Assessment, Restoration and 911 Emergency Response

3.2.3.1 Prioritization Guidelines

A system-wide disturbance has significant differences from a localized event, which results in prioritization guidelines for a system-wide disturbance versus individual outages, as listed below. The priorities below may change depending on the complexity of the incident.

3.2.3.1.1 System-wide Electrical Disturbance

Following a system-wide electrical disturbance, PG&E and/or the Reliability Coordinator/Balancing Authority may initiate a restoration plan. The restoration objectives and strategies are covered in PG&E's Electric System Restoration Guidelines (ESRG). The ESRG aligns with the over-arching System Restoration Plan developed by the Reliability Coordinator in accordance with [NERC standard EOP-005](#).²³ Assessment and restoration priorities are as follows (in order of prioritization from highest to lowest, but note some of the following may be executed simultaneously):

- Safety
- Restoration of off-site power to Diablo Canyon Power Plant (DCPP) Restoration of power to major generating stations

G.O. 166 Standard 1H states: The plan shall include guidelines for setting priorities for service restoration. In general, the utility shall set priorities so that service is restored first to critical and essential customers, and so that the largest number of customers receive service in the shortest amount of time.

²³ <https://www.nerc.net/standardsreports/standardssummary.aspx>

- Restoration of the transmission system backbone
- Restoration of power to peaking plants
- Restoration of Control Centers
- Restoration of local transmission
- Restoration of interconnected operation
- Restoration of customer load
- Restoration of Defense Critical Electrical Infrastructure

Consideration should be given to requests for priority restoration of customers such as individuals on life support, hospitals, fire departments, police stations, critical communications centers, emergency shelters, sewage treatment plants, and critical water pumping stations. During emergency events, it is imperative that all levels of the organization coordinate its efforts with local and state governments.

3.2.3.1.2 Transmission Outages

The following priorities are applicable for any unplanned transmission outages:

- Safety
- Potential equipment overload
- Generation
- Source outage time (More than 24 hours)
- Customers (number) impacted and length of outage
- Load (MW) impacted
- Customers (number) at risk for additional outage(s)
- Load (MW) at risk for additional outage(s)

3.2.3.2 Response and Restoration Criteria

Utilizing available information and sound judgment, the emergency centers allocate resources to support established restoration criteria and priorities. Restoration priorities are to be re-evaluated throughout the event to ensure optimum allocation and deployment of resources. Response and restoration criteria have been established, which are based on the following priorities:

- **Make Safe** - respond and make safe for the public and PG&E personnel.
- **Assess** - assess outages and damages.
- **Communicate** – communicate timely and accurately, both internally and externally.
- **Restore** – balance the need to provide service to the greatest number of customers in the least amount of time with the need to restore service to small numbers of customers out of power for long durations.

- **Recovery** – the longer-term replacement of damaged infrastructure to support customer rebuild and resumption of load to serve. For additional information, reference the [Disaster Rebuild Annex \(EMER-3012M\)](#).²⁴

Following an event at any level, PG&E’s first priority is to “make safe,” including protecting health and property. The “PG&E Emergency Response Objectives / Priorities” stated in the Company Emergency Response Plan (CERP) are maintained through all phases of response to an emergency.

In larger emergencies when resources are constrained, it may be necessary to establish work priorities for restoration of service. These priorities are operationally driven and are primarily focused on restoring as many customers as soon as possible. Priorities may need to be modified, however, to accommodate the needs of the communities we serve. Work may also need to be coordinated with other infrastructure repairs that may be occurring simultaneously by other utilities, government, and property owners. The OEC/REC/EOC (dependent on the level of emergency) will manage priority/objective-setting in a coordinated manner whenever possible, working with local government and other impacted utilities.

The Incident Action Plan (IAP)²⁵ documents the incident and operational period objectives. These represent the strategies and tactics necessary to manage an incident during an operational period²⁶. In alignment with the ICS construct and specifically with the planning cycle, changes to an incident’s objectives/priorities are reflected in updates to the IAP.

PG&E maintains lists of Essential and Critical Customers. Essential customers require electric service to provide essential public health and safety services or meet other criteria set by the CPUC. To be classified as Essential, a customer must apply to PG&E for this designation. Essential designations are managed in CC&B. There are three levels for Critical Facility & Infrastructure: Level 1: Public Safety Partners, Level 2: High Impact Critical, and Level 3: Critical. This designation is determined solely by PG&E and are for internal use only.

Critical customers are highlighted in the Outage Management Tool reports, and their status and restoration can be tracked by the OEC/REC/EOC, customer relationship managers, and other company personnel.

The specific designations are summarized in the following table. A detailed summary can be found here: https://pge.wiki/Critical_Customer_Designation

| Levels (1-3) | Level 1 | Level 2 | Level 3 |
|--------------|---------|---------|---------|
|--------------|---------|---------|---------|

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²⁵ For more information, see the National Incident Management System (NIMS) Doctrine and Section 4.1.3

²⁶ An operational period is the period scheduled for executing a given set of actions in the IAP. (For example, the length of the operational period may be 12 hours at the start of the incident and adjusted over time, as operations require. PG&E traditionally uses a 24 hour operational period.)

| Critical Designation | Public Safety Partners | High Impact Critical | Critical |
|--|------------------------|----------------------|------------|
| OMT Designations <ul style="list-style-type: none"> • CC: Critical • PR: Pandemic Response* • TT: Telecommunications • SC: Schools/Higher Ed | CC1, PR1, TT1 or TT2 | CC2, SC1, SC2 | CC3 or SC3 |

PR: Pandemic Response is a temporary designation based on needs

3.2.3.3 Outage Duration Guidelines

Outage duration will be considered when prioritizing outages. The objective is to ensure that ALL customers are addressed within the first 24 hours of the beginning of their outage. The Electric EMO leadership (e.g., OEC/REC/EOC Commander) will continually monitor the event and the affected outages of extended duration. At a certain point during the event, based on the EMO leadership’s judgment, dedicated resources will be assigned to extended duration multiple or single customer outages.

The Electric EMO leadership will:

- Define the number of assessment crews that will be dedicated to single customer outages and extended duration outages.
- Define the number of repair crews that will be dedicated to single customer outages and extended duration outages.
- Engage Customer Strategy to ensure appropriate communications (i.e., Interactive Voice Response (IVR), text messaging, Media, and Contact Center messaging) are accurate and timely.

3.2.3.4 Coordination Between Transmission, Distribution and Substation

3.2.3.4.1 Level 1 Coordination

Sustained Transmission-Level Outages

If there is a sustained transmission level outage, the GCC will coordinate with T-line, Substation, Distribution, System Protection, and Transmission Operations Engineering to come up with a comprehensive plan on how to assess and restore the system (e.g., Distribution back ties, alternate transmission sources, generator, etc.).

Below are the responsibilities by FBU:

- GCC—initiates call out for evaluation of incident, notifies internal and external stakeholders, initiates IC call, as needed, determines personnel requirements for restoration strategies
- T-line—patrols line for cause
- Substation—statuses and assesses substation

- System protection—provides fault location and relay information
- Transmission Operations Engineering—evaluates current system conditions for additional system reliability issues and restoration strategies
- Distribution—if transmission source to distribution remains out of service for greater than five minutes, distribution will immediately start working on back ties for customer restoration, if available. Distribution will also coordinate with the Customer Care Organization for customer communications and manage ETORs.

Sustained Distribution-Level Outages

Electric Distribution may initiate an IC call during Level 1 operations with a focus on the restoration of customers, the identification of the fault location, and materials and resources needed for repair if there is a sustained distribution-level outage that includes one or more of the following:

- Large mainline outages over 1000 customers
- Large media event—brand-level impact, Electric Reporting Criteria
- Sensitive or commercial customers
- Distribution feeder integrity—deliberate load shedding due to system conditions
- Load at risk—high customer impact for emergency repairs

Key participants in the IC call include:

- Field Operations Superintendent (IC) to support mobilization of repair crews
- Electric Distribution Emergency Management Duty Officer (IC Advisor)
- Restoration Senior Manager
- Corporate Communications representative (PIO) to support information through media channels
- The Business Energy Solutions (BES) and Business Operations teams under Business Development and Customer Engagement support communication to critical and essential customers (CSO)
- Public Affairs (LNO) for communication to our public partners
- Distribution Control Center Supervisor
- Other stakeholders, such as Transmission and Substation leadership, may participate to support engagement from their respective organizations, depending on incident complexity

3.2.3.4.2 Level 2 or Above Coordination

Within Electric Operations there is a parent-child relationship between the different electric organizations as referenced above in section 2.3. This relationship requires coordination of work and resource prioritization to safely and efficiently restore service to customers. In Level 2 and Level 3 events where an OEC and/or STOEC are activated, the OEC works

directly with STOEC to coordinate actions. When the REC and ETEC are activated, the OEC and STOEC summarize their actions to REC and the ETEC.

When the STOEC/ETEC is activated, ETEC provides STOEC with the priorities. STOEC then initiates a situation call with the GCC, STOEC Operations Section Chief, STOEC Planning Section Chief, and the OEC Commander to develop the operational period objectives and implementation plan. Next, STOEC initiates an IC call to communicate the plan to needed stakeholders.

Depending on incident complexity when there are both transmission and distribution outages, Electric Transmission may be included as a Transmission Branch within the Operations Section in an OEC's Incident Management Team (IMT). This Transmission Branch Director helps serve as a key liaison between STOEC and Electric Distribution, which results in improved coordination and assessment/restoration time.

During more complex events where there is a significant number of outages or damage, the EOC will activate and the EOC Operations Section Chief will designate Transmission, Distribution and Substation Branches in the EOC Operations Section to more effectively manage the response. See section 5 of the [Company Emergency Response Plan \(CERP\)](#)²⁷ for additional information.

3.2.3.5 Enhanced Powerline Safety Settings (EPSS)

PG&E has adjusted the sensitivity of electric equipment on some distribution circuits in high fire-risk areas to automatically turn off power within one-tenth of a second when there is a hazard, like a tree branch falling into a line. Unexpected outages may occur when elevated wildfire risk is present. This is most likely from May to November. Prior to restoring power, the impacted lines must be patrolled and inspected for damage, which may cause delays in restoration. OECs may activate to coordinate resources for patrol and restoration. For additional information see Section 4.2.1 of the [Wildfire Annex \(EMER-3105M\)](#).

3.2.3.6 Damage Assessment

3.2.3.6.1 Assessment Goals and Guidelines

The guidelines and goals of Assessment Teams will be consistent with the restoration criteria and prioritization guidelines. Within those guidelines, the following will be considered:

- Safety
- Hazards
- Customer count

G.O. 166 Standard 1G states: The plan shall describe the process for assessing damage and, where appropriate, the use of contingency resources required to expedite a response to the emergency. The plan will generally describe how the utility will set priorities, facilitate communication, and restore service.

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- Outage duration
- Crew type and availability
- Current crew activity
- Efficient routing of crews
- Other priority considerations identified by external sources (i.e., critical customers, requirements of government agencies)
- Weather conditions

3.2.3.6.2 Assessment Functions

There are two key functions to the assessment process:

- Field personnel initially assess the damage and make repairs if possible.
- Office personnel manage the information using OMT to ensure the assessment information is timely and accurate throughout the restoration process. By ensuring accurate information, the customer will receive quality information.

As a general guideline, T-men and Make Safe Crews should attempt to restore power if the repair can be conducted within one hour of determining the problem. This guideline excludes sectionalizing, as directed by the distribution Control Centers, or to make the location safe.

3.2.3.6.3 Transmission Assessment Process

During Level 1 incidents, the GCC contacts a Transmission T-man to respond, as well as system protection to provide the fault location information. The Transmission T-man goes to the fault location, conducts an assessment, and reports back to the GCC. If there is a repair location, they report their findings to the GCC and the T-line Supervisor. The T-line Supervisor then determines the resources needed and implements a callout for crew assembly.

During STOEC / ETEC activations, the ETEC Lead works with the GCC to prioritize the order in which the assessment takes place. The ETEC Lead then provides direction to the STOEC IC, so they can prioritize resources for dispatch to execute the assessment plan.

In the event of an earthquake, PG&E's Dynamic Automated Seismic Hazard (DASH) notification system will alert lines of business of the potential risk and assets that may require inspection within 15 minutes of the earthquake. More information regarding DASH and PG&E's process for earthquake response can be found in the [Earthquake Annex \(EMER-3101M\)](#).²⁸

3.2.3.6.4 Substation Assessment Process

During Level 1 incidents, the GCC or DCC contacts an electrician to respond, as well as system protection to provide the fault location information. The electrician statuses the substation, assesses any substation trouble, and reports their findings to the GCC or DCC and the Substation Supervisor. The Substation Supervisor then determines the resources needed and implements a callout for crew assembly.

During STOEC / ETEC activations, the ETEC Lead works with the GCC to prioritize the order in which the assessment takes place. The ETEC Lead then provides direction to the STOEC IC so they can prioritize resources for dispatch to execute the assessment plan.

System Protection supports all outages and protection questions, and provides an on-call Protection Engineer, whenever assistance is needed. For smaller issues, the GCC or DCC directly calls the Protection Engineers that support the area.

3.2.3.6.5 Distribution Assessment Process

The assessment process begins with Central Dispatch in Fresno, which handles dispatching all electric work to T-men. T-men then assess the outage situation and use the Field Automated System (FAS) units in their vehicles to update information in OMT. In the event the circuit has Fault Location Isolation and Service Restoration (FLISR) technology installed and enabled, the FLISR devices automatically isolate the fault location and restore customers in non-faulted zones. A troubleman is also concurrently dispatched to validate the outage location, identify the specific damage, and manually perform further switching and restoration of customers, where possible.

T-men primarily focus on substation, circuit, and mainline outages, which are frequently restored by the operation of switching equipment. Under the direction of the Control Center, the T-men perform most switching assignments necessary to locate and isolate outages. If the T-men are not able to conduct the repair on their own and a repair crew is needed, the Service Planning and Maintenance Supervisor dispatches the repair crew.

During a Level 2 or greater activation, if additional assessment teams are needed (Make Safe and assessment), the OEC Commander determines, in collaboration with the Operations Section Chief and Planning Section Chief, what assessment teams will be needed and where they will be deployed to support the response.

The additional assessment crews are managed by the OEC Dispatch Leader, with support from the Incoming Assessment Desk Leader. The field assessment personnel assess damage and report information to the Incoming Assessment Desk Leader in the OEC or DSR. The Incoming Assessment Desk Leader monitors OMT and ensures work requiring design and compliance specifications are processed by estimating. Assessment information is placed in a job packet and is handed off to the Repair Branch Director of the local service yard in the District Storm Room (DSR). The Repair Branch Director then assigns work to crews for repairs.

As indicated in section 2.2, often during Level 2 or greater emergencies, non-Qualified Electrical Workers (non-QEW) resources serve as standby and damage assessment teams to perform specific functions. These non-QEW resources can be paired with a gas service

employee who has an FAS unit in the vehicle. The FAS unit can then be used to communicate outage information, resource deployment status, and materials to OMT, and immediately supports accurate messaging to the customer.

When there are a significant number of outages, Rapid Assessment Strike Teams are requested through the OEC or REC Logistics Section (after local estimator resources have been exhausted). These teams quickly patrol damaged areas, conduct damage assessments, and relay the information to the Incoming Assessment Desk at the DSR/OEC. This assessment information enables the efficient dispatch of crews to make repairs and restore power to customers in a timely manner when there is a high outage volume.

During OEC activations where Central Dispatch retains control of dispatching all T-men and 911 Standby personnel, the Restoration Supervisor is located at the OEC and coordinates and communicates the assessment priority and status with Central Dispatch.

3.2.3.6.6 Dispatch and Increased Outage Volume

Central Dispatch retains dispatch of all tags and T-men until the outage volume overwhelms their available resources and bandwidth. At that point, Central Dispatch can delegate part or all of their dispatch responsibilities to the OEC Dispatch.

Central Dispatch will determine if additional resources are needed to field the increase outage volume. Restoration dispatchers and Troublemaker will be called in to support and meet customer safety requirements. The Restoration Dispatch Manager or Supervisor(s) will work with the OEC Commander to evaluate the need for additional resources. Once this has been determined, the Field Operations Superintendent or Distribution Control Manager or Supervisor(s) will reach out to the Field Operations Superintendent to request that the OEC is activated in the appropriate division.

In addition to assisting with the dispatch of T-men and 911 Standby, the OEC will also dispatch non-T-men assessment resources (i.e., estimators, crews, etc.) to assess outages.

3.2.3.6.7 Job Package Process

The job package process is a critical element of PG&E's response to electric emergencies. The job package and job package process provides critical review steps and information to support employee and contractor safety. Refer to Figure 3-4 for a high-level process flow diagram on the following job package process.

Outage information comes into PG&E in the following ways:

- Customer call to report power outages and hazards
- Customer online report of power outage
- 911 agency call to report hazards
- Smart meter
- SCADA

The CCOutage (Customer Care Outage) is used by the Customer Service Representatives to enter customer call information in a Trouble Report, and by Gas Dispatch to enter 911 agency call information. This entry automatically generates an OMT Trouble Report. Central Dispatch then dispatches T-men to make safe and perform the assessment. OMT Trouble Reports are also generated direct from customers who report an outage via the automated phone system (IVR) or online at www.pge.com/outage. (During larger events, the OEC may instead dispatch damage assessors or Rapid Assessment Strike Teams to conduct the assessment.) The field personnel (i.e., T-men, damage assessors, or Rapid Assessment Strike Teams) conduct the assessment and provide the following via either FAS or the Inspect Application. In the event that technology is unavailable, the following information will be communicated to the incoming assessment desk at the DSR²⁹ via phone and manually entered into OMT:

- List of materials needed
- Damage information
- Photos
- Location information

The way information is provided to the incoming assessment desk depends on the technology available. For example:

- T-men and GSRs can enter the following information in FAS—ETA or ETOR, comments for the Customer Service Representative (CSR), repair time, IVR cause, and materials information. The data entered in FAS / Mobile Application (MA) is automatically updated in OMT, and an EC Notification is automatically created for the incoming assessment desk to view.
- Damage assessors and Rapid Assessment Strike Teams may call or bring the information in to the incoming assessment desk, if a smartphone is not available.
- If a smartphone is available, damage assessors and Rapid Assessment Strike Teams take pictures of the damage, the material list, and the location details (latitude/longitude and address) and email it to the incoming assessment desk.

The incoming assessment desk validates the information, starts the Electric Corrective (EC) Form (or prints the EC Form if received electronically), logs the information on the work location log, and enters or validates the information in OMT. After this:

- If it involves facilities that require loading or sizing (e.g., transformers, poles, etc.), an estimator's input is needed, and they create the job package.
- If an estimator's input is not needed, a Field Compliance Specialist, Estimator or Clerk provides the EC Form and Map to the Work Assignment Desk for dispatch of a repair crew.

²⁹ Note an incoming assessment desk may also be located at a base camp or in the field during a circuit or area-based strategy.

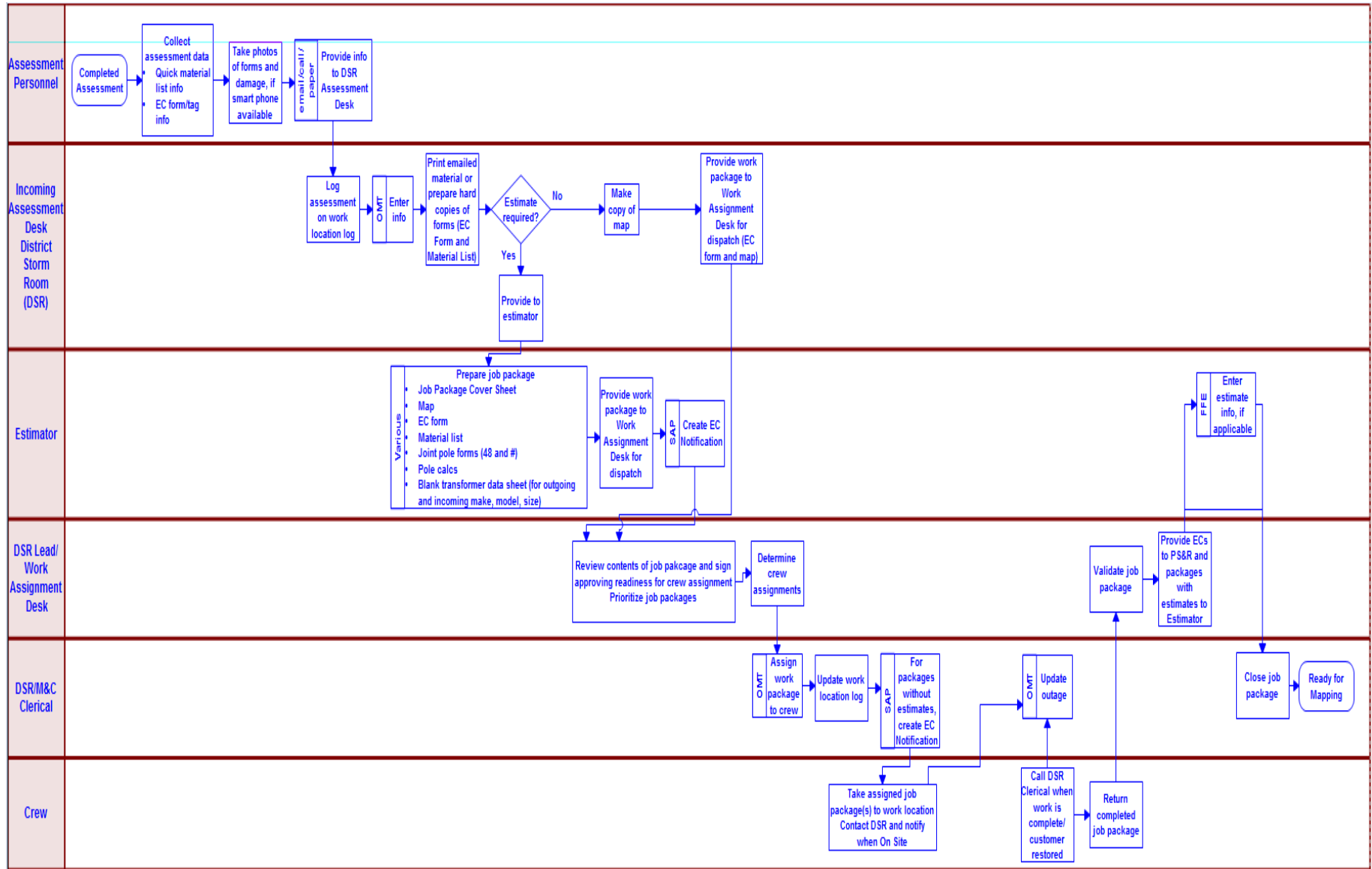
Job packages include the following information:

- Job Package Cover Sheet (Form TD-2060P-01-F01)
- EC Form
- Map
- Material List
- Transformer / Equipment Data Sheet
- Pole Numbering Form
- Form 48: Emergency / Urgent Joint Pole Replacements
- Incident Report Form (62-0719) and Hazardous Waste Form, if needed
- Pictures (Latitude / longitude readings are included on pictures or on the map)
- Circuit Map Change Sheet (If Needed)

Once the job package/EC Notification creation is completed, it is provided directly to the DSR Lead or, for larger events, to the work assignment desk. Next, the DSR Lead or work assignment desk reviews each job package for completeness, approves the job package by signing the cover sheet, prioritizes the job packages and determines crew assignments. Assigned personnel (e.g., clerical support, field engineers, estimating, construction supervisors, etc.) then enter job package crew assignments in OMT and maintain the work location log. Refer to Figure 3-4.

Crews take their assigned job packages to the work location and contact the DSR or use OMT mobile and indicate that they are on site. The DSR will update OMT indicating the onsite of the crew. The crew will then complete the work in accordance with PG&E construction standards and call the clerk in the DSR or use OMT mobile and indicate when the customers are restored/work is completed. The clerk then updates OMT indicating the work is completed. The crews bring the completed job package back in to the DSR when they return from the field, the crew foreman signs the job package and EC notification as completed, ensures any redline changes are properly documented on the job sketch and EC Notification(s). The DSR will then review the job package for completeness and identification of any incomplete documentation (IDOC) errors. The EC Notification(s) and job package process are then validated and closed out and the work location log is updated to document the return of the job package.

Figure 3-4: Job Package Process



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In a circuit-based strategy, the task force conducts the process in [Figure 3-4](#) out in the field or at a base camp. Additional details include:

- Estimators may be integrated with task forces to create and assign job packages/EC Notifications in the field or at a base camp.
- The TFL calls the Control Center to true up outage locations with OMT.
- The TFL also brings the information in to the DSR, where they validate and provide quality control, and then send the EC Notification to Public Safety & Regulatory to conduct the close out process.

In larger events, an area-based strategy may be used where a district or division may be divided into smaller geographic areas or branches. (Refer to Area-Based Strategy in section [3.2.3.9.3](#) for details.) In this case, the process above remains the same, whether the incoming assessment desk and work assignment desk are located at the DSR, in the field, or at a base camp.

As mentioned previously, Transmission may be integrated into the DSR/OEC when there are both transmission and distribution outages. When there is a transmission line outage that does not impact distribution, the main steps of the process above are still followed. (A log is created at an incoming assessment desk, transmission estimators provide needed input to the job packages, and the work assignment desk dispatches the job packages to the crews).

3.2.3.7 911 Standby Call Response

During emergency events, downed utility equipment can pose a public safety hazard. Often in these scenarios, the first notification is through 911 and governmental agencies such as fire and police personnel will arrive at the site of the hazard to protect the public. In these situations, the agencies need to be relieved by PG&E personnel so that they can be free to respond to additional priorities. PG&E provides a dedicated phone line³⁰, supported 24/7 365 days a year, for public safety agencies to provide notification when they are standing by a utility emergency. During large-scale events when a significant number of hazards may exist, promptly relieving these agencies becomes critical for public safety. Therefore, PG&E operates a 911 Standby Process, where PG&E personnel relieve on-site agency personnel and, in turn, protect the public from any hazards.

G.O. 166 Standard 1F states: The plan shall describe how the utility will assure the safety of the public and utility employees and the utility's procedures for safety standby. The plan shall include contingency measures regarding the resources required to respond to an increased number of reports concerning unsafe conditions.

3.2.3.7.1 911 Standby Process

After Gas Dispatch receives a call from an agency notifying PG&E they are standing by an emergency, Gas Dispatch sends this information to PG&E Central Dispatch who

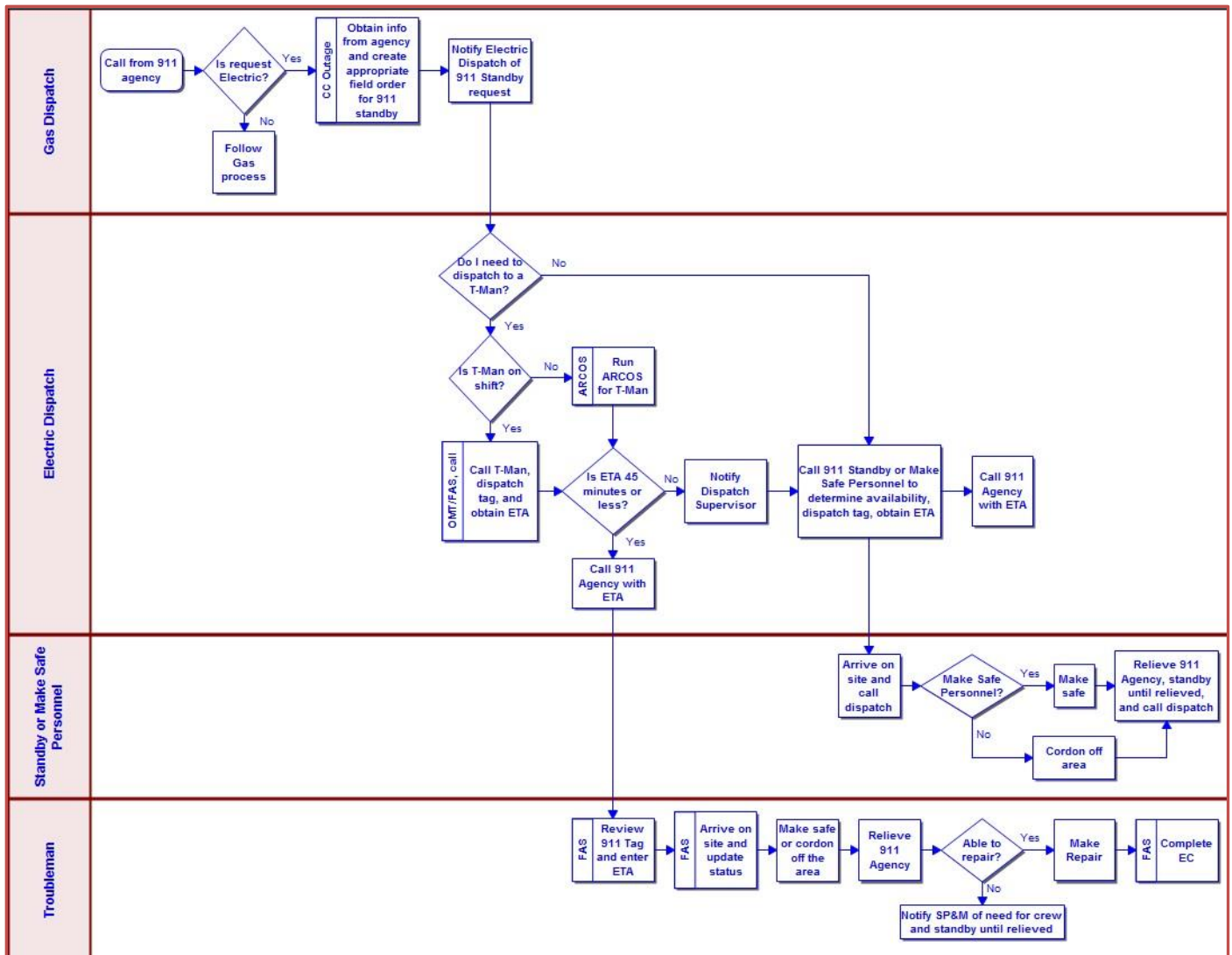
³⁰ (888) 743-4911

dispatches PG&E personnel to the site. (Refer to Figure 3-5 for a high-level 911 standby process flow diagram.)³¹

For a Level 1 incident, a T-man is called to respond. If the T-man is not available, or their ETA is greater than 45 minutes, 911 standby or make safe personnel are dispatched. During larger events, such as a storm, Central Dispatch may first call the following to determine if 911 standby resources are available:

- Restoration Supervisor
- Field Operations
- Field Metering Operations
- Gas Operations

Figure 3-5: 911 Standby Process



³¹ For further information see TD-2201P-01 Restoration Dispatch 911 Response and TD-2204P-01 Restoration Dispatch 911 Call

To ensure a timely response to agencies, PG&E uses a 911 agency callback process. When agencies call PG&E requesting on-site relief, they may request a callback to confirm relief personnel have been dispatched and receive an estimated time of arrival (ETA).

PG&E has established callback expectations, as follows:

- Contact the requesting agency within 20 minutes of their initial request
- Provide the agency with an estimated time of arrival for PG&E relief personnel
- Update the information and call notification in OMT and monitor until the agency has been relieved

For Level 2 and above incidents, the Public Safety Specialist (PSS) may work with local government emergency management and the OEC to coordinate 911 standby resources.

3.2.3.7.2 911 Standby Personnel

In accordance with General Order 166 Standard 9; Personnel Redeployment Standard, PG&E trains additional personnel to support 911 standby request during storm and catastrophic events. When possible, resources are pre-staged based on forecasted SOPP model impact. These employees guard a location until a qualified electric crew, make safe crew, or T-man arrives to clear and or repair the hazard.

G.O. 166 Standard 9 states: The utility shall maintain a training and redeployment plan for performing safety standby activities and assessing damage during a major outage. The utility should plan to have personnel available to augment the number of employees whose duties include safety standby and damage assessment activities. The utility shall identify and train additional employees to perform safety standby activities and assess damage during emergencies requiring such activities and major outages, and in lieu of their normal duties.

Standby personnel are one or two-person crews with limited knowledge of field equipment. These crews often consist of meter readers, meter technicians, gas service representatives, or gas construction workers. Standby crews generally do not have equipment switching skills, or the ability to estimate the magnitude of the repair and restoration timeframe. They are used primarily as “standby” to relieve a 911 agency. 911 Standby training is facilitated by PG&E leadership using established training material and including the presence of a qualified electrical worker to assist in training facilitation.

911 Standby personnel are dispatched to each location using the Outage Dispatch Tool (ODT) in OMT. Personnel are dispatched using the crew type “Standby”. Outage orders with a crew type of “Standby” will be prioritized to ensure a T-man or make safe is dispatched to address to public safety condition and relieve the 911 standby personnel.

3.2.3.7.3 911 Calls on Large Events

In large events, such as earthquakes, Gas Dispatch will staff the appropriate amount of resources to take incoming 911 agency calls. Central Dispatch also has personnel, if needed, to take 911 standby calls at the Fresno RMC, which consists of clerical employees.

When the outage volume from the number of 911 calls overwhelms Central Dispatch’s available resources and bandwidth to dispatch tags to 911 standby personnel, Central

Dispatch can delegate part or all their dispatch responsibilities to the OEC. Refer to section 3.2.3.6.6 for details.

3.2.3.8 Make Safe

If the volume of outages exceeds the number of T-men, Title 200 (M&C division) crews can be broken up into two-person teams to address hazardous conditions. These teams are managed by the Dispatch Leader in the OEC, who is responsible for prioritizing, dispatching, and tracking all work performed. When outage volumes reduce to the point manageable by the T-men, these make safe teams are remobilized as crews and redeployed to repair and restore service.

3.2.3.9 Response Strategies

PG&E may use different assessment and restoration strategies based on the complexity of each incident. For example, if there is a small number of outages during a routine response, PG&E uses an order-based strategy. In larger incidents with a greater number of outages, it may no longer be efficient to assign work by individual orders. In this case, work may be assigned by areas or circuits to improve coordination and assessment/restoration time.

3.2.3.9.1 Order-based Strategy

In an order-based strategy, in alignment with the above-mentioned priorities and depending on the amount of damage, T-men or repair crews are assigned to each individual outage order, as appropriate. For example, in Electric Distribution, as outages come into OMT, a unique OIS number is automatically created for each outage. Central Dispatch then prioritizes and assigns each outage order to a T-man. Once the T-man completes their assessment, estimating develops the job package which is then assigned to a crew to repair or replace damaged infrastructure and restore customers.

3.2.3.9.2 Distribution Circuit or Transmission Line-Based Strategy

In Electric Distribution, a Circuit-Based Strategy is designed to improve coordination, assessment, and restoration of highly impacted circuits with multiple cases of trouble and can be used on any circuit identified as high risk. These circuits may warrant a circuit-based assessment and restoration strategy depending on characteristics including, but not limited to, the following:

- Weather forecast
- Actual conditions
- Significant number of outages and damage locations
- Control Center call volume
- Management of outage communications
- Impact to critical and essential customers

The circuit-based strategy is implemented at the request of the OEC or REC Commander, and EOC Operations Section. In a circuit-based strategy, a task force may be assigned to an entire substation, a specific circuit, or source side device to manage either pre-identified

high-risk circuits, or circuits that meet outage and/or hazard thresholds during a storm event. This task force may be comprised of a TFL and the following strike teams: T-men, rapid assessment, vegetation management, 911 standby, and make safe. (Refer to Figure 3-6 for an example circuit-based task force organization structure.)

T-men make safe/assess the primary line damage starting from the circuit breaker (CB) or source side device, at the direction of dispatch, the DCC Distribution Operator, or the TFL. They then identify damaged equipment locations, make locations safe, and report findings to the Incoming Assessment Desk.

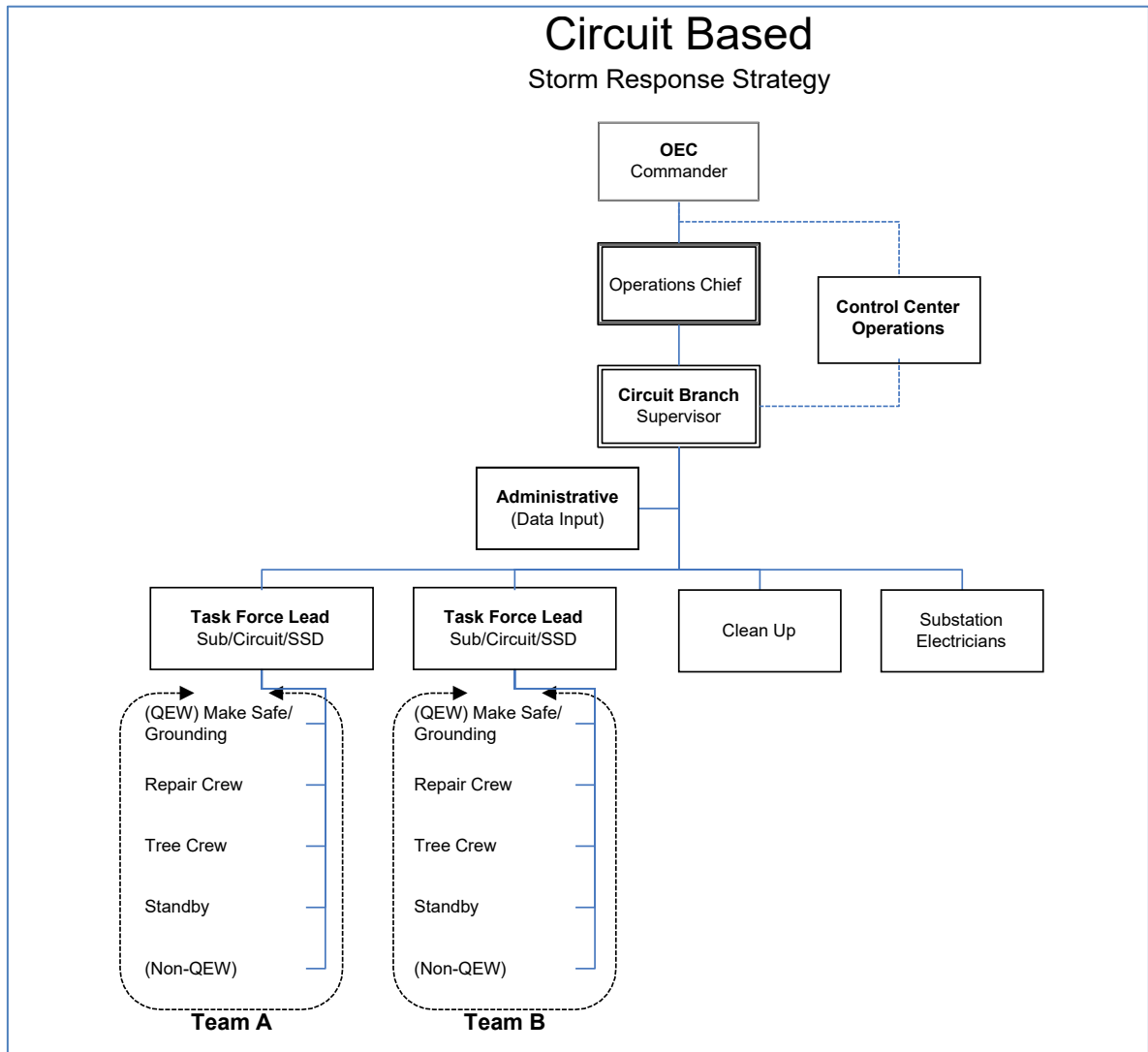
Rapid assessment teams/estimators assess damage or leverage assessment information to develop job packages including loading and sizing materials and equipment. For more information, refer to section [2.2.3](#).

Repair crews follow the T-men and estimators, under the direction of the TFL, and can be responsible for any of the tasks below:

- Making the primary main line safe
- Reporting damage to the DSR, rapid assessment team, or estimator
- Making repairs and restoring primary main line sections, as they become available, under the direction of the Distribution Operator and in alignment with estimating design when appropriate
- Assessing radial/tap lines for damage, report, repair, and restore

For Electric Transmission, a Line-Based Strategy may be followed to improve coordination, assessment, and restoration of highly impacted lines with multiple cases of trouble. The Line-Based Strategy is implemented at the request of STOEC/ETEC, and additional crews are assigned to the highly impacted lines.

Figure 3-6: Example Circuit-Based Organization Structure



3.2.3.9.3 Area-Based Assessment / Restoration Strategy (Branches)

When there is a larger volume of outages or damage in an area, it is no longer efficient to assign work based on individual orders. Instead, an area-based restoration strategy is used to assign work by geographic areas or circuits. This approach leverages the scalability of ICS and positions the emergency management organization to mitigate incident complexity resulting from the overlap of geographic area responsibilities.

The positions listed in Table 3-5 determine how to divide an area, based on:

- The location and volume of damage or projected damage
- Geography (e.g., an area is divided by a river, mountain range, etc.)
- Customer density

Where possible, the determination of the areas is made using the SOPP Model prior to an event, such as an incoming storm, etc.

Table 3-5: Electric Authority to Determine Areas

| Area Being Divided | Who Determines Areas? | Who Approves Areas? |
|---|---|---------------------|
| Divide district or division into smaller areas/branches ³² | REC Planning Section Chief in collaboration with the Operations Section Chief (OSC), and with input from the Logistics Section Chief (LSC). | REC Commander |
| Divide STOEC into areas/branches ³³ | ETEC Lead working with STOEC IC | ETEC Lead |
| Divide region into smaller areas/branches | EOC Planning Section Chief in collaboration with the OSC, and with input from LSC on support. | EOC Commander |
| Any divisions made due to an earthquake | EOC Planning Section Chief working together with the OSC, after reviewing the damage model. The LSC also provides input on support. | EOC Commander |

In the field, Task Force Teams are assigned to Branches and are responsible for all damages in their area until restoration is completed.

Following a Level 4 or 5 event, such as a significant storm or earthquake, damages will be widespread, multiple commodities will be impacted, and thousands of personnel may be required to restore the system. It is not enough for one local OEC to manage many major incidents with extensive damage in one division, for example.

To effectively manage the event and maintain an adequate span of control, the REC's, OEC's, or STOEC's operational control may be divided into smaller areas (or Branches), as needed. (Refer to Figure 3-6, Figure 3-7, and Figure 3-8 for example branches.)

³² If the EOC is activated, the determination and approval of the areas are made at the EOC, with input from the REC and ETEC.

³³ Ibid.

Figure 3-7: Example of OEC or REC Divided into Branches

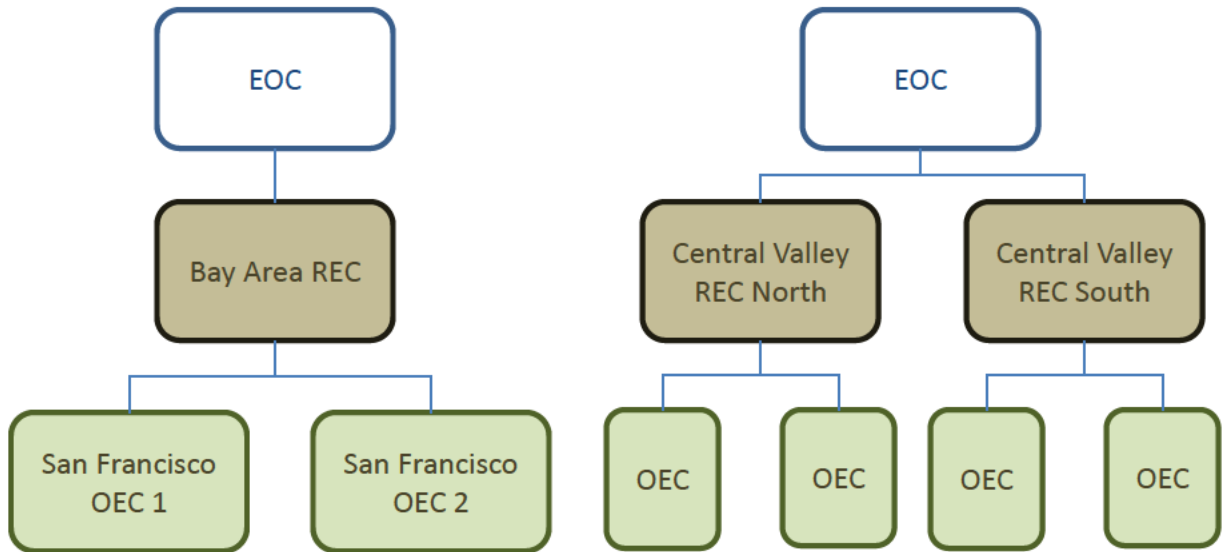
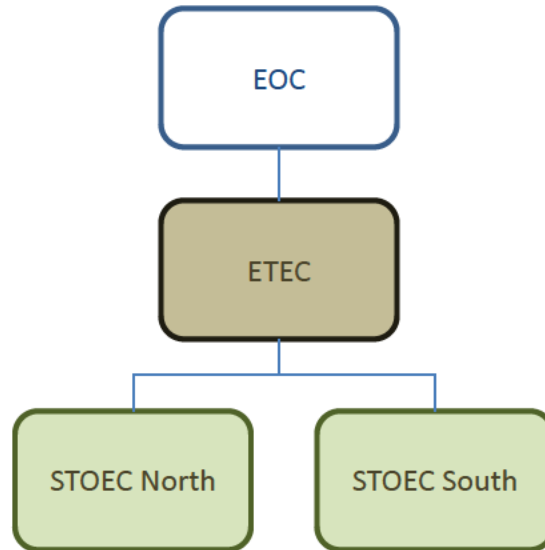


Figure 3-8: Example of STOEC Divided into Branches



Following a significant earthquake, a DASH report is published within 15 minutes and provides information and estimates of damage to support assessment prioritizations. For more information on earthquake response please see the [Earthquake Annex \(EMER-3101M\)](#).³⁴ The EOC Planning Section Chief, in collaboration with the EOC Operations Section Chief, will review the damage model information and identify if additional RECs,

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OECs and STOECs are needed. The EOC Logistics Section Chief also provides input on whether they can support the areas, and the EOC Commander approves the plan.

The EOC Commander, or designee, then notifies the REC Commander and the ETEC Lead of any needed changes to the organization or jurisdictional control, such that pre-identified teams (leadership, administrative, assessors, Service Planning and Maintenance crews, etc.) can mobilize and make their way to the affected area. (For additional information and graphical examples, please see the [CERP](#)³⁵).

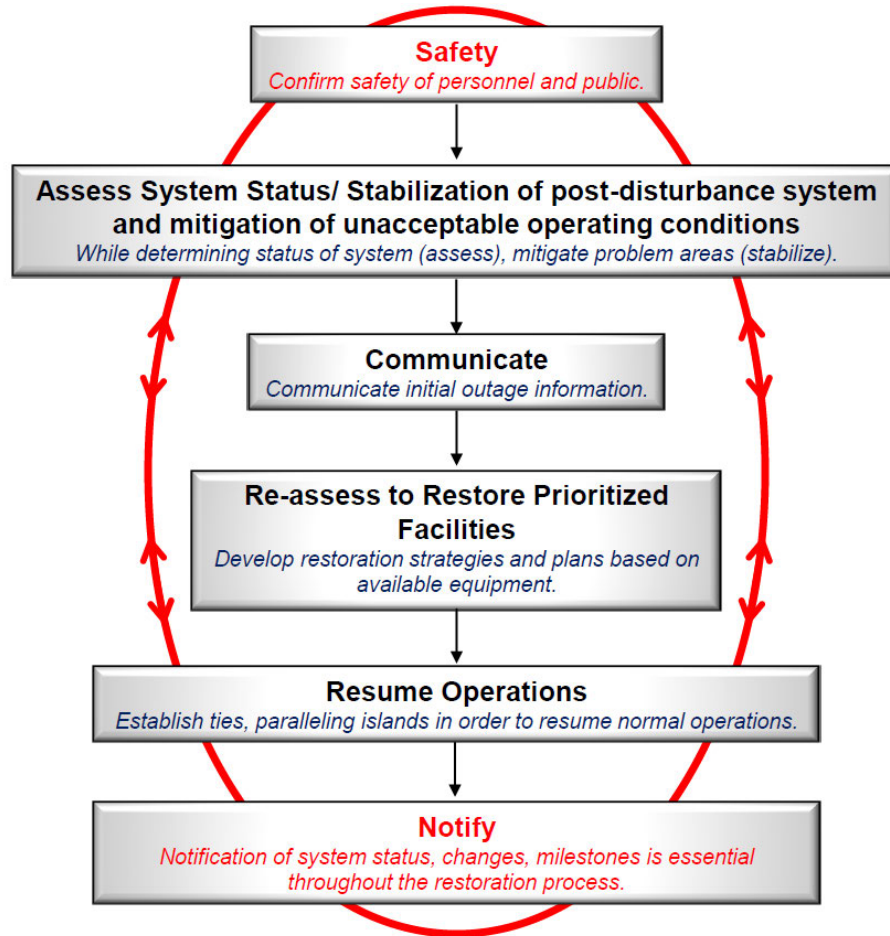
Once a divided area has completed restoration of its responsible area, or if the existing REC, OEC or STOEC is ready to resume responsibility, the divided area will return to the existing emergency center for jurisdictional control.

When an operator becomes aware of a system disturbance and large-scale outage, Figure 3-9 (as taken from the Electric System Restoration Guidelines) provides a strategic and prioritized approach to system restoration.

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Figure 3-9: Electric Transmission Restoration Strategy for Large Scale Blackouts / Post Disturbance



The first priority is to confirm the safety of personnel and the public. Next, in the event of a partial or complete system outage, the system must be assessed to determine the status and state of the system and facilities, and if conditions exist that require the mitigation of unacceptable operating conditions.

Initial outage information is then communicated to the following (not necessarily in this order):

- CAISO
- System Dispatchers in the GCC
- Transmission and Distribution Operators
- Short-Term Electric Supply
- Federal, State, and Local authorities and agencies
- Generating plant personnel
- Substation personnel
- Management
- Exterior Generating entities

- Corporate Public Relations

In alignment with the prioritization guidelines mentioned in section 3.2.3.1, re-assessment is then conducted to restore prioritized facilities, generation, and loads. (Note the utilization of load focuses on the stabilization of the system rather than the immediate need to restore customers.)

PG&E and CAISO can resume normal operations once the system restoration emergency has been terminated, authority has been returned to CAISO, and CAISO has lifted the suspension on CAISO markets. Normal operations can resume at the point in the restoration process when the next load to be restored is not driven by the need to control frequency or voltage.

Steps for resuming normal operations include:

- Establishing additional transmission ties, starting with restoring the strongest ties first.
- Synchronizing/paralleling islands

It is essential throughout the restoration process that changes in system status, changes, and milestones, etc. are communicated. Notifications should be made to:

- Reliability Coordinator
- WECC
- Balancing Authorities
- Transmission and Distribution Operators
- External Government agencies
- Corporate entities
- Internal News media

For additional information on black start resources and restoration principles, refer to the Electric System Restoration Guidelines (ESRG).³⁶

3.2.3.9.4 Electric Transmission Restoration Strategy for Large Scale Blackouts / Post Disturbance

During Levels 1 and 2 incidents, assessment and restoration priorities are established locally between the Substation Maintenance and Construction (SM&C) Superintendent and the GCC. When STOEC is activated during Level 3 or greater incidents, priorities are established between the STOEC and the GCC, or ETEC, if activated. In the event of only localized damage, the local Distribution Operations organizations may suggest or request priority for restoring distribution customers.

³⁶ Contact Electric Transmission for access.

SM&C provides a resource pool that can assist in performing switching inside substations, demolition, cleanup, reconstruction work, and other functions. Substation Engineering Services, System Protection, and Automation/SCADA provide engineering services to support restoration activities, as needed.

The following are some of the strategies to restore customers impacted by a substation emergency:

- Splitting of buses
- Step restoration supported by Transmission and Distribution field level switching
- Bypassing of substations to restore downline capacity
- Above ground cabling
- Mobile substation generation
- Transmission-level islanding conditions

Execution of these strategies will be facilitated in the IC call process, as stated in section [3.2.3.4.1](#).

3.2.3.9.5 Electric Distribution Critical Customer Strategy

PG&E currently maintains in OMT lists of critical and essential customers (as defined in section and the [CERP](#)³⁷). When an outage occurs involving a critical or essential customer, it is noted in OMT, and those circuits are considered for priority assessment and restoration. During the outage event, the Customer Care Organization will staff the Customer Strategy Officer (CSO) OEC position to serve as the affected customer's point of contact.

To facilitate efficient restoration of a county's prioritized customers, Emergency Management, in collaboration with each division's Superintendent, has put together critical customer packages that include key information on the customer (e.g., map, equipment information, key pictures, contact information, etc.). These packages will be kept at the OEC. When an outage occurs that impacts one of the prioritized customers, the appropriate customer package is quickly assigned to field personnel to begin assessment and restoration efforts.

PG&E has also further prioritized its internal list of essential and critical customers for restoration following a catastrophic event. These priorities are reflected in OMT reports, and their status and restoration can be tracked by the EOC/REC/OEC, customer relationship managers, and other company personnel. PG&E's prioritized lists of critical and essential customers will be shared with County governments for their review if the County signs a non-disclosure agreement.

3.2.3.9.6 Electric Distribution Catastrophic Event Strategy

When there is a significant volume of outages related to a catastrophic event, leadership may decide to implement a resource allocation strategy called “60-30-10”. This strategy directs resources according to the following model:

- 60% of resources are dedicated to addressing outages that have the highest number of customers out of power and/or length of outage, including considerations for equipment with extensive damage or equipment that is especially critical (e.g., certain substations, etc.).
- 30% of resources are dedicated to the assessment and restoration of the prioritized customers, that were determined in collaboration with our government partners, and PG&E’s prioritized critical and essential customers. Depending on the type of catastrophic event and the situation in the community, this percentage may also include dedicating resources to key customers that are required to stand up a community quickly (i.e., community normalcy customers).
- 10% of resources are dedicated for priority or unique issues encountered throughout the ongoing assessment and restoration process.

3.2.3.10 Electric Incident Management Teams (IMTs) Activation and Transfer of Command

Incident Management Teams may be activated based on the following criteria but is not limited to the below criteria. When an incident reaches or is anticipated to reach a level four or higher based on the PG&E CERP incident levels matrix.

Transfer of command is moving the responsibility for incident command from one Incident Management Team to another IMT or management structure. Transfer of command may occur when requested by the IMT IC or designee when deemed necessary for effectiveness, the need to relieve personnel on incidents of extended duration or personal emergencies arise. The primary focus is to ensure an effective transfer of command of incident management and safety is considered in all functional areas. The transfer of command takes place face-to-face (when possible) and includes a briefing. The transfer of command plan details how one Incident Management Team (IMT) will transfer delegated authority for the management of the incident to another IMT or IC. The initial Incident Commander will remain in charge until transfer of command is complete.³⁸ The transfer of command process is the same for when the OEC transfers to the IMT and the IMT back to the OEC. All objectives will be clearly transitioned between incident management structures.

3.2.3.11 Capacity Emergencies

During a system-wide capacity event, it is the GCC duty to direct the execution of the CAISO’s orders. In a localized event, the GCC is responsible for maintaining the integrity of

³⁸ For additional information see EMER-4501S Framework for Electric Incident Management Teams Standard

the electric system. For additional information, please refer to [PG&E's 2020 Electric Emergency Plan Revision 26.0](#)³⁹.

3.2.3.12 Restoration Work Plan and Strategic Worksheet

To support the development of a restoration and resource movement strategy during an event, PG&E uses a tool to forecast the system-wide Estimated Time of Arrival (ETA) and Estimated Time of Restoration (ETOR). The Restoration Work Plan was built to identify geographic areas that may be in need of more personnel to support restoration efforts. The tool utilizes current and forecasted outage and resource counts to estimate the total time of restoration on system-wide, regional, and divisional levels. Historical assessment and restoration times for the current type of weather event and geography drive resource productivity assumptions. By comparing the ETOR across all PG&E divisions, incremental resources can be directed towards those geographies that need them most. The Restoration Work Plan can also be used to analyze the impact of any number of scenarios. For example, the impact on the overall ETOR due to an incoming storm or the addition of mutual assistance crews can be forecasted.

G.O. 166 Standard 2 requires California electric utilities to enter into mutual assistance agreement(s) to the extent that such agreements are practical and would improve emergency response. G.O. 166 Standard 2 stipulates that agreements include:

- A. Resources that are available to be shared
- B. Procedures for requesting and providing assistance
- C. Provisions for payment, cost recovery, liability, and other financial arrangements
- D. Activation and deactivation criteria review

The Emergency Response Strategic Worksheet (located in the [Emergency Management Website](#) under Templates) works in tandem with the Restoration Work Plan by enhancing the ability of Emergency Management personnel to develop local tactical plans. By supporting the development of ETORs and ETAs, the Strategic Worksheet enhances the development of local resource allocation plans. Estimates are created by inputting resources, outages, and equipment damage into the worksheet and can be utilized and continually updated during an event.

3.2.3.13 ETA and ETOR

In accordance with G.O. 166 Standard 8, A and B, it is important to regularly provide accurate and timely Estimated Time of Arrivals (ETAs) and Estimated Time of Restorations (ETORs) to our customers, in addition to quickly and safely restoring their service.

The purpose of the ETOR is to provide our customers validation that PG&E is aware of a service interruption, is responding to the outage, and to provide an initial estimation

G.O. 166 Standard 8A states: *Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.* G.O. 166 Standard 8B states: *Within 4 hours of the initial damage assessment and the establishment of priorities for restoring service, the utility shall make available through its call center and to the media the estimated service restoration times by geographic area. If the utility is unable to estimate a restoration time for a certain area, the utility shall so state.*

³⁹Access permission required for this site: [REDACTED]

of when service will be restored. Defines basic ETOR roles and responsibilities within Electric Distribution Operations.

- *Assists in setting expectations for PG&E customers by providing accurate and reliable information in a timely manner*
- *Is used for unplanned Level 1 ETORs, including Auto ETOR and 1st manual ETORs.*
- *Is not used for planned outage events.*
- *Is not used for Level 2 and above outages.*⁴⁰

During Transmission/Substation sustained outages, Transmission/Substation provides an ETOR to the Control Center on a coordination call.

During Level 2-5 events, it is essential to continue to provide accurate communications to our customers. In these more complex events, the Auto-ETOR is often disabled, and an outage communications strategy is determined to provide more realistic estimates to our customers.

Listed below are the roles and responsibilities in developing an ETA/ETOR Strategy:

- Command & General Staff develop the ETA/ETOR strategy and operational period objective recommendations.
- The emergency center commander reviews and approves the ETA/ETOR strategy and objectives.
- The Operations Section Chief directs data entry for ETA input, using the forecasted assessment time as a guideline.
- Once assessment has taken place and the outage is in the restoration filter in OMT, the supervisor in the DSR directs data entry of an ETOR that accounts for resource availability, repair time, and weather conditions.
- When a circuit-based strategy is used, the Operations Section Chief, or their Deputy, directs data entry input for ETA/ETOR.
- Customer Care works with Government Relations, External Media and Contact Centers to use other forms of communications to provide outage information to customers in OMT and to escalate issues to the emergency center commander.

For additional details on communicating ETORs to our customers, refer to section [4.2.1 Customer Outage Communications](#) and section [4.2.4 Major Outage Reporting](#).

3.2.4 Resource Management

⁴⁰ See EMER-3002P-01 Electric Operations Estimated Time of Restoration Procedure for further information.

As in any work situation, work must be prioritized in an emergency event. These priorities, noted as the operational period objectives in the Incident Action Plan (IAP), are operationally driven and are primarily focused on restoring as many customers and responding to the emergency as safely, efficiently, and quickly as possible. However, to complete the work, resources must be managed. This includes organizing, assigning, and tracking resources (personnel, equipment, materials). The following describes PG&E's approach in Electric Operations to resource management during emergency events.

G.O. 166 Standard 7 requires PG&E to evaluate the need for mutual assistance during a Major Outage, as defined by the CPUC. PG&E's evaluation of the need for mutual assistance involves a multi-step process that is repeated for the duration of events or incidents. Generally, PG&E considers the use of mutual assistance based on the following conditions:

- In advance of an impending storm that could cause significant damage based on DSO SOPP model and PSPS forecasts
- Whether or not the number of available PG&E resources and contractors are adequate in relation to the size and scale of an emergency and the restoration timeline
- Travel time for supporting utilities

The type of work is also a factor. Personnel needed to support the emergency response may require specialized training on PG&E assets.

3.2.4.1 Check-In and Check-Out Process

Resource management begins with an accurate check-in and out process of responding personnel. Understanding the resource availability, status, and location during an event is critical to a safe and effective response.

CAP# 120600375
(Yosemite) – Serious Injury and Fatality (SIF) Recommendation – Resource Track and accountability

The Resource Unit will establish and oversee the check-in/out function at designated incident locations. To establish a check-in/out desk, the Resource Unit Leader will assign a Recorder to each location where resources will check-in and out daily. If the Resource Unit has not been activated, the Commander or Planning Section Chief owns the responsibility for setting up the check-in/out process.

After designating a Recorder to manage a check-in/out desk at each facility, the Recorder ensures that all personnel arriving to work an event must check themselves into the event before working. Recorders must have an adequate supply of check-in forms, access and training in ARCOS Crew Manager and be briefed on the frequency for reporting check-in information to the Resource Unit. Maintaining and tracking the status of all personnel through the check-in process is vital and essential for personnel safety, accountability, and fiscal control.

All resources must check in/out daily through the check in/out desk at their assigned incident location (e.g., EOC, REC, OEC, Base Camp, Staging Area, etc.).

3.2.4.1.1 Safety Tailboard

Upon checking in, all personnel receive a safety briefing or safety tailboard prior to starting their work assignment. To address safety tailboard delivery inconsistencies, six essential

question elements were developed (also known as “Start with Six”) to assist with effective pre-job tailboard delivery. “Start with Six” information can be utilized with the LiveSafe and SafetyNet applications.

3.2.4.1.2 Work Assignment

All responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander. Arriving field personnel should report to the Incident Command Post (ICP), which may be in an Emergency Center, other facility, or in the field. Refer to section 3.2.4.10.1 on tracking crews in ARCOS Crew Manager. Once checked in, crews will receive work packages from the DSR Lead or their delegate. Refer to section 3.2.3.6.7 for details on creation, distribution, and completion of job packages.

3.2.4.1.3 Incident Related Injury Reporting

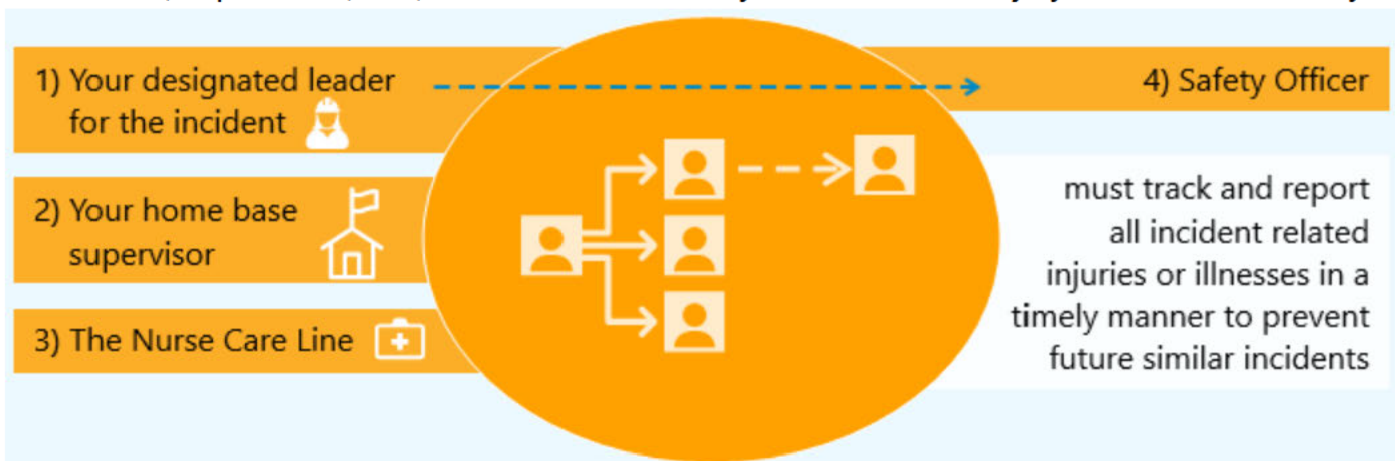
All personnel will receive a safety briefing before commencement of work. The ICS uses unity of command, meaning that each person is accountable to only one designated leader to whom he/she reports at the scene of an incident. These principles clarify reporting relationships and eliminate the confusion caused by multiple, conflicting directives. Once assigned to an incident, personnel report only to their designated supervisor in the ICS structure.

CAP# 120600375
(Yosemite) – Serious Injury
and Fatality (SIF)
Recommendation – Safety

In the event of an incident related injury personnel assigned in response to incidents must immediately notify:

- Their direct lead, supervisor, etc. (i.e., to whom they are assigned during the incident)
- Their home base supervisor, etc.
- And the Nurse Care Line per their program, department or LOB procedures.

Leads, supervisors, etc., who are notified of any incident related injury or illness must notify



the Safety Officer assigned to the activated Emergency Center. The Safety Officer must track and report all incident related injuries or illnesses in a timely manner.

3.2.4.2 PG&E Contract Crew Support

PG&E has contracts in place to use contract crew and/or equipment resources during incidents where company resources alone are not able to restore our electric infrastructure in a timely manner. The Senior Director for General Construction (GC) and Contractors is the resource owner for contract crews in Distribution and the Senior Director for Transmission and Substation is the resource owner for contract crews in Transmission.

3.2.4.2.1 Contracts for Emergency Response

The Sourcing Department issues contract agreements on an annual basis to help in restoring electric service during an emergency response. Agreements are established with contractors to provide assistance upon request, and includes furnishing personnel, equipment, and/or expertise in a specified manner. During an emergency event, Logistics is responsible for managing the contracts and issuing emergency purchase orders.

3.2.4.2.2 Contract Crew Request

Once a need arises for contract crews, the Contract Resource Owner (Projects & Construction, Field Operations, T-line) makes an initial call to determine current contractor availability on property. If more contract crews are needed, the Contract Logistics Manager contacts the contractors for additional resources. If there is still a shortage of resources, the EEI/Mutual Assistance process is followed to release contract crews from other utilities.

3.2.4.2.3 Dispatch and Supervision of Contract Crews

The Contract Resource Owner dispatches contract resources based on the direction of the EOC Operations Section (Contract Resource Owner provides crew counts and availability to the EOC Resource Management Unit Leader. The EOC Resource Management Unit Leader directs the Contract Resource Owner on where to send the contract crews.)

Contract Resource Owner manages contract crew support and works with the Operations Section in the OECs/RECs to provide supervisors/inspectors to support contract crews when they arrive at a base camp or alternative work location.

The Contract Resource Owner is responsible for providing supervisors/inspectors of contract crews after they check in at the local area.

3.2.4.2.4 Record Keeping

The P&C administration ensures all applicable time for contract crew personnel is logged and tracked, including any associated costs for equipment repairs and required personnel expenses. The administration, in conjunction with the Distribution Supervisor, reviews and approves Labor, Material and Equipment (LM&E) sheets to validate time and work completion. The P&C administration enters and tracks costs in their tracking data base and enters goods receipts into SRM/SAP to initiate the payment process.

Refer to section [3.2.4.10.1](#) on tracking contract crews in ARCOS Crew Manager.

3.2.4.3 Mutual Assistance

G.O. 166 Standard 2 states: The utility shall enter into mutual assistance agreement(s), such as those facilitated by the California Utilities Emergency Association, to the extent that such agreements are practical and would improve emergency response. The utility shall submit the agreements annually to CPUC designated staff as part of the report required by Standard 11.

3.2.4.3.1 Agreements and Requesting Mutual Assistance

The term “Mutual Assistance,” in the context of this Annex, is intended to mean any crew from another utility. The company has established agreements [i.e., California Utilities Emergency Association (CUEA) and Western Region Mutual Assistance Agreement (WRMAA), etc.] with other utilities to provide or receive assistance to help restore electric and gas service during a major emergency. There are written agreements with other utilities for providing assistance, upon request, and includes furnishing personnel, equipment, and/or expertise in a specified manner.

G.O. 166 Standard 11 states: The plan shall describe how the utility intends to employ resources available pursuant to mutual assistance agreements for emergency response. Mutual assistance shall be requested when local resources are inadequate to assure timely restoration of service or public safety. Mutual assistance need not be requested if it would not substantially improve restoration times or mitigate safety hazards. The plan shall recognize the need to communicate mutual assistance activities with the State Office of Emergency Services, through the UOC/OES Utility Branch, during an emergency.

Refer to the CERP on how to evaluate the need for mutual assistance, the request process, and record keeping.

G.O. 166 Standard 8 states: No later than 4 hours after the onset of a major outage, the utility shall begin the process of evaluating and documenting the need for mutual assistance. The utility is not required to seek assistance if it would not substantially expedite restoration of electric service or promote public safety. The utility should reevaluate the need for assistance throughout the period of the outage.

3.2.4.3.2 Supervision of Mutual Assistance Crews

The supervision of mutual assistance crews is the same as for contract crews. Refer to the [CERP](#)⁴¹ for more information on Mutual Assistance.

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3.2.4.4 Deployment Order and Priorities

Decisions regarding allocation and deployment of resources should be based on priorities that govern assessment or restoration. Refer to the [CERP](#)⁴² for additional details on deployment priorities.

The order for requesting and deploying personnel resources includes, but is not limited to:

- Division
 - T200 distribution (Field Ops division crews) from within the impacted division
 - T300 distribution (General Construction crews) from within the impacted division
 - T300 transmission and T200 transmission from within the impacted division (given there are no transmission impacts or risk)
 - Contract from within the impacted division
- Region
 - T300 distribution from within the impacted region
 - T200 distribution from within the impacted region
 - Contract from within the impacted region
- System
 - T300 distribution from less impacted regions
 - T300 transmission and T200 transmission from less impacted regions (given there are no transmission impacts or risk)
 - T200 distribution from less impacted regions
 - Contract from less impacted regions
- Non-electric resources
- Non-PG&E Resources
 - Contract crews released from outside utilities to support our emergencies
 - Mutual assistance crews

3.2.4.5 Resource Movement Authorization

The Vice President of EP&R has the authority to move resources across region boundaries during a Level 2 or greater emergency when the EOC is not activated, and in pre-event preparations. In Level 2 emergencies, the OEC Commander has the authority to move resources within their respective division to facilitate restoration of service. In a Level 3

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where the REC is activated, the REC Commander has the authority to move resources within their respective region. The on-call EOC Commander or Vice President of EP&R, has the authority to move resources across region boundaries. In this case, the EOC Resource Management Unit Leader will activate to support the mobilization of resources.

In a Level 4 or greater emergency where the EOC is activated, the EOC Commander has the authority for all resource allocation and deployment. Resources are deployed in accordance with priorities and strategies recommended by the EOC Operations Section, Planning Section, and Logistics Section. In addition, upon obtaining necessary officer approval, contractors and mutual assistance can be activated.

For Electric Transmission, ETEC develops the resource plan, based on input from electric distribution and transmission. When the ETEC Lead approves the plan, ETEC then communicates the plan to STOEC to execute. (STOEC is responsible for managing the transmission repair workforce during an incident.)

3.2.4.6 Resource Movement Management

During emergencies, resource movement logistics are managed by different roles. Table 3-6 defines which party executes this responsibility.

Table 3-6: Resource Managing and Ordering Authorities

| Activation Level | Ordering Authority (Distribution) | Managing Authority (Distribution) | Ordering Authority (Transmission & Substation) | Managing Authority (Transmission & Substation) |
|-------------------------------------|---|-----------------------------------|---|--|
| Level 1 Division / Area | Local Supervisor or above | Local Supervisor or above | Local Supervisor or above | Local Supervisor or above |
| Level 2 OEC / STOEC | OEC Logistics Section Chief | OEC Resource Unit | STOEC Logistics Section Chief | STOEC Resource Unit |
| Level 3 or greater OEC / REC / ETEC | REC Logistics Section Chief | REC Resource Unit | Logistics Section Chief | Resource Unit |
| Level 3 or greater EOC | EOC Logistics Section Chief (non-personnel request); EOC Crew Logistics (personnel) | EOC Resource Unit | EOC Logistics Section (non-personnel request); EOC Crew Logistics (personnel) | EOC Resource Unit |

3.2.4.7 Resource Request Process for Electric Transmission and Substation

For Electric Transmission and Substation during Level 1 incidents, the Supervisor secures resources locally. If additional resources are needed, it is escalated to the superintendent, who assists with securing additional resources.

If STOEC or ETEC is activated, a request for additional resources is called in from the field to STOEC’s Operations Section. The Operations Section then makes the request to Logistics for additional resources. Upon receipt of the request, Logistics looks within the same area first to secure additional resources. If resources are not available in the same

area, Logistics looks to fulfill the request from adjacent areas. If no resources are available, the STOEC Logistics Section Chief submits the request to the EOC Electric Transmission Branch Director, and the Electric Transmission Branch Director provides the request to the EOC Resource Management Unit Leader for personnel and the EOC Planning Section Chief for non-personnel resources.

3.2.4.8 Resource Request Process for Electric Distribution

3.2.4.8.1 For Level 1 Incidents

For Electric Distribution local headquarters (yards), the division on-call Maintenance and Construction (M&C) supervisor uses the 212 process to secure Title 200 resources locally. If additional resources are needed, the on-call M&C supervisor calls other local headquarters (yards) within that division and/or contacts the local contract crew supervisor for resources. If needed, the on-call M&C supervisor notifies the local M&C Superintendent of resource needs. The M&C Superintendent notifies the local GC Superintendent of any resource needs not met by division or contract crews.

If more resources are needed outside the division, the on-call M&C supervisor contacts the on-call M&C supervisors from adjacent divisions within the Region. Then ARCOS can be used to callout resources from the 212 list in neighboring divisions.

If more resources are needed outside the Region, the M&C Superintendent will call the EMS Duty Officer to request support. The EMS Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader.

3.2.4.8.2 For Level 2 or Greater Incidents

Resource requests are submitted to the OEC Logistics Section.

- If they do not have enough resources within the division/region and the:
 - REC is not activated, the OEC Logistics Chief will call the EMS Duty Officer to request support. The Duty Officer at that time would contact the EOC on-call Resource Management Unit Leader or the EMS Supervisor.
 - REC is activated, the OEC Logistics Chief will call the REC Logistics Chief with the request. The REC Logistics Chief then works with the REC Resource Unit to determine the availability of resources.
- If the EOC is activated,
 - The REC Logistics Chief submits the request to the EOC Resource Management Unit for personnel and the EOC Logistics Chief for non-personnel resources.
 - The personnel resource requests are validated during the daily Tactics Meeting held by the EOC Operations Section to align on system priorities and objective execution.
 - The EOC Resource Management Unit Leader will determine if there are resources available in another region. If the request can be filled, both the sending and receiving REC Logistics Chiefs are informed.

- If existing resources are not available,
 - The EOC Resource Management Unit Leader requests available resource numbers from the Contracting Manager and the Mutual Assistance Manager, and decides which resources to activate, upon obtaining needed EOC Commander/Officer approvals.

3.2.4.9 Base Camp Determination and Electric Operations Staffing

Based on the Electric Damage Model and submitted requests for base camps to the EOC, the EOC Operations Section works collaboratively with the OECs, RECs, the EOC Planning Section, and the EOC Logistics Section to determine the number and locations of base camps, staging areas, micro sites, and material laydown areas if needed. Once the request for the site is approved by the EOC commander, Operations determines the appropriate resources including personnel to dispatch to each site to support the incident.

In the event of a catastrophic incident, several IMTs are pre-identified, paired with IMTs from a different Region, and pre-trained on each other's areas. As a result, these IMTs can be quickly secured from outside the impacted area to staff the base camps.

For additional details on base camps, staging areas, micro sites, and material laydown areas refer to the Logistics Annex. For details on IMTs, refer to the CERP.

3.2.4.10 ARCOS—Automated Roster Callout System

ARCOS, or Automated Roster Callout System, is an automated callout and scheduling system that PG&E uses to assemble and track first responders and repair crews in response to electric emergency outage situations / unplanned events. By using ARCOS over manual methods, PG&E can automate and streamline the callout process and reduce outage duration times for customers (due to faster callout and on-site times).

PG&E uses the following modules of the ARCOS Suite for day-to-day operations, as well as major storm events:

- ARCOS Callout is used to call union employees via phone, email, and text messaging services to respond to unplanned events, in adherence with their bargaining agreements.
- System Outage Staffing (SOS) is used to identify and call out resources based on qualifications or location. It is also utilized to conduct an interactive callout where employees can respond to targeted questions, such as, "Can you respond?"
- SIREN is used to broadcast mass notifications to employees, partners, and other organizations in the event of an emergency.

3.2.4.10.1 ARCOS Crew Manager

Tracking resources (i.e., personnel) efficiently is essential for safety, accountability, and fiscal control. Failing to effectively track resources can lead to accidents and injuries. Furthermore, resources must be organized, assigned, and directed to accomplish incident objectives and managed to adjust to changing conditions.

Crew Manager is a module of the ARCOS software suite that incorporates real-time, touch screen, drag and drop management of crews – for both day-to-day operations and major storm events. It also centralizes crews into a single database while providing distributed access to Operations Managers, Field Supervisors and Crew Leaders via touch-screen, interactive whiteboards, tablets, smartphones, and personal computers.

PG&E requires that ALL resources working an event are to be tracked in the ARCOS Crew Manager. This tracking ensures visibility of resources and reinforces personnel safety. Tracking includes documenting all resource check-ins and check-outs daily in Crew Manager, as well as any transfers across division lines.

3.2.4.11 Out-of-Region Crew Packets

All headquarters maintain crew packets, containing region-specific information to assist out-of-region crews and Mutual Aid Crews participating in the local restoration effort. The division superintendent ensures that the information contained in the packet is current and available in sufficient quantities.

At a minimum, the following information will be provided:

- Local radio frequencies
- Location of medical facilities (ICS 206)
- Location and layout of base camps (Logistics provides this)
- Phone numbers of appropriate emergency centers and Control Centers
- Local maps
- Additional information may include unique safety information (ICS 208), local restaurants, etc.

3.2.5 Demobilization/Release of Resources

3.2.5.1 Demobilization Process

Demobilization includes overseeing and validating the safe and efficient return of resources to their original location and status when they are no longer needed to support the response. Planning for demobilization starts soon after the resource mobilization process begins to facilitate accountability of resources. See Figure 3-10 on page 3-56 for an example of the demobilization process. All resources, including local personnel, must demobilize from an incident/event.

The order for demobilization is executed in reverse of the deployment order and includes, but is not limited to⁴³:

- Non-PG&E Resources

⁴³ The demobilization of resources should follow the order outlined in this section. There may be exceptions to the demobilization order based on the timing of outages and assigned resources.

- Mutual assistance crews
- Contract crews from outside utilities
- Non-electric resources – System
 - Contract from less impacted regions
 - T200 distribution from less impacted regions
 - T300 transmission and T200 transmission from less impacted regions
 - T300 distribution from less impacted regions
- Non-electric resources – Region
 - Contract from within the impacted region
 - T200 distribution from within the impacted region
 - T300 distribution from within the impacted region
- Non-electric resources – Division
 - Contract from within the impacted division
 - T300 transmission and T200 transmission from within the impacted division
 - T300 distribution from within the impacted division
 - T200 distribution from within the impacted division

The demobilization process involves two-way communications. It can be initiated from the bottom up or from the top down. Ultimately, the highest-level activated emergency center makes decisions on whether resources can demobilize or should be reallocated. This decision is based both on information passed up from the lower level emergency centers, as well as from information garnered through analytic tools.

To ensure personnel safety and to prevent resources from being released in one area when they are needed in another, it is essential that a demobilization process is followed. Below are the responsibilities by section/unit in the demobilization process:

Resource Unit⁴⁴:

- Identifies excess resources in collaboration with the Section Chiefs and Demobilization Unit and informs their emergency center commander.
- Checks with the Resource Unit at the next level's emergency center to see if resources are needed elsewhere and whether demobilization is authorized. The highest-level activated emergency center makes the ultimate decision to demobilize resources. For example, when open, the EOC considers information and recommendations from the REC/OEC, but it ultimately makes final demobilization decisions.

⁴⁴ If the Resource Unit and Demobilization Unit are not staffed during an incident, the Planning Section Chief is responsible for these functions.

- Once approval is secured to demobilize, the Resource Unit notifies their Logistics Section and the Demobilization Unit of the excess resources.

REC/OEC Demobilization Function³:

- In collaboration with the Resource Unit, assesses the current and projected resource needs and obtains the identification of surplus resources and probable release times.
- Forwards demobilization instructions for field resources from the EOC.
- Creates the demobilization plan and monitors its implementation for their emergency center. The demobilization plan includes the release priorities, demobilization process, any specific release procedures, responsibilities for implementing the demobilization plan, and directories, if needed (e.g., maps, telephone listings, etc.).
- Communicates with the sending and receiving offices, as well as the released personnel, to ensure the safe and efficient return of resources.

EOC Demobilization Unit:

- Creates the demobilization plan for the EOC.
- Work with Ops Section Chief and Resource Unit to identify excess resources.
- Creates instructions for the RECs to direct REC and OEC demobilization of field resources (e.g., order for the demobilization of resources, demobilization checklist, safety considerations).
- Is responsible for the demobilization of outside contract, mutual assistance crews, and out of region PG&E crews (i.e., communicates with the RECs who is coming back and when, notifies the contract unit to release crews, calls outside utilities to notify them when resources have been released, confirms the number acquired equals number released).
- Keeps the sending and receiving REC Logistics Chiefs and Resource Units apprised of resource movement during the demobilization process.

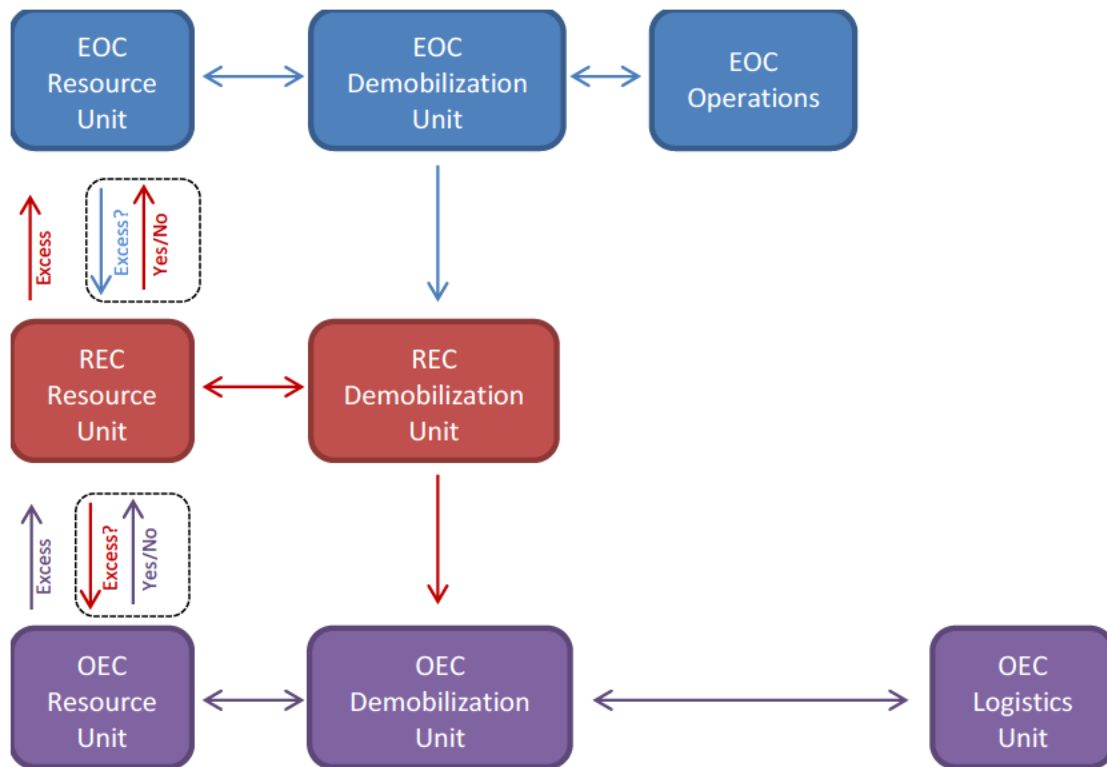
Emergency Center Commander:

- Approves the demobilization plan for their emergency center.

Logistics Section:

- Orders and/or restocks supplies/equipment to ensure operational readiness.

Figure 3-10: Example Demobilization Process



Example Process for When Excess Resources Are Identified At the OEC⁴⁵

- The OEC Resource Unit identifies excess resources in collaboration with Operations and the Demobilization Unit, informs the OEC Commander, and contacts the REC Resource Unit before approving the demobilization of resources.
- The REC Resource Unit checks to see if the resources can be used elsewhere in the region. If not, it initially checks with the EOC, if activated, to see if the resources are needed elsewhere in the system.
- If the resources are not needed elsewhere, and the EOC provides permission to demobilize resources, the REC Resource Unit informs the OEC Resource Unit that they can demobilize.
- The OEC Resource Unit informs the OEC Demobilization Unit and Logistics of the excess resources.
- The OEC Demobilization Unit communicates with the sending and receiving offices to ensure the safe return of personnel, and Logistics orders and/or restocks supplies/equipment.

⁴⁵ For Electric Transmission, the process is the same. For example, excess resources are identified at the DSR and communicated to STOEC, the Electric Transmission Branch Director, and then the EOC to ensure resources are not needed elsewhere before demobilizing.

Example Process for When Excess Resources Are Identified In the EOC

- The EOC Resource Unit identifies excess resources system-wide in collaboration with Operations and the Demobilization Unit. It then informs the EOC Commander and contacts the respective REC Resource Unit(s) to confirm if the REC or OECs in its area have excess resources.
- The REC Resource Unit checks to see if the resources referenced by the EOC are considered excess, working with the OEC(s) Resource Unit(s). The REC Resource Unit then reports this finding to the EOC Resource Unit.
- The EOC Resource Unit reconvenes with the EOC Operations and EOC Demobilization Unit, and they make a final decision on which resources to demobilize or reassign. The EOC Commander is also informed.
- If the decision is made to demobilize, the EOC Resource Unit instructs the EOC Demobilization Unit to work with the REC Demobilization Unit(s) to demobilize the selected excess resources.
- The REC Demobilization Unit(s) informs the appropriate OEC Demobilization Unit(s) to work with their respective Logistics sections to coordinate demobilization of the identified excess resources.
- The OEC Demobilization Unit communicates with the sending and receiving offices to ensure the safe return of personnel, and Logistics orders and/or restocks supplies/equipment.

3.2.5.2 System Restoration to Normal Configuration

Following a catastrophic disaster, there may be equipment shortages, and non-standard equipment may be used at first to efficiently restore customers. As much as possible, the system should be brought back in compliance before fully demobilizing.

3.2.6 Deactivation

OECs may deactivate or use Communications Only status once an incident/event ends and resources have been demobilized. An OEC may continue to close notifications in Communications Only status (see Section 3.1 for additional information on Communications Only). Deactivation includes using the Communications Only status to indicate continued resource support for other impacted OECs or emergencies requiring additional support, but not meeting MEBA criteria.⁴⁶ Notifications must be closed before complete OEC deactivation.⁴⁷ For long term rebuild work (such as in a wildfire), open notifications must be turned over to a Rebuild Team or project manager prior to deactivation.⁴⁸

⁴⁶ See EMER-4510S Operations Emergency Center (OEC) Activation Requirements for further information.

⁴⁷ See TD-2060S Emergency Electric Corrective Documentation Standard for further information.

⁴⁸ See Section 2.3 of EMER-3012M Disaster Rebuild Annex for additional information.

4 Coordination and Communication

4.1 Internal Coordination and Communication

4.1.1 Pre-event Planning

Depending on the DSO SOPP Model forecasted system emergency level (i.e. Category 2-5), the OEC/REC/EOC Commander provides pre-event planning of assessment and readiness activities to the Vice President of EP&R. Planning includes crew availability counts (pre-arranged or POT, normal staffed and call-out resources) as well ICS role staffing lists. Safety tailboards, weather updates and the current DSO SOPP model are included to help pre-planning efforts. Pre-activation checklists provide guidance on the steps required for preparation and activation. Checklists are available at the [Emergency Management Website](#).⁴⁹

G.O. 166 Standard 1A stipulates that utilities coordinate internal activities in an emergency operations center or use some other arrangement suitable for the purposes of internal coordination.

4.1.2 Directors' Alignment Call

EP&R may hold pre-event Directors' Alignment Calls up to 72 hours prior to the forecasted weather impact. The intent of this call is to align the FBUs for a safe, effective, and coordinated response. See Appendix D for a sample agenda.

During Directors' Alignment Calls, FBU reporting may include, but is not limited to:

- Safety considerations
- Proactive activations (required for OEC Level 3 or higher forecasted events)
- Staffing Plans for forecasted weather response (POT, 212)
- Resource needs (logistics, storm orders, staffing, etc.)

4.1.3 Incident Action Plan and Intelligence Summary Reports

As documented in [CERP](#)⁵⁰, PG&E aligns its emergency preparedness and response practices with the public constructs National Incident Management System (NIMS), Standardized Emergency Management System (SEMS), and ICS. One of the cornerstones of ICS is the coordination of multiple stakeholders in a single response using the concept of management by objectives. This requires a high level of coordination and situational awareness to develop a Common Operating Picture (COP). This is supported by using the

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Incident Action Plan and the Intelligence Summary, both of which support alignment of response personnel and key supporting stakeholders. The Planning Section Chief is responsible for the preparation and dissemination of both of these documents, after the review by the IC Advisor. For details on these reports and links to templates, refer to the [CERP](#).⁵¹ Below is information on some key plans and reports produced in the OEC/REC/EOC.

The Incident Action Plan (IAP) is an oral or written plan for the next operational period that ensures a common understanding of objectives, communications, contact information, resources, etc. and reflects the overall strategy for managing an incident.

- During a Level 1 and Level 2 not exceeding one operational period, an oral IAP **may be used.**
- During a Level 2 or greater and exceeding one operational period a written IAP **must be developed and disseminated for each operational period.**

The Intelligence Summary typically includes information on customer impact, damaged equipment or assets, weather, and other incident summary information. Upon request, all identified Emergency Centers provide intelligence summaries to EOC Situation Status Unit. The EOC Situation Unit also creates a system-level intelligence summary, at intervals determined by the Planning Section Chief.

- During a Level 2 or greater activation, an Intelligence Summary **must be developed and disseminated.**
- The Situation Unit creates other incident documentation as determined by the Planning Section Chief.

4.1.4 Initial Executive Briefing

The initial Executive Briefing consolidates pertinent information to provide a succinct review of an emergency event for company executives. Details may include a weather summary, safety incidents, environmental risk and compliance, activated emergency centers, external partner and/or cooperative operations, financial cost and reliability metrics including customer outages and minutes. As needed, system damage and significant outages summaries may also be provided. This report is distributed by the EOC Commander to PG&E leadership to summarize the event. See [CERP Appendix E.1.2](#) for details.

4.1.5 ETEC Spreadsheet

The ETEC Spreadsheet is created initially and maintained by ETEC and shared with STOEC to reflect the status of all transmission outages during an event. The information is summarized and provided to the EOC for inclusion in the EOC Intelligence Summary.

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4.1.6 Systems Information Management

PG&E uses the following critical software applications during emergencies to manage the electric system and to share information. For technical support information, refer to Appendix D.6.

4.1.6.1 Electric Distribution

The following systems are some of the critical applications used in Electric Distribution Operations during emergency events:

- The Outage Management Tool (OMT) is a web-based application that is used by the emergency management organization to gather and report information on customer outages, damage assessments, service restoration, and crew movements in emergency events affecting the PG&E system. Refer to Appendix D.5 for an OMT Job Aid.
- The Field Automated System (FAS) is a software application developed by Ventyx. Work Orders are input by Customer Care and Billing, Application for Work, SAP, or OIS and then sent to FAS. FAS is then used by Electric Restoration T-men, Gas Service Representatives, Field Meter Technicians, Dispatchers and Supervisors to assign, dispatch and complete field work orders.
- Distribution Management System (DMS) is an application designed to assist the Control Center and field operating personnel to monitor & control the entire distribution network efficiently and reliably. DMS has a network component / connectivity model of the distribution system. It is integrated with Customer Information System (CIS), Geographical Information System (GIS), and Interactive Voice Response (IVR) System. By combining the locations of outage calls from customers with knowledge of the locations of the protection devices (such as circuit breakers) on the network, a rule engine is used to predict the locations of outages. Based on this, restoration activities are charted out and crews are dispatched. This results in improved reliability and quality of service, in terms of reducing outages, minimizing outage time, and providing timely outage communications to our customers.
- SCADA (Supervisory Control and Data Acquisition) allows the operator to analyze and control the electrical system from a remote location.
- Systems Applications and Products in Data Process (SAP) is used to track emergency jobs as they move through their life cycle. It is a tool that is used to plan, track, and charge labor and to schedule work. SAP is integrated with FAS, so damaged locations that are assessed by field resources and entered into FAS are automatically sent to SAP.

4.1.6.2 Electric Transmission

The following systems are some of the critical applications used in Electric Transmission Operations during emergency events:

- Energy Management System (EMS) is a tool used by Grid Control Center (GCC) to monitor the Bulk Electric System (BES). EMS has a contingency analysis application

that allows for the analysis of the power system in order to identify the overloads and problems that can occur due to a contingency. (A contingency is the failure or loss of an element or a change of state of a device in the power system.) This application uses a computer simulation to evaluate the effects of removing individual elements from a power system. EMS also provides SCADA functions, alarm categories, network study capability, state estimator, and exception reports.

- SCADA (Supervisory Control and Data Acquisition) allows the operator to analyze and control the electrical system from a remote location.
- Grid Messaging System (GMS) is a data messaging system used to convey information related to WECC-wide events.
- RAS (Remedial Action Scheme) is a protection scheme designed to detect pre-determined System conditions and automatically take corrective actions that may include, but are not limited to, curtailing or tripping generation or other sources, curtailing or tripping load, or reconfiguring the system.
- Transmission Outage Tracking and Logging Tool (TOTL) – An application used by the Transmission Grid Control Center to track and log event information that includes office items report, work cards, interruption reports, and log details and notifications.

4.2 External Coordination

4.2.1 Customer Outage Communications

PG&E deploys several methods to communicate with customers when they experience an outage, including via Customer Service Representatives, the PG&E website, social media, Customer Preference and Notification (CPAN) via email, text, or voice message, and Automated IVR telecom systems. When available, PG&E provides situational messaging up front on the toll-free numbers.

G.O. 166 Standard 8 stipulates that within four hours of the identification of a major outage that California electric utilities make information available on the expected duration and cause of customer outages. G.O. 166 Standard 8 further stipulates that restoration priorities be provided within four hours of initial damage assessment.

PG&E attempts to provide customers with the following set of details on their specific outage, as soon as they are available:

- **Cause of Outage:** Once an assessment is complete, PG&E assessment personnel provide information on the cause of the outage. This information is provided to customers when available.
- **Estimated Time of Restoration (ETOR):** ETORs are provided to customers when available. ETORs and their accuracy are important components of customer

G.O. 166 Standard 4A states: The communications strategy shall describe how the utility will provide information to customers by way of its call center and other communications media before, during and immediately following a major outage. The strategy shall anticipate the use of radio and television.

satisfaction. As such, providing accurate ETORs are a key focus for outage dispatchers, assessment, and repair personnel.

- **Estimated Time of Information (ETOI):** During larger events, accurate ETORs may not immediately be available due to the large influx of outages. In these events, PG&E can provide customers with ETOIs that forecast when additional information on their outage will be available.
- **Crew Status:** When available, crew status information can be provided to customers. Statuses such as “Awaiting T-men”, “T-men On-Site”, “Awaiting Crew”, and “Crew On-Site” give customers additional context for the progress of the restoration effort.
- **Other Customer Comments:** T-men and Assessment teams can provide additional comments about an outage to a customer to convey additional information.

When using proactive outage communications via CPAN, the following is communicated:

- Acknowledgement: PG&E is aware your power is out, number of customers affected
- ETA: A crew is on the way
- Cause and ETOR(s): Cause of the outage, when power will be restored
- Conditional: A new condition may impact your outage
- Restoration: Your power was restored

Accurate and timely customer outage communications are a vital component of improving customer satisfaction, especially during large events.

4.2.2 Public Information and Government Coordination

Refer to the Company Emergency Response Plan (CERP), [Emergency Communications Annex \(EMER-3008M\)](#)⁵², and the Emergency Communications Plan (The Book of All Knowledge) for details on how PG&E coordinates public information. The CERP also contains information on how PG&E coordinates with governmental agencies.

G.O. 166 Standard 1C states: The plan shall address the utility's provision of timely and complete information available to the media before, during and immediately after a major outage. Such information shall include estimated restoration times and a description of potential safety hazards if they exist.

G.O. 166 Standard 4B states: The communications strategy shall include pre-event coordination with appropriate state and local government agencies, including the appropriate methods for information exchange, to enhance communications activities during and immediately following a Major Outage.

G.O. 166 Standard 1D states: The plan shall address the utility's efforts to coordinate emergency activities with appropriate state and local government agencies. The utility shall maintain lists of contacts at each agency which shall be included in the plan and readily accessible to employees responsible for coordinating emergency communications. The utilities may address the use by governmental agencies of California's Standardized Emergency Management System (SEMS).

4.2.3 CAISO Coordination

In Level 1 and 2 emergencies involving electric transmission, GCC is the designated PG&E single point of contact with CAISO. During any outage activity, GCC is in communication with the ISO and provides them with operational information. GCC is also in daily contact with CAISO to monitor power flows and receive clearance requests.

G.O. 166 Standard 1B states: The plan shall provide for utility coordination with the ISO, including gathering, processing, and disseminating information from the ISO, and providing information regarding how the utility will establish priorities and estimates of service restoration. A utility that does not deal directly with the ISO shall describe how it will coordinate its efforts with the TO.

In a Level 2 or greater emergency, the ETEC may be activated to assist GCC with transmission related outages and to facilitate communications with the CAISO.

During a system-wide capacity event, the GCC receives notifications and instructions from the CAISO. Refer to Appendix P, [Electric Emergency Plan \(EEP\) For Capacity Emergencies](#)⁵³.

G.O. 166 Standard 4C states: The communications strategy will describe how the utility will coordinate its communications with the ISO and/or the TO. The utility shall cooperate with the ISO/TO to coordinate the information provided to customers, media, and governmental agencies when the operation of the transmission system affects customer service.

4.2.4 Major Outage Reporting

CPUC General Order No. 166 (G.O. 166), states that a major outage occurs when 10 percent of PG&E's serviceable customers experience a simultaneous, non-momentary interruption of service. A measured event is defined as a major outage resulting from non-

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earthquake, weather-related causes, affecting between 10% (simultaneous) and 40% (cumulative) of PG&E's customer base. (Refer to G.O. 166 for details on when a measured event begins and ends.)

Per Standard Six of G.O. 166, within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the CPUC and the Warning Center at Cal OES of the location, possible cause, and expected duration of the outage. For purposes of this standard, PG&E generally treats "newsworthy events" as incidents within the category of Level 3 or greater emergency where the EOC is activated.

G.O. 166 Standard 6 specifies that within one hour of the identification of a major outage or other newsworthy event, PG&E shall notify the Commission and Warning Center at the State Office of Emergency Services of the location, possible cause and expected duration of the outage. The Warning Center at the OES is expected to notify other state and local agencies of the outage.

For major outages, PG&E may activate its EOC. PG&E's EOC Activation and Deactivation Checklist will be used upon activation of the EOC, including emergency reporting to CPUC, the Cal OES Warning Center, and the CUEA. In addition, PG&E will describe major outages and measured events that occur within the reporting period in its G.O. 166 report to the Commission each year.

Standard Eight of G.O. 166, "Major Outage and Restoration Estimate Communication Standard," states the following:

- Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.
- Within 4 hours of the initial damage assessment and the establishment of priorities for restoring service, the utility shall make available through its call center and to the media the estimated service restoration times by geographic area. If the utility is unable to estimate a restoration time for a certain area, the utility shall so state.

G.O. 166 Standard 8A states: Within 4 hours of the identification of a major outage, the utility shall make information available to customers through its call center and notify the media of the major outage, its location, expected duration and cause. The utility shall provide estimates of restoration times as soon as possible following an initial assessment of damage and the establishment of priorities for service restoration.

PG&E has established technology interfaces to allow outage information and restoration times to be made immediately available to customers through the call center's IVR system as soon as T-men in the field enter the ETOR. The outage information is also supplied automatically to the pge.com website, where customers and the

G.O. 166 Standard 13A states: A utility's call center performance during a Measured Event shall be presumed reasonable if the percent busies calculation is lower than Level-1, and presumed unreasonable if the percent busies calculation is greater than Level-2. These presumptions are rebuttable. Performance equal to or between Level-1 and Level-2 is subject to no presumption. Level-1 is defined as 30% busies over the day of the outage (12:00 a.m. to 11:59 p.m.). Level-2 is defined as 50% busies over the day of the outage (12:00 a.m. to 11:59 p.m.) plus at least 50% busies in each of six one-hour increments (these increments need not be consecutive).

media can secure real-time access information on outages.

In addition, depending on incident complexity, PG&E may conduct targeted outbound calling, live agent calling, door-to-door outreach, and facilitate town hall meetings.

G.O. 166 Standard 13B states: Percent busies calculation measures the levels of busy signals encountered by customers at the utility's switch and that of its contractors. Mutual aid partners are not considered "contractors" for purposes of this standard, and busies encountered as a result of mutual aid assistance are not included in measurements to which this standard applies.

Percent busies indicator is measured on a 24-hour basis for outage-related calls (on energy outage and general call lines) from the time the Measured Event begins (12:00 a.m. to 11:59 p.m.), and separately for each 24-hour period until the Measured Event ends.

Either of the following methods for calculating percent busies is acceptable:

- Percent of call attempts reaching the utility which receive a busy signal
- Percent of time that trunk line capacity is exhausted.

PG&E's Public Information Office coordinates external communications with the media. Following a major outage, the Public Information Office continues to provide outage information to the media. (Refer to the Emergency Communication (The Book of All Knowledge) and the Workforce Management/Contact Center Operations Annex (WFM/CCO) for additional details on customer and media communications.)

PG&E includes a description of our compliance with Standard Eight in the annual G.O. 166 report.

4.2.5 Other Thresholds for Regulatory Reporting

The following are other thresholds for regulatory reporting:

- The Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 titled IEEE

Guide for Electric Power Distribution Reliability Indices covers the methodology used for calculating thresholds for identifying and adjusting for excludable major event days to evaluate performance of the electric transmission and distribution system.

- Commission Resolution E-4184 covers reporting incidents that result in fatalities, personal injuries, media coverage, and damage to property.
- Electric Emergency Incident and Disturbance Report (Form OE 417) from Department of Energy (DOE)
- NERC Reliability Standard EOP-004-4

G.O. 166 Standard 11 states: The utility shall annually report to the CPUC and other appropriate governmental agencies by October 31 regarding its compliance with this general order for the previous twelve months ending June 30. The annual report shall identify and describe any modifications to the utility's emergency plan.

Further, the utility shall report on the number of repair and maintenance personnel in each personnel classification in each county (and total throughout the company), as of June 30 of the current and previous year.

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5 Performance Indicators

5.1 Indicator Evaluation

Performance indicators are used to monitor response and recovery performance during Level 2 or greater emergencies. Key indicators are monitored and evaluated during an event so that actions can be taken to quickly adjust the response plan. Post-event evaluation of indicators is used to improve processes, increase efficiency and revise emergency plans. Some indicators have established measurements while others are subjectively evaluated during the event or during post-event critiques.

5.2 Safety and Environmental

Indicators will be used to:

- Monitor safety practices and environmental compliance.
- Determine if safety and environmental practices are consistent with established company standards and all applicable regulations.
- Ensure that hazardous or at-risk environmental conditions reported to PG&E are identified for response.

Indicator:

- Coworker injuries, contractor injuries or public injuries Hazardous material spill or release
- Preventable motor vehicle incidents (PMVIs)
- Response time to immediate response notifications
- Near miss incidents
- Work procedure errors or human performance events
- Job Safety Analyses performed
- Tailboards completed
- Safety observations performed

5.3 Assessment

Indicators will be used to:

- Monitor the timeliness of compiling a comprehensive damage assessment.
- Determine resource movement needs.
- Determine restoration forecast.
- Determine the need for Mutual Assistance and Contractor Crews.

- Monitor the timeliness of 911 Agency Relief.

Indicator:

- Outage assessment rate
- Appropriate prioritization of outages, to include duration
- Use of non-traditional assessment teams
- Number of standby crews utilized to relieve 911 Agencies
- Number of Mutual Assistance and Contractor resources

5.4 Restoration

Indicators will be used to:

- Monitor the timeliness of customer restoration.
- Evaluate the effectiveness of resource management.
- Monitor forecast vs. actual restoration times.

Indicator:

- Customer restoration times
- Critical Transmission Line restored against forecast
- Outage restoration rate against forecast
- Number of customers experiencing extended duration outages

5.5 Internal and External Communications

Indicators will be used to:

- Ensure that timely and consistent information is being communicated to internal and external entities
- Gauge the quality of outage information reported to our customers.

Indicator:

- Contact Center Average Speed of Answer (ASA)
- IVR Take Rate performance
- Outbound Messaging Attempt Results
- Customer Sentiment Data
- Estimated Time of Restoration (ETOR) Accuracy
- ETOR Timeliness
- Number of ETOR updates

- Outage Basic 5 Information (five basic pieces of information to complete in OMT— materials, estimated repair time (ERT), ETA, or ETOR, customer comments, and cause)

5.6 Reliability Metrics

Customer Average Interruption Duration Index (CAIDI)

- Number of sustained customer outage minutes of interruption divided by the total number of customers interrupted.

G.O. 166 Standard 12A states: A utility's restoration performance during a Measure Event shall be presumed reasonable if the CAIDI is 570 or below, and presumed unreasonable if the CAIDI is above 570. These presumptions are rebuttable.

G.O. 166 Standard 12B states: CAIDI stands for Customer Average Interruption Duration Index and is computed using the following equation:

$$\frac{\text{total customer minutes of interruption}}{\text{total number of customer interruptions}}$$

If a single customer experiences more than one sustained interruption during a Measured Event, each interruption shall count as a separate customer interruption. CAIDI shall be measured from the beginning of the Measured Event and shall continue until all customers experiencing interruptions during the Measured Event have been restored.

G.O. 166 Standard 12C states: Customer minutes of interruption caused by outages of Transmission Facilities owned by the utility during a Measured Event are included in the calculation of CAIDI for purposes of this standard.

Customer minutes of interruption attributable to utility compliance with ISO directives, including its protocols, tariffs, transmission agreements or other written or verbal instructions specific to the event, which prevent the utility from restoring service it is otherwise able to provide shall be excluded in the calculation of CAIDI for purposes of this standard.

System Average Interruption Duration Index (SAIDI)

- SAIDI is the sum of all sustained customer outage minutes divided by the total number of customers served.

System Average Interruption Frequency Index (SAIFI)

- SAIFI is the number of sustained customer interruptions divided by the total number of customers served.

Momentary Average Interruption Frequency Index (MAIFI)

- MAIFI is the total number of customer momentary interruptions divided by the total number of customers served.
- **Major Outage:** Consistent with Public Utilities Code, Section 364, a major outage occurs when 10 percent of the electric utility's serviceable customers experience a simultaneous, non-momentary interruption of service. For utilities with less than

150,000 customers within California, a major outage occurs when 50 percent of the electric utility's serviceable customers experience a simultaneous, non-momentary interruption of service.

- **Measured Event:** A Measured Event is a Major Outage (as defined herein), resulting from non-earthquake, weather-related causes, affecting between 10% (simultaneous) and 40% (cumulative) of a utility's electric customer base. A Measured Event is deemed to begin at 12:00 a.m. on the day when more than one percent (simultaneous) of the utility's electric customers experience sustained interruptions. A Measured Event is deemed to end when fewer than one percent (simultaneous) of the utility's customers experience sustained interruptions in two consecutive 24-hour periods (12:00 a.m. to 11:59 p.m.); and the end of the Measured Event in 11:59 p.m. of that 48-hour period.

Note: A momentary outage lasts 5 minutes or less and a sustained outage lasts more than 5 minutes.

6 Training and Exercises

Under CPUC's *General Order (G.O.) 166* and as mandated by PG&E *Business Continuity Planning, Training, Exercise, and Improvement Planning Standard (EMER-1001S)*, employees with an emergency role are trained and participate in an annual exercise. For additional information regarding training, see section 3.7 of EMER-3001M, [Company Emergency Response Plan \(CERP\)](#).

G.O. 166 Standard 10 states: The utility shall annually coordinate emergency preparations with appropriate state, county and local agencies and the ISO/TO. As part of such activities, the utility shall establish and confirm contacts and communication channels, plan the exchange of emergency planning and response information, and participate in emergency exercises or training.

6.1 Electric Transmission Training and Exercise Program

Electric Transmission System Operations department is responsible for annually conducting an [Electric Emergency Plan \(EEP\)](#)⁵⁴ exercise with Transmission and Distribution (T&D) departments, other departments identified in the EEP.

Transmission System Operations also conducts:

- Restoration training exercises (multiple) — system-wide exercises on grid restoration concepts, principles, and protocols.
- Capacity exercises (multiple) that review system-wide and smaller localized areas of concern procedures
- Transfers of control from Vacaville (primary location) to Rocklin (back up) to ensure Grid Control Center (GCC) System Dispatcher has executed the process each year.
- Continuing education session training to provides education hours for System Dispatchers, to comply with NERC regulations and to maintain NERC Certification.

G.O. 166 Standard 3 states: (3A)The utility shall conduct an exercise annually using the procedures set forth in the utility's emergency plan. If the utility uses the plan during the twelve-month period in responding to an event or major outage, the utility is not required to conduct an exercise for that period. Resources that are available to be shared. (3B) The utility shall annually evaluate its response to an exercise or major outage. The evaluation shall be provided to the CPUC as part of the report required by Standard 11. (3C) The utility shall annually train designated personnel in preparation for emergencies and major outages. The training shall be designed to overcome problems identified in the evaluations of responses to a major outage or exercise and shall reflect relevant changes to the plan. (3D)The utility shall provide no less than ten days notice of its annual exercise to appropriate state and local authorities, including the CPUC, state and regional offices of the OES or its successor, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed. The utility shall participate in other emergency exercises designed to address problems on electric distribution facilities or services, including those emergency exercises of the state and regional offices of the OES or its successor, and county emergency offices.

6.2 Electric Distribution Training Program

The Vice President of EP&R is responsible for maintaining an ongoing training program for Electric EMO personnel. The intent of the program is to ensure understanding of

⁵⁴ Permission must be granted for access: [REDACTED]

emergency response procedures and practices. Position-based training and use of technology are key focus areas of the training program. The use of ICS is emphasized in the training program to ensure an effective overall response and alignment with public agencies.

Each Sr. Director and Superintendent responsible for emergency planning and response is also responsible for ensuring that personnel identified in emergency plans are trained annually and that the training is documented. Sr. Directors and superintendents with emergency response roles are expected to maintain adequate workforce redundancy for each emergency response position. Cross-training of new or less experienced personnel in various emergency roles, and the involvement of less experienced personnel in emergency exercises and events, facilitates the development of an adequate emergency response workforce.

The PG&E Learning Governance Committee authorized the requirement that all company emergency responders complete California Specialized Training Institute (CSTI) Type III credentialing for their assigned Emergency Operations Center (EOC) positions. Based upon the assigned emergency role in OECs and RECs, employee training should include some, or all, of the following:

- G-606 California Standardized Emergency Management System (SEMS) Introductory Course
- IS-100 Introduction to the Incident Command System, ICS 100
- IS-200 ICS for Single Resources and Initial Action Incidents, ICS 200
- IS-700 An Introduction to the National Incident Management System
- IS-800 National Response Framework – An Introduction
- EPRS-9010 – Company Emergency Response Plan (CERP) is an introduction to the CERP and an overview of current-year changes.

In addition to the above training, electric emergency center personnel will be provided:

- Role-based/position specific Training
- Outage Management Tool (OMT)
- Event Strategy Workshops
- Technology Down Processes
- 911 Standby Training
- Emergency Management SharePoint
- ARCOS Crew Manager
- Assessment, Repair, and Restore Process and Procedures

6.3 Electric Distribution Exercise Program

The Vice President of EP&R is responsible for scheduling, conducting, and evaluating the required exercises. Exercises are intended to examine the effectiveness of the emergency

plans. Performance will be evaluated against established objectives and processes. Gaps identified during the exercises must be documented. Actions to close gaps must be tracked to completion.

6.3.1 Testing of Plan

Company policy and the California Public Utilities Commission (CPUC) General Order 166 require annual exercises with appropriate departments and public agencies based on simulated emergency events. This requirement can be waived in lieu of an actual event dependent upon the event's scope and structure. Electric Operations Emergency Management oversees and manages the testing of the Electric Annex. The documentation of training and exercises are submitted to EP&R to facilitate alignment of response processes and procedures across the enterprise and included in the annual G.O. 166 filing.

G.O. 166 Standard 3D states: The utility shall provide no less than ten days notice of its annual exercise to appropriate state and local authorities, including the CPUC, state and regional offices of the OES or its successor, the California Energy Commission, and emergency offices of the counties in which the exercise is to be performed. The utility shall participate in other emergency exercises designed to address problems on electric distribution facilities or services, including those emergency exercises of the state and regional offices of the OES or its successor, and county emergency offices.

6.3.2 Quarterly Exercise Requirements

The Vice President of EP&R recommends quarterly region-based exercises. This requirement acknowledges that at a minimum, one Regional Emergency Center (REC) may exercise its plan and/or one facet of that plan each quarter (e.g., an OEC's overall operations is exercised one quarter and then the dispatch process is exercised the following quarter). A tabletop exercise can fulfill the quarterly exercise requirement. It is prudent to exercise emergency centers (REC, OEC, and DSR) within a region and their critical processes (e.g., Dispatching T-man and Assessment Crews) often enough to ensure that the participants are proficient in their roles and responsibilities. The quarterly exercise policy can be waived if there has been an actual incident and agreement has been reached with the Region Sr. Director and the Vice President of EP&R.

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7 After-Action Reports, Event Logs, and Records

After-Action Meetings (AAM) are to be conducted by each emergency center within 20 business days of deactivation of the center for all activations meeting the criteria outlined in EMER-4510S, “Operations Emergency Center (OEC) Activation Requirements” for Level 2-5 incidents. AAMs are not conducted for Level 1 – Routine emergencies (including Communications Only activations). For Level 2 activations, the OEC Commander may choose to provide written feedback rather than hold a formal meeting. After action items may be provided directly to the IC Advisor and/or the OEC Commander for consideration. For Level 3-5 activations, an IC Advisor will coordinate and facilitate an AAM, including at minimum all Command and General Staff. The IC Advisor will also invite Contact Center, Distribution Control Center(s), Dispatch and other FBU representatives as needed for Level 3-5 activations.

G.O. 166 Standard 3 requires California utilities to annually evaluate their response to exercises or major outages as part of the utility’s annual G.O. 166 filing.

7.1 Preparation for Formal After-Action Meetings

Emergency centers may conduct separate hotwashes and/or after-action meetings in preparation for the formal after-action meeting. For example, Control Centers and district storm rooms (DSRs) may perform their own after-action meeting and/or hotwash following an event. The frontline supervisors will lead the Control Center and DSR critiques. These emergency centers may send a representative to present their findings during the formal after-action meeting. A hotwash form can be found [here](#).⁵⁵

7.2 Emergency Center After-Action Report

Emergency centers identify corrective actions, assign action item leads, and designate due dates. These action items are entered into the Corrective Action Program (CAP). Strengths and opportunities identified during after action reviews will be communicated to the affected EMO stakeholders for future reference. Significant strengths will be communicated to the Supervisor of Electric Distribution Operations Emergency Management for incorporation into plans, training, and exercises and will be shared system wide as “Best Practices” by EDO EM. Improvement opportunities will be addressed in a prioritized manner.

7.3 ICS 214 Unit Log

All positions in the emergency centers are responsible to maintain an ICS-214 Unit Log to document aspects of the restoration effort. This will include the date and time of key activities, decisions, contacts made, and similar topics. Archive completed logs in accordance with the company’s policies for record retention. The length of time the company must retain records is established in the [Enterprise Records Retention Schedule \(ERRS\)](#), GOV-7101S, Attachment 1.

⁵⁵ https://pge.sharepoint.com/:w/s/EPRIntranetArtifacts/EWGNJY7mzTRFh_U-1JRyYmUBm-Il1OoyVhJumya6oL7wmQ?e=w5dkfc

7.4 Records Management

All departments and headquarters, as outlined throughout this plan, shall follow Emergency Operations reporting procedures and records management. Documentation of all significant events is required to effectively document response and restoration efforts. Planning Section Chiefs are responsible to:

- Archive IAPs on a SharePoint site as determined by the Supervisor of Electric Distribution Operations Emergency Management.
- Upload documentation to the SharePoint site in the designated folders.
- Observe established PG&E requirements governing reporting, records management and record retention.

The maintenance of accurate documentation will assist in the development of post-event critiques, the Event Summary Report, audits, and data requests, all of which will be used to document and continuously improve the emergency response and restoration process.

7.5 Financial Considerations and Financial Records

The Finance and Administration Chief in the OEC, in conjunction with the Emergency Recovery Program Manager, shall monitor all work and costs incurred in responding to the emergency event are properly captured and recorded to each appropriate Plant Maintenance (PM) Event Order designated for each respective emergency event. All charging should be consistent with the Electric Major Event Charging Guidelines. There is a hand-off back to the Emergency Program when the OEC/REC deactivates so the Finance Section Chief can demobilize. For finance questions related to MEBA/CEMA/routine, refer to the Emergency/Restoration Electric Program Manager. For finance questions related to timekeeping, capital vs. expense, financial policies (mutual aid, contracts) etc., refer to BF EO Business Finance Analyst.

7.6 Cost Recovery

PG&E forecasts all emergency related expenditures using two categories: routine emergencies (Level 1) and major emergencies (Levels 2-5). Within these categories, PG&E uses major work categories (MWC) to record expenditures for capital and expense. Note: Communications Only activations fall under routine emergencies (Level 1) and therefore do not qualify for MEBA and/or CEMA.

Routine - Routine emergency work is recorded in MWCs BH – Corrective Maintenance Expense and MWC 17 – Emergency Response Capital.

- **MWC BH:** Corrective Maintenance Expense: During routine (Level 1) conditions, overhead or underground- related outages occur for many reasons. In response to these outages, T-men and crews make the situation safe, restore power to customers and isolate the trouble location so repairs can be made. Activities of this nature are expense related and the costs are recorded in MWC BH.
- **MWC 17:** Emergency Response Capital: The work in MWC 17 is similar to that of MWC BH and involves routine emergency work that meets capital accounting criteria, such as equipment replacements, rather than repairs

Major Emergency Balancing Account (MEBA) – The purpose of MEBA is to recover actual expenses and capital revenue requirements resulting from responding to major emergencies, not otherwise recoverable through the Catastrophic Events Memorandum Account (CEMA) mechanism. Orders must be created by county. Costs related to CEMA eligible events may be recorded to the MEBA only if authority is expressly provided by the CPUC through a decision on a CEMA application or similar type of relief request. PG&E will return to customers any unspent MEBA amounts or recover from customers any actual amounts above the authorized amounts annually as part of Annual Electric True-up (AET) advice letter.

Catastrophic Events Memorandum Account (CEMA) – A utility may not use the CEMA unless an event is declared a disaster by the appropriate federal or state authorities. The utility must seek recovery of the costs recorded in the CEMA through an administrative law proceeding separate from the General Rate Case. The CPUC examines closely all costs recorded in the account for reasonableness, as well as other sources of recovery such as insurance, before allowing for recovery of costs in rates. A provision for a CEMA was approved in 1991 by the CPUC for energy and water utilities under its jurisdiction. The purpose of the account is to allow utilities to record for eventual recovery (through rates) the reasonable costs they incur in restoring service, repairing, or replacing facilities, and complying with government orders following a catastrophic event.

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8 Appendices

Appendix B, Acronyms and Glossary

Appendix C, Contact / Notification Lists

Appendix D, Tools, Job Aids, Training Aids, and Other Reference Materials

Appendix E, Directors' Alignment Call Agenda Template

Appendix F, Electric Emergency Plan for Capacity Emergencies

Appendix G, Other Useful Links

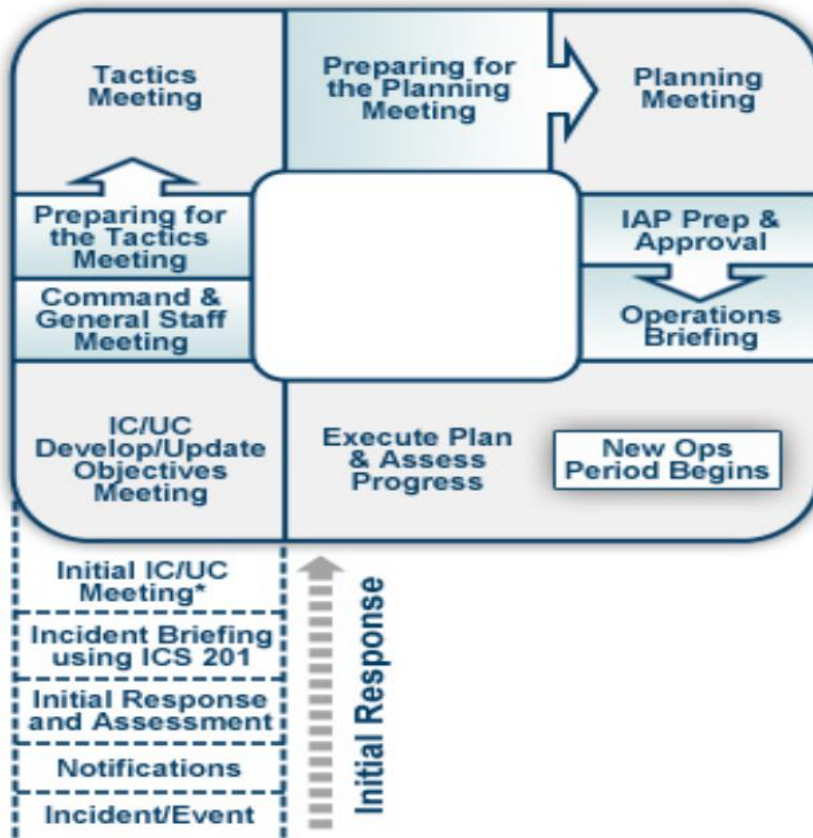
Appendix H, Primary and Alternate Sites (EOC, RECs, OECs, ETEC, and STOEC)

Appendix I, Activation Position Roles and Responsibilities

Appendix A. Appendix J, OEC Meeting/Briefing Agenda Templates

Meeting information below (i.e., attendees, agendas, etc.) can be modified based on OEC operational needs. Meetings can also be combined, depending on OEC operational needs. Meeting order below is based on the order of meetings/briefings per the “Planning P” model.

A.1 Planning P Model



A.2 Initial Incident Briefing

Facilitator – Incident Commander or Planning Section Chief

Purpose: The Initial Incident Briefing gives the Command and General Staff situational information, including constraints and limitations, to make informed decisions.

Attendees: Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, Public Information Officer, Customer Strategy Officer, Operations Section Chief (OSC), (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

1. Roll Call (Planning Section Chief)
2. Safety Message (Safety Officer)
3. Weather (Meteorology)
4. Incident Overview (Incident Commander)
5. Brief Outs/Issues (Planning Section Chief)
 - Run through Roll Call
6. Closing Comments (Incident Commander)
7. Action Items (Planning Section Chief)

A.3 Operational Briefing

Facilitator – Planning Section Chief

Purpose: The PSC conducts the operations briefing before each operational period begins, ensuring that those who need the information have access to it. The purpose is to roll out the IAP for the upcoming operational period. The OSC may adjust work assignments or resource allocations during the briefing.

Attendees – Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, PIO, Customer Strategy Officer, Operations Section Chief, (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

1. Roll Call (Plans Section Chief)
2. Safety Message (Safety Officer)
3. Weather Update (Meteorology)
4. Opening Comments (OEC Commander)
 - High level overview, Provide leadership presence and guidance
5. Incident Overview (Planning Section Chief)
 - Next operational period objectives
6. Report outs
 - Safety Officer
 - Customer Strategy Officer
 - Government Relations
 - Public Information Officer
 - Liaison Officer
 - Public Safety Specialist
 - Operations
 - Planning
 - Logistics
 - Finance

A.4 Objectives Meeting

Facilitator – Planning Section Chief

Purpose: The Objectives Meeting provides the opportunity for the Incident Commander, Operations Section Chief, Planning Section Chief, and IC Advisor to review the proposed objectives for the next operational period.

Preparation: Updated objectives for the next operational period should be sent to the Planning Section Chief and/or Documentation Unit Leader PRIOR to this meeting by the Section Chiefs.

Agenda:

7. Roll Call (Planning Section Chief)
 - Incident Commander
 - Operations Section Chief
 - Planning Section Chief
 - Documentation Unit Leader
 - IC Advisor
8. Safety Message (Planning Section Chief)
9. Review Incident Objectives (Planning Section Chief)
10. Review Operational Objectives (Operations Section Chief)
11. Confirm Incident and Operational Objectives (Planning Section Chief)
12. Closing Comments (Incident Commander)

A.5 Command and General Staff Meeting

Facilitator – Planning Section Chief

Purpose: The C&G Meeting provides the opportunity for the Incident Commander (IC) to meet with the staff to gather input or to provide immediate direction. It is also the opportunity for the IC to articulate and approve incident objectives for the next operational period and to share important information regarding incident management. The IC presents the priorities and incident objectives and articulates guidance on how incident operations will proceed. The participants review the incident objectives and discuss strategies for accomplishing the objectives.

Agenda:

13. Roll Call (Planning Section Chief)

- Incident Commander
- Meteorology
- Public Safety Specialist
- Safety Officer
- Liaison Officer
- Public Information Officer
- Customer Strategy Officer
- Operations Section Chief
- District Storm Room Leads
- Planning Section Chief
- Situation Unit Leader
- Documentation Unit Leader
- Resource Unit Leader
- Logistics Section Chief
- Finance Section Chief
- IC Advisor

14. Weather (Meteorology)

15. Safety Message (Safety Officer)

16. Opening Comments (IC)

- Name of the Incident
- Operational Period length and start Time
- Other key Command/General Staff and technical support as needed

17. Incident Overview (Situation Unit Leader/Planning Section Chief)

- Current Outage Overview
 - Total Customers Out
 - Total Outages in Assessment
 - Total Outages in Restoration
- Job Package Overview
 - Total Job Packages in Estimating
 - Total Job Packages Assigned
- Resources
 - Total Troublemens
 - Total Crews

18. Report Outs, Constraints, Limitations, Shortfalls (Planning Section Chief)

- Safety Officer
- Plans Section Chief – Include reminders
- Operations Chief
- Public Safety Specialist
- Logistics Chief
- Finance and Admin Chief
- Public Information Officer
- Customer Strategy Officer
- Liaison Officer

19. Present Incident Objectives for Upcoming Operational Period (Planning Section Chief)

20. Closing Comments (IC)

A.6 Tactics Meeting

Facilitator – Planning Section Chief

Purpose: The purpose of this meeting is to review and finalize the draft ICS Form 215s. To accomplish this, the OSC leads participants in reviewing the work assignment drafts to determine whether they are complete and whether they support the incident and operational objectives. Participants also identify gaps and duplication in work assignments and resolve any conflicts or coordination issues. Participants also consider resource and logistical issues and identify shortfalls, excesses, safety issues, and the accuracy of the incident map.

Attendees: Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, PIO, Customer Strategy Officer, Operations Section Chief, (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

21. Roll Call (Plans Section Chief)
22. Safety Message (Safety Officer)
23. Opening Comments (Plans Section Chief)
 - Name of the Incident
 - Location of the Operations Emergency Center (OEC)
 - Operational Period length and start Time
 - Command/General Staff and technical support as needed
24. Incident Overview (Plans Section Chief)
 - Present current situation and
 - Present resources status
 - Provide projections
25. Strategies and Tactics (Operations Chief)
 - Develop strategies and tactics for work assignments
 - Identify resource assignments and needs
 - Identify alternate strategies
26. Assign Tactics to Teams/Department (division of work)
27. Safety (Safety Officer)
 - Identify potential hazards and recommends mitigation measures
 - Create the Hazard Risk Analysis ICS 215a

28. Logistics (Logistics Chief)

- Determine support requirements based on facilities, logistical infrastructure, etc.
- Prepare to order needed resources
- Present situation information and projections

A.7 Planning Meeting

Facilitator – Planning Section Chief

Purpose: The purpose of the Planning Meeting is to gain concurrence of all participating sections for the next operational period. The meeting provides the opportunity for the Command and General Staff, as well as other incident management personnel and organizations to discuss and resolve any outstanding issues before assembling the IAP. After the review has been completed and updates have been made, C&GS affirm their commitment to support the plan.

Attendees: Incident Commander, Meteorology, Public Safety Specialist, Safety Officer, Liaison Officer, Public, Information Officer, Customer Strategy Officer, Operations Section Chief, District Storm Room Leads, Planning Section Chief, Situation Unit Leader, Documentation Unit Leader, Resource Unit Leader, Logistics Section Chief, Finance Section Chief, IC Advisor

Agenda:

29. Roll Call (Planning Section Chief)
30. Safety Message (Safety Officer)
31. Weather (Meteorology)
32. Opening Remarks (Incident Commander)
33. Incident Objective Review (Planning Section Chief)
34. Present and Review Operational Objectives & Plan (Operations Section Chief)
35. Review Open Actions/Issues (Planning Section Chief)
36. Solicit Feedback/Commitment from C&GS to Support the Plan (Planning Section Chief)
 - Run through Roll Call to solicit approval or ask for exceptions
37. Obtain IC Approval of the IAP (Planning Section Chief)
38. Closing Comments (Incident Commander)

Electric Annex Regulatory Crosswalk

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Appendix B. Acronyms and Glossary

B.1 Acronym List

| Acronym | Definition |
|----------|--|
| AAM | After-Action Meeting |
| AAR | After-Action Report |
| ADE | Associate Distribution Engineer |
| ARCOS | Automated Roster Callout System |
| ASA | Average Speed of Answer |
| BES | Business Energy Solutions |
| BES | Bulk Electric System |
| CAIDI | Customer Average Interruption Duration Index |
| CAISO | California Independent System Operator |
| Cal OES | California Governor's Office of Emergency Services |
| CAP | Corrective Action Program |
| CEMA | Catastrophic Events Memorandum Account |
| CERP | Company Emergency Response Plan |
| CIS | Customer Information System |
| COP | Common Operating Picture |
| CPAN | Customer Preference and Notification |
| CPUC | California Public Utilities Commission |
| CSR | Customer Service Representative |
| CUEA | California Utilities Emergency Association |
| DASH | Dynamic Automated Seismic Hazard |
| DCC | Distribution Control Center |
| DCPP | Diablo Canyon Power Plant |
| DMS | Distribution Management System |
| DO | Distribution Operator |
| DOE | Department of Energy |
| DSO | Distribution System Operations |
| DSO SOPP | Distribution System Operations Storm Outage Prediction Project |
| DSR | District Storm Room |
| EC | Electric Corrective |
| EDEC | Electric Distribution Emergency Center |
| EDO EM | Electric Distribution Operations Emergency Management |
| EEA | Energy Emergency Alert |
| EPP | Electric Emergency Plan |
| EM | Emergency Management (Electric Operations) |
| EMO | Emergency Management Organization |
| EMS | Emergency Management Specialist |
| EMS | Energy Management System |
| ENOC | Enterprise Network Operations Center |

| Acronym | Definition |
|---------|---|
| EO | Electric Operations |
| EO EMO | Electric Operations Emergency Management Organization |
| EOC | Emergency Operations Center |
| EP&R | Emergency Preparedness and Response |
| ERT | Estimated Repair Time |
| ESRG | Electric System Restoration Guidelines |
| ET | Electric Transmission |
| ETA | Estimated Time of Arrival |
| ETEC | Electric Transmission Emergency Center |
| ETOI | Estimated Time of Information |
| ETOR | Estimated Time of Restoration |
| FAS | Field Automated System |
| FBU | Functional Business Unit |
| FEMA | Federal Emergency Management Agency |
| FERC | Federal Emergency Regulatory Commission |
| FLISR | Fault Location Isolation and Service Restoration |
| GCC | Grid Control Center |
| GDL | Guidance Document Library |
| GIS | Geographical Information System |
| GMS | Grid Messaging System |
| G.O. | General Order (for CPUC) |
| GRC | General Rate Case |
| HAWC | Hazard Awareness and Warning Center |
| IAP | Incident Action Plan |
| IC | Incident Commander |
| ICS | Incident Command System |
| IDOC | Incomplete Documentation |
| IEEE | Institute of Electrical and Electronics Engineers |
| IMT | Incident Management Team |
| IVR | Interactive Voice Response |
| M&C | Maintenance and Construction |
| MA | Mobile Application |
| MAIFI | Momentary Average Interruption Frequency Index |
| MEBA | Major Emergency Balancing Account |
| MTCC | Material and Transportation Coordination Center |
| MW | Megawatt |
| MWC | Major Work Categories |
| NERC | North American Electric Reliability Corporation |
| NIMS | National Incident Management System |
| OEC | Operations Emergency Center |
| OES | Office of Emergency Services |
| OIS | Outage Information System |
| OMT | Outage Management Tool |

| Acronym | Definition |
|---------|--|
| OSC | Operations Section Chief |
| PM | Plant Maintenance |
| PMVI | Preventable Motor Vehicle Incidents |
| POT | Pre-arranged Overtime |
| PSPS | Public Safety Power Shutoff |
| QEW | Qualified Electrical Worker |
| RAS | Remedial Action Scheme |
| RC | Reliability Coordinator |
| REC | Regional Emergency Center |
| RMT | Resource Management Tool |
| RRO | Regional Reliability Organizations |
| RESL | Resource Unit Leader |
| SAIDI | System Average Interruption Duration Index |
| SAIFI | System Average Interruption Frequency Index |
| SAP | Systems Applications and Products in Data Process |
| SCADA | Supervisory Control and Data Acquisition |
| SEMS | Standardized Emergency Management System |
| SO | Sustained Outages |
| SOS | System Outage Staffing |
| STOEC | Substation Transmission Operations Emergency Center |
| T&D | Transmission and Distribution |
| T-line | Transmission Line |
| T-men | Troublemens |
| T-SOPP | Transmission System Operations Storm Outage Prediction Project |
| TCC | Telecommunications Control Center |
| TFL | Task Force Lead |
| TO | Transmission Owner |
| TOP | Transmission Operator |
| TOTL | Transmission Outage Tracking and Logging Tool |
| TP | Transmission Planner |
| TSO | Transmission System Operations |
| TSP | Transmission System Provider |
| WECC | Western Electric Coordinating Council |
| WRMAA | Western Region Mutual Assistance Agreement |

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Appendix C. Contact / Notification Lists

C.1 Emergency Response Personnel Contact Lists

On Call Lists for OEC/REC personnel are located on the Emergency Management Website under “OEC/REC Roster” located [here](#).

[On Call list for EOC members](#)

Transmission Operations Contact Lists are located on [SharePoint](#).

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Appendix D. Tools, Job Aids, Training Aids, and Other Reference Materials

D.1 Emergency Center Activation Checklists

The OEC Activation/Deactivation Checklists are located on the EDO EM SharePoint.

D.2 Electric Distribution Emergency Center Locations

Emergency center, alternate locations, and contact information lists are located in the Electric Emergency Management Emergency Centers (OECs and RECs) Business Continuity Plan. Hard copies are located in each OEC. Contact the EMS Duty Officer for further information.

D.3 Electric Conference Call Agendas for Activation

- **EOC Pre-Event, Planning, Tactics and Logistics Meeting Agendas:** Click [REDACTED] then select Section Chief Meeting Agendas.
- **REC/OEC Meeting Agendas:** Initial Incident Briefing, Operations Briefing, Objectives Meeting, Command & General Staff Meeting, Tactics Meeting, and Planning Meeting agendas are located on the [EDO EM SharePoint](#) and Appendix I.

D.4 After Action Report Template and Instructions

After Action Report template and instructions can be found [here](#):

[REDACTED]

D.5 Outage Management Tool Job Aids

The Outage Management Tool (OMT) is a web-based application that is used by the emergency management organization to gather and report information on customer outages, damage assessments, service restoration, and crew movements in emergency events affecting the PG&E system.

OMT Overview Job Aids are under development. at the following link provides information on all the reports and tools available in OMT, system requirements, login, and technical support information. Detailed job aids on OMT are also provided at:

- EP&R - Job Aids - All Documents (sharepoint.com)

D.6 Technical Support

- For FAS or DMS Support, contact the TSC at [REDACTED], PG&E Line at [REDACTED]. The TSC Analyst will then contact the On Call DMS Admin [REDACTED]

- For OMT issues related to OMT installation and setup and OMT Tech Down contact: TSC at [REDACTED].

Normal Work Hours

- Primary contact - Technology Service Center (TSC at [REDACTED])
- Secondary contact - Local Emergency Management Specialist (EMS)
 - If unknown, contact the EMS Duty Officer at [REDACTED] or EMS Duty Officer at [REDACTED]

After Work Hours and Weekends

- Primary contact - Telecommunications Control Center (TCC)
- ENOC Shift [REDACTED]
- Secondary contact - Technology Service Center (TSC at [REDACTED])
- For OMT issues related to creating, modifying, or removing OMT User Accounts, formal OMT Training, Operational Support, ideas, suggestions and general inquiries, contact your local EMS. [REDACTED] or EMS Duty Officer at [REDACTED]

D.7 ICS, Planning Process, and Key CERP Job Aids

Refer to the Company Emergency Response Plan (CERP) for additional details and job aids for the following:

- Incident Command System (ICS)
- Planning Process
- Three-Way Communication
- Phonetic Alphabet

Appendix E. Directors' Alignment Call Agenda Template

The suggested topics below are for discussion in preparation for a significant incident or event. The Directors' Alignment Call focuses around current and forecasted conditions, resource availability, and planning tactics. This information can be modified depending on the event scope and complexity.

Agenda

- Safety
- Incident & System Summary
- Meteorology
- HAWC
- Geosciences
- Electric Transmission
 - GCC ETEC (system status, load at risk and grid stability)
 - Transmission Line
 - Transmission Contractor
 - Substation STOEC
- Electric Distribution
 - Distribution Grid Operations
 - Dispatch (T-man, 911 Standby)
 - DCC (system status, load at risk and grid stability)
 - Field Operations (resource plans, staffing, priority planned work)
 - South Bay and Central Coast
 - Bay Area
 - Central Valley
 - North Coast
 - North Valley and Sierra
 - Distribution Design and Estimating Support
- Contract Construction
- General Construction
- System Inspections
- Gas Operations
- Power Generation
- Temporary Generation

- Vegetation Management
- Air Operations
- Logistics
- Information Technology
- Emergency Preparedness & Response Oversight and EOC readiness
- Review and action items

Appendix F. Electric Emergency Plan for Capacity Emergencies

The California Independent System Operator (CAISO) operates the state's transmission grid. When it is determined that operating reserves are inadequate to meet the Western Electricity Coordinating Council (WECC) Standards, the CAISO initiates actions to address the imbalance between available system resources and system demand.

The Electric Emergency Plan (EEP) for Capacity Emergencies describes the actions PG&E will take upon receiving orders from the CAISO to address electric supply and/or capacity shortages. This plan is located at:

[REDACTED]

⁵⁶

⁵⁶ Access permission required for this site

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Appendix G. Other Useful Links

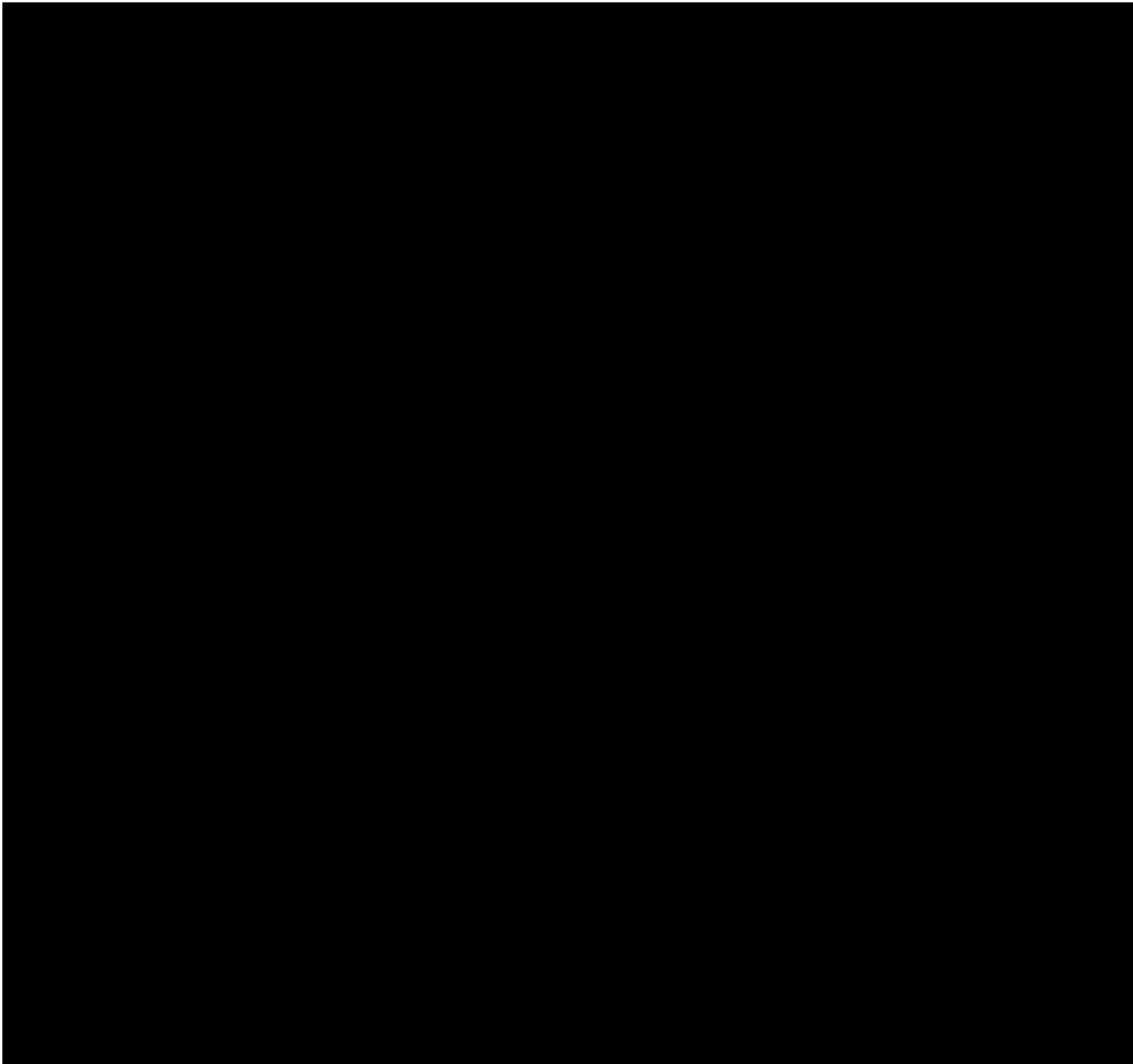
- [Federal Emergency Management Agency \(FEMA\) Comprehensive Preparedness Guide \(CPG\) 101](#)
- [California Public Utilities Commission \(CPUC\) General Order Number 166 \(G.O. 166\) Standards for Operation, Reliability, and Safety During Emergencies and Disasters](#)
- [Emergency Management website](#)
- [Operations Emergency Center \(OEC\) Activation Requirements \(EMER-4510S\)](#)
- [Outage Management Tool \(OMT\) User Manual](#)
- [Transmission Operations Contact Lists](#)
- [Wildfire Annex \(EMER-3105M\)](#)
- [PSPS Annex \(EMER-3106M\)](#)
- [Disaster Rebuild Annex \(EMER-3012M\)](#)
- [Routine Emergency – Emergency Estimate Required \(TD-2060P-01\)](#)

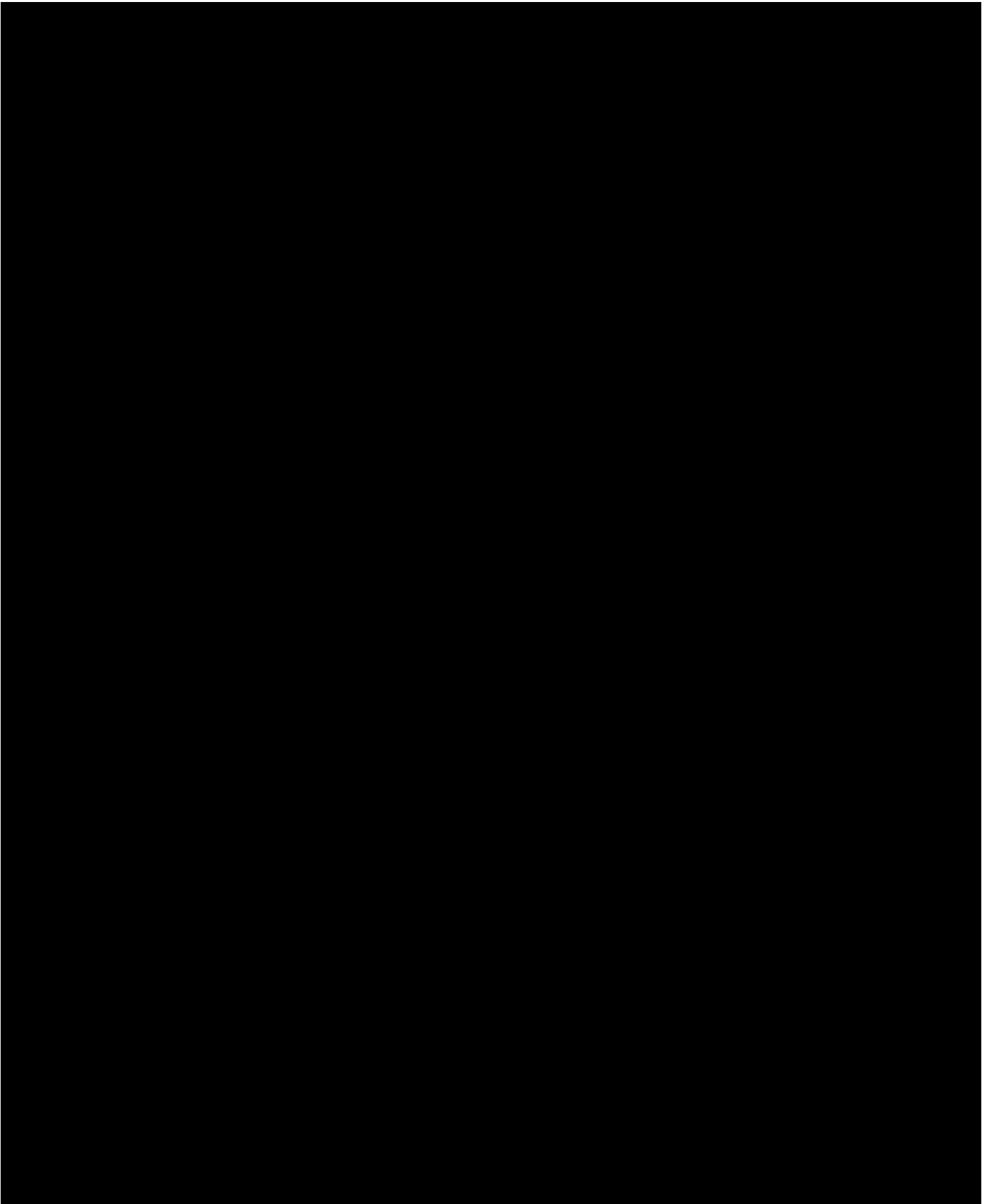
CAP# 113077017 – Serious Injury
and Fatality (SIF)
Recommendation – add a link to
TD-2060P-01

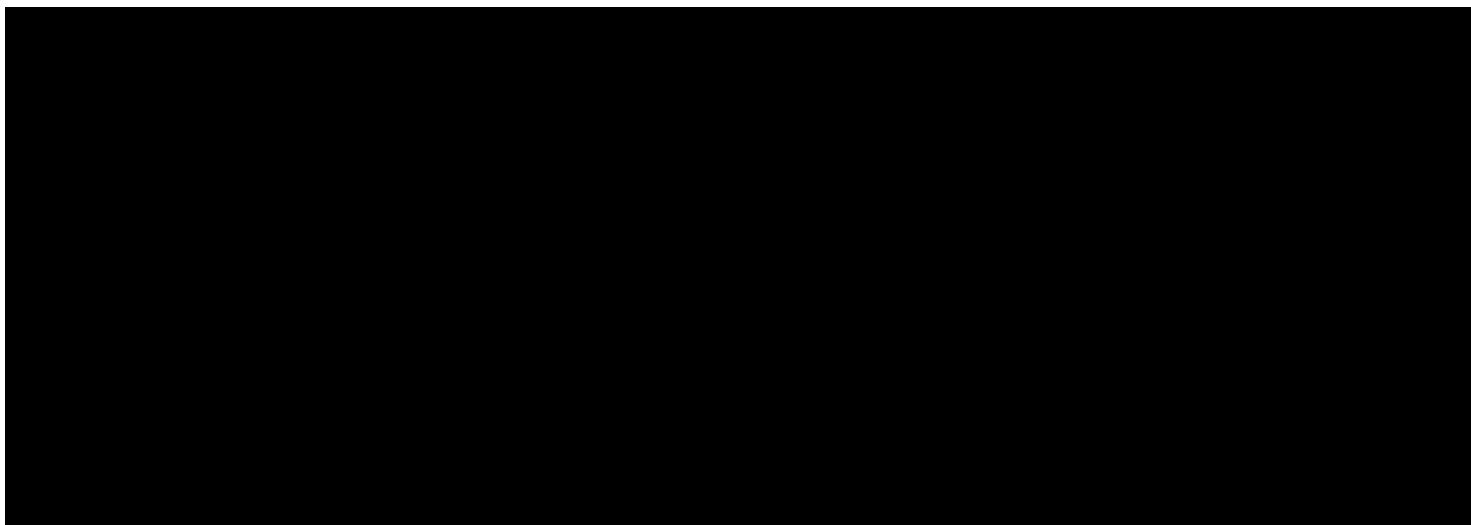
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Appendix H. Primary and Alternate Sites (EOC, RECs, OECs, ETEC, and STOEC)

For short duration and primary work-site interruptions, employees may work from home, if possible. If the primary facility is inaccessible and an alternate site would be more appropriate for an extended period of time, the Business Continuity Team will consider the alternate site or other facility accommodation. The alternate site location, level of readiness of the facility, and if there are other alternate sites suitable for recovering the essential functions are detailed in the table below.








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Appendix I. Activation Position Roles and Responsibilities

The current ICS position guides for Command and General Staff are located on the EDO EM SharePoint.

I.1 Incident Command Workgroup



Pacific Gas and Electric Company

*Command Staff
Incident Commander*

***** Read This Entire Document before Taking Action *****

Name: _____
 Operational Period (OP): _____

| | |
|-----------------|--|
| Position: | Incident Commander (IC) |
| Reports To: | REC IC (Senior Director/Director of Region) |
| Direct Reports: | Deputy IC, Safety Officer-SO, OEC IC Advisor, Customer Strategy Officer (CSO), Liaison Officer (LNO), Government Relations (Gov Rel), Public Information Officer (PIO), Public Safety Specialist (PSS), Operations Section Chief (OSC), Planning and Intelligence Section Chief (PSC), Logistics Section Chief (LSC), and Finance and Administrative Section Chief (FSC) |

Command Staff

Page 1



| | |
|------------------------------|---|
| <p>Resources:</p> | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Power Generation Annex – EMER 3004M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M PSPS Training (specify) Electric TD-1464S-01 Electric TD-1464P-01 Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M Canal Entry Emergency Response Plan EMER – 3011M System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call [REDACTED] Emergency Management Specialist (EMS) Team On Call [REDACTED] IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement</p> |
| <p>Position Description:</p> | <p>The IC is responsible for the command function at all times. The IC may use one or more deputies to perform specific tasks, reduce the IC's span of control, or work in a relief capacity.</p> |



*Command Staff
Incident Commander*

| | |
|---------------------------|--|
| Primary Responsibilities: | <ul style="list-style-type: none"> • Overall management of the incident. • Determine and notify appropriate Incident Command Post (ICP) / OEC Command and General Staff for the incident (i.e., CSO, LNO, Gov Rel, SO, PIO, PSS, OSC, PSC, LSC, FSC). • Determine appropriate Operations Section Subject Matter Experts - SMEs (i.e., Geo-Sciences, Maintenance and Construction-M&C, Estimating, General Construction (GC) Field Services-FS, etc.). • Managing the Command and General Staff. • Establish incident and operational objectives. • Accountable for the safety and wellbeing (fatigue, ergonomics, life safety, etc.) of all responding personnel. • Confirm adequate safety measures and messages are in place. • Promote use of the Planning P process. • Review and approve all internal and external communications. • Determine the Operational Period timeframe. • Coordinate with external entities, as necessary. • Provide ICS documents to the Documentation Unit Leader (DOCL). • Confirm the After-Action Meeting (AAM) and/or Hotwash is scheduled and completed. |
|---------------------------|--|

| | | |
|---|---|--|
| ✓ | | Pre-Deployment |
| | 1 | Review this IC Position Guide |
| | 2 | Review Position Guides for all personnel under your supervision. |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Meet with Command and General Staff to conduct initial briefing and identify immediate resource needs. |
| | 2 | Confirm proper staffing is established. The OEC Commander will assume the duties/responsibilities of any positions that are not filled. |
| | 3 | Establish Operational Periods and reporting cadence (once a day, multiple times) for Intel Summary updates and other communications. |
| | 4 | Develop initial Incident and Operational Objectives with the Command and General Staff during the initial Operational Period using the SMART model. |



Command Staff
Incident Commander

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 5 | Hold operational, tactics, and planning briefings as needed. |
| | 6 | Participate in the OEC/REC coordination call. Establish communications with the REC Director as needed (Note: the REC will support OEC operations). |
| | 7 | Determine need for additional support. |
| | 8 | Approve/Communicate Incident and Operational Objectives to stakeholders (IAP and Incident Summary). |
| | 9 | Document actions and decisions on ICS Form 214 (Daily Activity Log). |


| | | |
|---|----|--|
| ✓ | | Operations |
| | 1 | Manage the Command Staff and General Staff. |
| | 2 | Review/Revise Incident and Operational Objectives as needed. |
| | 3 | Support development of Operational Periods and reporting cadence (once a day, multiple times) for Intel Summary updates and other communications. |
| | 4 | Communicate Incident Objectives and Operational Period Objectives to stakeholders. |
| | 5 | Determine and communicate support needs for the next Operational Period. |
| | 6 | Approve personnel schedules for all Operational Periods. |
| | 7 | Confirm the Command and General Staff Meetings are conducted per the Planning P as needed. |
| | 8 | Provide the Plans Section Chief (PSC) with updated objectives for current and next Operational Period. |
| | 9 | Participate in OEC/REC/EOC operational briefings as requested. |
| | 10 | Consider activation of the Job Package Creation Unit Leader position under the Planning and Intelligence section for proactive development of job packages prior to arrival of incoming resources. |

| | | |
|---|--|-----------------------|
| ✓ | | Demobilization |
|---|--|-----------------------|



**Pacific Gas and
Electric Company**

*Command Staff
Incident Commander*

| | |
|---|---|
| 1 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| 2 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| 3 | Sign out using the ICS Form 211 (Check-In/Check-Out). |
| 4 | Notify local supervisor of safe arrival to reporting destination. |
| 5 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes:  |

Incident Commander Advisor



*Pacific Gas and
Electric Company*

*Command Staff
Incident Commander Advisor*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|---------------------------------|
| Position: | Incident Commander (IC) Advisor |
| Reports To: | Incident Commander (IC) |
| Direct Reports: | None |



*Command Staff
Incident Commander Advisor*

| | |
|------------------------------|--|
| <p>Resources:</p> | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Operations Emergency Center (OEC) Activation Requirements EMER-4510S Disaster Rebuild Annex – EMER 3012M Framework for Electric Incident Management Teams Standard – EMER 3005M Operations Emergency Center (OEC) Activation Requirements Power Generation Annex – EMER 3004M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M PSPS Training (specify) Electric TD-1464S-01 Electric TD-1464P-01 Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M Canal Entry Emergency Response Plan EMER – 3011M System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call [Redacted] Emergency Management Specialist (EMS) Team On Call [Redacted] IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement</p> |
| <p>Position Description:</p> | <p>The IC Advisor is responsible for advising the IC at the OEC and REC and providing guidance on managing the emergency center and incident. This includes but not limited to providing guidance to the IC on when to activate, deactivate, OMT/Hawking, which positions to fill, writing incident and operational objectives, providing ICS template forms, reviewing documents such as the situation report when requested, and attending Command and General Staff calls.</p> |



| | |
|---------------------------|--|
| Primary Responsibilities: | <ul style="list-style-type: none"> • Advise IC for the overall management of the incident. • Advise IC on appropriate / OEC Command and General Staff for the incident (i.e., CSO, LNO, Public Affairs, SO, PIO, PSS, OSC, PSC, LSC, FSC). • Advise IC on appropriate Operations Section Subject Matter Experts - SMEs (i.e., Geo-Sciences, Maintenance and Construction-M&C, Estimating, General Construction (GC) Field Services-FS, etc.). • Advise IC on incident and operational objectives. • Advise IC on the accountable for the safety and wellbeing (fatigue, ergonomics, life safety, etc.) of all responding personnel. Coordinate with the SO and IC to ensure adequate safety measures and messages are in place. • Advise IC to promote use of the Planning P process. • Advise IC and Planning Section Chief on Incident Action Plan and Intelligence Summary report cadence and review before distribution. • Advise IC on activation guidelines (EMER-4510S), triggers and monitoring of OMT found here. EMER-4510S. • Coordinate with IC to schedule and facilitate After-Action Meeting (AAM) and/or Hotwash. Ensure it is scheduled and completed. |
|---------------------------|--|

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Review this IC Advisor Position Guide. |
| | 2 | Advise IC/PSC at OEC/REC on activating once outage threshold has been met per EMER-4510S, requesting storm orders, answering questions, and resource support. |
| | 3 | Review other Position Guides that will be activated. |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Advise IC to reference the Activation Checklist for items such as conducting a Command Staff and General Staff Meeting, Initial Operations Briefing, and identify immediate resource needs. |
| | 2 | Advise IC to confirm proper staffing is established. The OEC IC will assume the duties/responsibilities of any Command and General Staff positions that are not filled. |
| | 3 | Advise IC on establishing Operational Periods, meeting, and reporting cadence (once a day, multiple times) for Incident Action Plans, Intel Summary updates and other communications. |



**Pacific Gas and
Electric Company®**


*Command Staff
Incident Commander Advisor*

| ✓ | | Initial Actions |
|---|---|--|
| | 4 | Work with IC and PSC to develop/review initial Incident and Operational Objectives with the Command and General Staff during the initial Operational Period using the SMART model. |
| | 5 | Advise IC and General Staff on participating in the OEC/REC coordination call. Establish communications with the REC Director as needed (Note: the REC will support OEC operations). |
| | 6 | Advise IC and General Staff on determining need for additional support. |
| | 7 | Advise IC to document actions and decisions on ICS Form 214 (Daily Activity Log). |
| | 8 | Confirm IC/PSC populates the activation screen in OMT. |
| | 9 | Advise IC/PSC to work with the Hawk team to identify someone that can monitor OMT during activation hours and after hours. |

| ✓ | | Operations |
|---|---|--|
| | 1 | Advise IC on managing the OEC/REC Command Staff and assuming the duties/responsibilities of any positions that are not filled. |
| | 2 | Advise IC on engaging with SO, advising IC on safety, ensuring SO information is included in IAP, etc. |
| | 3 | Advise IC on engaging customer strategy/CSO for timely communication to impacted customers. |
| | 4 | Advise IC on review/revise Incident and Operational Objectives and communicate to stakeholders as needed. |
| | 5 | Advise IC on evaluating/assessing the Operational Period and reporting cadence as the incident/event progresses. |
| | 6 | Advise IC on determining and communicating support needs for the next Operational Period. |
| | 7 | Advise IC on approving personnel schedules for all Operational Periods. |
| | 8 | Advise IC on completing an IAP and Intel Summary each operational period and reviewing/approving them before they are distributed. |
| | 9 | Advise IC on confirming the Command and General Staff Meetings are conducted per the Planning P as needed. |



| | | |
|---|----|---|
| ✓ | | Operations |
| | 10 | Advise IC on providing the Plans Section Chief (PSC) with updated objectives for current and next Operational Period. |
| | 11 | Participate in OEC/REC/EOC Command and General Staff Meetings. |
| | 12 | Monitor OMT (outage thresholds, activation screen, ETORs). |
| | 13 | Advise IC/Planning Section Chief to start collecting information for the Hotwash/After Action Report (AAR) /After Action Meeting (AAM). |

| | | |
|---|---|---|
| ✓ | | Demobilization |
| | 1 | Advise IC to have packages closed out prior de-activation and remain in Communications Only if there is still a need to close out packages and no additional impacts from the storm are anticipated. |
| | 2 | Advise the IC to engage with Planning Section Chief to implement the OEC Demobilization Plan. |
| | 3 | Schedule and facilitate an AAM for level 3 activations or above. Ensure Functional Business Units (FBU) are invited to the AAM such as Safety Officer, PSS, Electric Distribution Control Centers and other relevant stakeholders. Emergency centers may conduct separate hotwashes and/or after-action meetings in preparation for the formal after-action meeting. For example, control centers and district storm rooms (DSRs) may perform their own after-action meeting and/or hotwash following an event. The frontline supervisors will lead the Control Center and DSR critiques. These emergency centers will send a point of contact to represent their findings during the formal after-action meeting. A hotwash form can be found OEC Hotwash Form Reference EMER-3002M Electric Annex for additional details found here. EMER-3002M |
| | 4 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| | 5 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| | 6 | Sign out using the ICS Form 211 (Check-In/Check-Out). |
| | 7 | Notify local supervisor of safe arrival to reporting destination. |
| | 8 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes:  |

OEC Public Information Officer



Command Staff
OEC Public Information Officer (PIO)

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|---------------------------|---|
| Position: | OEC Public Information Officer (PIO) |
| Reports To: | OEC Incident Commander |
| Direct Reports: | None |
| Resources: | |
| Position Description: | The PIO is responsible for interfacing with the media |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Develop and release approved incident information to the media. • Determine staffing needs and personnel as appropriate for OEC and EOC Public Information Office. • Monitor the public's reaction to incident information and pass along, as needed. • Manage reactive and proactive media inquiries. • Establish any restrictions for media access. • Arrange for tours and other interviews. • Obtain news media information that may be useful for incident planning. • Maintain current information summaries and/or displays that would be useful to the media. • Facilitate social media requests, such as review Nixle and other social media posts from local partners. • Capture images and video to support positive storytelling. • Coordinate interviewees, safety personnel and locations for video production. |

| ✓ | | Initial Actions |
|---|---|---|
| | 1 | Ensure actions and decisions are noted on Form 214 (Unit Log) |
| | 2 | Ensure proper staffing is established |
| | 3 | Meet with the OEC Commander and Section Chiefs to identify immediate resource needs. |
| | 4 | Prepare and include necessary public information/media impacts for all internal reports |
| | 5 | Prepare talking points and obtain approval from the OEC Commander or deputies |



Command Staff
OEC Public Information Officer (PIO)

| | | |
|---|---|--|
| ✓ | | Initial Actions |
| | 6 | Participate with the Section Chiefs to develop incident objectives during the initial Operational Period using the SMART model |

| | | |
|---|---|--|
| ✓ | | Operations |
| | 1 | Manage the public information staff if assigned. This would include PG&E public information staff assigned to field |
| | 2 | Determine Public Information staffing needs for the next Operational Period |
| | 3 | Approve Public Information personnel schedule for the next Operational |
| | 4 | Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, and Planning Meeting |
| | 5 | Develop all internal and external communications strategy and messaging during an emergency |
| | 6 | Ensure all information being shared with external audiences is timely, accurate, and consistent |
| | 7 | Ensure media released are approved by the OEC Commander before released. |
| | 8 | Ensure proper engagement and outreach with public/media are conducted in the field if needed |
| | 9 | Evaluate and ensure that incident objectives are accomplished |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Ensure all documentation is collected per ERIM procedures |
| | 2 | Leave a forwarding phone number with the appropriate person according to the Safety Officer or the OEC Commander |
| | 3 | Sign out using the ICS Form 211 (Check-In/Out) and 221 (Demobilization Release) |

Public Safety Specialist



Pacific Gas and Electric Company

*Command Staff
Public Safety Specialist (PSS)*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------------|---|
| Position: | Public Safety Specialist (PSS)/Agency Representative (AREP) |
| Reports To: | Incident Commander (IC) |
| Direct Reports: | None. Coordinates with Authority having Jurisdiction (AHJ) and Liaison Officer |
| Resources: | Performing PSS AREP Duties CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Gas Emergency Response Plan (GERP) EMER-3003M Environmental Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Power Generation Annex – EMER 3004M PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M PSPS Training (specify) Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M Canal Entry Emergency Response Plan EMER – 3011M OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call [Redacted] EP&R Electric Emergency Management Specialist (EMS) Team On Call [Redacted] |
| Position Description: | Public Safety Specialist (PSS)/Agency Representative (AREP) is assigned to communicate risks/hazards and unsafe situations and collaborate with emergency management/AHJ during critical incidents |



| | |
|---------------------------|--|
| Primary Responsibilities: | <ul style="list-style-type: none"> • Assess and communicate risks/hazards and unsafe situations to AHJ • Maintain awareness of active and developing situations • Provide updates from AHJ on current situation • Participate in appropriate Planning P meetings • Attend daily briefings |
|---------------------------|--|

| | | |
|---|---|----------------------------|
| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Document actions and decisions on ICS Form 214 (Activity Log) |
| | 2 | Ensure proper staffing is established |
| | 3 | Meet with the IC and General Staff to identify immediate resource needs and operational objectives |
| | 4 | Evaluate pre-treatment opportunities to all PG&E assets as necessary and continue to evaluate as the incident progresses |
| | 5 | Establish communications with CAL FIRE/USFS and/or AHJ IMT |
| | 6 | Participate with the Command and General Staff to develop incident objectives during the initial Operational Period using the SMART model |

| | | |
|---|---|--|
| ✓ | | Operations |
| | 1 | Make Safe (Emergency Vs Repopulate "Make Safe") |
| | 2 | Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, Planning Meetings, Strategy Meetings, AHJ IMT Meetings, CAL FIRE/USFS (Cooperators) Meetings |
| | 3 | Anticipate movement or expansion of the incident and the potential threat to PG&E infrastructure |
| | 4 | Coordinate all efforts with SIPT Supervisors when assigned |



Pacific Gas and Electric Company

*Command Staff
Public Safety Specialist (PSS)*

| | | |
|---|----|--|
| ✓ | | Operations |
| | 5 | Receive daily PG&E assets maps from PG&E's GIS group from intelligence obtained from the National Interagency Fire Center (NIFC) FTP server |
| | 6 | Work with GIS to determine buffers around the fire's current perimeter and have a clear conversation with the AHJ that if the fire reaches these "Trigger Points" |
| | 7 | Negotiate with AHJ to gain the entire circuit where possible |
| | 8 | Assure the IMT or AHJ clearly understands when repopulation occurs, PG&E performing repairs and restoration can block roads and limits the public's ability to access areas under construction due to equipment and vegetation management work |
| | 9 | Provide the PG&E IC or P&I Section Chief a brief daily summary of fire intelligence for the REC/EOC report out |
| | 10 | Coordinate with the AHJ and Air Operations Branch Director for all flights for all hazards |
| | 11 | Confirm the ICS Form 211(Check-In/Check-Out) is utilized and completed by all reporting personnel |
| | 12 | Confirm we have access from AHJ for impacted sites |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief (Liaison Officer or AHJ) |
| | 2 | Complete transition to designated rebuild staff |
| | 3 | Confirm all documentation is collected per ERIM procedures |
| | 4 | Leave a contact phone number with the appropriate person to confirm your safe arrival home. |
| | 5 | Demobilize using the ICS Form 221 (Demobilization Check-Out) |
| | 6 | Sign out using the ICS Form 211 (Check-In/Out) |
| | 7 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: <div style="background-color: black; width: 150px; height: 20px; margin: 5px 0;"></div> |

Safety Officer



Publication Date: 03/17/2022 Rev: 3

Command Staff Safety Officer

SUMMARY

The Safety Officer (SO), a member of the Command Staff, is responsible for monitoring and assessing hazardous, unsafe situations and developing measures for assuring personnel safety. The Safety Officer will correct unsafe acts or conditions through the regular line of authority, although they (Safety Officer) may exercise emergency authority to stop or prevent unsafe acts when immediate action is required.

Only one Safety Officer will be assigned for each incident by division. The Safety Officer may have an Assistant Safety Officers (ASO) as necessary.

TARGET AUDIENCE

This standard operating procedure targets PG&E Enterprise Health and Safety personnel

TABLE OF CONTENTS

- SECTION 1: PRIMARY RESPONSIBILITES
- SECTION 2: PREPARE AND MOBILIZE
- SECTION 3: INITIAL ACTIONS
- SECTION 4: DAILY OPERATIONS
- SECTION 5: INCIDENT RESPONSE & REPORTING
- SECTION 6: DOCUMENT
- SECTION 7: DEMOBILIZATION
- SECTION 8: AFTER ACTION REVIEW
- SECTION 9: TRAINING REQUIREMENTS
- SECTION 10: SUPPORTING DOCUMENTS



Publication Date: 03/17/2022 Rev: 3

Command Staff Safety Officer

Primary Responsibilities

| | |
|---------------------------|--|
| Position: | Safety Officer (SO) |
| Reports To: | Incident Commander (IC) |
| Direct Reports: | Assistant Safety Officers (ASO) |
| Resources: | Field Safety Specialist (FSS) |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Assess and communicate risks/hazards and unsafe situations • Confirm a site safety and health plan is developed (emergency action plan) • Develop safety measures or communications to promote personnel safety (i.e., safety flash, event specific QR code, etc.) • Correct unsafe acts or conditions, implement corrective actions and or mitigations • Maintain awareness of active and developing situations • Prepare safety message for the Incident Action Plan (IAP) • Initiate and/or conduct accident investigations for injuries, vehicle, and equipment damage, near misses and good catches • Assign Field Safety Specialist (FSS) as needed to meet operational needs • Participate in appropriate planning meetings • Provide ICS documents to the Documentation Unit Leader (DOCL) • Establish a common operating picture around risk with incident leadership and resources • Establish Incident within Incident Standard Operating Procedures (SOPs) • Establish event specific QR code and upload all relevant documentation (ICS forms, tailboards, hazard communications, etc.) • Assist operations personnel in planning for and responding to medical emergencies • Develop event specific SafetyNet Channel • Trend SafetyNet observations for positive and at-risk behaviors. Communicate findings to Incident Commander and General Staff • Participate in After Action Reviews (AARs) |



Command Staff Safety Officer

Prepare and Mobilize

| | | |
|---|---|--|
| ✓ | | Prepare and Mobilize |
| | 1 | Ensure individual readiness |
| | 2 | Obtain information and materials as needed |
| | 3 | Travel to Incident Command Post (ICP) and check in |

Initial Actions

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Brief with Command and General Staff for incident overview |
| | 2 | Develop ICS Form 202 (Incident Objectives) during the initial Operational Period using the SMART model |
| | 3 | Identify immediate resource needs (both personal and PPE) |
| | 4 | Prepare ICS Form 206 (Medical Plan), 208 (Safety Message), and 215A (Hazard Risk Analysis Worksheet) |
| | 5 | Establish event specific QR code and upload all relevant documentation (ICS forms, tailboards, hazard communications, etc.) |
| | 6 | Establish an event specific EH&S teams page for documentation retention |
| | 7 | Document actions and decisions on ICS Form 214 (Activity Log) |



Command Staff Safety Officer

Daily Operations

| | | |
|---|-----|--|
| ✓ | | Daily Operations |
| | 1. | Participate in the Command and General Staff daily planning meetings |
| | 2. | Develop ICS Form 202 (Incident Objectives) for next operational period using the SMART model |
| | 3. | Communicate objectives, priorities, work assignments, and performance expectations |
| | 4. | Monitor incident operations and advise the IC on matters relating to the health and safety of incident resources (i.e., trend SafetyNet observations for positive and at-risk behaviors) |
| | 5. | Monitor health and wellness of incident personnel including fatigue, smoke exposure, illness, injury, etc., and ensure mitigations are in place. Develop and distribute safety flashes, including, immediate actions and lessons learned |
| | 6. | Order additional Field Safety Specialist (FSS) as necessary to meet operational needs utilizing the ICS Form 213 (Resource request form) |
| | 7. | Adjust actions based on changing information and evolving situation awareness. Develop and implement contingency plans. Communicate changing conditions to assigned resources and supervisors |
| | 8. | Monitor performance and provide immediate and regular feedback to assigned personnel |
| | 9. | Complete, post and communicate the ICS Form 208 (Safety Message) in coordination with the Logistics Service Branch Director |
| | 10. | Provide ICS documents to the Documentation Unit Leader (DOCL) |
| | 11. | Evaluate and confirm that all safety related objectives are completed |
| | 12. | Update event specific QR code with relevant documentation (ICS forms, tailboards, hazard communications, etc.) |



Command Staff Safety Officer

Incident Response & Reporting

| | |
|-----|--|
| ✓ | Incident Response & Reporting |
| 1. | Notify Incident Commander of the safety incident |
| 2. | Secure the scene and make safe |
| 3. | Gather initial incident information |
| 4. | Safety Officer will notify REC or EOC Safety Officer of the safety incident |
| 5. | In the event of a serious injury or fatality (SIF) Call [REDACTED] and select option 1 (Employee fatality, serious injury or illness, electrical contact or flash, or any contact or inquiry by CAL/ OSHA) |
| 6. | Work related injuries or discomfort, Employee or Supervisor shall call the 24/7 Nurse Report Line at [REDACTED] |
| 7. | If determined to be a potential SIF, complete the enterprise Initial Incident Report form (IIR) |
| 8. | For motor vehicle incidents (MVI) Employee or Supervisor shall submit a Motor Vehicle Incident Report using the mobile app or online intake form. In addition, PG&E law department shall be notified while still at the scene, if possible |
| 9. | Contractor related incidents will be managed as stated above with the exception of steps 6 & 8. In addition, PG&E Contractor Safety shall be notified of the incident and assume contractor reporting guidelines |
| 10. | Environmental Releases, call [REDACTED] Employee Assistance Program (EAP), call [REDACTED] |
| 11. | Suspicious Activity Reporting Call Corporate Security at [REDACTED] Utilize the LiveSafe App as appropriate |
| 12. | Report out on incidents daily during Command and General staff meetings |
| 13. | All Incidents shall be tracked on the ICS 214 Activity Log and added to the IAP |



Publication Date: 03/17/2022 Rev: 3

Command Staff Safety Officer

Document

| ✓ | Document |
|----|---|
| 1 | Complete and submit appropriate accident, incident, and other safety reports |
| 2 | Complete and submit ICS Form 202 (incident objectives) |
| 3 | Complete and submit ICS Form 206 (Medical plan) |
| 4 | Complete and submit ICS Form 208 (Safety message) |
| 5 | Complete and submit ICS Form 211 (Check-In/Check-Out) |
| 6 | Complete and submit ICS Form 212 (Incident demobilization vehicle inspection) |
| 7 | Complete and submit ICS Form 213 (General message & resource request form) |
| 8 | Complete and submit ICS Form 214 (Activity log) |
| 9 | Complete and submit ICS Form 215A (Hazard Risk Analysis Worksheet) |
| 10 | Complete and submit ICS Form 221 (Demobilization check-out) |
| 11 | Complete and submit ICS Form 225 (Incident personnel performance rating) |
| 12 | Confirm all documentation is collected per ERIM procedures |



Command Staff Safety Officer

Demobilization

| | | |
|---|---|---|
| ✓ | | Demobilization |
| | 1 | Coordinate an efficient transfer of position duties when demobilizing |
| | 2 | During transfer of command ensure continuity of operations and exchange critical safety information |
| | 3 | Review incident demobilization plan to ensure appropriate safety guidelines |
| | 4 | Debrief your direct reports |
| | 5 | Confirm all documentation is collected per ERIM procedures |
| | 6 | Leave a contact phone number with the appropriate person to confirm your safe arrival home. |
| | 7 | Sign out using the ICS Form 211 (Check-In/Out) |
| | 8 | Complete ICS Form 212 (Incident demobilization vehicle inspection) |
| | 9 | Sign out using the ICS Form 221 (Demobilization Check-Out) |

After Action Review

| | | |
|---|---|---|
| ✓ | | After Action Review |
| | 1 | Incident personnel performance rating (ICS 225 Form) |
| | 2 | Participate in the event After Action Review meeting (AARs) |



Publication Date: 03/17/2022 Rev: 3

Command Staff Safety Officer

TRAINING

U.S. DEPARTMENT OF HOMELAND SECURITY DEDICATION TO SERVE IN THE TIME OF CRISIS

- FEMA IS-100, Introduction to Incident Command System
- FEMA IS-200, ICS for Resources and Initial Action Incident
- FEMA IS-300, FEMA DHS ICS All Hazards Safety Officer
- FEMA IS-700, National Incident Management System (NIMS)
- FEMA IS-800, National Response Framework

DOCUMENT APPROVER

Vice President Enterprise Health and Safety

Director Enterprise Health and Safety

DOCUMENT OWNER

[Redacted] Supervisor Enterprise Health and Safety

[Redacted] Supervisor Enterprise Health and Safety

SUPPORTING DOCUMENTS

-  ICS form 202, incident objectives_i
-  ICS_206_Medical Plan_2021.pdf
-  ICS form 208_Safety Message_2021.pdf
-  ICS_212_Vehicle Inspection_2021.pdf
-  ICS form 213, general message_20
-  ICS form-214_Activity Lo
-  ICS form 215a, incident action plan
-  ICS form 221, Demobilization Che
-  ICS form 225, Incident Personnel f

OEC Customer Strategy Officer



Command Staff
OEC Customer Strategy Officer

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|---------------------------|---|
| Position: | OEC Customer Strategy Officer |
| Reports To: | OEC Commander |
| Direct Reports: | Customer Strategy Staff |
| Resources: | Wiki, Teams Channels, and/or CCER (reporting templates, schedule, etc.) |
| Position Description: | <p>The Customer Strategy Officer serves as an advocate for our customer by:</p> <ul style="list-style-type: none"> • Providing updates to our customers • Addressing issues with our customers • Communicating high priority outage concerns to our emergency operations teams |
| Primary Responsibilities: | <p>Assesses customer concerns to develop customer strategies and gathers information regarding:</p> <ul style="list-style-type: none"> • Critical and Essential customers • Customer Contact Emergency Coordination Center (CCECC) on Contact Center and Local Office performance, informational needs, issues, etc. • Local Customer Experience (LCE) and Business Energy Solutions (BES) local and segment customer issues <p>Communicates customer concerns to operation personnel and key partners:</p> <ul style="list-style-type: none"> • CSO Provides guidance to Incident Commander (IC) regarding prioritization strategy for critical customer issues or escalations • Partners with the Public Information Officer (PIO) and Liaison Officer to develop and implement customer recovery strategies • Coordinates with the PIO and/or IC to approve all customer specific communications for the field • Advises IC team regarding need for IVR out-bound communications, talking points and social media updates |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Document actions and decisions on ICS Form 214 (Unit Log) |
| | 2 | Ensure proper staffing is established |
| | 3 | Meet with the OEC Commander and Section Chiefs to identify immediate resource needs |



Pacific Gas and Electric Company

*Command Staff
OEC Customer Strategy Officer*

| | | |
|---|---|--|
| ✓ | | Initial Actions |
| | 4 | Prepare and include necessary information about customers' impact for all internal reports |
| | 5 | Participate with the Section Chiefs to develop incident objectives during the initial Operational Period using the SMART model |

| | | |
|---|---|---|
| ✓ | | Operations |
| | 1 | Manage the Customer Strategy Support Section |
| | 2 | Determine Customer Strategy Section staffing needs for the next Operational Period |
| | 3 | Approve Customer Strategy Section personnel schedule for the next Operational Period |
| | 4 | Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, and Planning Meeting |
| | 5 | Ensure all customers impacted have the proper information and are well informed |
| | 6 | Ensure the Contact Centers (WFM team) have the proper information for Interactive Voice Recording (IVR) and messaging. If EOC and/or the REC is activated, coordinates with the CSO teams as appropriate regarding messaging. |
| | 7 | Coordinate with the Public Safety Specialist (PSS) in the field to ensure appropriate engagement and outreach are conducted in the field, if needed |
| | 8 | Evaluate and ensure that incident objectives are accomplished |

| | | |
|---|---|---|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports in the field |
| | 2 | Ensure all documentation is collected per ERIM procedures |
| | 3 | Identifies appropriate on-call CSO resources and DLT/DOS contacts for the Safety Officer or the OEC Commander. Link to OEC CSO Staffing Plan. |
| | 4 | Ensure Form 221 (Demobilization Release) is completed by direct reports in the field |
| | 5 | Sign out using the ICS Form 211 (Check-in/Out) and ICS Form 221(Demobilization Release) |

I.2 Operations Workgroup



*Pacific Gas and
Electric Company*

*Operations Section
Operations Section Chief*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|---|
| Position: | Operations Section Chief (OSC) |
| Reports To: | Incident Commander (IC) |
| Direct Reports: | Restoration Branch, Branch Directors, Task Force Leads, Hawk, DSR Leads |



Pacific Gas and Electric Company

*Operations Section
Operations Section Chief*

| | |
|-----------------------|---|
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M</p> <p>Electric Annex EMER-3002M</p> <p>Disaster Rebuild Annex – EMER 3012M</p> <p>Logistics Annex – EMER 3005M</p> <p>Power Generation Annex – EMER 3004M</p> <p>Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01</p> <p>PSPS Standard 1000S</p> <p>PSPS - 1000P-01</p> <p>PSPS Annex – EMER 3106M</p> <p>PSPS Training (specify)</p> <p>Electric TD-1464S-01</p> <p>Electric TD-1464P-01</p> <p>Wildfire Annex EMER 3105M</p> <p>Earthquake Annex EMER 3101M</p> <p>Canal Entry Emergency Response Plan EMER – 3011M</p> <p>System Hardening During Emergency Response – EMER 4004S</p> <p>OMT Job Aids (specify)</p> <p>OMT Training (specify)</p> <p>Business Applications Team (BAT) On Call</p> <ul style="list-style-type: none"> • [REDACTED] • [REDACTED] <p>EP&R Electric Emergency Management Specialist (EMS) Team On Call</p> <ul style="list-style-type: none"> • EP&R Electric EMS Team [REDACTED] • EP&R Electric EMS Duty Officer Pager: [REDACTED] Option 1 <p>IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement)</p> <p>ESC Local 5 Letter of Agreement</p> |
| Position Description: | <p>The Operations Section is responsible for managing tactical operations at the incident site to reduce immediate hazards, save lives and property, establish situation control, and restore normal conditions.</p> |



| | |
|----------------------------------|---|
| <p>Primary Responsibilities:</p> | <ul style="list-style-type: none"> • Work with the Planning and Intelligence Section Chief (PSC) and the Incident Commander (IC) in evaluating the current situation • Organize the Operations Section effectively to promote manageable span of control and safe operations of all Operation Section personnel • Direct the preparation of unit operational plans • Request and/or release resources as required by incident objectives • Direct the execution of the operations portion of the Incident Action Plan (IAP) • Participate in the Planning P meetings • Provide periodic status reports to the IC • Make recommendations to the Planning Section for demobilization of operations resources • Provide ICS documents to the Documentation Unit Leader (DOCL) • Provide timely updates/coordinate activities with impacted lines of business |
|----------------------------------|---|

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide |
| | 2 | Review Position Guides for all personnel under your supervision |

| | | |
|---|---|--|
| ✓ | | Initial Actions |
| | 1 | Designate Check-In and Check-Out location(s) for all field personnel and/or Incident Command Posts (ICP) using the ICS Form 211 (Check-In/Out) |
| | 2 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out) |
| | 3 | Confirm proper staffing is established. The OSC will assume the duties/responsibilities of positions not filled in the Operations Section |
| | 4 | Meet with the Command and General Staff to identify immediate needs |
| | 5 | Identify any specialized resources that need to be requested from the REC |
| | 6 | Work closely with P&I Resource Unit Lead (RESL) and Logistics Section Chief (LSC) for personnel and equipment needs |
| | 7 | Participate with the Command and General Staff to develop incident objectives during the initial Operational Period using the SMART model |



**Pacific Gas and
Electric Company**


*Operations Section
Operations Section Chief*

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 8 | Document actions and decisions on ICS Form 214 (Activity Log) |

| | | |
|---|----|--|
| ✓ | | Operations |
| | 1 | Manage the Operations Section |
| | 2 | Determine Operations Section staffing needs for the next Operational Period |
| | 3 | Approve the Operations Section personnel schedule for the next Operational Period |
| | 4 | Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, and Planning Meeting |
| | 5 | Provide Operation Section's daily objectives to the Planning Section |
| | 6 | Assist the Safety Officer in developing risk/hazards analysis for tactical operations using ICS Form 215A (Hazard Risk Analysis Worksheet) |
| | 7 | Continually evaluate the status of incident/operational objectives |
| | 8 | If customers are impacted, provide the Customer Strategy Officer (CSO) incident information needed to generate an outbound Interactive Voice Recording (IVR) with the Contact Centers after the approval of the IC |
| | 9 | Determine the number and type of job packages and acquire appropriate personnel to support |
| | 10 | Determine the need for any specialized resources and calculating resource requirements (type, counts) |
| | 11 | Provide ICS and incident documents to the Documentation Unit Leader (DOCL) |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports and field personnel. |



| | |
|---|---|
| 2 | Confirm all documentation is collected per ERIM procedures. |
| 3 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| 4 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| 5 | Sign out using the ICS Form 211 (Check-In/Out). |
| 6 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes:  |

Asset Protection Branch Director



*Operations Section
Asset Protection Branch Director*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|--|
| Position: | Asset Protection Branch Director (APBD) - OEC/REC - SIPT |
| Reports To: | Operations Section Chief (OSC) |
| Direct Reports: | N/A |



| | |
|------------|--|
| Resources: | CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M System Hardening During Emergency Response – EMER 4004S VM Wildfire Response Guidance TD-7101M GO 95 Rule 35 PRC 4292 & 4293 Letter Agreement 19-36-PGE (SIPT) California Assembly Bill 2380 (2018) APBD Checklist VM Emergency Preparedness Team <ul style="list-style-type: none">• VMEmergencyPreparedness@pge.com Business Applications Team (BAT) On Call [REDACTED] EP&R Electric Emergency Management Specialist (EMS) Team on Call [REDACTED] IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement |
|------------|--|



*Operations Section
Asset Protection Branch Director*

| | |
|--------------------------|--|
| Position Description: | The Asset Protection Branch Director (APBD) is responsible for protecting PG&E assets from incident damage. The Asset Protection Branch, under the direction of the Operations Section Chief (OSC), manages asset protection as part of the operations section. The APBD develops asset protection strategy in consultation with members of the operations section, the Public Safety Specialist team, impacted PG&E lines of business (LOB's), and the Authority Having Jurisdiction (AHJ). The APBD leads the development and execution of the tactical assignments documented in the Incident Action Plan (IAP) and may establish divisions, groups, and units as necessary to support asset protection operations. During non-wildfire incidents (all-hazards), or after a wildfire is declared controlled, the APBD coordinates Safety and Infrastructure Protection Teams (SIPT) activities as requested by the OSC. |
|--------------------------|--|



| | |
|----------------------------------|---|
| <p>Primary Responsibilities:</p> | <ul style="list-style-type: none"> • Identifying all PG&E assets at risk (electric, gas, power-gen, telecom, other) within the incident area • Developing asset protection priorities based upon input from the OSC and PG&E lines of business (LOB) • Working with the PG&E Public Safety Specialist (PSS) to obtain AHJ permission to operate within the incident area • Working with LOB's, determines and assigns SIPT resource needs to support non-wildfire incidents (all-hazards), such as storms, earthquakes, and other large-scale emergencies. • Developing an operational strategy to protect PG&E assets • Ordering sufficient resources to support asset protection strategy • Developing and implementing the asset protection plan • Providing field supervision of asset protection resources • Ensuring coordination with AHJ field resources during asset protection operations • Working with Vegetation Management to minimize accidental ignitions • Providing wildfire safety escorts to PG&E LOB's • Providing safety standby/EMS support as needed • Ensuring AHJ Incident Action Plan (IAP) has been reviewed and all asset protection operations are coordinated and compliant with AHJ IAP. • Ensuring AHJ communications are identified and utilized. • Planning and implementing asset protection strategies, in coordination with PSS and LOB's. • Providing timely updates/coordinate activities with EOC, SIPT Leadership, and PSS • Ensuring all resources have proper training and equipment to complete assignments safely. • Establishing a cadence of receiving and reporting progress on field operations and maintain thorough and accurate records of all work performed. • Supporting PIO and Liaison efforts to provide updates to impacted communities and public agencies. • Participating in the Planning P meetings, as requested. • Maintaining applicable incident documentation and submit to the Documentation Unit Leader (DOCL), as requested. |
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| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide. |
| | 2 | Gather critical information pertinent to the assignment. |



Operations Section
Asset Protection Branch Director

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 3 | Confirm mobilization status of ordered and assigned asset protection resources. |
| | 4 | Obtain incident situation status from PSS, PG&E IC or AHJ. |


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| ✓ | | Initial Actions |
| | 1 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out) or local procedure. |
| | 2 | Establish a common operating picture with Command & General Staff (C&G), IC, and assigned personnel |
| | 3 | Participate in the development of operational objectives for asset protection during the initial Operational Period using the SMART model. |
| | 4 | Establish communications with PSS, AHJ, SIPT field resources, SIPT Leadership, and OEC/REC Operations Section Chief, as applicable. |
| | 5 | Receive incident briefing from PSS or AHJ and obtain required AHJ approval's. |
| | 6 | Facilitate and coordinate the ordering of asset protection resources. |
| | 7 | Establish branch organizational structure, reporting procedures, and chain of command of assigned resources. |
| | 8 | Document actions and decisions on ICS Form 214 (Activity Log). |

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| ✓ | | Operations |
| | 1 | Coordinate with the Operations Section Chief to plan and implement asset protection strategies, primarily by receiving a prioritization of critical assets to be protected and/or treated. |



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| ✓ | | Operations |
| | 2 | Assigns SIPT resources to support non-wildfire incident needs (make-safe, wreck-out, 911 standby, etc.) |
| | 3 | Prioritize work to be completed in the field and communicate with SIPT Group Supervisors and/or SIPT crews. |
| | 4 | Ensure priorities and tactics, including any changes, are communicated, and understood throughout the branch and Operations Section. |
| | 5 | Maintain awareness/accountability of assigned personnel's location, personal safety, and welfare at all times. Ensure all resources have proper training and equipment to complete assignments safely under current and predicted conditions. |
| | 6 | Coordinate with the Safety Officer to support development of the risk/hazards analysis for tactical operations using ICS Form 215A (Hazard Risk Analysis Worksheet). Ensure Safety's awareness of Asset Protection activity in the field and the provision of Safety personnel to provide briefings and observe activity for any safety issues. Ensure the Risk Management Process is established and maintained throughout the branch. |
| | 7 | Ensure adequate resource levels and logistical support are maintained to perform operations safely and efficiently. |
| | 8 | Ensure documentation of asset protection activities, through the Field Maps app. |
| | 9 | Provide regular updates to the Operations Section Chief on asset protection progress, such as number of poles treated, gas valve lots cleared, facility's cleared, etc. |
| | 10 | Fulfill requests for updates or information (PIO, Liaison Officer's, EOC, SIPT Leadership, etc.). |
| | 11 | Participate in the emergency center daily meetings as requested. |
| | 12 | Provide requested ICS and incident documentation to the Documentation Unit Leader (DOCL). |



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| ✓ | | Demobilization |
| | 1 | Debrief your direct reports and field personnel. |
| | 2 | Confirm all documentation is collected per ERIM procedures. |
| | 3 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| | 4 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| | 5 | Check out of the Emergency Center using the ICS Form 211 (Check-In/Out) or local procedure. |
| | 6 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: EP&R Electric Emergency Management Specialist (EMS) Team on Call  |

Debris Removal Branch



*Pacific Gas and
Electric Company*

*Operations Section
Debris Removal Branch*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|--|
| Position: | Debris Removal Branch |
| Reports To: | Operations Section Chief (OSC) |
| Direct Reports: | Spoils Supervisor, Debris Removal Crews (Crew Foreman, Equipment Operators, Gas Construction Operators, Utility Workers, Traffic Control, and Welders) |



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| <p>Resources:</p> | <p>CERP Company Emergency Response Plan EMER-3001M Environmental Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Power Generation Annex – EMER 3004M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M PSPS Training (specify) Electric TD-1464S-01 Electric TD-1464P-01 Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M Canal Entry Emergency Response Plan EMER – 3011M System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call [REDACTED] EP&R Electric Emergency Management Specialist (EMS) Team On Call [REDACTED] IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement</p> |
| <p>Position Description:</p> | <p>The Debris Removal Branch is responsible for managing the overall debris removal process.</p> |



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| Primary Responsibilities: | <ul style="list-style-type: none"> • Work with the Operations Section Chief on daily basis. • Manage overall debris removal process. • Request and/or release resources as required by incident objectives. • Participate in the OEC operations tactics meetings, safety briefings, and field site meetings. • Provide timely updates/coordinate activities with other lines of business related to debris removal. |
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| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide. |
| | 2 | Review Position Guides for all personnel under Debris Removal Branch. |

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| ✓ | | Initial Actions |
| | 1 | Designate check-in and check-out process for all field personnel reporting to the Debris Removal Branch. |
| | 2 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out). |
| | 3 | Find property locations to store debris removal equipment and debris. |
| | 4 | Fill out Intake Form to acquire land used for debris removal equipment and debris. |
| | 5 | Identify and request crews needed to build out debris sites (Crew Foreman, Equipment Operators, Gas Construction Operators, Utility Workers, and Welders). |
| | 6 | Get approvals from Incident Commander, Public Safety Specialist, Environmental, and Cultural for debris removal sites to be released and setup contacts. |
| | 7 | Establish traffic control pattern for debris removal sites. |
| | 8 | Display signage at debris removal sites. |
| | 9 | Contact Environmental for metal and wood pole debris bins. |
| | 10 | Contact Materials Department for garbage dumpsters. |
| | 11 | Contact rental companies for 40 steel plates, excavators, and forklifts. |




| | | |
|---|----|--|
| ✓ | | Initial Actions |
| | 12 | Contact Safety Officer to initiate site safety evaluation at the debris sites. |
| | 13 | Document actions and decisions on ICS Form 214 (Activity Log). |

| | | |
|---|---|--|
| ✓ | | Operations |
| | 1 | Manage the overall debris removal process at all sites. |
| | 2 | Determine staffing needs for the next operational period. |
| | 3 | Dump trucks dump debris loads onto steel plates in the debris sites. |
| | 4 | Groundman's Crews separate metal from poles. |
| | 5 | Equipment Operators separate wood and metal into the appropriate bins. |
| | 6 | Participate in OEC operations tactics calls and other briefings providing daily totals of wood and metal bins filled and swapped out, completion of build out of debris sites, and demobilization sites. |
| | 7 | Assist the Safety Officer in developing risk/hazards analysis for tactical operations for debris removal using ICS Form 215A (Hazard Risk Analysis Worksheet). |
| | 8 | Contact Safety Officer for any safety incidents for both gas and electric operations. |
| | 9 | Contact Environmental Team for any environmental impacts or incidents. |

| | | |
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| ✓ | | Demobilization |
| | 1 | Debrief your direct reports and field personnel. |
| | 2 | Confirm all documentation is collected per ERIM procedures. |
| | 3 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |



| | |
|---|---|
| 4 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| 5 | Sign out using the ICS Form 211 (Check-In/Out). |
| 6 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes:  |

District Storm Room Leader



*Operations Section
District Storm Room Leader*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|--|
| Position: | District Storm Room (DSR) Leader |
| Reports To: | Operations Section Chief (OSC) |
| Direct Reports: | OMT Hawk, Task Force Leader |
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M PSPS Annex – EMER 3106M PSPS Standard 1000S PSPS - 1000P-01 PSPS Training (specify) Electric TD-1464S-01 Electric TD-1464P-01 Wildfire Annex Earthquake Annex System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call</p> <ul style="list-style-type: none"> • [REDACTED] • [REDACTED] <p>EP&R Electric Emergency Management Specialist (EMS) Team On Call</p> <ul style="list-style-type: none"> • [REDACTED] • [REDACTED] <p>IBEW 1245, Title 200, 300, and Clerical Letter of Agreement ESC Local 5 Letter of Agreement</p> |



| | |
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| Position Description: | The DSR Leader responds to local and escalated emergency events and is generally located in a Service Planning and Maintenance yard. The main function of the DSR is to manage the local restoration effort during all levels of emergencies. The DSR Leader position is staffed with local support, such as Troublemens, gas service reps, meter techs, estimators, mappers, service planning reps, clerical support, and construction crews. The DSR oversees updates entered into the Outage Management Tool (OMT) at this location. Information from assessment resources is added to the job packet and then handed off to construction crews for repairs to be performed. DSR Leaders report to their division's Operations Emergency Center (OEC) Operations Section Chief (OSC). |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Manage the local restoration effort during all levels of emergencies. • Confirm validation of outage information from all sources before distribution (e.g. being placed on any status board or reported out). <ul style="list-style-type: none"> ○ Number of outages (assessment and restoration) ○ Job packages created (needed for resources) ○ Number of job locations, estimated/need estimating • Oversee OMT activities and ensure work requiring design and compliance specifications are processed by estimating. • Provide OMT outage updates to the Plans Section Chief (PSC) for the Incident Action Plan (IAP) for each Operational Period. |

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| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide |
| | 2 | Review Position Guides for all personnel under your supervision |

| | | |
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| ✓ | | Initial Actions |
| | 1 | Stand up a team in the DSR (usually in the service center) |
| | 2 | Notify Operations Section Chief when staffed |
| | 3 | Establish communications and expectations with the Operational Emergency Center or DSR |
| | 4 | Email incident folder location and instructions for SharePoint to all incident personnel |
| | 5 | Ensure work location log is created for the event/incident |
| | 6 | Document actions and decisions on Incident Command System (ICS) Form 214 (Activity Log) |



*Operations Section
District Storm Room Leader*

| | | |
|---|---|---|
| ✓ | | Operations |
| | 1 | Report to the Operations Section Chief (OSC) when updating/creating work packages for repairs or completion |
| | 2 | Provide updates to the work location log via the Document Unit Leader |
| | 3 | Collect hard-copies, scan, upload all incident documents to incident SharePoint location |
| | 4 | Ensure OMT is updated hourly or when changes occur |
| | 5 | Oversee OMT activities and ensure work requiring design and compliance specifications are processed by estimating |

| | | |
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| ✓ | | Demobilization |
| | 1 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home |
| | 2 | Demobilize using the ICS Form 221 (Demobilization Check-Out) |
| | 3 | Sign out using the ICS Form 211 (Check-In/Check-Out) and ARCOS |
| | 4 | Notify local supervisor of safe arrival to reporting destination |
| | 5 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: <div style="background-color: black; width: 100%; height: 1.2em; margin-top: 5px;"></div> |

Mapping Lead



Pacific Gas and Electric Company

Operations Section
ADM&I Mapping Lead

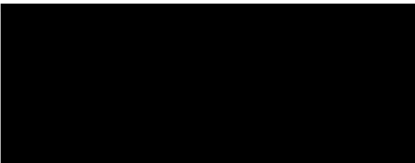
***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|--|
| Position: | GIS Mapping - OEC/REC |
| Reports To: | Operations Section Chief |
| Direct Reports: | N/A |
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M System Hardening During Emergency Response – EMER 4004S GO 95 Rule 35 PRC 4292 & 4293 Business Applications Team (BAT) On Call</p> <ul style="list-style-type: none"> • [REDACTED] • [REDACTED] <p>EP&R Electric Emergency Management Specialist (EMS) Team On Call</p> <ul style="list-style-type: none"> • [REDACTED] • [REDACTED] <p>ESC Local 5 Letter of Agreement MAP-4205WBT – Emergency Response for Electric Mappers Electric Mapping Manual</p> |



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| <p>Position Description:</p> | <p>ADM&I Mapping can assist with duties befitting a Mapper and an Advanced Mapper as they are skilled towards.</p> <p>Requests that are not related to mapping can cause delays in actual mapping work that needs to be completed. It is important that requests follow the Incident Command System standardized management approach, including Management by Objectives and Incident Action Planning, to ensure that tasks and activities are properly managed and achieved. (See FEMA IS-200)</p> <p>Mappers are not responsible for requests that are not related to GIS. Mappers who receive a request for a task that is not included in the "GIS Mapper @ Base Camp" Task column need to forward the request to their supervisor or the appropriate team for processing. (Please see 5MM-Electric GIS Mapping and Analytics Support for EOC/OEC Base Camps)</p> <p>Support will be provided remotely unless there is an express reason for onsite. For winter storm, rain, and wind events support will be done remotely. For large scale major events ie.. Fires, earthquakes or other catastrophic large scale events, mappers will be available for on site support. If an event requires Mappers to be onsite due to critical and necessary reasons, these reasons should be provided during the request so we may arrange a Mapping Supervisor to be present as well as our Mappers.</p> <p>The GIS Mapper can be onsite (if deemed necessary by mapping leadership) to assist with routine map requests and tasks specified below for larger scale major events.</p> <p>The Advanced GIS Mapper will act as a mapping lead remotely and can assist with simple to complex map creation. This includes working with onsite mapper to create custom maps based on the event needs. This position is meant to supplement the GIS Mapper position by taking on requests that are too complex for a regular standing GIS Mapper.</p> <p>Contact ADM&I Mapping Leadership Group and advise them the type of work needed and the number of job packages estimated (Mapping will establish the resources required for the scope of work indicated) Based on type of work and estimated number of job packages, resources will be provided to the requester.</p>  |
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| Primary Responsibilities: | <ul style="list-style-type: none"> • Job Package review <u>after</u> Crew Foreman, Construction Supervisor, and clerical staff have reviewed for completeness and accuracy. • PSPS existing maps • 1000' scale event wall maps with fire footprint • Fire index shows terrain and fire progress (print only) • Overview & Patrol Maps • Overview PSPS Segments - shows all the color-coded line segments (alpha, bravo) that are affected • Create Simple Ad-hoc Maps (Example – Assets with SAP ID annotated) • The following tasks will be supported remotely <ul style="list-style-type: none"> ○ Specialty Maps and Subsets (Example – Maps showing only specific assets and notification location pins) ○ Patrol Maps with pin #'s, *Note: estimating needs to provide required Kml/Kmz file ○ Circuit Specific PSPS Segment Maps ○ Create Complex Ad-hoc Maps (Example – Map showing assets and fire footprint) |
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| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide. |

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| ✓ | | Initial Actions |
| | 1 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out) or local procedure. |
| | 2 | Participate with the Command and General Staff to understand the status of the incident and identify immediate needs. |
| | 3 | Participate in the development of operational objectives for Mapping during the initial Operational Period using the SMART model. |
| | 4 | Get Familiarized with impacted area and prepare maps that will be used most with the highest number of assets impacted. |
| | 5 | Work with construction Leads and estimating Leads to create a 1000' scale overview map with incident footprint for rebuild planning and construction progress recording. |




Operations Section
ADM&I Mapping Lead

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| ✓ | | Initial Actions |
| | 6 | Help to print assessment maps. |
| | 7 | Document actions and decisions on ICS Form 214 (Activity Log). |

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| ✓ | | Operations |
| | 1 | (On site large scale major event) Print those days current event map with current event footprint overlaid on GIS assets map, Created by GIS analyst. (Large Overview Map). |
| | 2 | (On site large scale major event) Work with crews to print Ad-Hoc maps / assessment maps. |
| | 3 | Remotely Print Overview Maps with notification pin #'s, *Note: estimating needs to provide required Kml/Kmz file. |
| | 4 | (On site large scale major event / Remotely for smaller scale wind and winter storm events) Review job packages once Crew Foreman, Repair supervisor, clerical quality control team have verified they are complete and accurate. |
| | 5 | When not directly supporting event tasks, mappers will be completing GIS mapping tasks updating assets in GIS related to event, or when no work related to the event is needed then other routine asset updates to ensure operations has up to date information in DMS to safely operate system. Also to ensure timely updates are made to WEBVIEWER system used by field personal. |
| | 6 | (On site large scale major event) Create and maintain up to date 1000' scale event wall maps with fire footprint for estimating planning and construction rebuild strategizing and tracking purposes. |

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| ✓ | | Demobilization |
| | 1 | Debrief your direct reports. |
| | 2 | Confirm all documentation is collected per ERIM procedures. |
| | 3 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |



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| 4 | Contact mapping leadership of demobilization and safe arrival to destination. |
| 5 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| 6 | Check out of the Emergency Center using the ICS Form 211 (Check-In/Out) or local procedure. |
| 7 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: EP&R Electric Emergency Management Specialist (EMS) Team On Call  |

OMT Hawk



*Operations Section
Emergency Center OMT Hawk*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------------|--|
| Position: | Emergency Center OMT Hawk |
| Reports To: | Operations Section Chief (OSC) |
| Direct Reports: | None |
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M PSPS Annex – EMER 3106M PSPS Training (specify) System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) IMT Common Responsibilities Checklist Business Applications Team (BAT) OnCall [REDACTED] EP&R Electric Emergency Management Specialist (EMS) Team On Call [REDACTED] IBEW 1245 (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of agreement</p> |
| Position Description: | <p>The Outage Management Tool (OMT) Hawk is appointed by the Incident Commander (IC). The Hawk responds to local escalated emergency events and is generally located in the OEC. The function of the OMT Hawk is to manage and update OMT. The Hawk may oversee one or all storm rooms within the division or support an OEC or REC to ensure accurate information is captured in OMT (ETA, ETORs, Crews, and updated messaging for customers). The Hawk monitors OMT to ensure the most accurate information is provided to all lines of business as well as customers. Information and updates are provided by Operations Section Chief, DSR supervisors, TFL, and CSO. The information in OMT provides the REC, EOC, local governmental agencies, Liaison Office-LNO (Public Affairs Representatives, Public Safety Specialists-PSS) and Customer Strategy Officers updated and accurate information. Consideration must be given to the clerical bargaining unit letter of agreement via the clerical supervisor for data entry into OMT. Hawks may need clerical staff to update OMT.</p> |



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| Primary Responsibilities: | <ul style="list-style-type: none"> • Support restoration effort during all levels of emergencies through maintaining current outage information in OMT. • Elevate ETORs in yellow (30 minutes to expire) or red (expired) status to appropriate leadership in the field or emergency center (DSR, OEC, REC). • Update ETORs prior to expiration with updated information from the field. • Confirm validation of outage information from all sources before distribution (e.g., being placed on any status board or reported out). • Update OMT with crew information. • Provide OMT outage updates for the Incident Action Plan (IAP) for each Operational Period (in coordination with DSR Leader and Planning Section Chief). • Respond to emergency center in person. Remote support of this position can be difficult due to assignment of crews, coordination with local supervisors, etc. |
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| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide. |
| | 2 | Review all applicable training and job aids. |

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| ✓ | | Initial Actions |
| | 1 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out). |
| | 2 | Notify Operations Section Chief when staffed. |
| | 3 | Establish communications with DSR lead who will provide outage information and updates from the field for OMT. |
| | 4 | Document actions and decisions on Incident Command System (ICS) Form 214 (Activity Log). |

| | | |
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| ✓ | | Operations |
| | 1 | OMT/Restoration Filter – Oversee data entry of accurate ETORs. |
| | 2 | Confirm outage “Basic 5 Information” (ensure five basic pieces of information are complete in OMT for correct and accurate situational awareness): <ul style="list-style-type: none"> • Comments for customers • Repair Time • ETA and/or ETOR (as appropriate – see attached Job Aid) • IVR Cause • Material Information |
| | 3 | Update crew information as requested by Emergency Center DSR Lead. |



Operations Section
Emergency Center OMT Hawk

| | | |
|---|---|---|
| ✓ | | Operations |
| | 4 | PSPS Events – Monitor OMT for data entered by EOC, REC, OECs as PSPS Events are a “top-down” data entry process. Manage OMT with Mass Updates as provided by Playbooks from EOC. PSPS Job Aid |
| | 5 | Assist in clearing completed outages in OMT as directed by the TFL or DSR Lead who communicates with the Distribution Control Center (DCC) and Distribution Operator (DO). |
| | 6 | Escalate OMT issues (IT problems, workload, etc.) to Operations Section Chief for awareness. |
| | 7 | Resolve OMT operational issues: Normal Work Hours <ul style="list-style-type: none"> • Primary contact – Business Applications Team (BAT Team) [REDACTED] • Secondary contact - Local Emergency Management Specialist (EMS) [REDACTED] option 1. After Work Hours and Weekends [REDACTED] [REDACTED] Contact your local EMS / IC Advisor for OMT issues related to creating, modifying or removing OMT User Accounts, formal OMT Training, Operational Support, ideas, suggestions and general inquiries. |

| | | |
|---|---|---|
| ✓ | | Demobilization |
| | 1 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| | 2 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| | 3 | Check out using the ICS Form 211 (Check-In/Check-Out). |
| | 4 | Notify local supervisor of safe arrival to reporting destination. |
| | 5 | Provide EP&R Electric Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: <ul style="list-style-type: none"> • EP&R Electric EMS Team [REDACTED] • EP&R Electric EMS Duty Officer Pager [REDACTED] |

Temporary Generation Branch



Pacific Gas and Electric Company

*Operations Section
Temporary Generation Branch*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|---|
| Position: | Temporary Generation Branch |
| Reports To: | Operations Section Chief |
| Direct Reports: | Temporary Generation Contractors |
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Power Generation Annex – EMER 3004M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M PSPS Training (specify) Electric TD-1464S-01 Electric TD-1464P-01 Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M Canal Entry Emergency Response Plan EMER – 3011M System Hardening During Emergency Response – EMER 4004S OMT Job Aids (specify) OMT Training (specify) Business Applications Team (BAT) On Call [REDACTED] EP&R Electric Emergency Management Specialist (EMS) Team On Call [REDACTED] IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement</p> |



**Pacific Gas and
Electric Company**

*Operations Section
Temporary Generation Branch*

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|---------------------------|---|
| Position Description: | Collaborate with emergency center OEC/REC during incidents/events for temporary generation for critical and essential customers to include critical infrastructure (hospitals, fire stations, warming/cooling centers, PR1s, etc.). |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Work with Operations Sections Chief and DSRs • Maintain communications with CSOs, DSRs Leads, Temporary Generation Branch • Provide updates from Authority Having Jurisdiction (AHJ) on current situation • Participate in appropriate Planning P meetings • Attend daily OEC briefings as required |

| | | |
|---|---|---------------------------------------|
| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide |
| | 2 | Review direct reports Position Guides |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Ensure proper staffing is established |
| | 2 | Meet with the IC and Operations Section Chief to identify immediate resource needs |
| | 3 | Participate with the Operations Section Chief to develop operational objectives during the initial Operational Period using the SMART model |

| | | |
|---|---|---|
| ✓ | | Operations |
| | 1 | Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, and Planning Meetings as required |
| | 2 | Confirm we have access from AHJ for impacted sites |
| | 3 | Assist the Safety Officer in developing risk/hazards analysis for tactical operations using ICS Form 215A (Hazard Risk Analysis Worksheet) |
| | 4 | Work with engineers to determine location and load requirements |
| | 5 | Identify onsite facility contacts (PG&E resources such as Troublemens and electrician) |



| | | |
|---|---|---|
| ✓ | | Operations |
| | 6 | Monitor OMT for restorations |
| | 7 | Maintain communication with OEC Operations Section Chief, IC and CSO who will communicate with the REC Temporary Generation Branch who will communicate with EOC REC Temporary Generation Branch. |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports |
| | 2 | Complete transition to designated rebuild staff |
| | 3 | Leave a contact phone number with the appropriate person to confirm your safe arrival home. |
| | 4 | Confirm all documentation is collected per ERIM procedures. |
| | 5 | Demobilize using the ICS Form 221 (Demobilization Check-Out) |
| | 6 | Sign out using the ICS Form 211 (Check-In/Out) |
| | 7 | Provide EP&R Electric Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: <div style="background-color: black; width: 100%; height: 1.2em; margin-top: 5px;"></div> |

Vegetation Management Lead



Pacific Gas and Electric Company

*Operations Section
Vegetation Management Lead*

***** Read This Entire Document before Taking Action *****

Name: _____

Operational Period (OP): _____

| | |
|-----------------|---|
| Position: | Vegetation Management Lead (VML) |
| Reports To: | Operations Section Chief (OSC) |
| Direct Reports: | N/A |
| Resources: | <p>CERP Company Emergency Response Plan EMER-3001M Electric Annex EMER-3002M Disaster Rebuild Annex – EMER 3012M Logistics Annex – EMER 3005M Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 PSPS Standard 1000S PSPS - 1000P-01 PSPS Annex – EMER 3106M Wildfire Annex EMER 3105M Earthquake Annex EMER 3101M System Hardening During Emergency Response – EMER 4004S VM Wildfire Response Guidance TD-7101M GO 95 Rule 35 PRC 4292 & 4293 VM Emergency Preparedness Team</p> <ul style="list-style-type: none"> • VMEmergencyPreparedness@pge.com <p>Business Applications Team (BAT) On Call [REDACTED]</p> <p>EP&R Electric Emergency Management Specialist (EMS) Team On Call [REDACTED]</p> <p>IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) ESC Local 5 Letter of Agreement</p> |



Operations Section
Vegetation Management Lead

| | |
|---------------------------|---|
| Position Description: | Vegetation Management (VM) is responsible for planning and implementing vegetation strategies and tactics for the Operations Section. The VM Lead oversees the coordination and implementation of requested VM field operations to ensure they are performed in a safe, effective, and timely manner. In the Emergency Center, the VM Lead maintains communication on needs and progress with field crews, other Emergency Center personnel, the Emergency Operation Center (EOC) VM Branch Director and VM Leadership. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Develop strategies and tactics to manage vegetation response in the field in response to IC objectives. • Plan and implement vegetation patrols to identify abatement and clearing/fuel reduction opportunities as requested before, during, and after events. • Ensure all resources have proper training and equipment to complete assignments safely. Coordinate with Safety Officer to provide safety messaging and observation of field resources. • Prioritize limited resources. Escalate resource needs to alternate Regions or EOC for assistance. • Ensure all work is performed in compliance with State and Federal vegetation clearance requirements. • Establish a cadence of receiving and reporting progress on field operations and maintain thorough and accurate records of all work performed. • Provide timely updates/coordinate activities with other Regions, EOC, and VM Leadership. • Support PIO and Liaison efforts to provide updates to impacted communities and public agencies. • Participate in the Planning P meetings, as requested. • Maintain applicable incident documentation and submit to the Documentation Unit Leader (DOCL), as requested. |

| | | |
|---|---|-----------------------------|
| ✓ | | Pre-Deployment |
| | 1 | Review this Position Guide. |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Check into the Emergency Center using the ICS Form 211 (Check-In/Check-Out) or local procedure. |
| | 2 | Participate with the Command and General Staff to understand the status of the incident and identify immediate needs. |



**Pacific Gas and
Electric Company**

*Operations Section
Vegetation Management Lead*

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 3 | Develop operational objectives for VM during the initial Operational Period using the SMART model. |
| | 4 | Establish communications with crew leads, VM Emergency Preparedness, and EOC VM Branch Director, as applicable. |
| | 5 | Identify any additional resources that need to be requested from other Regions. |
| | 6 | Consider need for pre-event patrols. |
| | 7 | Document actions and decisions on ICS Form 214 (Activity Log). |

| | | |
|---|---|---|
| ✓ | | Operations |
| | 1 | Coordinate with the Operations Section Chief to plan and implement vegetation patrols in impacted areas to identify abatement and clearing/fuel reduction opportunities. |
| | 2 | Prioritize work to be completed in the field and communicate with crew supervisors. |
| | 3 | Maintain awareness of assigned personnel's location, personal safety, and welfare at all times. Ensure all resources have proper training and equipment to complete assignments safely under current and predicted conditions. |
| | 4 | Coordinate with the Safety Officer to support development of the risk/hazards analysis for tactical operations using ICS Form 215A (Hazard Risk Analysis Worksheet). Ensure Safety's awareness of Vegetation activity in the field and the provision of Safety personnel to provide briefings and observe activity for any safety issues. |
| | 5 | Ensure adequate resource levels are maintained to perform operations safely. |
| | 6 | Maintain records of tree work performed. Ensure compliance with all existing State and Federal vegetation clearance requirements. |
| | 7 | Provide daily updates to Operations Section Chief on units removed or mitigated allowing operations to plan for restoration efforts. |
| | 8 | Fulfill requests for updates or information (PIO, Liaison Officer's, EOC, VM Leadership, Distribution Health Specialist, etc.). |



| | | |
|---|----|---|
| ✓ | | Operations |
| | 9 | Participate in the emergency center daily meetings as requested. |
| | 10 | Provide requested ICS and incident documentation to the Documentation Unit Leader (DOCL). |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports and field personnel. |
| | 2 | Confirm all documentation is collected per ERIM procedures. |
| | 3 | Leave a contact phone number with the appropriate person in the emergency center to confirm your safe arrival home. |
| | 4 | Demobilize using the ICS Form 221 (Demobilization Check-Out). |
| | 5 | Check out of the Emergency Center using the ICS Form 211 (Check-In/Out) or local procedure. |
| | 6 | Provide Emergency Management Specialist Team (EMS) with any issues, areas of improvement and best practices related to this document or OMT Hawk processes: EP&R Electric Emergency Management Specialist (EMS) Team On Call <div style="background-color: black; width: 100%; height: 20px;"></div> |

I.3 Planning Workgroup



Pacific Gas and Electric Company

*Planning Section
Planning Section Chief*

***** Read This Entire Document before Taking Action *****

| | |
|--------------------|--|
| Position: | Planning Section Chief (PSC) |
| Reports To: | Incident Commander (IC) |
| Direct Reports: | Situation Unit Leader (SITL), Resources Unit Lead (RESL), Documentation Unit Lead (DOCL), Demobilization Unit Leader (DEML), Technical Specialists (as needed) |
| References: | <ul style="list-style-type: none"> • CERP Company Emergency Response Plan EMER 3001M • Electric Annex EMER- 3002M • Disaster Rebuild Annex – EMER 3012M • Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 • PSPS Standard 1000S • PSPS - 1000P-01 • PSPS Annex – EMER 3106M • PSPS Training (specify) • Electric TD-1464S-01 • Electric TD-1464P-01 • Wildfire Annex EMER 3105M • Earthquake Annex EMER 3101M • System Hardening During Emergency Response – EMER 4004S • OMT Job Aids (specify) • OMT Training (specify) • Business Applications Team (BAT) On Call • [REDACTED] • Emergency Management Specialist (EMS) Team On Call • [REDACTED] • IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) • ESC Local 5 Letter of Agreement • Order Closure Training Packet (in development) |
| Suggested Training | <ul style="list-style-type: none"> • IS-100: Introduction to the Incident Command System, ICS-100 • IS-200: Basic Incident Command System for Initial Response, ICS-200 • ICS-300: Intermediate Incident Command System for Expanding Incidents • FEMA Independent Study (IS)-700: National Incident Management System, An Introduction • FEMA IS-800: National Response Framework, An Introduction • IS-2900: National Disaster Recovery Framework (NDRF) Overview • E/G/L 0191: Emergency Operations Center/Incident Command System Interface • E/L 0965: National Incident Management System Incident Command System All Hazards Resources and Demobilization Unit Leaders Course, or equivalent |



*Planning Section
Planning Section Chief*

| | |
|---------------------------|---|
| Position Description: | The Planning Section Chief oversees collection, evaluation, and dissemination of information about the incident and status of resources. Assists with communicating situation status, predicting probable course of incident events, preparing alternative strategies for the incident, and submitting incident status reports. The Planning Section Chief acts as an information hub and driver for processes and Planning Section deliverables during each Operational Period. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Work with the Command and General Staff in evaluating the current situation and objectives. • Staff, organize, and supervise the Planning Section. Plan for relief and replacement of staff, as appropriate. • Complete and distribute the Incident Action Plan (IAP) and the Intelligence Summary (Situation Report) • Distribute the IAP and Intelligence Summary to all appropriate incident personnel • Schedule and facilitate the Planning P meetings • Provide periodic status reports to the IC • Provide ICS documents to the Documentation Unit Leader (DOCL) |

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Ensure program/day-to-day supervisor is aware and approves response job assignment <ul style="list-style-type: none"> • Coordinate with the Safety Officer to send appropriate safety tailboards to incoming personnel |
| | 2 | Review the Planning Section Chief Position Guide |
| | 3 | Review position guides for staff under your supervision |
| | 4 | Ensure all proper equipment is obtained and brought to reporting location (i.e. site access, safety equipment, IT equipment, FR clothing, personal items, etc.) |
| | 5 | Ensure (test) access to IT systems with e-mail/intranet communication to increase communication and document sharing with all Sections. Identify backup remote work location |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Work with the Check-in/Check-out Recorder to ensure Check-In and Check-Out is implemented using the ICS Form 211 (Check-In/Out) in the OEC and all field site locations as necessary (See Check-In/Check-Out Desk Process) <ul style="list-style-type: none"> • Sign in on ICS 211 Form, ARCOS, and LiveSafe Application as necessary. |



**Pacific Gas and
Electric Company**

*Planning Section
Planning Section Chief*

| | | |
|---|----|--|
| ✓ | | Initial Actions |
| | 2 | Establish contact and obtain transition briefing/assignments from response supervisor and/or from outgoing staff being backfilled |
| | 3 | Ensure proper staffing is established appropriate to size/scale of incident or event. The PSC will assume the duties/responsibilities of positions not filled in the Planning Section. |
| | 4 | Confirm OEC Command and General Staff availability for incident/event and contact information |
| | 5 | Confirm the Operational Briefing is scheduled within 60 minutes of the OEC becoming operational <ul style="list-style-type: none"> • If the situation warrants, contact Meteorologist to call into conference call briefings with updates |
| | 6 | Determine the Planning P Meeting schedule using ICS Form 230 (Meeting Schedule). Coordinate Planning P Meeting Schedule with other activated emergency centers (i.e. OECs, REC, EOC, CALFIRE Basecamp, etc.), as needed. |
| | 7 | Participate with the Command and General Staff to develop incident and operational objectives during the initial Operational Period using the SMART model |
| | 8 | Establish communications with the REC as necessary (if activated) |
| | 9 | Coordinate with the Safety Officer to ensure ICS 206 is completed for each District Storm Room (DSR) |
| | 10 | Confirm personnel information is updated in ARCOS and emergency contact information is updated and on file |

| | | |
|---|---|--|
| ✓ | | Operations |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Determine Planning Section staffing needs for the next Operational Period |
| | 3 | Regularly check in with IC regarding incident and Section status, assignments, steps taken to resolve critical issues, and projected actions and needs for the next operational period |



Planning Section
Planning Section Chief

| | | |
|---|----|---|
| ✓ | | Operations |
| | 4 | <p>Facilitate the Planning P meetings, which include Command and General Staff Meeting, Initial Incident Briefing, Operational Briefing, Tactics Meeting, and Planning Meeting</p> <ul style="list-style-type: none"> • Confirm meeting agendas are utilized and reflect the current staffing structure for briefing and meeting report outs • Confirm meeting invites are sent in a timely manner to appropriate personnel |
| | 5 | In coordination with Command and General Staff, adjust Incident and Operational Objectives as needed |
| | 6 | Provide ICS documents, including ICS Form 214 (Activity Log), and submit to the Documentation Unit Leader (DOCL) |
| | 7 | Continue to ensure proper staffing is established appropriate to size/scale of incident or event. Coordinate with other sections as needed to continue onboarding new personnel |
| | 8 | <p>If a Situation Unit Leader is not staffed, perform the following duties. Reference the SITL Position Guide link below for further details:</p> <ul style="list-style-type: none"> • Collaborate with the DOCL to create/update the Intelligence Summary and/or ICS 201 (Incident Briefing) and send to PSC as soon as possible depending on incident type/event. • Collaborate with Technical Specialists and mapping support to develop and maintain incident specific displays • Reference the SITL Position Guide for additional information |
| | 9 | <p>If a Documentation Unit Leader is not staffed, perform the following duties. Reference the DOCL Position Guide link below for further details:</p> <ul style="list-style-type: none"> • Oversee the collection, validation, organization, analysis, distribution, and storage of incident information, files, forms, IAPs, information releases and reports • Compile ICS Forms for the IAP for each Operational Period • Send IAP to IC Advisor to review before submitting to IC for final approval • Coordinate all components of work package creation and closure • Reference the DOCL Position Guide for additional information |
| | 10 | <p>If a Resource Unit Leader is not staffed, perform the following duties. Reference the RESL Position Guide link below for further details:</p> <ul style="list-style-type: none"> • Establish Check-in/Out Process for OEC and Field Personnel • Prepare the ICS 203, ICS 204, and ICS 207 and submit to DOCL • Establish, maintain and communicate resource tracking system, including resource status information on personnel and equipment • Reference the RESL Position Guide for additional information |



| | | |
|---|----|---|
| ✓ | | Operations |
| | 11 | <p>If a Demobilization Unit Leader is not staffed, perform the following duties. Reference the DEML Position Guide link below for further details:</p> <ul style="list-style-type: none"> • Oversees the collection, evaluation and dissemination of information on the demobilization of all incident resources • Manages the coordination, dissemination, and implementation of the demobilization plan in coordination with the Safety Officer • Reference the DEML Position Guide for additional information |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports, response supervisor, and incoming backfill (if necessary) on the current situation, response actions, unmet needs, etc. Confirm ICS 221 is completed by response direct reports |
| | 2 | Confirm all documentation is collected per ERIM procedures and stored physically/electronically (coordinate with DOCL) |
| | 3 | Sign out using the ICS 211 Form (Check-in/Check-out) |
| | 4 | Complete the ICS Form 221 (Demobilization Check-Out) and sign out |
| | 5 | <p>Submit comments to response supervisor for discussion and possible inclusion in the after-action meeting; topics include:</p> <ul style="list-style-type: none"> • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues |

Demobilization Unit Leader



*Planning Section
Demobilization Unit Leader*

***** Read This Entire Document before Taking Action *****

| | |
|--------------------|--|
| Position: | Demobilization Unit Leader (DEML) |
| Reports To: | Planning Section Chief (PSC) |
| Direct Reports: | None |
| References: | <ul style="list-style-type: none"> • CERP Company Emergency Response Plan EMER 3001M • Electric Annex EMER- 3002M • Disaster Rebuild Annex – EMER 3012M • Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 • PSPS Standard 1000S • PSPS - 1000P-01 • PSPS Annex – EMER 3106M • PSPS Training (specify) • Electric TD-1464S-01 • Electric TD-1464P-01 • Wildfire Annex EMER 3105M • Earthquake Annex EMER 3101M • System Hardening During Emergency Response – EMER 4004S • OMT Job Aids (specify) • OMT Training (specify) • Business Applications Team (BAT) On Call <ul style="list-style-type: none"> ○ [REDACTED] ○ [REDACTED] • Emergency Management Specialist (EMS) Team On Call <ul style="list-style-type: none"> ○ [REDACTED] ○ [REDACTED] • IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) • ESC Local 5 Letter of Agreement • Order Closure Training Packet (in development) |
| Suggested Training | <ul style="list-style-type: none"> • IS-100: Introduction to the Incident Command System, ICS-100 • IS-200: Basic Incident Command System for Initial Response, ICS-200 • ICS-300: Intermediate Incident Command System for Expanding Incidents • FEMA Independent Study (IS)-700: National Incident Management System, An Introduction • FEMA IS-800: National Response Framework, An Introduction • IS-2900: National Disaster Recovery Framework (NDRF) Overview • E/G/L 0191: Emergency Operations Center/Incident Command System Interface • E/L 0965: National Incident Management System Incident Command System All Hazards Resources and Demobilization Unit Leaders Course, or equivalent |



**Pacific Gas and
Electric Company**

*Planning Section
Demobilization Unit Leader*

| | |
|---------------------------|--|
| Position Description: | The DEML is responsible for coordinating an Incident Demobilization Plan in coordination with the appropriate Regional Emergency Center (REC), if activated, that includes specific instructions for all staff and resources that will require demobilization. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Oversees the collection, evaluation and dissemination of information on the demobilization of all incident resources • Manages the coordination, dissemination, and implementation of the demobilization plan • Monitors demobilization process and progress • Confirm Safety Officer is included in the demobilization process as needed • Provide ICS documents to the Documentation Unit Leader (DOCL) as needed, including ICS 221, etc. |

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Ensure program/day-to-day supervisor is aware and approves response job assignment. |
| | 2 | Review the Demobilization Unit Leader (DEML) Position Guide |
| | 3 | Ensure all proper equipment is obtained and brought to reporting location (i.e. site access, safety equipment, IT equipment, FR clothing, personal items, etc.) |
| | 4 | Ensure (test) access to IT systems with e-mail/intranet communication to increase communication and document sharing with all Sections. Identify backup remote work location. |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Establish contact and obtain transition briefing/assignments from response supervisor and/or from outgoing staff being backfilled |

| | | |
|---|---|---|
| ✓ | | During Event/Incident (Ongoing) |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Regularly check in with PSC regarding incident and Section status, assignments, steps taken to resolve critical issues, and projected actions and needs for the next operational period |



| | | |
|---|---|--|
| ✓ | | During Event/Incident (Ongoing) |
| | 3 | <p>Check in regularly with OEC staff for resource demobilization needs:</p> <ul style="list-style-type: none"> • Coordinate with Resource Unit Leader to review resource list and incident records to determine probable size of incident/event demobilization effort • Identify surplus resources and probable release time • Coordinate with IC Advisor as needed on demobilization process |
| | 4 | Work with REC (if activated), PSC, and IC Advisor on implementation and dissemination, of the Demobilization Plan. |
| | 5 | Attend all appropriate meetings and briefings. |
| | 6 | <p>Provide ICS documents to the Documentation Unit Leader (DOCL), complying with ERIM procedures for all incident documents</p> <ul style="list-style-type: none"> • Document actions and decisions on ICS Form 214 (Activity Log) and submit to DOCL |
| | 7 | Collect any equipment from resources being demobilized |
| | 8 | Ensure ICS 221 forms are completed for demobilized staff and forms are submitted to DOCL |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports, response supervisor, and incoming backfill (if necessary) on the current situation, response actions, unmet needs, etc. |
| | 2 | Confirm all documentation is collected per ERIM procedures |
| | 3 | Return any equipment |
| | 4 | Receive safety briefing from Safety Officer and complete the ICS Form 221 (Demobilization Check-Out) and sign out |
| | 5 | <p>Submit comments to response supervisor for discussion and possible inclusion in the after-action meeting; topics include:</p> <ul style="list-style-type: none"> • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues |

Documentation Unit Leader



*Planning Section
Documentation Unit Leader (DOCL)*

***** Read This Entire Document before Taking Action *****

| | |
|--------------------|--|
| Position: | Documentation Unit Leader (DOCL) |
| Reports To: | Planning and Intelligence Chief (PSC) |
| Direct Reports: | None |
| References: | <ul style="list-style-type: none"> • CERP Company Emergency Response Plan EMER 3001M • Electric Annex EMER- 3002M • Disaster Rebuild Annex – EMER 3012M • Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 • PSPS Standard 1000S • PSPS - 1000P-01 • PSPS Annex – EMER 3106M • PSPS Training (specify) • Electric TD-1464S-01 • Electric TD-1464P-01 • Wildfire Annex EMER 3105M • Earthquake Annex EMER 3101M • System Hardening During Emergency Response – EMER 4004S • OMT Job Aids (specify) • OMT Training (specify) <div style="background-color: black; width: 200px; height: 20px; margin: 5px 0;"></div> <ul style="list-style-type: none"> • Emergency Management Specialist (EMS) Team On Call <div style="background-color: black; width: 150px; height: 20px; margin: 5px 0;"></div> <ul style="list-style-type: none"> • IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) • ESC Local 5 Letter of Agreement • Order Closure Training Packet (in development) |
| Suggested Training | <ul style="list-style-type: none"> • IS-100: Introduction to the Incident Command System, ICS-100 • IS-200: Basic Incident Command System for Initial Response, ICS-200 • ICS-300: Intermediate Incident Command System for Expanding Incidents • FEMA Independent Study (IS)-700: National Incident Management System, An Introduction • FEMA IS-800: National Response Framework, An Introduction • IS-2900: National Disaster Recovery Framework (NDRF) Overview • E/G/L 0191: Emergency Operations Center/Incident Command System Interface • E/L 0965: National Incident Management System Incident Command System All Hazards Resources and Demobilization Unit Leaders Course, or equivalent |



| | |
|---------------------------|---|
| Position Description: | The DOCL is responsible to oversee the collection, organization, analysis, and distribution of incident information. Confirm that information collected from all sources is validated before being placed on any status board or reported out. Develop an Incident Action Plan (IAP) for each Operational Period, based on objectives. Work with clerical supervisor, estimating and mapping to ensure complete documentation of work packages in the field. Work with Operations Section to prioritize printing of work packages for the field. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Oversee the collection, organization, analysis, distribution, and storage of incident information, files, forms, IAPs, information releases and reports • Confirm that information from all sources is validated before being placed on any status board or reported out • Support the development of the Intelligence Summary and/or ICS Form 201 – Incident Briefing • Compile ICS Forms for the IAP for each Operational Period • Coordinate all components of work package creation and closure |

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Ensure program/day-to-day supervisor is aware and approves response job assignment. |
| | 2 | Review DOCL Position Guide |
| | 3 | Ensure all proper equipment is obtained and brought to reporting location (i.e. site access, safety equipment, IT equipment, FR clothing, personal items, etc.) |
| | 4 | Ensure (test) access to IT systems with e-mail/intranet communication to increase communication and document sharing with all Sections. Identify backup remote work location. |

| | | |
|---|---|--|
| ✓ | | Initial Actions |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Establish contact and obtain transition briefing/assignments from response supervisor and/or from outgoing staff being backfilled |
| | 3 | Implement the ERIM procedures for all incident documents <ul style="list-style-type: none"> • Set-up a location (e.g. a banker's box) for onsite collection and temporary storage of physical incident records • Confirm adequate print and copy support (e.g. Xerox/copy machines, paper) • Email incident folder location and instructions for SharePoint to all incident personnel |



| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 4 | In coordination with Operations and Logistics Sections, evaluate size of incident/event and determine if additional clerical resources are needed |
| | 5 | Coordinate with Logistics Section to determine if additional sites are needed for resources |

| | | |
|---|---|---|
| ✓ | | Operations |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Assist the Situation Unit Leader (SITL) in updating/creating the Intelligence Summary and/or ICS Form 201 (Incident Briefing) and distribute an approved version to stakeholders as soon as possible depending on incident type/event |
| | 3 | Regularly check in with PSC regarding incident and Section status, assignments and needs for the next operational period. |
| | 4 | <p>Compile ICS Forms for the IAP and distribute approved version to stakeholders</p> <ul style="list-style-type: none"> • Gather forms from appropriate stakeholders (i.e. ICS 203, 206, etc) • Complete IAP, checking for errors and complete, validated information • Coordinate with PSC for IAP deadlines and distribution schedule • Send IAP to IC Advisor to review before submitting to IC for final approval • Distribute approved IAP to stakeholders based on established distribution lists • For detailed steps, please see IAP Job Aide (insert link here when developed) |
| | 5 | <p>Collect hard-copies, scan, upload all ICS Forms to incident SharePoint location</p> <ul style="list-style-type: none"> • Implement the ERIM procedures for all incident documents • Work with personnel to collect appropriate documentation related to job packages |
| | 6 | <ul style="list-style-type: none"> • Print job packages for field crews and organization packages based on restoration strategy • Review submitted job packages for: <ul style="list-style-type: none"> ○ Signatures and LAN ID ○ Identify process to send packages back to Operations Section to collect necessary information ○ Contractor company information ○ Follow Order Closure Guide (insert link) |



| | | |
|---|---|--|
| ✓ | | Operations |
| | 7 | <ul style="list-style-type: none"> Document actions and decisions on ICS Form 214 (Activity Log) and submit to DOCL |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | <p>Debrief your direct reports, response supervisor, and incoming backfill (if necessary) on the current situation, response actions, unmet needs, etc.</p> <ul style="list-style-type: none"> Coordinate with PSC for scaling down IAP cadence and demobilizing resources |
| | 2 | Confirm all documentation is collected and stored physically/electronically per ERIM procedures |
| | 3 | Sign out using the ICS Form 221 (Demobilization Check-Out) |
| | 4 | <p>Submit comments to response supervisor for discussion and possible inclusion in the after-action meeting; topics include:</p> <ul style="list-style-type: none"> Review of pertinent position descriptions and operational checklists Recommendations for procedure changes Section accomplishments and issues |

Resource Unit Leader



Pacific Gas and Electric Company

*Planning Section
Resource Unit Leader*

***** Read This Entire Document before Taking Action *****

| | |
|-----------------|--|
| Position: | Resource Unit Leader (RESL) |
| Reports To: | Planning Section Chief (PSC) |
| Direct Reports: | None |
| References: | <ul style="list-style-type: none"> • CERP Company Emergency Response Plan EMER 3001M • Electric Annex EMER- 3002M • Disaster Rebuild Annex – EMER 3012M • Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 • PSPS Standard 1000S • PSPS - 1000P-01 • PSPS Annex – EMER 3106M • PSPS Training (specify) • Electric TD-1464S-01 • Electric TD-1464P-01 • Wildfire Annex EMER 3105M • Earthquake Annex EMER 3101M • System Hardening During Emergency Response – EMER 4004S • OMT Job Aids (specify) • OMT Training (specify) • Business Applications Team (BAT) On Call • [REDACTED] • Emergency Management Specialist (EMS) Team On Call • [REDACTED] • IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) • ESC Local 5 Letter of Agreement • Order Closure Training Packet (in development) |



Planning Section
Resource Unit Leader

| | |
|---------------------------|---|
| Suggested Training | <ul style="list-style-type: none"> • IS-100: Introduction to the Incident Command System, ICS-100 • IS-200: Basic Incident Command System for Initial Response, ICS-200 • ICS-300: Intermediate Incident Command System for Expanding Incidents • FEMA Independent Study (IS)-700: National Incident Management System, An Introduction • FEMA IS-800: National Response Framework, An Introduction • IS-2900: National Disaster Recovery Framework (NDRF) Overview • E/G/L 0191: Emergency Operations Center/Incident Command System Interface • E/L 0965: National Incident Management System Incident Command System All Hazards Resources and Demobilization Unit Leaders Course, or equivalent |
| Position Description: | RESL tracks all personnel resources, determines what resources have been assigned to the incident, their status, location and potential resource needs. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Establish ICS 211 – Check-in/Out for OEC and Field Personnel • Prepare the ICS 203 – Organization Assignment List • Prepare the ICS 207 – Organizational Chart (posters) • Prepare appropriate parts of the ICS 204 – Assignment Lists • Establish, maintain and communicate resource tracking system, including resource status information on personnel and equipment • Provide all ICS documents to the Documentation Unit Leader (DOCL) |

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Ensure program/day-to-day supervisor is aware and approves response job assignment. |
| | 2 | Review RESL Position Guide |
| | 3 | Ensure all proper equipment is obtained and brought to reporting location (i.e. site access, safety equipment, IT equipment, FR clothing, personal items, etc.) |
| | 4 | Ensure (test) access to IT systems with e-mail/intranet communication to increase communication and document sharing with all Sections. Identify backup remote work location. |



| | | |
|---|---|--|
| ✓ | | Initial Actions |
| | 1 | <p>Work with the OSC to ensure Check-In and Check-Out is implemented using the ICS Form 211 (Check-In/Out) in the OEC and other field site entry locations as needed.</p> <ul style="list-style-type: none"> • Sign in on ICS 211 Form, ARCOS, and LiveSafe Application as necessary. |
| | 2 | <p>Establish contact and obtain transition briefing/assignments from response supervisor and/or from outgoing staff being backfilled</p> |
| | 3 | <p>Meet with the Command and General Staff to identify immediate resource needs for both the OEC and the field</p> |

| | | |
|---|---|--|
| ✓ | | Operations |
| | 1 | <p>Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary)</p> |
| | 2 | <p>Gather, post, and maintain incident resource status; maintain master roster of all resources checked into the OEC and field sites as needed:</p> <ul style="list-style-type: none"> • Provide resource status reports to appropriate requesters (i.e. section chiefs, Customer Strategy Officer, Public Information Officer, Safety Officer, etc.) • Work with the LSC for personnel and equipment needs in the OEC and the field |
| | 3 | <p>Keep in contact with field sites to track resources as assigned, available, and rest periods and advise the OEC, if applicable</p> <ul style="list-style-type: none"> • Establish contacts with the OEC and field sites to track resource status as assigned, available, and rest periods |
| | 4 | <p>Complete the ICS Form 204 (Assignment List) for assigned field and OEC personnel for the next Operational Period; send to the DOCL for the IAP</p> |
| | 5 | <p>Participate in the Planning P meetings, which include Command and General Staff Meeting, Tactics Meeting, and Planning Meeting. Conduct resource status updates at meetings and briefing as required by the PSC.</p> <ul style="list-style-type: none"> • During the Tactics Meeting and throughout the incident, identify resource needs from the OSC and the LSC |



| | | |
|---|----|---|
| ✓ | | Operations |
| | 6 | Regularly check in with PSC regarding incident and Section status, assignments, steps taken to resolve critical issues, and projected actions and needs for the next operational period. |
| | 7 | Prepare the ICS Form 203 (Organization Assignment List) for OEC personnel |
| | 8 | Prepare the ICS Form 207 (Organization Chart) for OEC personnel <ul style="list-style-type: none"> • Post the ICS Form 207 (Organization Chart) for OEC personnel |
| | 9 | Gain approval from the PSC of personnel schedule for the next Operational Period for the OEC and field sites. Confirm all jobs and/or locations are assigned with the correct staff for all Operational Periods |
| | 10 | Provide ICS documents to the Documentation Unit Leader (DOCL) |

| | | |
|---|---|---|
| ✓ | | Demobilization |
| | 1 | Debrief your direct reports, response supervisor, and incoming backfill (if necessary) on the current situation, response actions, unmet needs, etc. |
| | 2 | Ensure ERIM standards are followed for incident documentation |
| | 3 | Sign out using the ICS 221 (Demobilization Check-Out) |
| | 4 | Submit comments to response supervisor for discussion and possible inclusion in the after-action meeting; topics include: <ul style="list-style-type: none"> • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues |

Situation Unit Leader



Pacific Gas and Electric Company

*Planning Section
Situation Unit Leader*

***** Read This Entire Document before Taking Action *****

| | |
|-----------------|--|
| Position: | Situation Unit Leader (SITL) |
| Reports To: | Planning Section Chief (PSC) |
| Direct Reports: | None |
| References: | <ul style="list-style-type: none"> • CERP Company Emergency Response Plan EMER 3001M • Electric Annex EMER- 3002M • Disaster Rebuild Annex – EMER 3012M • Electric Operations Estimated Time of Restoration Procedure EMER – 3002P-01 • PSPS Standard 1000S • PSPS - 1000P-01 • PSPS Annex – EMER 3106M • PSPS Training (specify) • Electric TD-1464S-01 • Electric TD-1464P-01 • Wildfire Annex EMER 3105M • Earthquake Annex EMER 3101M • System Hardening During Emergency Response – EMER 4004S • OMT Job Aids (specify) • OMT Training (specify) • Business Applications Team (BAT) On Call • [REDACTED] • Emergency Management Specialist (EMS) Team On Call • [REDACTED] • IBEW 1245, (Title 200, 300, and Clerical Letter of Agreement) • ESC Local 5 Letter of Agreement • Order Closure Training Packet (in development) |



Planning Section
Situation Unit Leader

| | |
|---------------------------|---|
| Suggested Training: | <ul style="list-style-type: none"> • IS-100: Introduction to the Incident Command System, ICS-100 • IS-200: Basic Incident Command System for Initial Response, ICS-200 • ICS-300: Intermediate Incident Command System for Expanding Incidents • FEMA Independent Study (IS)-700: National Incident Management System, An Introduction • FEMA IS-800: National Response Framework, An Introduction • IS-2900: National Disaster Recovery Framework (NDRF) Overview • E/G/L 0191: Emergency Operations Center/Incident Command System Interface • E/L 0965: National Incident Management System Incident Command System All Hazards Resources and Demobilization Unit Leaders Course, or equivalent |
| Position Description: | The SITL collects and analyzes the incident information. Evaluates the implementation process to make sure it's working. Ensures a smooth and safe transition to resume back to normal work activities. |
| Primary Responsibilities: | <ul style="list-style-type: none"> • Collect and analyze incident information • Conduct situation updates at Planning P meetings and briefings • Work with the Planning Section Chief (PSC) and Documentation Unit Lead (DOCL) to create/update the Incident Action Plan (IAP), the Situation Status Report (SIT STAT) and/or ICS Form 201 – Incident Briefing • Display incident information to promote Common Operating Picture (COP) • Provide ICS documents to the Documentation Unit Leader (DOCL) |

| | | |
|---|---|---|
| ✓ | | Pre-Deployment |
| | 1 | Ensure program/day-to-day supervisor is aware and approves response job assignment. |
| | 2 | Review SITL Position Guide |
| | 3 | Ensure all proper equipment is obtained and brought to reporting location (i.e. site access, safety equipment, IT equipment, FR clothing, personal items, etc.) |
| | 4 | Ensure (test) access to IT systems with e-mail/intranet communication to increase communication and document sharing with all Sections. Identify backup remote work location. |

| | | |
|---|---|---|
| ✓ | | Initial Actions |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Establish contact and obtain transition briefing/assignments from response supervisor and/or from outgoing staff being backfilled |



Planning Section
Situation Unit Leader

| | | |
|---|----|---|
| ✓ | | Operations |
| | 1 | Check in and check out using appropriate tools (i.e. ICS 211 Form, ARCOS, and LiveSafe Application as necessary) |
| | 2 | Regularly check in with PSC regarding incident and Section status, assignments, steps taken to resolve critical issues, and projected actions and needs for the next operational period |
| | 3 | Participate appropriate meetings and briefings |
| | 4 | Provide intelligence to PSC for briefings and meeting report outs |
| | 5 | Collaborate with the DOCL to create/update the Intelligence Summary and/or ICS 201 (Incident Briefing) and send to PSC as soon as possible depending on incident type/event. <ul style="list-style-type: none"> • Reporting cadence determined by length and complexity of event (refer to Electric Annex for additional information). • Obtain updated EEIs from established sources and share information appropriately |
| | 6 | Collaborate with the DOCL to create/update the IAP and display in OEC or electronically via Teams/Sharepoint |
| | 7 | Confirm single point of contact for transmission and distribution clearances |
| | 8 | Work with Resource Unit Lead (RESL) and Logistics Section Chief (LSC) for Planning Section personnel and equipment needs <ul style="list-style-type: none"> • Obtain intelligence for all staffing and equipment need/changes for Intelligence Summaries and other situational reports |
| | 9 | Document actions and decisions on ICS Form 214 (Activity Log) and submit to the DOCL |
| | 10 | Collaborate to develop and maintain incident specific displays (these may be maps, forms, weather reports, damage assessment information. Contact GIS Tech Specialist to assist with map over lays for fire incidents and/or other GIS specific information (Outage Management Tool (OMT), Tactical Analysis Mapping Integration (TAMI), CALFIRE Maps, Flood Maps) |

| | | |
|---|---|--|
| ✓ | | Demobilization |
| | 1 | As necessary, debrief your direct reports, response supervisor, and incoming backfill (if necessary) on the current situation, response actions, unmet needs, etc. |
| | 2 | Confirm all documentation is collected and sent to DOCL per ERIM procedures |



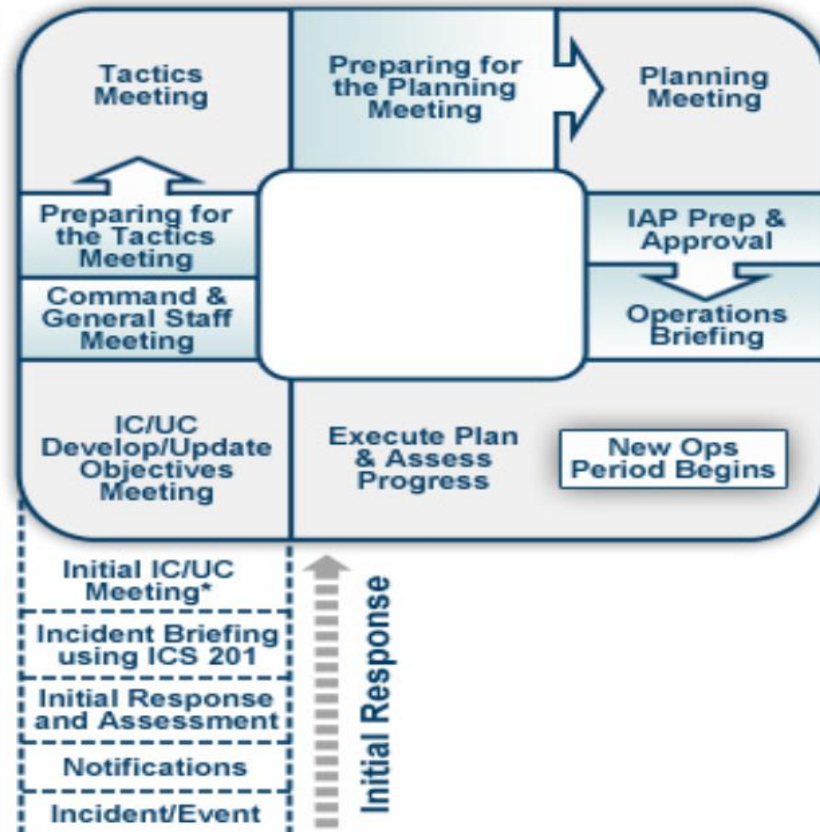
*Planning Section
Situation Unit Leader*

| | | |
|--|---|---|
| | 3 | Complete the ICS Form 221 (Demobilization Check-Out) and sign out |
| | 4 | Submit comments to response supervisor for discussion and possible inclusion in the after-action meeting; topics include: <ul style="list-style-type: none">• Review of pertinent position descriptions and operational checklists• Recommendations for procedure changes• Section accomplishments and issues |

Appendix J. OEC Meeting/Briefing Agenda Templates

Meeting information below (i.e., attendees, agendas, etc.) can be modified based on OEC operational needs. Meetings can also be combined, depending on OEC operational needs. Meeting order below is based on the order of meetings/briefings per the “Planning P” model.

J.1 Planning P Model



J.2 Initial Incident Briefing

Facilitator – Incident Commander or Planning Section Chief

Purpose: The Initial Incident Briefing gives the Command and General Staff situational information, including constraints and limitations, to make informed decisions.

Attendees: Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, Public Information Officer, Customer Strategy Officer, Operations Section Chief (OSC), (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

39. Roll Call (Planning Section Chief)
40. Safety Message (Safety Officer)
41. Weather (Meteorology)
42. Incident Overview (Incident Commander)
43. Brief Outs/Issues (Planning Section Chief)
 - Run through Roll Call
44. Closing Comments (Incident Commander)
45. Action Items (Planning Section Chief)

J.3 Operational Briefing

Facilitator – Planning Section Chief

Purpose: The PSC conducts the operations briefing before each operational period begins, ensuring that those who need the information have access to it. The purpose is to roll out the IAP for the upcoming operational period. The OSC may adjust work assignments or resource allocations during the briefing.

Attendees – Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, PIO, Customer Strategy Officer, Operations Section Chief, (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

46. Roll Call (Plans Section Chief)
47. Safety Message (Safety Officer)
48. Weather Update (Meteorology)
49. Opening Comments (OEC Commander)
 - High level overview, Provide leadership presence and guidance
50. Incident Overview (Planning Section Chief)
 - Next operational period objectives
51. Report outs
 - Safety Officer
 - Customer Strategy Officer
 - Government Relations
 - Public Information Officer
 - Liaison Officer
 - Public Safety Specialist
 - Operations
 - Planning
 - Logistics
 - Finance

J.4 Objectives Meeting

Facilitator – Planning Section Chief

Purpose: The Objectives Meeting provides the opportunity for the Incident Commander, Operations Section Chief, Planning Section Chief, and IC Advisor to review the proposed objectives for the next operational period.

Preparation: Updated objectives for the next operational period should be sent to the Planning Section Chief and/or Documentation Unit Leader PRIOR to this meeting by the Section Chiefs.

Agenda:

52. Roll Call (Planning Section Chief)

- Incident Commander
- Operations Section Chief
- Planning Section Chief
- Documentation Unit Leader
- IC Advisor

53. Safety Message (Planning Section Chief)

54. Review Incident Objectives (Planning Section Chief)

55. Review Operational Objectives (Operations Section Chief)

56. Confirm Incident and Operational Objectives (Planning Section Chief)

57. Closing Comments (Incident Commander)

J.5 Command and General Staff Meeting

Facilitator – Planning Section Chief

Purpose: The C&G Meeting provides the opportunity for the Incident Commander (IC) to meet with the staff to gather input or to provide immediate direction. It is also the opportunity for the IC to articulate and approve incident objectives for the next operational period and to share important information regarding incident management. The IC presents the priorities and incident objectives and articulates guidance on how incident operations will proceed. The participants review the incident objectives and discuss strategies for accomplishing the objectives.

Agenda:

58. Roll Call (Planning Section Chief)

- Incident Commander
- Meteorology
- Public Safety Specialist
- Safety Officer
- Liaison Officer
- Public Information Officer
- Customer Strategy Officer
- Operations Section Chief
- District Storm Room Leads
- Planning Section Chief
- Situation Unit Leader
- Documentation Unit Leader
- Resource Unit Leader
- Logistics Section Chief
- Finance Section Chief
- IC Advisor

59. Weather (Meteorology)

60. Safety Message (Safety Officer)

61. Opening Comments (IC)

- Name of the Incident
- Operational Period length and start Time
- Other key Command/General Staff and technical support as needed

62. Incident Overview (Situation Unit Leader/Planning Section Chief)

- Current Outage Overview
 - Total Customers Out
 - Total Outages in Assessment
 - Total Outages in Restoration
- Job Package Overview
 - Total Job Packages in Estimating
 - Total Job Packages Assigned
- Resources
 - Total Troublemens
 - Total Crews

63. Report Outs, Constraints, Limitations, Shortfalls (Planning Section Chief)

- Safety Officer
- Plans Section Chief – Include reminders
- Operations Chief
- Public Safety Specialist
- Logistics Chief
- Finance and Admin Chief
- Public Information Officer
- Customer Strategy Officer
- Liaison Officer

64. Present Incident Objectives for Upcoming Operational Period (Planning Section Chief)

65. Closing Comments (IC)

J.6 Tactics Meeting

Facilitator – Planning Section Chief

Purpose: The purpose of this meeting is to review and finalize the draft ICS Form 215s. To accomplish this, the OSC leads participants in reviewing the work assignment drafts to determine whether they are complete and whether they support the incident and operational objectives. Participants also identify gaps and duplication in work assignments and resolve any conflicts or coordination issues. Participants also consider resource and logistical issues and identify shortfalls, excesses, safety issues, and the accuracy of the incident map.

Attendees: Incident Commander, Public Safety Specialist, Safety Officer, Liaison Officer, PIO, Customer Strategy Officer, Operations Section Chief, (DSR'S), Plans Section Chief, Situation Unit Leader, Documentation Unit Lead, Resource Unit Lead, Logistics Chief, Finance Section Chief, and IC Advisor

Agenda:

66. Roll Call (Plans Section Chief)

67. Safety Message (Safety Officer)

68. Opening Comments (Plans Section Chief)

- Name of the Incident
- Location of the Operations Emergency Center (OEC)
- Operational Period length and start Time
- Command/General Staff and technical support as needed

69. Incident Overview (Plans Section Chief)

- Present current situation and
- Present resources status
- Provide projections

70. Strategies and Tactics (Operations Chief)

- Develop strategies and tactics for work assignments
- Identify resource assignments and needs
- Identify alternate strategies

71. Assign Tactics to Teams/Department (division of work)

72. Safety (Safety Officer)

- Identify potential hazards and recommends mitigation measures
- Create the Hazard Risk Analysis ICS 215a

73. Logistics (Logistics Chief)

- Determine support requirements based on facilities, logistical infrastructure, etc.
- Prepare to order needed resources
- Present situation information and projections

J.7 Planning Meeting

Facilitator – Planning Section Chief

Purpose: The purpose of the Planning Meeting is to gain concurrence of all participating sections for the next operational period. The meeting provides the opportunity for the Command and General Staff, as well as other incident management personnel and organizations to discuss and resolve any outstanding issues before assembling the IAP. After the review has been completed and updates have been made, C&GS affirm their commitment to support the plan.

Attendees: Incident Commander, Meteorology, Public Safety Specialist, Safety Officer, Liaison Officer, Public, Information Officer, Customer Strategy Officer, Operations Section Chief, District Storm Room Leads, Planning Section Chief, Situation Unit Leader, Documentation Unit Leader, Resource Unit Leader, Logistics Section Chief, Finance Section Chief, IC Advisor

Agenda:

74. Roll Call (Planning Section Chief)

75. Safety Message (Safety Officer)

76. Weather (Meteorology)

77. Opening Remarks (Incident Commander)

78. Incident Objective Review (Planning Section Chief)

79. Present and Review Operational Objectives & Plan (Operations Section Chief)

80. Review Open Actions/Issues (Planning Section Chief)

81. Solicit Feedback/Commitment from C&GS to Support the Plan (Planning Section Chief)

- Run through Roll Call to solicit approval or ask for exceptions

82. Obtain IC Approval of the IAP (Planning Section Chief)

83. Closing Comments (Incident Commander)

Appendix K. Electric Annex Regulatory Crosswalk

| Regulation | Location in Electric Annex |
|--------------------|---|
| GO 166 Standard 1a | Electric Annex Section 1.5 Electric Annex Section 4.1.1 |
| GO 166 Standard 1b | Electric Annex Section 4.2.3 |
| GO 166 Standard 1c | Electric Annex Section 4.2.2 |
| GO 166 Standard 1d | Electric Annex Section 3.1.1 Electric Annex Section 4.2.2 Electric Annex Section 2.2.2 |
| GO 166 Standard 1f | Electric Annex Section 3.2.2.2.3 Electric Annex Section 3.2.3.6 Electric Annex Section 3.2.3.7 |
| GO 166 Standard 1h | Electric Annex Section 3.2.3 |
| GO 166 Standard 1i | Electric Annex Section 3.2.4.3.1 |
| GO 166 Standard 1j | Electric Annex Section 1.6 |
| GO 166 Standard 2 | Electric Annex Section 3.2.4.3 |
| GO 166 Standard 3 | Electric Annex Section 6 Electric Annex Section 7 |
| GO 166 Standard 3c | Electric Annex Section 6.2 |
| GO 166 Standard 3d | Electric Annex Section 6.3.1 |
| GO 166 Standard 4a | Electric Annex Section 4.2.1 |
| GO 166 Standard 4b | Electric Annex Section 4.2.2 |
| GO 166 Standard 4c | Electric Annex Section 4.2.3 |
| GO 166 Standard 5 | Electric Annex Section 6.2 Electric Annex Section 1.5 |
| GO 166 Standard 6 | Electric Annex Section 3.1.3.2 Electric Annex Section 4.2.4 |
| GO 166 Standard 7 | Electric Annex Section 3.2.4 Electric Annex Section 1.5 |
| GO 166 Standard 8 | Electric Annex Section 3.2.13 Electric Annex Section 4.2.1 Electric Annex Section 4.2.4 Electric Annex Section 1.5 |
| GO 166 Standard 9 | Electric Annex Section 3.2.3.7.2 Electric Annex Section 6.2 |
| GO 166 Standard 10 | Electric Annex Section 6 |
| GO 166 Standard 11 | Electric Annex Section 4.2.4 |
| GO 166 Standard 12 | Electric Annex Section 5.6 |

| Regulation | Location in Electric Annex |
|---------------------|------------------------------|
| GO 166 Standard 13a | Electric Annex Section 4.2.4 |
| GO 166 Standard 13b | Electric Annex Section 4.2.4 |



*Pacific Gas and
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Public Safety Power Shutoff Annex

to the Company Emergency Response Plan

GENERAL INSTRUCTIONS: The Public Safety Power Shutoff Annex is one of the hazard-specific annexes to the Company Emergency Plan (CERP). Refer to this document in conjunction with the CERP and other supporting documentation and resources as specified in different sections of this document.

This document continues to be developed as the PSPS program evolves and improves. Revisions and modifications may be made to reflect adherence to various ongoing Regulatory and legislative proceedings involving PSPS as well as business and/or operational considerations.

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Document Control

PSPS Team maintains this Annex. This section records the revisions made to the PSPS Annex the responsible persons for its preparation, maintenance, review, updating, and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions.

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|--------------------------|
| Recision Log | | Added new section after Change Record. Documents that content from Bulletin EMER-3106-B-001 on new requirements for submitting Cal OES Form have been incorporated in v4 of Annex and Bulletin retired at Annex publishing. | 08/10/2021 |
| 1.43 CPUC Decision in Phase 3 | | New section on CPUC Decision 21-06-034 Decision in Phase 3. | 07/28/2021 |
| 1.44 CPUC Decision in Order Instituting Investigation | | New Section on CPUC Decision 21-06-014 in the Order Instituting Investigation (OII) into late 2019 events. | 07/28/2021 |
| 2.1 Emergency Roles and Responsibilities | | Addition of pointing to CERP section 2.9.1 on Covid 19 and virtual platform Microsoft TEAMS. | 08/04/2021 |
| 2.3 Officer-in-Charge Figure 2-2 | | In Figure 2-2 addition to OIC Decision A of notifications to Public Safety Partners and Transmission Customers. | 07/27/2021 |
| 2.3 Officer-in-Charge Figure 2-3 | | In Figure 2-3 addition to OIC Decision A of notifications to Public Safety Partners transmission customers. | 07/27/2021 |
| 2.6 Customer Strategy Officer | | Replacement of former door-knocks with doorbell rings Addition of notifications at de-energization. | 07/09/2021 07/29/2021 |
| 2.11.1 Human Resources Branch | | Revised text. | 07/23/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 2.12 Intelligence and Investigation Section Chief and Supporting Roles | | Deletion of bullet on tailboarding the PSPS Hazard Form. | 07/28/2021 |
| 2.14 Former Section Mutual Aid | | Deletion of section on mutual aid as identified to be redundant of CERP. | 07/13/2021 |
| 2.14.3 Electric Transmission Operations Branch Director | | Minor revisions to role of Electric Transmission Operations Branch Director including new bullet on status and damage assessments. | 07/20/2021 |
| 2.14.6 Information Technology Branch Director | | Added Customer Resource Centers (CRCs) to potential needs for IT logistical support. | 07/27/2021 |
| 2.14.7 Temporary Generation Branch Director and Supporting Roles | | Correction in role title from "Lead" to "Director". Deletion of two bullets related to field set-up. | 07/26/2021 |
| 2.14.7.1 Primary Voltage Generation Division Lead | | Added bullet with sub-bullets on temp gen deployment decisions, field set-up, and analyzing PSPS Playbooks for scope. | 07/26/2021 |
| 2.14.7.2 Secondary Voltage Generation Division Lead | | Addition of role "Customer Backup Gen (BUG) Lead". | 07/26/2021 |
| 2.15.2 Planning Section Overview | | In Figure 2-6 Resource Unit corrected to have Resource Unit Leader and Resource Management Lead. | 07/21/2021 |
| 2.15.3.1 PSPS Distribution Asset Health Specialist | | Deletion of System Hardening, addition of two bullets on communication with PSPS Tech Lead and meteorology. | 07/28/2021 |
| 2.15.3.8 PSPS Technical Specialist | | Revision – Tech Specialist does not provide PSPS Viewer outage and customer data to PSPS Portal. (this is done by PSPS Portal Lead). | 08/03/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|--------------------------|
| 2.15.3.6 PSPS Recorder | | Added assisting PSPS Process Lead. | 07/27/2021 |
| 2.15.3.9 PSPS Transmission Asset Health Specialist | | Revised role description Added bullet on identifying transmission customers in scope for 72-48 hours in advance. | 07/27/2021 07/28/2021 |
| 2.15.4.2 GIS Technical Specialist | | New role description that replaces role of former GIS Mapping Specialist. | 07/13/2021 |
| 2.15.4.7 Meteorology | | Revision from Outage Producing Winds(OPW) to Ignition Probability Weather (IPW). | 07/21/2021 |
| 2.15.4.10 Resource Unit Lead-Reporting Lead | | Revision to reflect two positions, Resource Unit Lead-Reporting Lead and Resource Management Unit Leader, revisions to responsibilities. | 07/21/2021 08/03/2021 |
| 2.15.4.11 Resource Unit Leader-Crews | | Addition of roles and responsibilities. | 07/21/2021 |
| 3.2.1 Geographic Scope | | New verbiage "...generally align with HFRA..." and what HFRA's exclude. | 07/27/2021 |
| 3.2.2 Operational Scope | | Deletion of verbiage on any PG&E customers possible affected. | 07/28/2021 |
| 3.3.1 Public Safety Power Shutoff Criteria | | Updated to 2021 criteria. | 07/21/2021 |
| 3.3.2 Decisions made by Officer-in-Charge | | In Figure 3-4 additions to OIC Decision A of notifications to Public Safety Partners and Transmission Customers. | 07/27/2021 |
| 3.3.5 PSPS Event Timeline | | Inclusion of various updates. | 07/31/2021 |
| 3.4.2 Readiness Expectations | | Added EOC on-call distribution lists are maintained to ensure team notifications are timely and accurate. | 07/27/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 3.5.5.1 Event Specific Readiness Posture Sections and Focus Areas | | Added Deputy Planning Section PSPS Chief. | 07/09/2021 |
| | | Revised focus areas for LNO. | 08/04/2021 |
| | | Addition of review of available resources focus area for Planning Section. | 08/04/2021 |
| | | Addition to Figure 3-12 Readiness Posture Sections and Focus areas of Planning Section inquiring about resource location and availability, and revised text for LNO focus areas. | |
| 3.6 EOC Activation Process for Potential PSPS Event | | Addition of PSPS Process Lead in text. | 07/28/2021 |
| 3.7.2 Notifications External | | Revision from notifies to must notify the CPUC. | 07/28/2021 |
| 3.8.1 PSPS Event Overview Figure 3-14 | | In Figure 3-14 addition to OIC Decision A of notifications to Public Safety Partners transmission customers. | 07/28/2021 |
| 3.8.3 Electric Transmission Emergency Center for PSPS | | Revision System Protection. | 07/20/2021 |
| 3.8.4 Forecast R5 Plus Assessment Actions | | Update to OIC Decision A adding notifications to Public Safety Partners and Transmission Customers. | 07/26/2021 |
| 3.8.5 Resource Planning | | Removal of “switching” in resource requirements. | 07/21/2021 |
| | | Addition, identifies transmission-level customers/entities. | |
| | | Addition, use of FORCE tool is for Distribution. | |
| | | Addition of OMT to elements that influence resource plans. | |
| | | Revision – use of FORCE tool as one of the tools used to estimate resources. | 08/04/2021 |
| | | Revisions to Figure 3-16 OEC Resource Planning Process. | 07/14/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|--------------------------|
| Former 3.8.6 Mutual Assistance Need | | Deletion of section on Mutual Assistance Need as identified to be redundant to CERP. | 07/14/2021 |
| 3.9 PSPS Event Scoping | | Addition under OIC Decision A of notifying transmission customers. | 07/30/2021 |
| 3.10.1 OIC Approval to Shut off Power | | Deletion of verbiage on optional confirm/cancel meeting. | 07/27/2021 |
| 3.10.2 De-energization | | Addition of verbiage on optional confirm/cancel meeting. Added bullet under "Preparations" Planning Section prepares initial Cal OES Form. | 07/29/2021 07/23/2021 |
| 3.10.2.1 Community Resource Centers | | Revised and shortened text. | 07/13/2021 08/03/2021 |
| 3.10.2.2 Support for Access and Functional Needs Populations | | Minor edits to text and additional information on Disability Disaster Access and Resource (DDAR) program. | 07/14/2021 |
| 3.10.2.4 Backup Power Support | | Removal of former Figure 3-17 with process flow as no longer accurate. | 07/26/2021 |
| 3.11.1 Re-energization Process | | Addition of verbiage of EOC Operations Chief role in process. | 07/23/2021 |
| 3.11.3 Re-energization Decision Factors | | Revision of verbiage from "not below" to "not exceed guidance". | 07/21/2021 |
| 3.11.3.1 Weather "All Clear" Decision Methodology | | Updates to verbiage including All Clear Zones replacing sub-FIAs. | 07/29/2021 |
| 3.11.4 Patrols and Restoration | | Deletion of verbiage on ETEC Lead reports to Transmission Branch Director. | 07/20/2021 |
| 3.11.4.2 | | Addition EOC Operations Chief | 07/28/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|--|---------------------------------|--|------------|
| The Re-energization Process | | cascades forecast to field operations. Replacement of sub-FIAs with All Clear Zones. | |
| 4.2 Event Specific Information | | Addition on customers with active temporary generation efforts in their area will receive information specific to their area. | 07/23/2021 |
| | | Addition of De-energization Notification. | 07/29/2021 |
| | | Addition for updates to include when de-energization is delayed/cancelled. | 07/23/2021 |
| | | Addition new Figure 4-20 PSPS Notifications. | 08/03/2021 |
| 4.2.2 Initial Notification Sequence | | Addition of notifications at de-energization. | 07/29/2021 |
| 4.2.3 PSPS Portal | | Replacement of Figure 4-1 with Parcel Band Map. | 08/03/2021 |
| 4.3 PSPS Notifications for Transmission Customers | | Replacement image for Figure 4-2 Notifications for Transmission Customers. | 07/27/2021 |
| | | Removed outdated text on GCC communication with transmission customers. | 07/20/2021 |
| 4.6 Medical Baseline Doorbell Ring Process | | Revision from door knock to doorbell ring. Updated Figure 4-5 Medical Baseline Success Reporting to the EOC. | 07/09/2021 |
| 4.8 Re-energization Customer Notifications | | Addition to "Power Restored" – "...and notification to agencies with the information that their jurisdiction has been restored." | 08/03/2021 |
| 4.11 Agency Event Notifications and Coordination | | Added link to Policy and Procedures document. | 07/29/2021 |
| 4.11.1.2 | | Addition of . "As well as, a phone | 07/23/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|--|
| Information Sources during a PSPS event | | call to neighboring counties to County OES impacted by potentially PSPS event.” Addition of “details and notify PG&E’s PE&R department.” | |
| 4.11.1.4 Emergency Operations Center Coordination | | Addition – “...may request to send/virtually embed a representative...” Addition - EOC engages with telecommunications and other key critical infrastructure providers. Revision to NOTE on reducing risk of Covid 19 transmission. | 07/23/2021 07/16/2021 07/28/2021 |
| 4.11.1.7 PSPS Daily Calls | | Updated Figure 4-6 PSPS Daily calls. | 07/20/2021 |
| 4.11.1.8 Systemwide Cooperators Call | | Updated Figure 4-7 Agenda for Systemwide Cooperators Call from Policy and Procedure document. | 07/15/2021 |
| 4.1.2 PSPS Notification Timeline Overview | | Updated Figure 4-8 PSPS Notification Timeline from Policy and Procedures document. | 07/15/2021 |
| 5.1 Weather Forecasting / Large Fire Probability Model – Quantitative Factors | | Significant revisions including Ignition Probability Weather Model (IPW). | 07/21/2021 |
| 5.1.3 Day Public Safety Power Shutoff Potential Forecast | | Updated Figure 5-5 Example of 7 Day Public Safety Power Shutoff Potential Forecast from Policy and Procedures document. | 07/15/2021 |
| 5.3 Materials used to inform OIC | | Replacement of OPW with IPW. | 07/29/2021 |
| 5.3.1.1 Transmission Scoping Process | | Replacement of Fire Probability model LFP_T . With Catastrophic Probability model CFP_T . | 07/29/2021 |
| 5.3.2.1 Transmission Scoping Assessment and Scoping Dashboard | | Replacement of Fire Probability model LFP_T . With Catastrophic Probability model CFP_T . | 07/29/2021 |
| 7.1 | | Revision to verbiage. | 07/27/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|--------------------------|
| Training Program | | | |
| 7.2 Exercise Program | | Addition – In support of PSPS Readiness, PG&E is required to conduct both a table-top exercise (TTX) and a functional exercise. | 06/27/2021 08/12/2021 |
| 7.3 PSPS Specific Training Program | | New section and text. | 07/27/2021 |
| 8.2.1 Cal OES PSPS State Notification Form | | Inclusion of information from Bulletin EMER-3106M-B001. | 07/28/2021 |
| | | Updates to Table 8-1 PG&E PSPS Report to the CPUC – Sections. | 08/03/2021 |
| | | Revised to notifying Deputy Planning Section Chief. | 08/12/2021 |
| 8.2.2 CPUC De-energization Report | | Revision – revised sections of De-energization Report (draft). | 08/05/2021 |
| 8.2.2.3 Phase 3 Reporting Requirements | | New - R. 18-12-005 Phase 3 (D. 21-06-034) requirements. | 07/28/2021 08/05/2021 |
| 8.2.2.4 Oil | | New - I. 19-11-013 PSPS Order Instituting Investigation (Oil) (D. 21-06-014) requirements. | 08/05/2021 |
| 8.2.3 Twenty-eight Day PSPS Report | | New section Twenty-eight Day Report. | 07/28/2021 |
| 8.2.4 Pre-Season Report | | New section Pre-season Report. | 03/08/2021 |
| 8.2.5 Post-Season Report | | New section Post-season Report. | 03/08/2021 |
| Appendix A Definitions | | Addition of Playbook to Definitions. | 07/30/2020 |
| Appendix C. Catalog of Scripts | | Addition of De-energization Notification. | 04/08/2021 |
| Appendix D. PSPS Portal – Instructions to | | Added New Appendix D – Job Aid on how to request access to PSPS Portal. | 07/25/2021 |

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| Request Access | | | |
| Appendix E Example Customer Communication Materials for PSPS | | Former Appendix D, now Appendix E. Replacement of old customer communication materials for PSPS with new ones. | 07/20/2021 |

Revision Log

| Number | Title |
|-----------------|---|
| EMER-3106M-B001 | Revised Cal OES Form Submission Requirements, Rev 0 |
| EMER-3106M | PSPS Annex, 04/30/2021, version 3 |

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| | | [REDACTED] | Approved on 8/6/2021 12:29:49 PM |
| | | Show CC List | |

Change Request Form

To request changes, corrections, or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of [EMER-2001S-F01](#), Change Request Form, to EPRCERP@pge.com. [EMER-2001S-F01](#) is located on the [Guidance Document Library](#) 

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

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1 Introduction

1.1 Purpose

The purpose of the PSPS Annex is to provide a high-level overview of Pacific Gas and Electric, Company's (PG&E) actions and strategies regarding Public Safety Power Shutoff (PSPS).

PG&E's goal is to provide safe, reliable, affordable, and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions, and develop processes to ensure the safe, prompt, and efficient restoration of services.

In support of that goal, PG&E has developed a Company Emergency Response Plan (CERP) to provide staff with a safe, efficient, and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the CERP.

1.2 Scope

The scope of this Annex covers actions and strategies to prepare for, respond to, and recover from risk of wildfire ignition related to PG&E assets leading to de-energization for public safety during dry severe weather conditions. This Annex depicts PG&E's coordination and communication, both internal and external, that provide an organized and comprehensive approach to managing PSPS. This Annex references other technical and operational plans that demonstrate how certain actions and strategies are implemented; it is not a replacement or substitute for those documents.

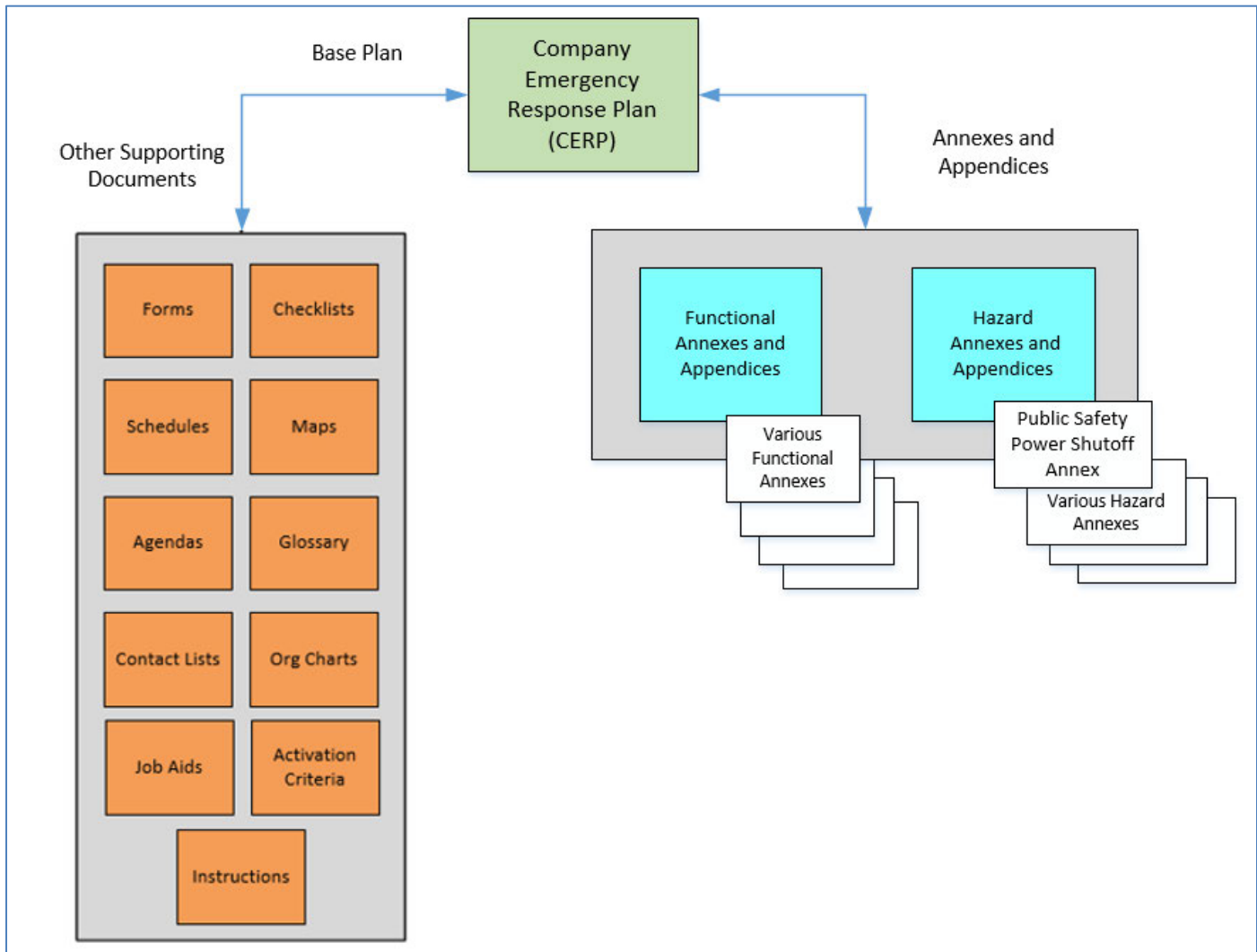
This Annex will:

- Provide a broad overview of PG&E's emergency organization for PSPS.
- Create an inter-departmental outline of PSPS actions and strategies.
- Identify roles and responsibilities pertaining to PSPS.

1.3 PSPS Annex Relation to CERP and Supporting Documents

The PSPS Annex is a hazard-specific annex to the [Company Emergency Response Plan](#) (CERP). Figure 1-1 below illustrates the relation between this Annex, the CERP, other annexes, and supporting documents. The representation in Figure 1-1 is not an all-inclusive list.

Figure 1-1: Company Emergency Response Plan Structure and Annexes



The CERP presents an emergency response structure with defined emergency roles and responsibilities in support of the Gas, Electric and other PG&E lines of business (LOBs) and externally among agencies and organizations including:

- Government (local, state, tribal and federal)
- Media
- Other gas and electric utilities including mutual aid
- Essential community services
- Vendors
- Public agencies
- Emergency First responders
- Contractors

A key element of the CERP is the alignment of PG&E line of business support functions under a standardized event or incident management structure consistent with the National Incident Management System (NIMS), California Standardized Emergency Management System (SEMS), and the NIMS/SEMS component Incident Command System (ICS).

Under the NIMS, SEMS and ICS organizational structures, there are Command and General Staff positions. General Staff consists of five primary peer sections: Operations, Intelligence and Investigations, Planning, Logistics, and Finance and Administration.

The PG&E emergency response model is organized, and the Emergency Operations Center (EOC) is staffed, using principles from NIMS, SEMS and ICS including but not limited to:

- Following a unified approach. (i.e., a single chain of command, adaptable to meet situational needs.)
- Managing by a unified set of objectives, when possible, for single and dual commodity incidents.
- Managing equipment, facilities, personnel, procedures, and communications effectively.
- Standardizing operational structures and terminology to enable disparate groups to work and communicate together in a predictable, coordinated manner.
- The Command Staff includes the Public Information Officer, Safety Officer, Legal Officer and Liaison Officer. These individuals report directly to the Incident Commander during emergency or event activations.

1.4 Regulations and Authorities

This Annex, as part of the CERP, complies with the regulations and authorities listed below.

1.4.1 CPUC Decisions 19-05-042: Decision in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005)

On June 4, 2019, the Commission issued Decision (D.) 19-05-042, adopting additional guidelines for the utilities in developing, implementing, and executing the PSPS programs beyond those previously established by Resolution ESRB-8.

D.19-05-042 stipulates new PSPS requirements, including but not limited to:

- The development of a statewide public education and outreach campaign in coordination with the other utilities, Cal OES, and CAL FIRE.
- The identification and notification of Public Safety Partners, Critical Facilities and Critical Infrastructure, Access and Functional Needs populations, and all other affected customers leading up to and during a potential PSPS event, including upon completion of re-energization.
- Providing GIS maps with affected circuits and customers to Public Safety Partners during a PSPS event.
- Coordinating with local jurisdictions during an event including embedding a liaison officer at local EOCs or reserving seats in PG&E's EOC for local representatives.

A post de-energization event report to be filed with the CPUC Safety and Enforcement Division (SED) for an evaluation of the reasonableness of the PSPS event.

The requirements from the Phase 1 Decisions built on existing requirements from previous rulings and decisions. Further information is available on [CPUC website PSPS page](#) including [Joint letter sent to utilities October 26, 2018](#), [Decision 12-04-024](#), [ESRB-8](#) and two letters that Resolution L-598 approved: [October 8, 2019 Letter to Utilities re: Providing Information to First Responders for Medical Baseline](#) and [October 23, 2019 CPUC letter to Utilities re: Providing Information to Counties and Tribal Governments](#).

1.4.2 CPUC Decision 20-05-051: Decision in Phase 2 of the De-Energization Proceeding (R.18-12-005)

On June 5, 2020, the CPUC issued D.20-05-051 adopting Phase 2 updated and additional utility PSPS guidelines. The Decision, and Phase 2 Guidelines, include new requirements including but not limited to:

- Working Groups and Advisory Boards including how often to convene, who should be included, and on what they should provide input.
- De-energization exercises.
- De-energization notifications.
- Community Resource Centers including hours of operation and services to be made available.
- Restoration of service including timing of notifications related to service restoration and how long it should take to fully restore power.
- Transportation resilience including details of pilot programs.

1.4.3 CPUC Decision 21-06-034: Decision in Phase 3 of the De-Energization Proceeding (R.18-12-005)

On June 29, 2021 the CPUC issued [D.21-06-034 adopting Phase 3](#) revised and additional PSPS guidelines. The Decision and Phase 3 Guidelines include new requirements including but not limited to:

- Guidelines to Improve Planning, Preparation, and Access to Resources During PSPS events.
- Guidelines to Enhance Notification of and Mitigate Impacts on Access and Functional Needs and Vulnerable Populations.
- Guidelines to Enhance Notification of and Mitigate Impacts on Access and Functional Needs and Vulnerable Populations.

1.4.4 CPUC Decision 21-06-014 in the Order Instituting Investigation (OII) into Late 2019 PSPS Events

The Decision contains new requirements including but not limited to:

- Forgo collection of revenues from customers that are associated with electricity not sold during future PSPS events until it can be demonstrated that utilities have made improvements in identifying, evaluating, weighing, and reporting public harm when determining whether to initiate a PSPS event.
- Improve communications with customers dependent on electricity for medical reasons, especially life support, before, during, and after a PSPS event.
- Share best practices and lessons learned for initiating, communicating, reporting, and improving all aspects of PSPS events by regularly holding utility working group meetings.
- Provide Standard Emergency Management System (SEMS) training for all personnel and contractors involved in PSPS planning.
- File annual reports describing progress and status on improving compliance with PSPS guidelines.
- Support the CPUC's Safety and Enforcement Division's development of a standardized 10-day post-event reporting template.

1.5 Annex Maintenance

PG&E's Emergency Preparedness and Response Strategy and Execution (EP&R S&E) department is responsible for developing, updating, and maintaining the CERP and its Annexes in collaboration with the subject matter experts from the responsible lines of business. Please refer to section 1.6 (Plan Maintenance) of the [Company Emergency Response Plan \(EMER 3001M\)](#) for information regarding document approval, revision, and periodic maintenance. After approval, the CERP and its Annexes are published in PG&E's Guidance Document Library (GDL). You can access the site here:

[REDACTED]

The PPS Annex will be reviewed and updated in accordance with [Utility Standard EMER-2001S, "Company Emergency Operations Plans Standard"](#) and submitted to EP&R SE on an annual basis.

This Annex is produced and will be maintained by the Public Safety Power Shutoff organization in conjunction with the EP&R SE Planning Division. The PPS staff works closely with affected organizations and individuals to include alignment with the CERP and other Annexes, updated information, new processes, and advances in execution strategy for PPS.

The PSPS Annex may be modified because of:

- Lessons learned from exercises and actual PSPS events.
- Key changes to processes, structure, responsibilities, new technologies, assessment procedures, restoration strategies, etc.
- Feedback generated by PG&E subject matter experts, the planning team, internal and external stakeholders, and users of the annex.
- Changes to laws or regulations pertaining to PSPS.

Each revision of the annex will be approved by the Vice President of PSPS Operations & Execution and the Sr Director of Emergency Preparedness and Response. Records of revisions to the PSPS Annex will be maintained in the change register at the beginning of this document.

Those departments having assigned responsibilities under this annex are obligated to inform the PSPS organization when organizational or operational changes affecting this plan occur or are imminent.

1.6 PSPS Annex Organizational Structure

To ensure the information is comprehensive and user-friendly, this Annex has been organized by the following format:

Section 1 – Introduction - provides background information necessary to understand: the need for Annex; the subject matter; the governing regulations; and the challenges PG&E faces regarding the topic.

Section 2 – PSPS – Emergency Organization and Responsibilities – provides information on EOC staffing, information on roles, which roles are part of Readiness Posture, which additional roles are part of EOC activation, calls out EOC roles that are specific to PSPS, and describes PSPS specific responsibilities for affected EOC roles.

Section 3 – Concept of Operations

Preparedness – provides information on how PG&E prepares to execute PSPS including general preparation, training, exercises, and the Readiness Posture stood up in advance of EOC activation when possible.

Response – provides information on steps to activate EOC and preparations for possible de-energization to reduce risk of catastrophic wildfire.

Restoration – provides information on steps to restore power to customers.

Section 4 – PSPS Information, Notification, and Coordination Strategies – provides information on how customers are informed about PSPS in general and in advance, during, and after an event, and how PG&E coordinates with agencies and partners.

Section 5 – Data Sources - provides information on how and what data meteorology uses to determine projected weather footprints and describes tools used to produce customer lists for notifications and maps.

Section 6 – Performance Indicators – provides listing of selection of PSPS related metrics with purpose and brief description.

Section 7 – Training and Exercises – Outlines training and exercises for PSPS.

Section 8 – Documenting Event – provides information on requirements and timelines for event documentation.

Section 9 – Appendices – provides a listing of abbreviations, a glossary of terms, information on supporting documents and PSPS related links, information on notification scripts, and examples of customer communication materials.

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2 Emergency Organization and Responsibilities

2.1 Emergency Roles and Responsibilities

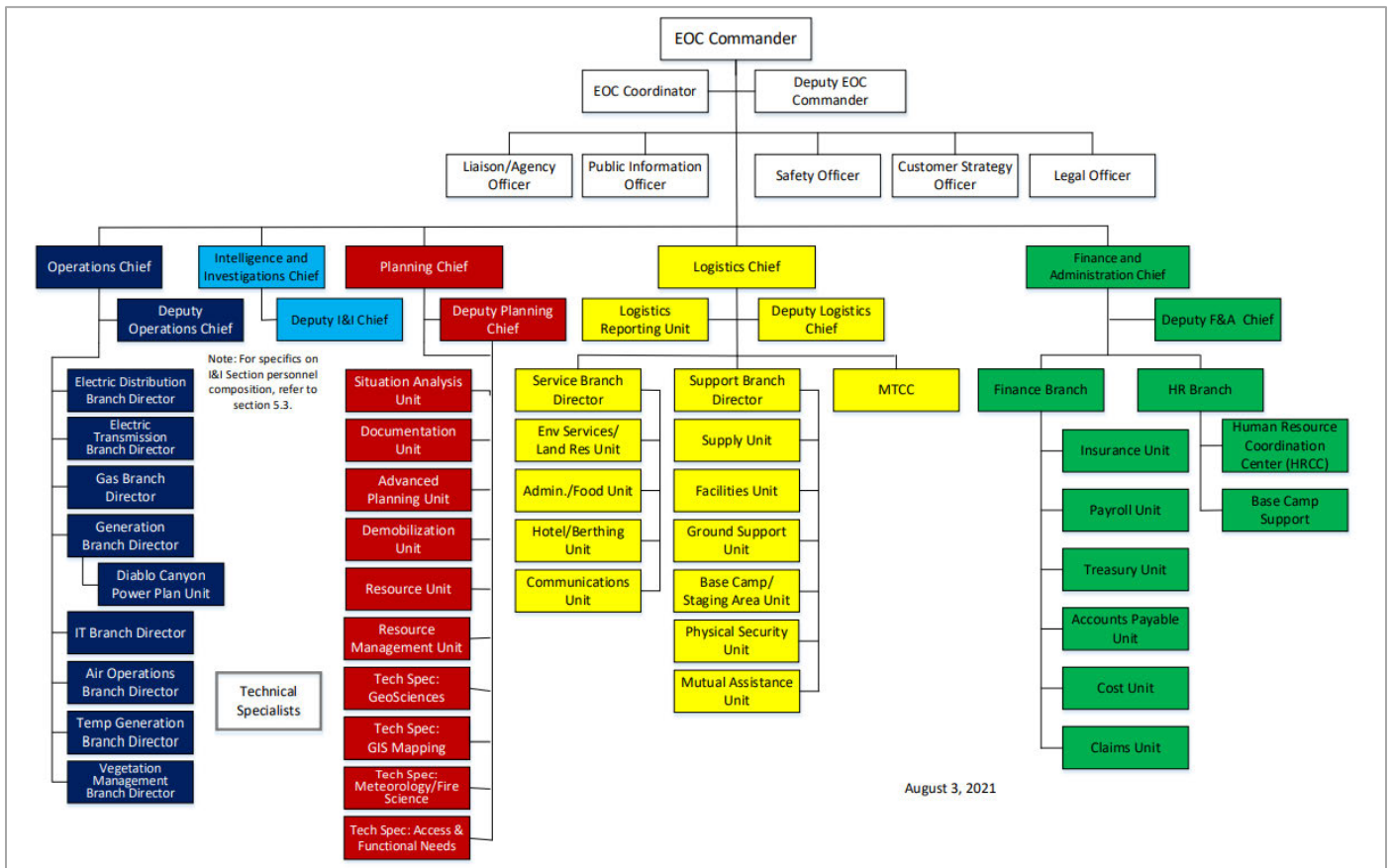
PG&E’s Emergency Preparedness and Response Strategy and Execution (EP&R SE) organization facilitates the pre-event conference call to determine if the Emergency Operations Center (EOC) should be activated for a potential PSPS event (see EOC Activation Process in section 3.5.2.) After the decision is made to activate the EOC, EP&R SE notifies appropriate staff of EOC Activation, opens the EOC and provides management of center services to assist sections and command staff in developing emergency response strategies and procedures for the event.

The activation sequence is outlined in the [Company Emergency Response Plan](#) (CERP). For general information on EOC roles see Incident Command System (ICS) checklists and position guides under [Roles and Responsibilities on the EOC intranet site](#).

For information about Covid-19 and the use of a Virtual EOC platform, see [CERP section 2.9.1](#).

The organizational chart in Figure 2-1 shows the standard structure for EOC operations. Additional roles specific to PSPS not shown in this chart are described in section 2.1.5 Planning Section.

Figure 2-1: Emergency Operations Center Organizational Chart (CERP Section 5)



2.2 EOC Staffing for PSPS Event

This section lists standard EOC roles with specific responsibilities during PSPS and PSPS specific roles.

Standard Roles

For a PSPS event, the EOC staff consists of the standard sections according to the CERP: Command Staff, Operations, Intelligence and Investigations (I&I), Planning, Logistics, and Finance and Administration.

PSPS Specific Roles

In addition to the standard EOC roles, there are PSPS specific EOC roles such as:

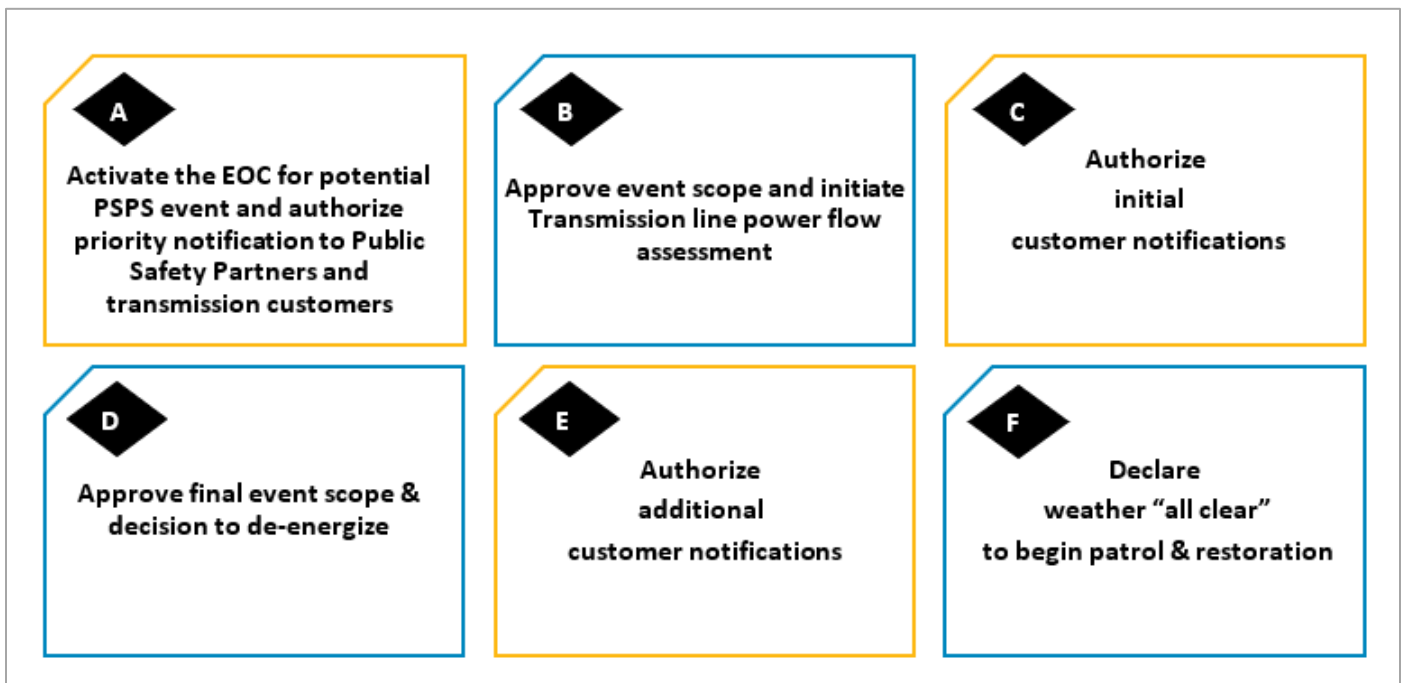
- Officer-in-Charge (OIC)
- Deputy PlanningSection PSPS Chief
- PSPS Technical Lead
- PSPS Technical Specialist
- PSPS Distribution Asset Health Specialist (DAHS)
- PSPS Transmission Asset Health Specialist (TAHS)
- PSPS Portal Lead
- PSPS Portal User Support
- PSPS Process Unit Lead
- PSPS Recorder
- PSPS Communications Coordinator
- Digital Strategy Lead
- Digital Strategy Publisher
- Digital Strategy Assistant
- Temporary Generation Branch Lead
- Primary Voltage Generation Division Lead
- Secondary Voltage Generation Division Lead

2.3 Officer-in-Charge

The Officer-in-Charge (OIC) is a role specific to PSPS events and was created to engage higher-level management accountability of the decision given the magnitude and impact of PSPS, while also enabling rapid decision-making during a real-time PSPS event. The OIC is the Senior Vice President and Chief Risk Officer at PG&E. The OIC receives situational awareness from the Command Staff and general staff of PG&E's EOC, including from the Meteorology, Planning, and Customer Sections.

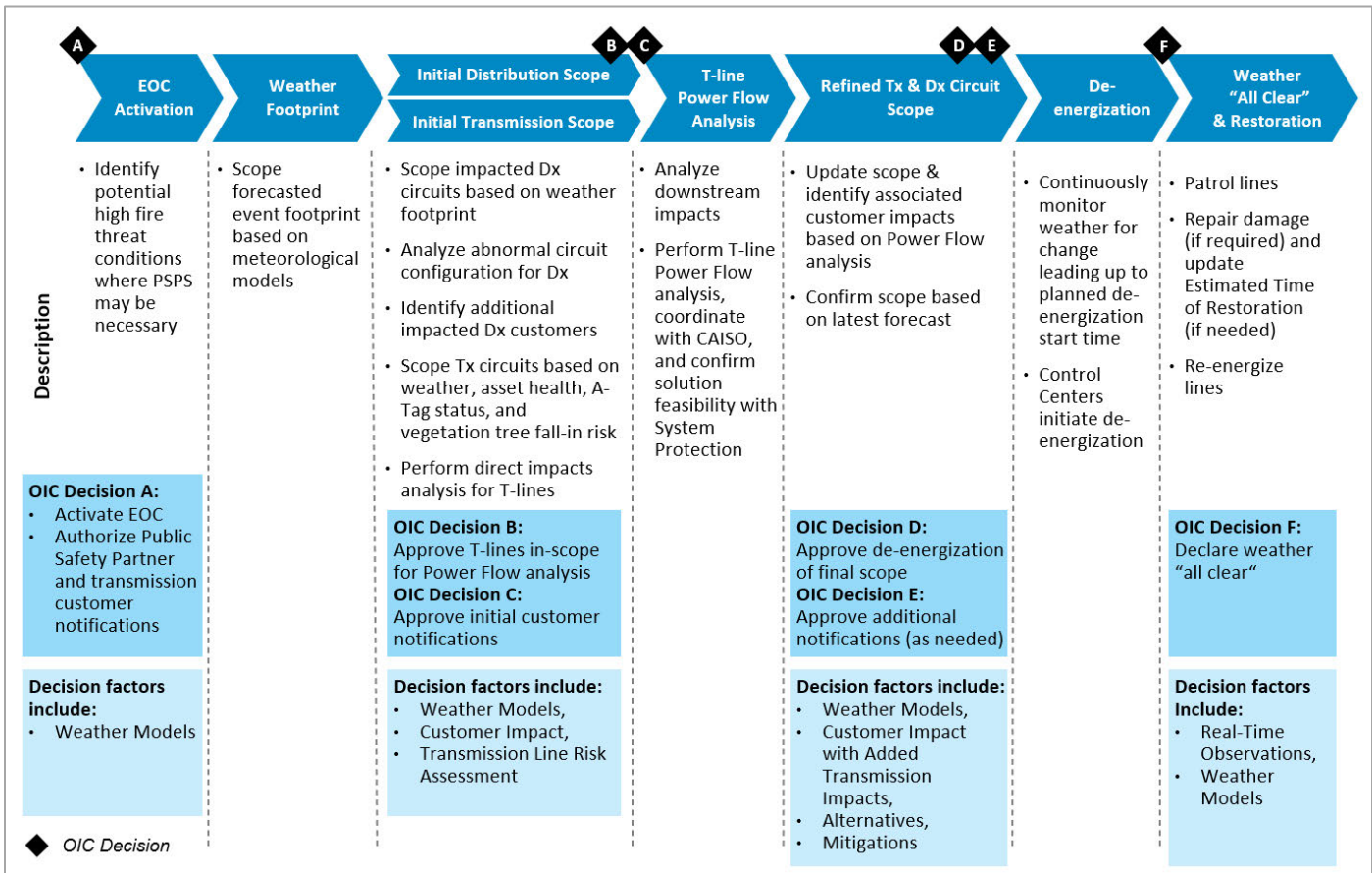
There are six important PSPS decisions, called OIC decisions, of which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 2-2 and identified within larger process in Figure 2-3 OIC Decision Process.

Figure 2-2: OIC Decisions A - F



The OIC Decisions are marked as diamonds and short description in larger process in Figure 2-3.

Figure 2-3: OIC Decisions Process



While the OIC is determined to have the Authority to Act and owns the key decisions outlined above, the EOC Commander (EC) is responsible for executing on those decisions and owns the response executed by the Emergency Operations Center (EOC). The EOC operates under an Incident Command System (ICS) approach which is directed by an EOC Commander. The OIC approves all PSPS Decision Records and associated documentation following a PSPS event.

Additionally, the OIC may elect to delegate the authority of an OIC decision to specified individuals (EOC Commander[s] or Deputy OIC[s]) through a written confirmation outlining the parameters and timing of that delegation. However, the OIC retains full accountability for the OIC decisions made under the delegation of authority.

2.4 EOC Commander

The EOC Commander leads PG&E's EOC activities. This includes ensuring the safety of all employees involved, initiating and approving the Incident Action Plan, and acting as a liaison with agency executives, governing boards and other organizations.

In addition, during PSPS the on-call EOC Commander (EC) is responsible for:

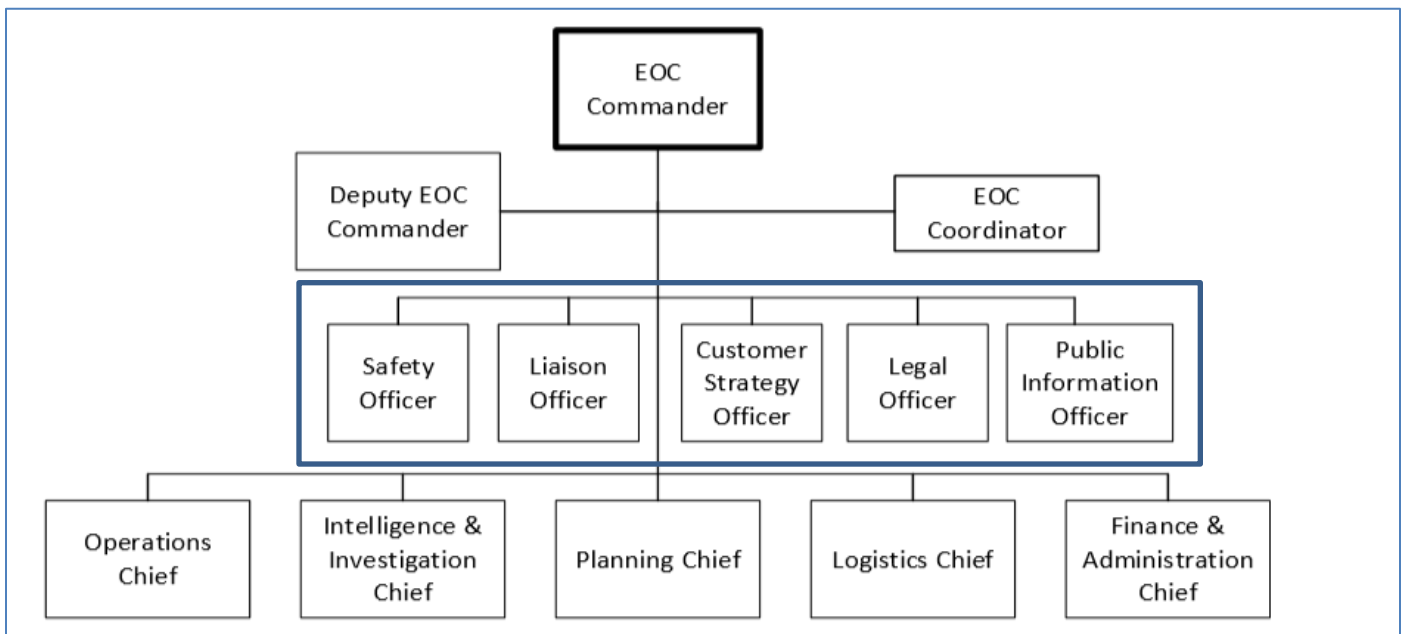
- Calling at own discretion on representatives from select sections and officers to meet for Readiness Posture, when warranted and time permitting, to track developing conditions and perform certain tasks (Note: Readiness Posture is not a requirement to precede OIC Decision A to activate EOC for PSPS.).
- Coordinating readiness of activities related to Readiness Posture.
- Advising OIC on decisions.
- Reviews OIC decision records and documentation.
- Executing on decisions made by OIC.

For more information on role of EOC Commander see [CERP Section 5.1.1](#).

2.5 EOC Command Staff

The organizational chart in Figure 2-4 displays the EOC Command Staff top-level structure. The Officer group is framed.

Figure 2-4: EOC Command System (CERP Section 5)



Note: Command Staff officers and related roles are listed in alphabetical order in this section. Role descriptions focus on PSPS specific responsibilities. In particular cases related roles are also described for their role specific to PSPS.

2.6 Customer Strategy Officer

The Customer Strategy Officer (CSO) is responsible for customer communications and outreach during a PSPS event. The CSO coordinates notifications and interactions with customers before, during, and after a PSPS. Additional Customer Care emergency response roles will support the CSO as needed based on event size and scope.

In addition, the CSO's responsibilities during a PSPS event include:

- Verifying number of impacted customers including customer segmentation (i.e. critical public safety-related facilities such as police and fire stations, telecommunications providers, water agencies, utilities, healthcare facilities, schools, and Access and Functional Needs (AFN) community which includes Medical Baseline customers).
- Sending customer notifications before, at de-energization, during and after an event to all customers - initially prioritizing notifications to critical public safety-related facilities and transmission customers
- Identifying and opening Community Resource Centers (CRCs) to support impacted customers. Coordinating with CRC leads to gather real-time local intelligence for CSO/Logistics to respond accordingly; managing customer escalations; aggregating daily reports from each CRC for timely reporting; coordinating with local Independent Living Centers (ILC) and Community Based Organizations (CBO's) to support AFN customers in attendance as appropriate.
- Facilitating doorbell rings to notify Medical Baseline¹ customers and Self-Identified Vulnerable customers that were not successfully contacted through initial automated notifications (i.e. e-mails, phone calls, and text messages).
- Coordinating with Community Choice Aggregators (CCA) relations teams to engage with potentially impacted CCAs during event.
- Managing customer escalations including commercial critical customers and those within the AFN population (i.e. MBL, Life Support, Self-Identified Vulnerable).
- Coordinating with the Customer Contact Emergency Coordination Center (CCECC) to provide event intelligence for staffing and communication needs.
- Working with OECs to gather real-time local intelligence to fully inform OIC and identifying escalations, challenges, and events that could impact the scope of the PSPS event.
- Communicating with critical public safety-related customers, addressing customer escalations, and providing intelligence to the OIC for consideration when determining de-energization scope and prioritizing restoration.
- Coordinating with the Temporary Generation Branch team on prioritization of customer requests for temporary back-up power during an event.

¹ Medical Baseline Customers are enrolled in PG&E's medical baseline program who rely on electric service for mobility or life sustaining medical reasons

- Coordinating with Billing Operations and Credit, Demand Response teams and additional internal partners regarding customer impacts.
- Coordinating with Electric Operations on Estimated Time of Restoration (ETOR) notifications and restoration priorities.
- Understanding Customer Service Office impacts and working with this team to mitigate customer impacts.

For more information on role of Customer Strategy Officer see [CERP section 5.1.6](#).

2.7 Legal Officer

The Legal Officer reports to the EOC Commander and is responsible for the following:

- Providing advice and counsel on legal matters related to the PSPS event.
- Participating in key OIC Decision-Meetings.
- Reviewing OIC decision records and documentation.
- Reviewing media releases and public information.
- Providing guidance and monitors compliance with regulatory and reporting processes.
- Reviewing the document retention plan.
- Assisting in incident investigations.

For more information on role of Legal Officer see [CERP Section 5.1.8](#).

2.8 Liaison Officer and Supporting Roles

The Liaison Officer (LNO) is responsible for leading the team that serves as the primary contact for representatives of local, tribal and state governments. In both a Single or Unified Command Structure, representatives from assisting or cooperating agencies and organizations coordinate through the LNO. The LNO participates in weather briefings and OIC decision meetings; informs the LNO team when key decisions are made or are expected. The LNO makes real-time decisions on behalf of the LNO Team.

In most PSPS events, the LNO will be supported by representatives from some or all of the following PG&E departments:

- Community Relations
- State Government Relations
- Federal Affairs
- Tribal Relations
- State Agency Relations
- Local Public Affairs
- Regulatory Relations
- Public Safety Specialists
- State Operations Center (SOC)

The LNO oversees PSPS event notifications and interactions with external safety partners such as cities, counties, Tribes, and state agencies. Additional responsibilities include:

- Coordinating with cities, counties, Tribes, and other agencies to help ensure PG&E has the latest contact information for each agency.
- Working with city, county, state, and tribal contacts during PSPS events to coordinate and align operations and response.
- Sending notifications (before, during, and after a PSPS event) to Cal OES, the CPUC, cities, counties, first responders, Tribes, and other external stakeholders.
- Receiving and reviewing Cal OES State Notification Forms from Planning Section and send to Cal OES Warning Center.
- Responding to and tracking inquiries from external stakeholders
- Facilitating and managing twice-daily State Executive Briefings and a once-daily Cooperator call for county, city, utility, and emergency management partner to call in and get PSPS event status.

For more information on role of Liaison Officer see [CERP Section 5.1.7](#).

2.8.1 Assigned County/Agency Representatives

During an emergency incident, the primary role of the Public Safety Specialists (PSS) is to serve as the PG&E Assigned County Agency Representative who coordinates and integrates PG&E's response with their assigned County Office of Emergency Services. For larger events, Local Public Affairs may also act as a PG&E Assigned County Agency Representative. Cultural Resource Specialists will be Tribal Agency Representatives and will be assigned to regions as needed.

The Agency Representatives directly report to the Liaison Branch Managers. The Liaison Branch Managers typically hold twice-daily conference calls to coordinate with the Agency Representatives and provide the current event information. The Agency Representatives then meet with their respective jurisdiction to relay the information and answer questions.

The initial priority of the field PSS team members, absent their required response to an existing emergency (e.g., fire, gas release), will be to respond to any regional (local/county) EOC location(s) if activated. The PSS team members would serve as a liaison to their assigned County Office of Emergency Services (OES). Other PSS members may be requested to support the needs of surrounding regions that may be potentially affected by a PSPS.

2.8.2 PG&E State Operations Center Liaison

The role of the PG&E State Operations Center (SOC) Liaison is to function as ICS Agency Representative position to California's State Emergency Operations Center in Mather, California. During SOC activation, the SOC Liaison provides real-time coordination of PG&E information to the Situation Unit (part of the Planning Section).

2.9 Public Information Officer and Supporting Roles

Each level of PG&E's emergency response may have a Public Information Officer (PIO) and/or public information function. However, when staffing the EOC, the PIO's role is to provide strategic communications counsel to the EOC Commander.

The PIO's responsibilities during a PSPS event include:

- Developing main narrative for talking points.
- Developing and implementing communications strategy to ensure "one voice" communications.
- Coordinating with Customer team, Liaison, and any other LOB stakeholders on communication materials.
- Coordinating emergency communication activities with other agencies, media, customers and others through verbal replies, on-camera interviews, written statements, press releases and social media.
- Providing early warning of a potential PSPS event when possible using a combination of direct communication, traditional and social media.
- Informing employees through internal communications about the PSPS event.
- Responding to real-time media requests for information, interviews and status reports.
- Conducting press conferences and managing press questions and queries.

For more information on role of Public Information Officer see [CERP Section 5.1.5](#).

2.9.1 Digital Strategy Lead

The Digital Strategy Lead functions as the overall PSPS digital program (PSPS maps, address lookup, data tables, website user interface, etc.) subject matter expert, with knowledge of both the tools and how they function as well as the static content. The Lead is versed in the sequencing of tasks, who to turn to for help or to get technical questions answered.

Responsibilities include:

- Situational awareness for the event and how the web should be updated in response to changing operations conditions.
- Coordinating with the various teams that support the web during events, including the Digital Strategy assistant, the GIS team, the Customer Care Emergency Contact Center (CCECC) team and the various branches represented in the huddle board (Planning, Liaison, Customer and PIO). For example: the huddle board execution is a set of steps that are followed in sequence and according to various protocols that must be followed in order to execute in a timely manner). The Lead is expected to understand upstream and downstream dependencies, the timing required for each step in the digital process, and the correct sequencing of events for accurate, timely web and customer notifications.
- Reviewing customer feedback and making on the fly optimizations to the customer experience when possible.

2.9.2 Digital Strategy Assistant

The Digital Strategy Assistant takes direction from the Digital Strategy Lead and works with the digital strategy publisher to ensure that all content posted is correct.

Responsibilities include:

- Having a strong understanding of what content should be on the site at various stages of a PSPS event.
- Proofreading the content put up by the publisher before it goes live to the public (including all 16 of the languages).
- Managing new translation requests that come in on the fly during events.
- Ensuring all new translations become part of the translations-library and that both translations and the subsequent draft web pages are reviewed and approved by in-country reviewers before going live to the public.
- Monitoring various chats for possible issues that need addressing, alerting the Digital Strategy lead when needed.
- Coordinating with the PIO branch on items like publishing press releases.

2.9.3 Digital Strategy Publisher

Digital Strategy Publisher is the resource tasked with putting content onto the website when directed by the Digital Strategy Assistant. The Publisher has the login credentials and the associated expertise required to update content on the site as needed.

Responsibilities include:

- Putting all PSPS event content up on pge.com.
- Putting all PSPS event content up on the Emergency web site.
- Keeping content updated throughout the event in all 16 languages required by the CPUC. For example, changing the phases of the event as operations moves from Watch to Warning to Inspection and restorations. Examples of content include the [PGE.com PSPS updates and alerts](#) page, popups or other splash pages related to the event or various content blocks on pge.com that drive customers to the event page.

2.10 Safety Officer

The Safety Officer's responsibilities during a PSPS event include:

- Preparing safety messaging on potential hazards for line/office personnel, substation personnel, Field Observers, and contractors as well as disseminating safety messages to "EO EOC out" mailbox.
- Confirming Safety staff availability for EOC field support and availability of protective equipment and supplies as appropriate.
- Finalizing Field Safety Specialist (FSS) deployment plans based on operations crew deployment plans (e.g. one FSS for every 15-20 line-personnel deployed).

- Accompanying Field Observers, crews, and patrols to support safe working and driving conditions as well as safe restoration activities as appropriate.

For more information on role of Safety Officer see [CERP Section 5.1.4](#).

Note: In the following section the group of Section Chiefs is listed in alphabetical order.

2.11 Finance and Administration Section Chief and Supporting Roles

The Finance and Administration Chief represents both Human Resources Branch and Finance Branch.

For more information on role of Finance and Administration Chief see [CERP Section 5.6](#).

2.11.1 Human Resources Branch

The Human Resources Branch is within the EOC Finance & Administration Section. One of the Human Resources Emergency Response Team's (HR ER TM) three EOC activation response capabilities is specific to PSPS. HR's PSPS response is unique from the other response capabilities with its limited emergency roles activation and core capabilities.

During PSPS responses, the HR ER TM consists of its HR EOC main floor emergency roles including the Finance & Administration Section (F&A Section) Chief, Deputy Chief, and HR Branch Director roles. The HRCC Data emergency role is activated in stand-by response posture and reports to the HR Branch Director (the HRCC Unit Leader is not activated). The HRCC Synchronization Cell Manager may be activated to support HR ER TM follow-on staffing and team transition requirements.

The HR PSPS response capability may be activated to support an incident complex escalation requiring full operational capability when required.

The Human Resources Branch Director supports HR's PSPS event response core capabilities and may include the following:

- Supervising the HRCC Data emergency role which is activated in a stand-by role response posture (role initiates given tasks after two hours notification). The HRCC Synchronization Cell Manager may be activated to support response team staffing and team transition requirements.
- Reducing essential functions and HR team response during PSPS Events
- Supporting the EOC Facilities Unit Leader with facility impacted personnel leadership guidance and messaging to ensure leaders are informed and support supervised impacted personnel effectively.

For further information see [EMER-3006M, CERP Human Resources Annex](#).

2.11.2 Finance Branch

The Finance Branch is part of the Finance and Administration Section. The Finance Branch's key functions for PSPS events include ensuring proper charging to event, creating event forecast, and maintaining key support functions such as cost unit, payroll, and accounts payable.

For more information on Finance Branch see [CERP Section 5.6.2](#).

2.12 Intelligence and Investigation Section Chief and Supporting Roles

The Intelligence and Investigation (I&I) Unit ensures compliance with the regulatory requirements that PG&E reports on any wind-related damage, hazards, or near-misses sustained by PG&E facilities during a PSPS event including Resolution ESRB-8, Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042 (Phase 1), and Ordering Paragraph 1 of Decision (D.) 20-05-051 (Phase 2) in addition to investigation of any other incidents arising out of the PSPS event (e.g., Fire/ignition). The I&I Unit's responsibilities during a PSPS event include:

- Maintaining the PSPS Damage Hazard Form via Inspect App and/or paper form to record damages, hazards, and near-misses observed in the post de-energization patrol.
- Receiving and aggregating the reports of damages, hazards, and near-misses (including photos) into a master table.
- Quality-controlling the damages, hazards, and near-miss documentation to verify they are PSPS qualified and reportable.
- Managing a PSPS Damage/Hazard dashboard to provide situational awareness to the damages/hazards/near misses identified during patrol, ensuring the dashboard is actionable by stakeholders.
- Drafting the language for the damage documentation section of the CPUC De-Energization Post-Event Report.
- Provide validated and structured damage and hazard data to satisfy data requests from external and internal stakeholders.

For more information on role of Intelligence and Investigations for PSPS see [CERP section 5.3.1](#).

2.13 Logistics Section Chief and Supporting Roles

The Logistics Section secures resources, supplies, food, lodging, vehicles and equipment rentals and fuel as well as maintains equipment for incident personnel.

For a PSPS event, the Logistics section responsibilities include:

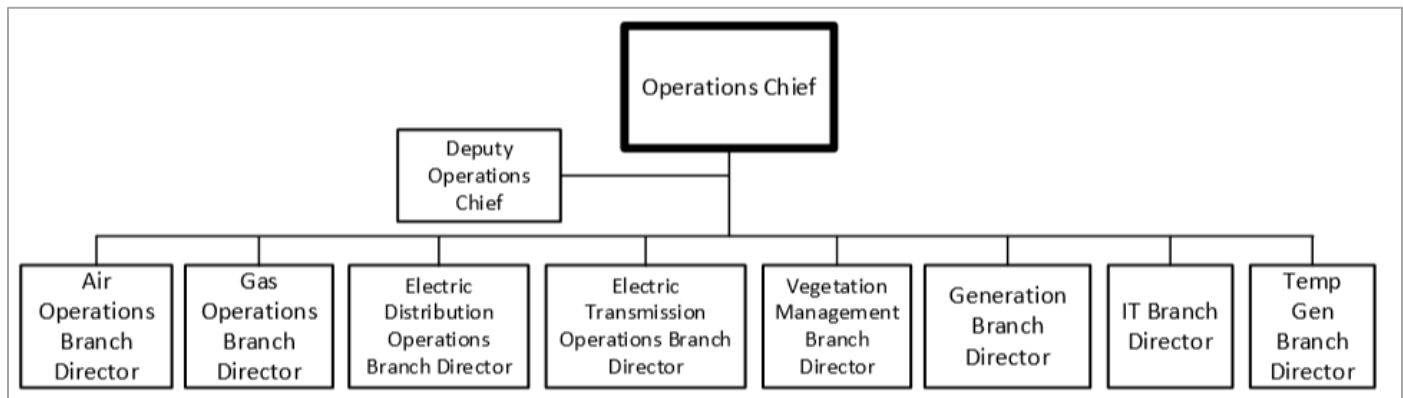
- Working with Electric and Customer Strategy Officer team to determine the need for base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs) (see Section 3.10.2.1- Community Resource Centers).
- Working with Land Acquisition to identify locations needed for base camps, staging areas, micro sites, material lay-down areas, and/or CRCs and confirming their availability.
- Staffing and supporting base camps, staging areas, micro sites, material lay-down areas, and/or CRCs activations.
- Securing resources for above needed sites including supplies, food, temporary lodging, vehicle and equipment rentals, flagging support, security services, IT support, fueling, and other needed resources.

For more information on role of Logistics see CERP [Section 5.3.1](#).

2.14 Operations Section Chief and Supporting Roles

The Operations Section (Figure 2-5) implements the de-energization and restoration strategy for PSPS events and achieves the incident objectives set by EOC Commander and communicated in the Incident Action Plans (IAPs). The Operations Section Chief ensures coordination with other EOC sections and emergency centers (such as OEC).

Figure 2-5: General Staff – Operations Section (CERP Section 5.2)



The Operations Section, led by the Operations Section Chief / Coordinator, consists of the following eight (8) branches:

- Air
- Gas
- Electric Distribution
- Electric Transmission
- Vegetation
- Generation
- Information Technology
- Temporary Generation

Base descriptions of the eight branches of Operations Section are located in [CERP Section 5.2](#). Descriptions in this chapter specify additional responsibilities for a PSPS event.

Note: The Operations Branch Directors are listed in alphabetical order.

2.14.1 Air Operation Branch Director

Aviation Services interfaces with the Operations Section Chief and directly manages aviation asset requests from the EOC and assesses the current situation to potentially provide aerial support that could include patrolling lines.

Additional responsibilities include:

- Determining PSPS patrol aircraft deployment plan (for example, number of patrol aircrafts needed, number and location of aircrafts available, pilot resources available, timing of patrols).
- Coordinating with Cal Fire during PSPS on communications and access to airspace where they have Temporary Flight Restrictions (TFR).

For more information on role of Air Operation Branch Leader see [CERP Section 5.2.1](#).

2.14.2 Electric Distribution Operations Branch Director

The Electric Distribution Operations Branch Director coordinates with the Electric Distribution Emergency Center (EDEC) for the de-energization, and recovery and restoration of PG&E's electric distribution system. The branch also provides information on customer outages and field operational challenges to the EOC.

Electric Distribution Operations responsibilities during a PSPS event include:

- Providing “grid awareness” when a PSPS event is forecasted, which can include any work in progress (planned and unplanned), Critical Operating Equipment impacts to plan, Supervisory Control and Data Acquisition (SCADA) health, abnormal switching, load-at-risk, and protection studies.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, patrols, and restoration.

- Dispatching Medical Baseline door-knock resources to ensure successful notification when required.
- Reporting patrol progress, damage assessments, and repair progress.

For more information on role of Electric Distribution Operations Branch Director see [CERP Section 5.2.3](#).

2.14.3 Electric Transmission Operations Branch Director

The Electric Transmission Operations Branch Director coordinates with the Electric Transmission Emergency Center (ETEC) and Substation Transmission Operations Emergency Center (STOEC) to manage the restoration of the electric transmission system.

Electric Transmission Operations responsibilities during a PSPS event include:

- Defining and proposing risk and consequence targets for event.
- Performing and supporting an array of PSPS activities such as initial transmission line scoping, Direct and Total Transmission Impact Studies, system protection studies, rotating outages management, developing de-energization and restoration strategies, wildfire assistance, communicating and coordinating with the California Independent System Operator (CAISO), and ensuring that the grid is operated in a safe, reliable, compliant and event free manner.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, and patrols and restoration.
- Working with EDEC to ensure collaboration with ETEC and STOEC (e.g., outages, restoration times, etc.).
- Determining current status of transmission line and Substation damage assessments, patrolling efforts and workforce status.

For more information on role of Electric Transmission Operations Branch see [CERP Section 5.2](#).

2.14.4 Gas Operations Branch Director

The EOC's Gas Operations Branch supports and coordinates the response, repair, and restoration of PG&E's gas distribution and transmission systems. Execution of gas service restoration and repair will be coordinated from the Gas Emergency Center (GEC) and local OEC or OECs.

Gas Operations responsibilities during a PSPS event include:

- Providing Planning Section and Operations team with an assessment of facilities that may be impacted during a PSPS event.
- Ensuring Gas resources as needed for a forecasted PSPS event.
- Determining potential need to shut-in terminals and/or implement business continuity (BC) plans based on de-energized facilities.

For more information on role of Gas Operations Branch Director see [CERP Section 5.2.2](#).

2.14.5 Generation Branch Director

The responsibilities of the Generation Branch Director for a PSPS event include:

- Providing EOC leads with a list of potentially impacted PG&E Power Generation managed facilities and business continuity plans (BCP) as a result of a PSPS event.
- Staging and mobilizing response resources as necessary.
- Working with Electric Transmission, Electric Distribution and Grid Ops to coordinate power plant islanding, when applicable.

For more information on role of Generation Branch Director see [CERP Section 5.2.6](#).

2.14.6 Information Technology Branch Director

The EOC's Information Technology (IT) Branch Director coordinates the response of PG&E's IT resources and systems in support of all stages of PSPS.

- Providing the EOC a coordinated communication as to the readiness and any limitations of IT systems and support.
- Ensuring availability of IT capabilities to support the PSPS event (from applications including [PGE.com](#) and the PG&E Alert websites, to infrastructure, and facilities). This may include cancelling or postponing planned maintenance, deployments, and/or field activities.
- Determining / managing potential needs for IT logistical support in the field (radios, base camps, CRCs, etc.).
- Managing the impact of a PSPS outage on IT resources (e.g., radio support, SCADA / network communication devices, etc.).
- Responding to needs of the EOC and coordinating any needed changes to IT support, Information Technology Coordination Center (ITCC), Enterprise Network Operations Center (ENOC), field support, etc.

For more information on role of Information Technology Branch Director see [CERP Section 5.2.8](#).

2.14.7 Temporary Generation Branch Director and Supporting Roles

The Temporary Generation Branch Director is the main point of contact for temporary generation and develops the temporary generation strategy for potential PSPS events. Responsibilities of the Director include:

- Developing temporary generation strategy that maps to anticipated scope of event.
- Coordinating temporary generation strategy with Temp Gen Field Operations .
- Determining number of branch resources needed by function for event.
- Continuing to develop temporary generation strategy as event scope evolves in coordination with Temp Gen Field Leads.
- Managing ad-hoc requests from EOC groups; delegate and prioritize relevant requests.

For more information on role of Temporary Generation Branch Lead see [CERP Section 5.2.9](#).

2.14.7.1 Primary Voltage Generation Division Lead

The Primary Voltage Generation Division Lead's responsibilities include:

- Informing temporary generation deployment decisions for a given event by identifying which pre-planned sites (i.e. temporary microgrids and facilities to be supported with temp gen) are in-scope for that event and ready to operate
 - Confirming existing temporary generators and microgrid field setup (i.e. where are generators staged, what microgrids are operationally ready, etc).
 - Analyzing PSPS Playbooks to determine temp gen scope.
- Coordinating microgrid deployments with Temp Gen Field Operations and EDEC.
- Assessing grid solution alternatives for backup power support requests routed through Customer.
 - If grid solution exists, coordinating execution of grid solution.
 - If no grid solution exists, assessing feasibility of serving request with temporary generator fleet.
- For primary voltage requests, if backup power support is feasible and approved by Operations Section Chief , coordinating execution with EDCC and Temp Gen Field Operations. .
- Coordinating microgrid demobilization following weather "all clear".
- Coordinating primary voltage backup gen demobilization following weather "all clear".

2.14.7.2 Secondary Voltage Generation Division Lead

The responsibilities of the Secondary Voltage Generation Division Lead include:

- Communicating to temp gen vendors which indoor Community Resource Centers require fueling support throughout the event.
- Coordinating with Customer Backup Gen (BUG) Lead to route ad-hoc backup power support requests through evaluation and approval process.
 - If a request is approved, the Secondary Voltage Lead ensures execution of temp gen support to fulfill that request.
- Coordinating with Temp Gen Field Operations and vendor to dispatch generators for approved ad-hoc backup power support requests.
- After restoration, coordinating generator retrieval strategy with Customer BUG Lead.

2.14.8 Vegetation Management Branch Director

The Vegetation Management Branch Director's responsibilities during PSPS include:

- Developing strategies and tactics to manage vegetation response in the field.
- Ensuring Vegetation Branch Support team members and Vegetation Management Operations Emergency Center (OEC) leads understand the EOC Operational Period objectives and have adequate resources.

- Establishing a cadence of receiving and reporting progress on field operations from Vegetation OEC leads.
- Planning vegetation patrols in areas impacted by an emergency to identify abatement and clearing/fuel reduction opportunities.
- Planning vegetation clearing/fuel reduction to reduce the fuel in and around the power poles and utility right-of-way using a variety of vegetation clearing/fuel reduction methods.
- Prioritizing the resource and equipment needs.
- Taking information from Planning Section to develop mitigation plan including identifying high-risk trees and trees with identified high priority tags.
- Reporting back to Planning Section on mitigation plan and execution of plan.

For more information on role of Vegetation Management Branch Director see [CERP section 5.2.5](#).

2.15 Planning Section Chief and Supporting Roles

The Planning Section (a.k.a. “Plans”) is responsible for collecting, evaluating and displaying event intelligence and information, and is the source of all event impact data. Updates are communicated broadly through the EOC.

Additional responsibilities include:

- Preparing and maintaining event documentation including the Situation Report and Cal OES Notification Form.
- Documenting circuits potentially in de-energization scope, customers potentially in de-energization scope, and customers proactively de-energized by PSPS event.
- Developing PSPS event impact maps in various formats to be used by Public Safety Partners and critical public safety-related customers.
- Developing long-range resource, contingency, and demobilization plans.

As per the [CERP Section 5.4](#), the Planning Section is led by the Planning Section Chief who is assisted by the Deputy Chief. For PSPS a second deputy is active, the Deputy Planning Section PSPS Chief.

The Planning Section Chief is focused on leading/participating in meetings, representing the Planning Section perspective in OIC Decision meetings, approving the Cal OES form, and guiding the Planning section team members. For PSPS, the Planning Section Chief has two deputies: a Deputy Planning Section Chief and a Deputy Planning Section PSPS Chief.

2.15.1 Deputy Planning Section Chief

The Deputy Planning Chief is focused on more general EOC activities such as the Incident Action Plan (IAP), Intelligence Summary, and situational awareness snapshot.

2.15.2 Deputy Planning Section PSPS Chief

The Deputy Planning Section PSPS Chief is focused on all PSPS activities such as Situation Reports, scoping process, etc.

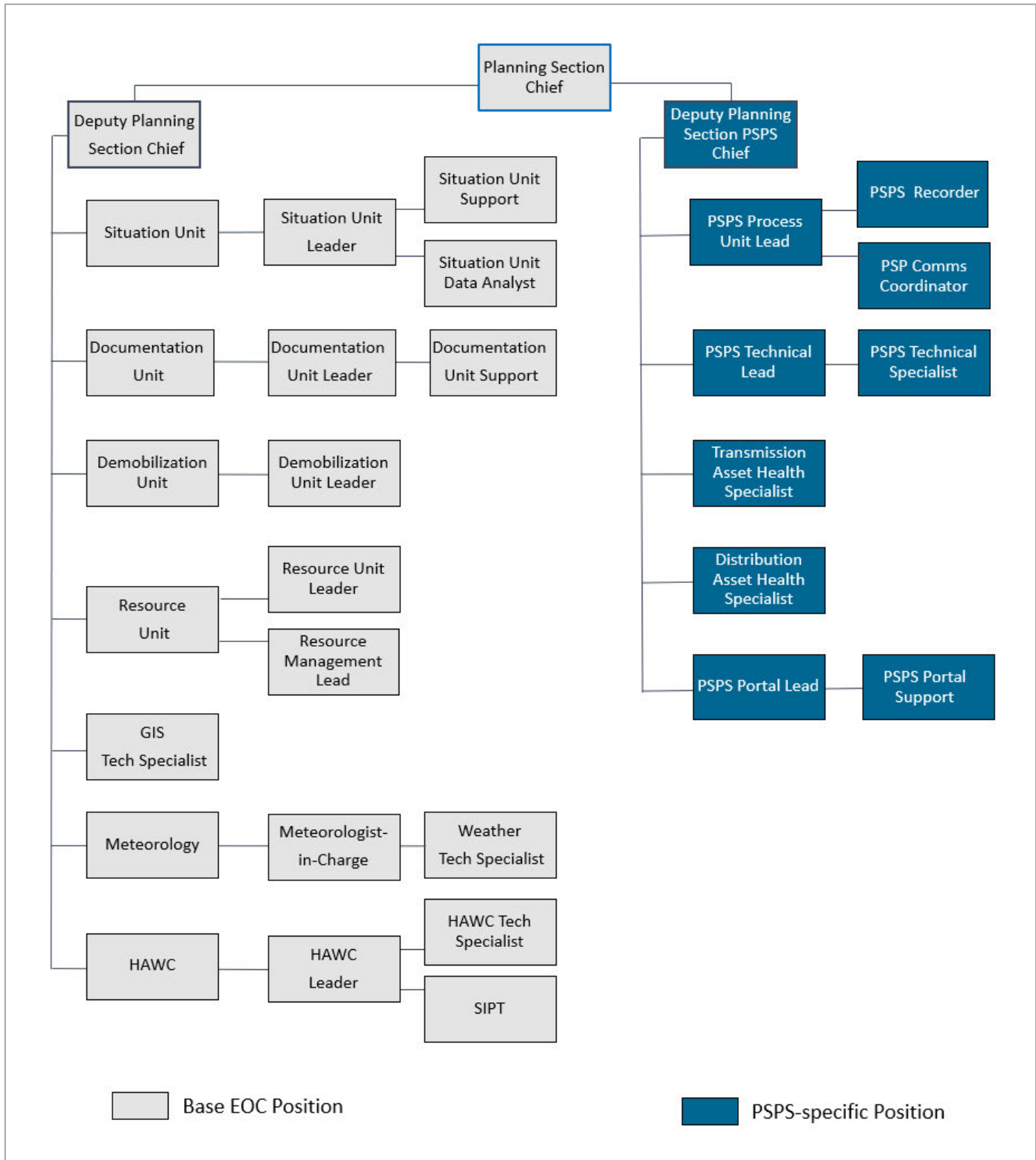
Responsibilities include:

- Coordinating the PSPS activities for the Planning Section, including playbook development and external communications.
- Coordinating with PSPS Portal Lead and the External Communications team for posting of information to be shared with external entities.
- Overseeing and verifying the export of outage, customer impact and notification data to the EOC shared drive, PSPS Portal, and other data requests.
- Reviewing the Cal OES form (may receive delegated responsibility through Planning Section Chief to authorize submission).

Note: The Deputy Planning Section Chief and Deputy Planning Section PSPS Chief work together closely and divide leadership responsibilities based on backgrounds, familiarity with the EOC, and other factors.

Figure 2-6 gives an overview of the Planning Section with alignment of units, groups, and roles under the Deputy Planning Section Chief and the Deputy Planning Section PSPS Chief.

Figure 2-6: Planning Section with PSPS Specific Roles



In addition to standard responsibilities outlined in the CERP, the following groups in the Planning Section have specific functions for a PSPS Event: Meteorology, Hazard Awareness Warning Center (HAWC), PSPS Technical roles, Situation Unit, and Resource Unit.

Note: Listing of roles is by alignment to either Deputy Planning Section PSPS Chief or Deputy Planning Section Chief and each list is in alphabetical order.

2.15.3 Roles aligning to Deputy Planning Section PSPS Chief

2.15.3.1 PSPS Distribution Asset Health Specialist

Responsibilities include:

- Identifying potential changes to scope due to P1/ P2 trees, and EC tags.
- Identifying and prioritizing vegetation tags and EC tags to work with operations to complete in advance of de-energization. Open tags not addressed before de-energization may impact scope of PSPS event.
- Communicating with operations on tag status as it relates to scope of PSPS event.
- Communication with PSPS Technical lead and specialist on scope changes
- Interfacing with meteorology to determine time-places associated with incremental tags

2.15.3.2 PSPS Portal Lead

The PSPS Portal Lead manages the publication of PPS event information from the PSPS Viewer and PSPS Situational Intelligence Platform (PSIP) into the PSPS Portal to authorized external and internal users.

Responsibilities include:

- Coordinating with the PSPS Technical Lead and External Communications Process Coordinator to stage and publish event information to the PSPS Portal.
- When feasible, supporting PSPS User Support to process user access requests and resolve access and technical issues.

2.15.3.3 PSPS Portal User Support

The PSPS Portal User Support is the primary point of contact for PSPS Portal internal and external user management.

Responsibilities include:

- Processing internal and external user access requests, including routine continuous monitoring of user access request panel, user authentication, and account creation.
- Responding to requests for user support related to Portal processes, data availability/timing, and Portal access issues.
- Triaging technical issues for referral to IT and GIS specialists.

2.15.3.4 PSPS Process Unit Lead

The PSPS Process Lead manages the PSPS overall event timeline and required execution points.

Responsibilities include:

- Building and sharing PSPS event timelines.
- Coordinating OIC Decision meetings and de-energization confirm/cancel meetings.
- Serving as a process and regulatory compliance expert and advisor.
- Aiding with executive and external communications.
- Creating folder structure based off official event nomenclature.

2.15.3.5 PSPS Communications Coordinator

The PSPS External Communications Coordinator supports the external communication alignment throughout all stages of a PSPS event.

Responsibilities include:

- Coordinating External Communications Huddle Board.
- Guiding the External Comms Huddle members through the staging process and execution of the communications plans.
- Providing guidance on external communication requirements which guide the external communication process.
- Problem solving issues as they arise to ensure external communications are sent in timely manner while abiding to the spirit of the regulations.

2.15.3.6 PSPS Recorder

The PSPS Recorder supports the PSPS Process Lead.

Responsibilities include:

- Documenting OIC Decision-making meetings.
- Ensuring documentation is uploaded to EOC event Sharepoint site in appropriate folders.
- Assisting with management of PSPS overall event timeline and assisting the PSPS Process Lead.
- Maintaining notes of other meetings involving the OIC as needed.
- Prepare EDRS routing of all decision documents.

2.15.3.7 PSPS Technical Lead

The PSPS Technical Lead oversees and verifies the use of the PSPS Viewer and alignment to PSPS decision reports.

Responsibilities include:

- Supporting Planning Section Chief for updates as necessary.
- Directing and supporting PSPS Technical Specialist/s.
- Inputting ETOR per version (time-place) and per event into PSPS Viewer.
- Coordinating with the HAWC Lead on updates.
- Verifying updates to PSPS Viewer.
- Overseeing and verifying updates to the PSPS Playbooks (De-energization and Restoration) and alignment to the PSPS Viewer.
- Interfacing with GCC and DCC to understand abnormal configuration related to impacts.
- Overseeing and verifying the updating of the PSPS Viewer to align with OIC decisions on scope of the event.
- Coordinating and verifying the alignment of the PSPS Viewer and PSPS decision reports.
- Interfacing with Transmission Asset Health Specialist (TAHS) and Distribution Asset Health Specialist (DAHS) and incorporating changes to scope in PSPS Viewer.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.
- Providing input into the After-Action Report (AAR).

2.15.3.8 PSPS Technical Specialist

The PSPS Technical Specialist verifies the use of the PSPS Viewer and alignment to the PSPS decision reports.

Responsibilities include:

- Supporting PSPS Technical Lead.
- Updating PSPS Viewer to align with OIC decisions on scope of the event.
- Using PSPS Viewer to create/update PSPS event scoping playbooks.
- Exporting PSPS Viewer outage and customer data to EOC shared drive and other data requests.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.
- Providing input into the After Action Report (AAR).

2.15.3.9 PSPS Transmission Asset Health Specialist

The Transmission Asset Health Specialist (TAHS) validates transmission line segments to be included in scope and coordinates with ETEC (or GCC) segments to be studied. The Transmission Asset Health Specialist further validates lines and transmission customers impacts of study and coordinates with PSPS Tech lead and Critical Infrastructure Lead (CIL) in Customer Section as needed. Responsibilities include:

- Using the “Transmission Scoping Dashboard interacts with several parties to determine which t-lines should be in scope for de-energization for OIC Decision B: Set Transmission Power Flow scope. The dashboard ties together many different sources of information such as meteorology data, vegetation data, A tags, and structure-specific data.
- Identifying subset of lines in scope for de-energization that will require grounding mitigation due to induction.
- Sending the list of In Scope Tlines to ETEC for Direct Impact analysis. ETEC then produces the Direct Impact summary for the tab in Playbook C.
- Identifying the transmission customers in scope for 72-48 hours in advance of the forecasted start time of the PSPS event.
- Developing OIC Decision B deck after ETEC sends out Playbook C summarizing transmission recommendations using the “OIC Decision B template”.
- Creating the list of transmission lines to be de-energized and preparing the FERC form using the “standard FERC template” and “e-mail template” prior to each OIC B/C and the OIC D/E meetings.
- Sending list of transmission lines to be de-energized to the Digital Strategy Lead, who immediately posts them on the FERC website. This process is repeated for each OIC Decision B/C or OIC Decision D/E scope revision approval.
- Creating OIC Decision D materials after ETEC sends out Playbook D (incorporating transmission indirects from studies), using “OIC Decision D Waterfall Excel” and “OIC Decision D Template” incorporating indirect impacts.
- Supporting the “all clear” process for transmission lines by using the Tx All Clear Report to calculate “all clears” by t-line, update Playbook F as changes occur, and relay information to CIL.
- Supporting the Customer Critical Infrastructure Lead (CIL) by providing timely communication of completed playbooks C, D, F and OIC Decisions C and D, reviewing the customer list for accuracy, and answering any questions from the CIL.
- QA/QC-ing for the CPUC-10-day Report the final list of lines in scope and confirm times of de-energization/re-energization per line.
- Comparing customer impacts compared to past events to feed into PSPS Impact Reduction Metric.

2.15.4 Roles aligning to Deputy Planning Section Chief

2.15.4.1 Documentation Unit

During a PSPS event, the Documentation Unit's responsibilities include:

- Creating the draft Incident Action Plan (IAP) during Readiness Posture.

For more information on role of Documentation Unit see [CERP Section 5.4.2](#).

2.15.4.2 GIS Technical Specialist

The GIS Technical Specialist's responsibilities include:

- Primary Liaison for the GIS Team in the EOC and Initial Point of Contact for PSS Team seeking GIS Support.
- Provide technical information to PSS Team from GIS Analysts: special request maps and map data layers, as appropriate, to support operations, planning, and other functions.
- Direct EOC map requests to members of the GIS team, as needed. (note PSPS Viewer should be first point of contact)
- Activation during PSPS event for both AM hours (6a – 6p) and PM hours (6p-6a).

2.15.4.3 Hazard Awareness & Warning Center

Hazard Awareness & Warning Center (HAWC) Lead is an advisor on the pre-assessment call where the OIC makes the decision to activate the EOC for a possible PSPS event.

Before activation of the EOC, the HAWC is responsible for identifying any ongoing incidents within the scope of the potential PSPS event.

During a PSPS event the HAWC is represented in the EOC by the HAWC Lead and the HAWC Technical Specialist. The HAWC uses the weather forecast and information within the Foundry based Situational Report to define the initial locations of Field Observations for the Safety & Infrastructure Protection Teams (SIPT).

For more information on role of HAWC Lead (formerly WSOC) see [CERP Section 6.2.7](#).

2.15.4.4 HAWC Lead

The HAWC Lead reports on fire conditions and behavior as well as the Field Observations. The Lead's responsibilities include:

- Coordinating information between the EOC Command and General Staff, HAWC, PSS Team (serving as PG&E Assigned County/Agency Representatives), SIPT, and I&I team.
- Setting up and updating field observation schedules.
- Presenting observer intelligence during OIC briefing and decision-making meetings.
- Communicating with EOC staff as needed regarding fire situation, ignitions, and updates.

2.15.4.5 HAWC Technical Specialist

The HAWC Technical Specialist supports the HAWC Lead. The Technical Specialist's responsibilities include:

- Working with HAWC, Meteorology and SIPT Leadership to determine Field Observation locations.
- Enter the Field Observation locations into the Wildfire Incident Viewer (WIV), active incident dashboard, and SIPT Viewer.
- Ensure that the Field Observation locations are accurate based on any scope changes.
- Summarizing active fires and field observation data to aid in PSPS decision-making.
- Interface with the HAWC to provide status updated and clarify information needs.

2.15.4.6 Safety Infrastructure Protection Team

When Safety Infrastructure Protection Teams (SIPT) are utilized during a PSPS event, their responsibilities include:

- Conducting field weather observations.
- Documenting field fuel conditions.
- Providing standby fire protection and medical response.
- Supporting generators and other energized assets as requested by the EOC Operations Section.
- Supporting fire prevention treatment efforts.

For more information on role of HAWC Lead (formerly WSOC) see [CERP Section 6.2.7](#).

2.15.4.7 Meteorology

PG&E has a dedicated Meteorology team that, in collaboration with key external partners, gathers, analyzes, and models weather and fire potential data. Preceding and during a PSPS event responsibilities include:

- Notifying the EP&R S&E on-call director when there is an increased potential of outages combined with heightened fire potential, which will initiate PSPS pre-assessment "Readiness Posture" (see Section 3.5.5).
- Defining the meteorological footprint of weather impacts that may warrant PSPS, including estimated event start and end times, for event scoping.
- Providing situational awareness and updates regarding current weather conditions and forecast models to the OIC, EOC Commander, and EOC Command Staff.
- Publishing Utility Fire Potential Index (FPI) forecasts.
- Communicating Ignition Probability Weather (IPW) forecasts.
- Evaluating public and proprietary weather models.

- Evaluating fire spread consequence outputs from Technosylva.
- Evaluating Red Flag Warnings or Fire Weather Watches declared by the National Oceanic and Atmospheric Administration (NOAA) National Weather Service.
- Evaluating “High Risk” forecast triggers from the Northern and Southern California Geographic Area Coordination Centers Predictive Services.
- Advising HAWC on positioning of Field Observers as needed.
- Advising the OIC on when it is appropriate to declare weather “all-clear” conditions subsequent to de-energization.

2.15.4.8 Meteorologist-in-Charge

The Meteorologist-In-Charge (MIC) is the lead meteorologist in the EOC and consults with the OIC directly and frequently during PSPS events. The MIC is responsible for providing Meteorology reports and models that help define PSPS event scope and support OIC decisions. Additionally, the MIC assigns tasks to the Technical Weather Specialists and other supporting members of the meteorology team during an event.

2.15.4.9 Technical Weather Specialist

The Technical Weather Specialist (TWS) supports the Planning Section and other sections, such as Operations, during a PSPS event. The TWS consults with the MIC on the scope, timing and duration of the event. The TWS handles most ad-hoc weather-related requests in the EOC.

2.15.4.10 Resource Unit Lead – Reporting Lead

During a PSPS event the Resource Unit Lead’s responsibilities include:

- Preparing the field operations resource calculation using the FORCE tool which provides estimated restoration patrol resources needed for Resource Management Unit Leader to provide staffing recommendation to meet CPUC restoration regulatory requirements.
- Tracking crew movements between Regions.
- Preparing and submitting the ICS-204 Resource Tracking form if required (total resource counts in the event).
- Recommending aviation resource deployment by division to Operations.(for Distribution).

2.15.4.11 Resource Management Unit Leader – Crews

During a PSPS event the Resource Management Unit Leader’s responsibilities include:

- Setting strategy for staffing the event based on data and analytics provided by the Resource Unit Lead.
- Working with REC Leaders and Operation leaders providing staffing recommendations as part of the overall strategy for the event.

For more information on role of Resource Unit see [CERP Section 5.4.5](#).

2.15.4.12 Situation Unit

During a PSPS event, the Situation Unit's responsibilities include:

- Using Foundry tool to configure and QC the Internal and External Situation Report.
- Completing the Cal OES PSPS State Notification Form with the latest and most accurate information at the specified submission points.
 - Seeking review and approvals of the Form with the Deputy Planning Section PSPS Chief.
 - Confirming receipt of the Cal OES Form with the California State Warning Center (CSWC).
 - Properly documenting the submission by saving screenshots to the EOC SharePoint and notifying the Liaison Officer of the submission.
- Producing reports including the Situational Awareness Snapshots, County/City/Tribal Report, and State Executive Briefing.
- Uploading emergency web materials.
- Entering global ETORs in Outage Management Tool (OMT).
- Tracking, documenting, and triaging issues like technical problems in Foundry or Tableau dashboards, data anomalies encountered in the Situation Report, and ad-hoc data requests.
- Coordinating closely with PSPS Technical Lead/Specialist and Deputy Planning Section PSPS Chief for scoping issues.

For more information on the Situation Unit see [CERP Section 5.4.1](#).

3 Concept of Operations

3.1 Purpose of Public Safety Power Shutoff

Following the 2017 and 2018 wildfires, as precautionary measures, PG&E expanded and enhanced its Community Wildfire Safety Program (CWSP) to further reduce wildfire risks and help keep our customers and the communities we serve safe. PSPS is one component of CWSP. The purpose of PSPS is to mitigate the risk of utility infrastructure contributing to catastrophic wildfire risk by proactively de-energizing PG&E facilities in the event of severe weather. The PSPS program is based on four guiding principles:

1. **Prevent catastrophic wildfires:** Mitigate catastrophic wildfires in high risk areas while **minimizing potential public safety impact.**
2. **Execute de-energization events with no safety incidents.**
3. **Restore power quickly and safely:** Ensure power to all customers affected by the PSPS event is restored quickly and safely after the weather “all clear”.
4. **Communicate potential impact with internal and external stakeholders:** Provide timely and accurate notifications to employees, customers, California Public Utilities Commission (CPUC), California Department of Forestry & Fire Protection (CAL FIRE, Governor’s Office of Emergency Services (Cal OES), and Public Safety Partners.

PG&E may proactively de-energize its facilities for other purposes that do not fall within the scope of a PSPS event, such as when requested by public first responders, CAISO or state agencies (for example, CAL FIRE), during an emergency, or to protect PG&E assets from the spread of an existing fire. Such de-energizations are not PSPS events.

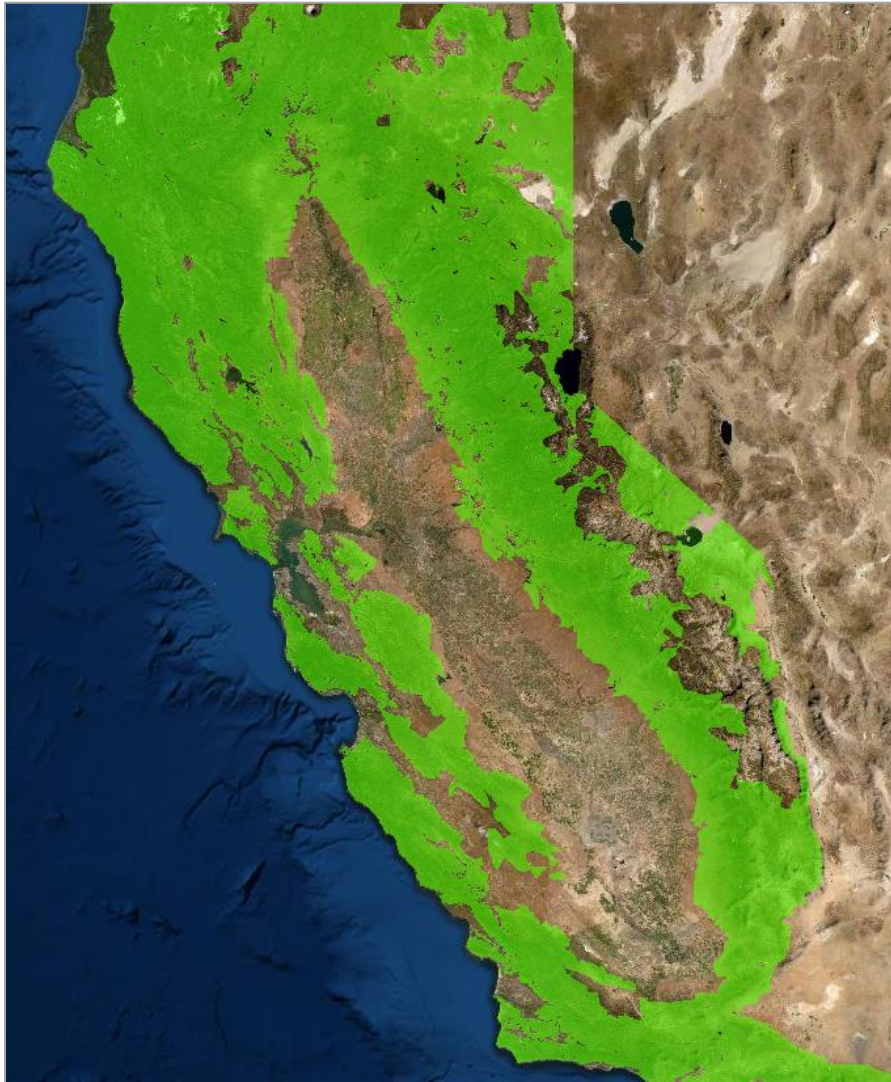
3.2 Scope for PSPS

3.2.1 Geographic Scope

PG&E’s PSPS program includes all electric lines that pass through high fire-risk areas (HFRA) - both Distribution and Transmission. PG&E’s HFRA generally align with the High Fire Threat District Tier 2 and Tier 3 areas as defined by the CPUC and include additional areas and adjustments based on assessments performed by PG&E in the HFRA review process. The HFRA also excludes areas from PSPS scope that are included in Tier 2 and Tier 3 based on analysis performed in the HFRA process.

The CPUC adopted the current fire-threat map and defined HFTDs in its [January 2018 Advice Letter](#). Figure 3-1 shows PG&E’s High Fire Risk Area Map.

Figure 3-1: PG&E's High Fire Risk Area Map



3.2.2 Operational Scope

PG&E's PSPS program includes all electric lines that pass through HFRAs — both Distribution and Transmission. The most likely electric lines to be considered for shutting off for safety will be those that pass through HFRAs. Often lines that traverse HFRAs also feed customers in non-HFRAs. These customers could be impacted by risk associated with lines that could be many miles away.

In an effort to minimize the impacts of PSPS, PG&E may operate selected sectionalizing devices closest to the identified risk area/s on a per event basis.

3.3 Decision Making for PSPS

3.3.1 Public Safety Power Shutoff Criteria

PG&E monitors conditions across its service territory and evaluates whether to proactively de-energize electric lines in the interest of safety. PG&E must reasonably believe there is an imminent and significant risk that strong winds will topple its power lines onto tinder dry fuels or will cause major vegetation-related impacts on its facilities during periods of extreme fire hazard.

In order to ensure this risk exists, PG&E first applies a filter known as minimum fire potential conditions to all hours and locations of the forecast. These minimum fire potential conditions must all be met for a location to be considered for PSPS. This applies for both Distribution and Transmission. These minimum fire potential conditions consist of required values of:

- Sustained Wind Speeds
- Dead Fuel Moisture (10/100/1000-hour variants)
- Relative Humidity
- Live Fuel Moisture (Herbaceous and Shrub variants)
- PG&E Fire Potential Index

Meeting all these minimum fire potential conditions does not mean automatic inclusion in PSPS scope. For distribution, once a location meets minimum fire potential conditions it must then hit a second set of guidance in order to be included in scope. These criteria are:

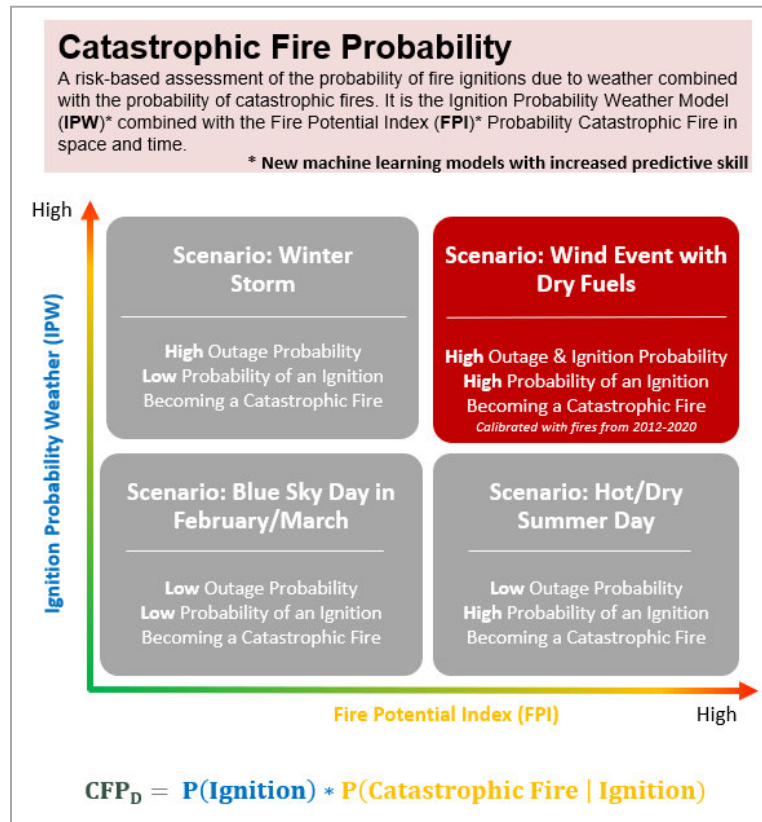
- Catastrophic Fire Probability (CFP)
- Catastrophic Fire Behavior (CFB)
- Vegetation and Asset Hazard Consideration

Also, the total number of POMMS (PG&E Operational Mesoscale Modeling System) cells that must meet minimum fire potential conditions and one of the above criteria should total to at least 25 grid cells (2 x 2 km).

CFP is calculated as the product of the PG&E Ignition Probability Weather (IPW) and the PG&E Fire Potential Index (FPI). The IPW model predicts the likelihood of an outage and resulting ignition, while the FPI model predicts the likelihood that an ignition would become a catastrophic fire.

Figure 3-2 shows a matrix for IPW and FPI.

Figure 3-2: IPW/FPI Matrix

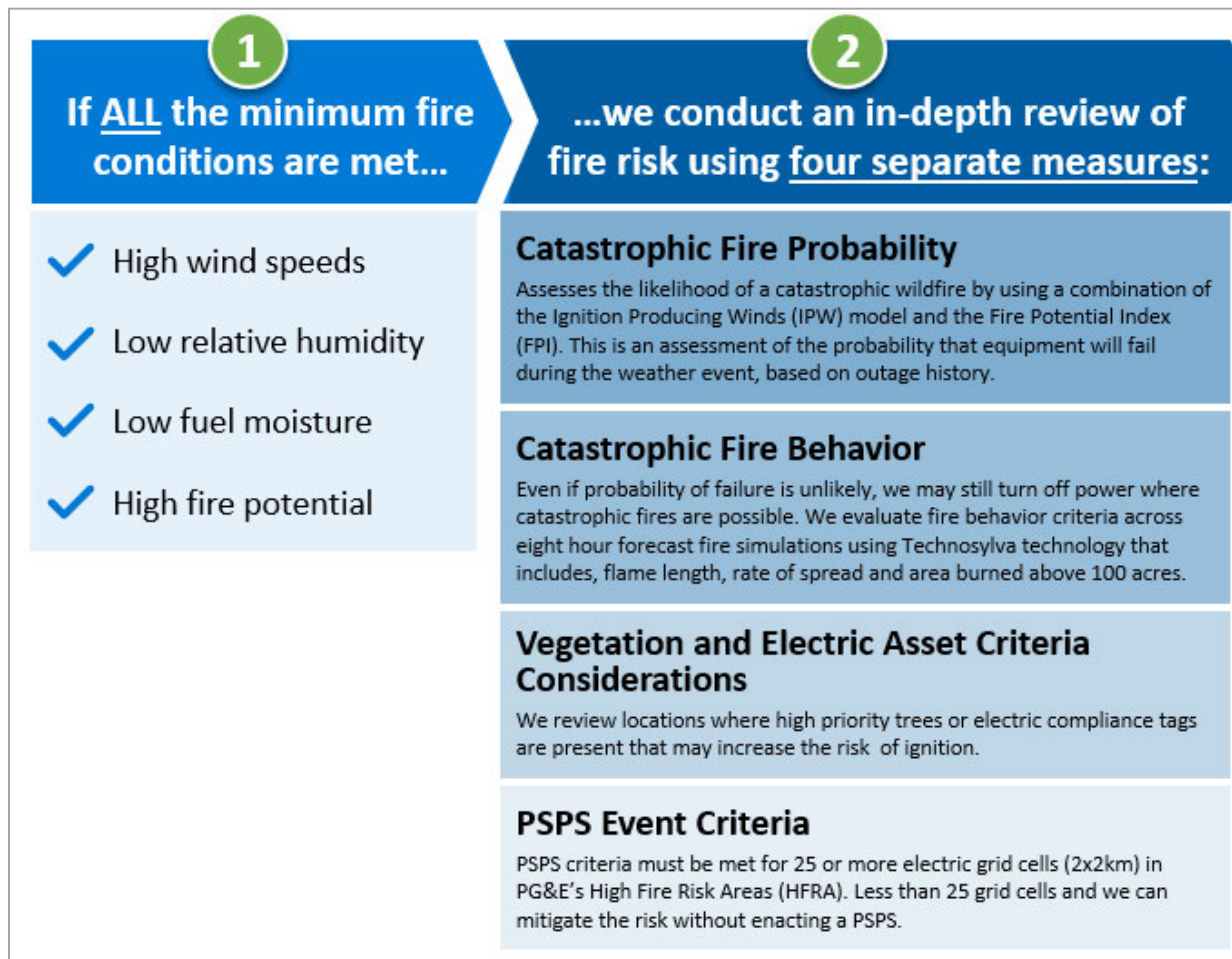


CFB is calculated using the outputs from the Technosylva Wildfire Analyst Enterprise (WFA) system. Technosylva ingests PG&E weather data, and then runs over 100 million fire spread simulations at 3 hour time intervals for the territory out multiple days, creating a dataset of potential consequence of new ignitions. In order to meet CFB guidance, an ignition must meet a set Flame Length, Rate of Spread, and 8 hour burned acreage. The use of CFB helps PG&E identify areas where the potential consequence from an ignition is very high, but where the IPW score may be low due to high circuit resiliency.

Vegetation and Asset Hazard Consideration is the last criteria, which is met by the presence of certain distribution asset tags or tree designations. Grid cells that meet minimum Fire Potential Conditions that also contain certain trees (“P1” or “P2” trees) or certain distribution asset tags, which cannot be mitigated, are also recommended for inclusion in PSPS scope.

Figure 3-3 shows the Distribution PSPS framework.

Figure 3-3: Distribution PSPS Framework



As stated above, the criteria for Transmission Scoping for PSPS also begins with the minimum Fire Potential Conditions. The criteria for transmission minimum fire potential There are two key inputs of PG&E's analysis to determine PSPS criteria on the Transmission system:

- PG&E's Operability Assessment (OA) model
- PG&E's Utility Fire Potential Index (Utility FPI)

On Transmission, the same framework is utilized; however, the distribution OPW model is replaced with the Transmission Operability Assessment (OA) model, which provides fragility curves based on wind speeds for each transmission structure. For Transmission PSPS Decision Making these models are combined in both space and time to form PG&E's Transmission Large Fire Probability model (LFP_T). In addition, Meteorology assists the Transmission team with identifying areas where baseline fire potential conditions exist and providing that data to the Transmission Asset Health Specialist (TAHS). The TAHS then uses this data in combination with vegetation data to investigate bringing additional lines into PSPS scope.

On Transmission, the combination of LFP, Black Swan, and Vegetation inclusions (as determined by the TAHS) constitute the Transmission scope.

Although PG&E's models are the main drivers of PSPS decision making, no single factor drives a PSPS, as each situation is dynamic and unique. PG&E carefully reviews a combination of many criteria when determining if power should be turned off for safety.

PG&E evaluates multiple forecasts from external weather agencies about the potential for fires that include Red Flag Warnings from the National Weather Service, High Risk forecasts of Significant Fire Potential from the Geographic Area Coordination Center (GACC) and fire weather outlooks from the Storm Prediction Center (SPC), which is part of the National Weather Service (NWS), within the National Oceanic and Atmospheric Administration (NOAA). This review ensures federal agencies also recognize a high potential for significant large fires.

During high risk periods PG&E meteorologists also take part in daily interagency conference calls that usually include multiple NWS local offices, the NWS western region headquarters, and representatives from the GACC. This call is hosted by the Northern California or Southern CA GACC offices. Agreements with Cal Fire and United States Forest Service (USFS) leadership allow PG&E to participate on these calls while not influencing any forecasts issued by these independent agencies. During these calls, the agencies present their views on the upcoming period of risk, cover timing, wind speed and fuel moisture levels and align on when certain federal forecast products may be issued. PG&E greatly appreciates participation on these conference calls as it allows PG&E to coordinate with external and independent forecast agencies on upcoming risk periods.

External forecasting models and services, such as the European Center for Medium-Range Weather Forecasts (ECMWF) and Global Forecast System (GFS), are also closely monitored.

PG&E meteorologists look for consensus and agreement among internal model forecasts and external forecasts. Agreement amongst the model forecasts supports higher confidence and accuracy in the forecasted conditions, while lack of agreement would indicate more variability in potential weather outcomes. For this reason, the review of external weather intelligence is a valuable and standard part of PSPS decision making.

In addition to this information, PG&E carefully reviews and considers the location of existing fires and where new fires are detected using the Satellite Fire Detection & Alerting System (FDAS), which uses data from five NOAA/NASA satellites to detect fires.

Sources of information besides internal forecast information that are considered for PSPS are listed below:

- Fire Weather Watches and Red Flag Warnings (Federal).
- High Risk of Significant Fire Potential (Geographic Area Coordination Center (GACC), Federal).
- Storm Prediction Center fire weather outlooks (National Oceanic and Atmospheric Administration (NOAA), Federal).
- Information received from agencies on Interagency Conference Calls during high risk periods.

- External forecasting services, including the European Center for Medium-Range Weather Forecasts (ECMWF), Global Forecast System (GFS).
- Field Observer information.
- Data from weather stations.
- Locations of existing fires.
- New fires detected – Satellite Fire Detection & Alerting System (FDAS).

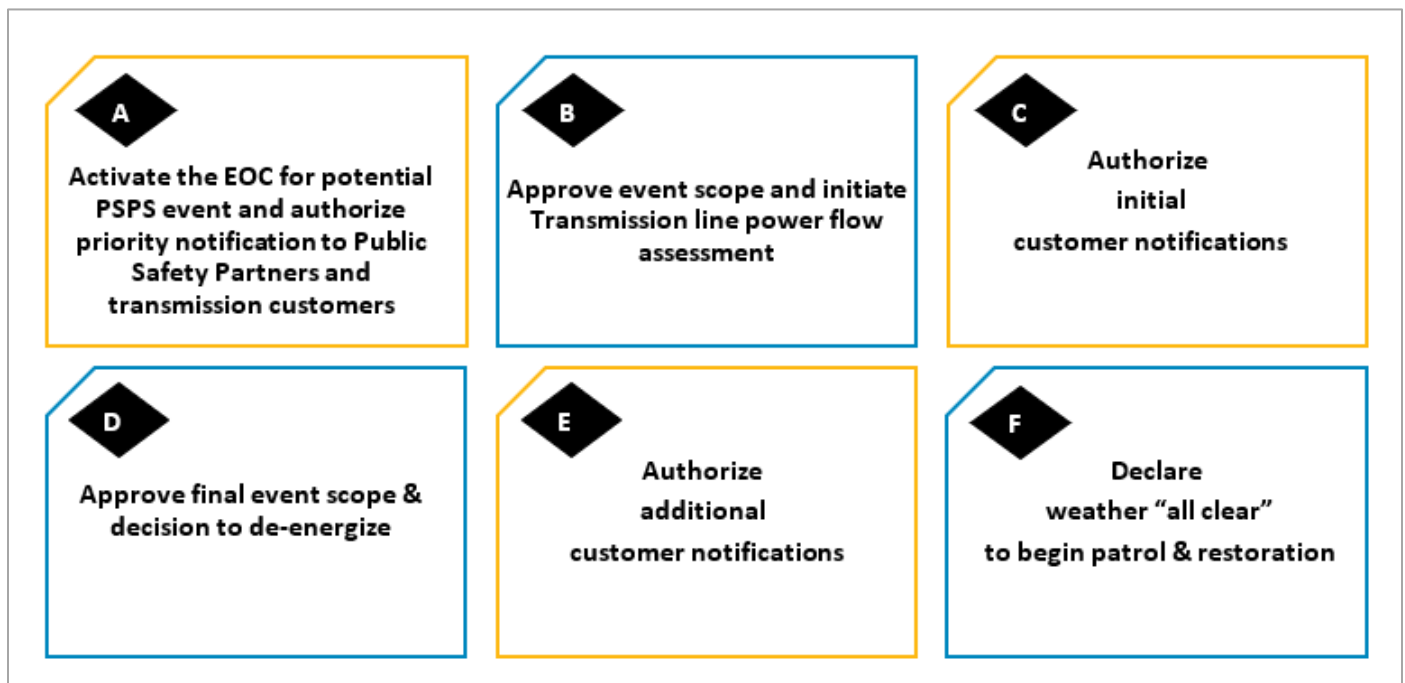
PG&E is currently evaluating new technologies including fire-spread modelling to incorporate into PSPS decision-making. In the future, PSPS guidance may include and incorporate new scientific methods and models.

3.3.2 Decisions made by Officer-in-Charge

A designated Officer-in-Charge (OIC) makes several key decisions throughout a PSPS event, including the ultimate decision to shut off power and to issue a weather “all-clear” to begin the process of patrols and restoration after high-risk weather conditions subside. In making these decisions, the OIC receives situational awareness from the Command Staff and general staff of PG&E’s EOC, including from the Meteorology, Planning Section, Customer Strategy, and other EOC sections.

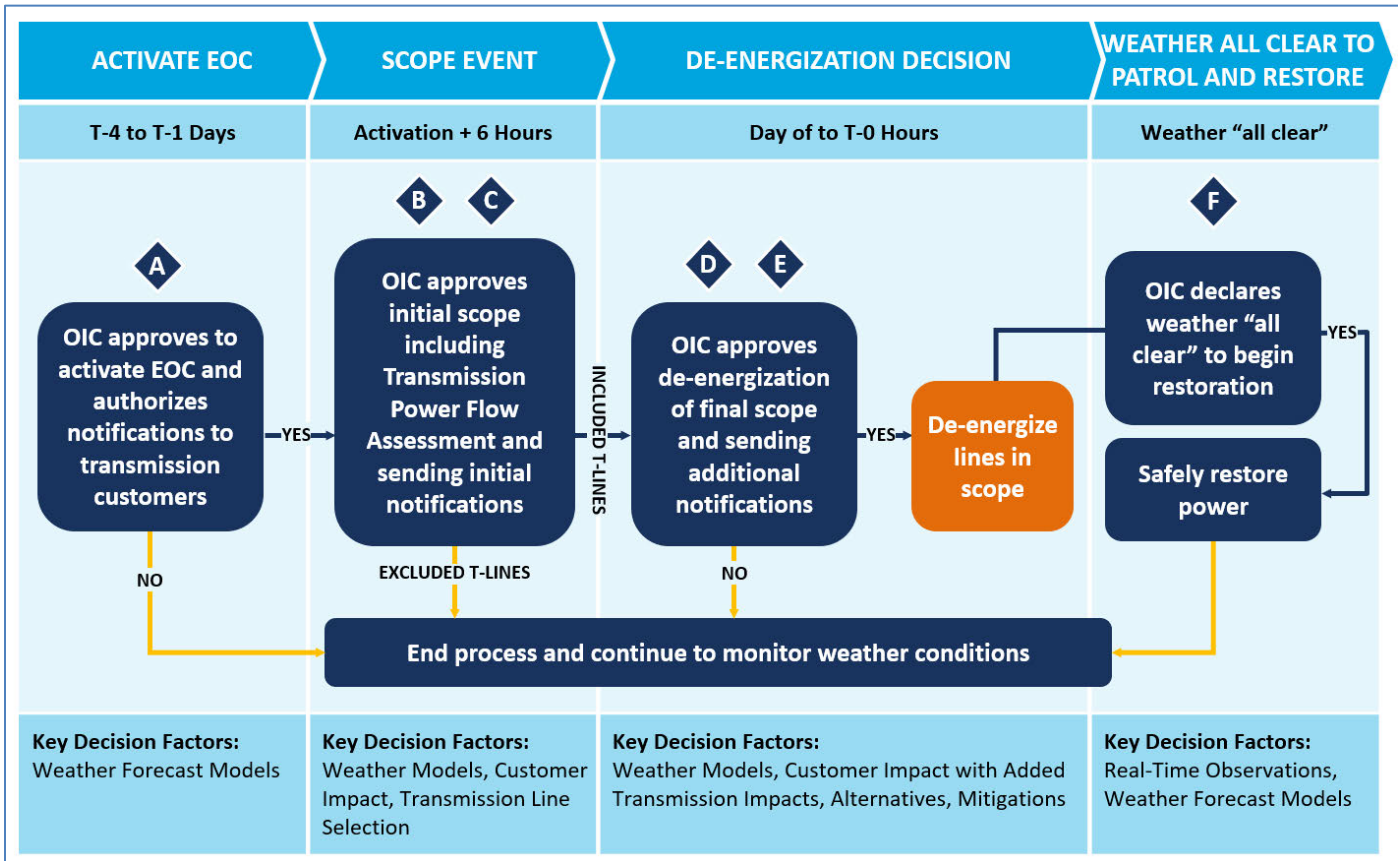
There are six important PSPS decisions, called OIC decisions which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly, and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 3-4.

Figure 3-4: OIC Decisions A – F



The sequencing of the PSPS decision process with an example of approximate timing as well as indicating what happens if a decision is made not to proceed and the process is ended with continued monitoring of weather conditions is visualized in Figure 3-5.

Figure 3-5: Public Safety Power Shutoff Decision Process



PG&E’s meteorology team and HAWC will continue to closely monitor changing forecasts and conditions leading up to the event and update the OIC of any changes in the forecasts or conditions. Concurrently, PG&E will begin notifying all potentially impacted entities including state, local, and tribal agencies, public safety partners, and customers. Based upon the latest information provided by the meteorology team and Command and General Staff, the OIC will decide whether to proceed with de-energization of the transmission and distribution lines passing through the areas of forecasted risk.

To make this decision, the OIC will consider factors such as the availability of alternatives to de-energization and the ability to mitigate the adverse impacts on customers and communities in areas planned for shutoff through steps such as warning customers through notifications, mobilizing community assistance locations, implementing sectionalization and microgrids where possible, or providing back up power support under exception circumstances.

Based on the intelligence provided, the OIC must determine there is an imminent and significant risk of strong winds impacting PG&E assets, and a significant risk of large, destructive wildfires should ignition occur. The OIC must determine alternatives to de-energization are not adequate to reduce this risk and that the public safety risk of catastrophic wildfire outweighs the adverse impacts of de-energization within the given scope. If it is determined that de-energization is necessary to protect public safety, the OIC will approve the decision to de-energize the final scope of the event and send warning notifications to the customers in scope.

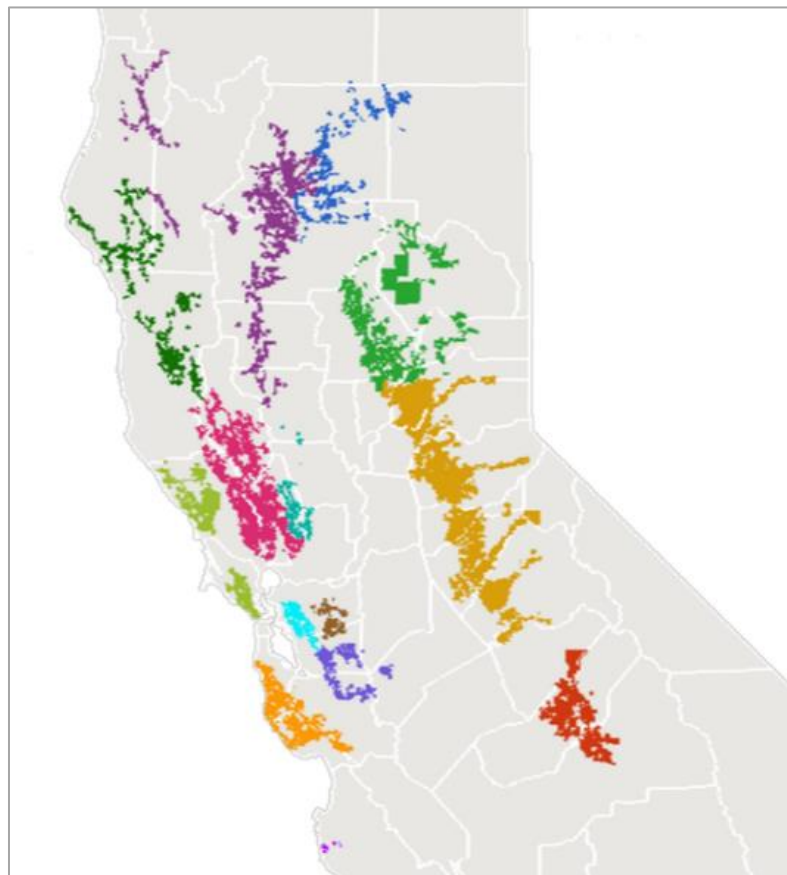
After the decision to de-energize is made, PG&E continues to actively monitor weather forecasts up until the planned de-energization time. This allows PG&E to change course and reduce or expand the scope if there is an emergent change in weather.

3.3.3 Time Places

Extreme weather may reach different areas at different times. A Time-Place is a portion of the PG&E grid that is electrically and geographically coherent and is forecast to experience consistent timing for potential PSPS. Time-Places are identified for each PSPS event and receive consistent treatment for notifications and de-energization. Once actual weather conditions occur, weather “all clear” and service restoration times may vary due to actual weather conditions within a TP.

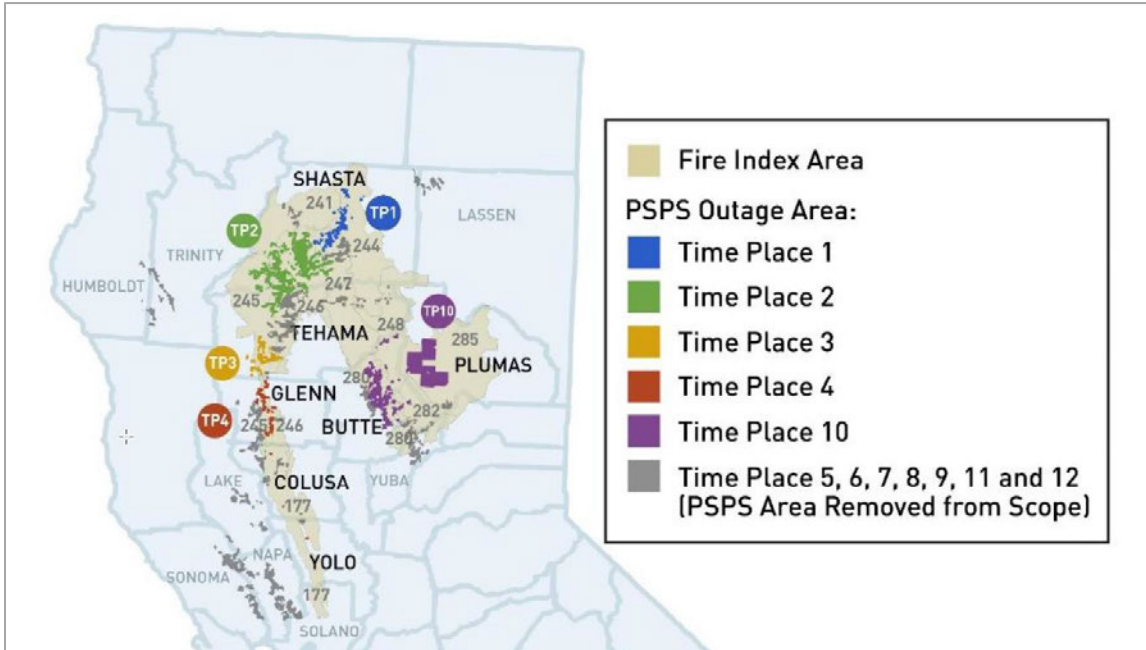
When there are multiple Time Places, each TP receives a number and assigned a unique color for easy identification on a map as in Figure 3-6.

Figure 3-6: Example Map with colored Time Places



Each PSPS event is unique. Prediction models of severity of weather may change enough over time so that originally forecasted TPs can be removed from event scope. In Figure 3-7 initial TPs 5, 6,7,8, 9, 11, and 12 have been de-scoped.

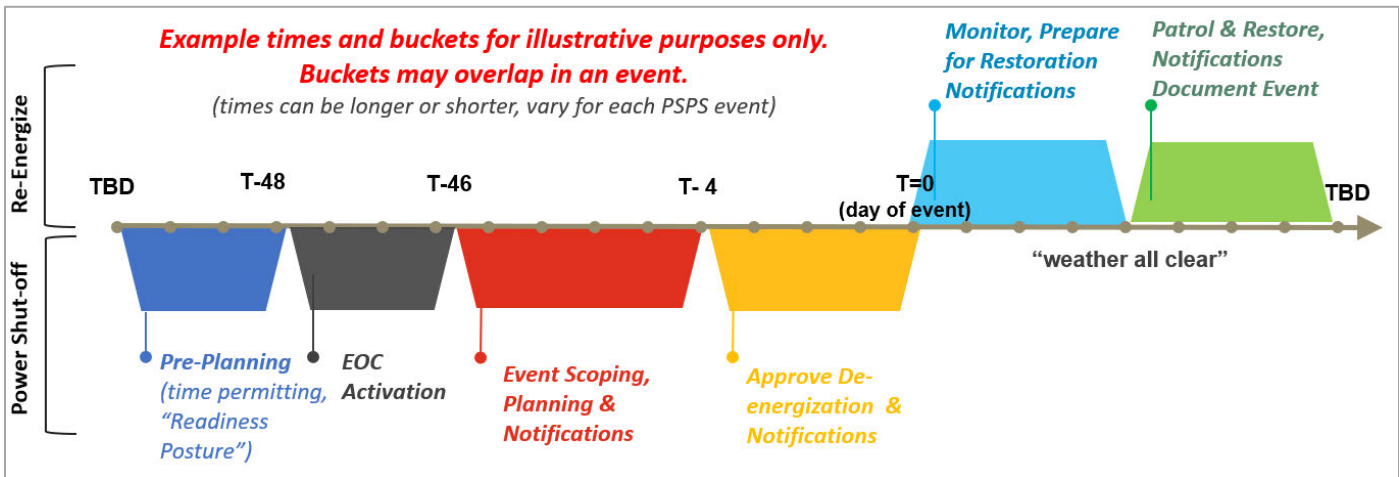
Figure 3-7: Example Map with In-scope and De-scoped Time Places



3.3.4 Example Sequence of a PSPS Event

Forecasts are subject to change quickly and preparation timelines adjust to forecasts for each PSPS event. Figure 3-8 shows a general example sequence for a PSPS event.

Figure 3-8: Example Timeline of PSPS Event



3.3.5 PSPS Event Activity Timeline

Figure 3-9, Figure 3-10, and Figure 3-11 show an overview timeline for PSPS event activity from ~T-96 hours to T + 10 business days.



Figure 3-9: PSPS Event Activity Timeline (1 of 3)

| | PRE-EOC ACTIVATION [-T-96 HOURS] | EOC ACTIVATION [-T-72 HOURS] (ASSUMES AN 0600 ACTIVATION) | | -T-48 HOURS | |
|--|--|--|---|--|---|
| | | AM | PM | AM | PM |
| METEOROLOGY | <ul style="list-style-type: none"> Meteorology identifies potential PSPS conditions | <ul style="list-style-type: none"> Weather model translated to weather polygons and overlaid with circuits to create scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope |
| | Continuous weather modeling | | | | |
| OPERATIONS | <ul style="list-style-type: none"> EOC Readiness Posture Evaluate open veg/maintenance tags | <ul style="list-style-type: none"> Officer-in-charge (OIC) decision to activate EOC for potential PSPS Receive approval and send transmission customer notifications | | <ul style="list-style-type: none"> OIC approves event scope and initiates Transmission power flow assessment Open local Operational Emergency Centers (OEC) | |
| | Develop utility crew resource plan, including air and ground resources | | | | |
| | Develop restoration plan, including prioritization of critical facilities | | | | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Review potential scope against temporary generation resource/ infrastructure locations | <ul style="list-style-type: none"> Refine deployment approach as PSPS scope evolves | | <ul style="list-style-type: none"> Begin to assess ad-hoc requests for backup power support, as applicable Coordinate with local agencies and stakeholders re: temporary generation usage | |
| PORTAL | | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities and Medical Baseline/Self-Certified as Vulnerable customer lists to agency users that accepted the online agreement Share impacted site lists to critical facilities | | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | |
| | Share maps and reports, if scope changes | | | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Call Cal OES re: change to "elevated" on weather website | <ul style="list-style-type: none"> Submit Cal OES form (EOC activation for PSPS) Update CPUC (SED) | <ul style="list-style-type: none"> 1530: State Executive Briefing | | <ul style="list-style-type: none"> 1530: State Executive Briefing |
| | Update CAISO | | | | |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> Call County OES/Tribal Contacts re: change to "elevated" on weather website | <ul style="list-style-type: none"> Call Public Safety Answering Points Call and email County OES/Tribal Contacts re: scope, call info, CRCs and Agency Rep contact Call neighboring counties re: scope Email Systemwide Cooperators Call info Automated messages** | <ul style="list-style-type: none"> 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms |
| | Agency Rep Coordination with County OES/Tribal Contacts | | | | |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Update weather website to "Elevated" | | | <ul style="list-style-type: none"> Update weather website to "Watch" Upload maps to website Issue news release/talking points Share event information on multiple social media platforms | |
| CUSTOMER OUTREACH / NOTIFICATIONS | | | | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers** Automated messages to customers in substation and temporary microgrid scope, if possible** | <ul style="list-style-type: none"> Hourly automated messages** to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact Doorbell rings to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact |
| CUSTOMER SUPPORT | | <ul style="list-style-type: none"> Coordinate regarding Community Resource Center (CRC) locations Notify customer resource partners of potential event | | <ul style="list-style-type: none"> Confirm CRC locations and mobilize backup generation, as needed Send PSPS Toolkit and news release (as appropriate) to customer resource and informational partners | |
| LOCAL OES PROMPT | | <ul style="list-style-type: none"> Request County Rep in PG&E EOC, if needed Determine timing of Operational Areas Cooperator Comms Review and provide feedback on CRC locations Hold on sending customer notifications | | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing temp gen plans Begin notifications to customers, as needed (after PG&E's customer notification are sent) | |

LEGEND:
■ PG&E
■ Public Safety Partners/ State Agencies
■ Customers
■ Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates.
  

Figure 3-10: PSPS Event Activity Timeline (2 of 3)

| | -T-24 HOURS | -T-12 HOURS |
|--|---|---|
| | AM | PM |
| METEOROLOGY | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> Review PG&E weather station data to confirm timing and scope |
| OPERATIONS | <ul style="list-style-type: none"> Develop utility crew resource plan, including aerial and ground resources; begin mobilizing resources into position for restoration, depending on expected event duration Develop restoration plan, including prioritization of critical facilities | <ul style="list-style-type: none"> Host "Go/No Go" decision meeting Put circuits into configuration to avoid de-energization in certain areas |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Finalize initial list and prepare temporary generators/personnel for energization at substation microgrids, distribution microgrids and ad hoc backup generation sites (including critical facilities and hospitals) | <ul style="list-style-type: none"> Upon de-energization, energize generators at substation microgrids and distribution microgrids Deploy ad hoc backup generation support where feasible and critical to public safety (including critical facilities and hospitals) |
| PORTAL | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities |
| STATE AGENCIES | <ul style="list-style-type: none"> Update CAISO | <ul style="list-style-type: none"> Submit Cal OES form (decision to de-energize) Submit Cal OES form (de-energization initiated) Update CPUC (ISED) 1530: State Executive Briefing |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Upload new maps to website (if needed) Issue news release/talking points Share event information on multiple social media platforms | <ul style="list-style-type: none"> Update weather website to "Warning" Upload new maps to website, if needed Issue news release/talking points Share event information on multiple social media platforms |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers and to customers in substation and temporary microgrid scope** | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers and to customers in substation and temporary microgrid scope** |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> Stand up CRCs Send news release to customer resource and informational partners, as appropriate | <ul style="list-style-type: none"> Stand up CRCs Send news release to customer resource and informational partners, as appropriate |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing critical facilities resiliency and temporary generation plans, as needed Assist with publicizing CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing critical facilities resiliency and temporary generation plans, as needed Assist with publicizing CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) |

LEGEND:

- PG&E
- Public Safety Partners/ State Agencies
- Customers
- Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.


RESOURCES
pge.com/pspsportal, pge.com/weather,
 and pge.com/pspsupdates.

Figure 3-11: PSPS Event Activity Timeline (3 of 3)

| | WEATHER PASS / PATROLS AND INSPECTIONS BEGIN | | POWER RESTORATION (GOAL: RESTORE WITHIN 24 HOURS) | | T+10 BUSINESS DAYS |
|--|--|---|---|---|--|
| | AM | PM | AM | PM | |
| METEOROLOGY | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC Monitor PG&E weather stations to confirm conditions are safe to energize Recommend "weather all-clears" to Operations | | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC | | |
| OPERATIONS | <ul style="list-style-type: none"> OIC declares "weather all-clear" to begin patrols Begin aerial and ground patrols and inspections If damage is identified, repair | | <ul style="list-style-type: none"> Prioritize restoration of critical facilities, as is feasible | | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Develop restoration plan Assess any new ad hoc requests for backup power support; deploy temporary generators where feasible and critical to public safety (including critical facilities and hospitals) | | <ul style="list-style-type: none"> Shut off temporary generators and return customers to grid source Remove generators from sites where they were deployed as ad hoc backup power support if they are not stored seasonally on site | | |
| PORTAL | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | | <ul style="list-style-type: none"> Share Situation Report | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Submit Cal OES form (initiate re-energization) Update CPUC (SED) | <ul style="list-style-type: none"> 1530: State Executive Briefing | <ul style="list-style-type: none"> Submit Cal OES form (full restoration) Update CPUC (SED) | <ul style="list-style-type: none"> 1530: State Executive Briefing, as needed | <ul style="list-style-type: none"> File de-energization event report to CPUC (SED) |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages re: restoration timing** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms, as needed Automated messages** re: restoration Coordinate with County OES/Tribal Contacts re: CRC demobilization | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call, as needed 1500: Agency Rep available for Operational Areas Cooperators Comms, as needed | <ul style="list-style-type: none"> Email de-energization event report and survey for feedback |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Post de-energization event report to website |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers re: restoration timing** | | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers that restoration is complete** | | |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> CRCs Open Send news release to customer resource and informational partners, as appropriate | | <ul style="list-style-type: none"> Demobilize CRCs when entire county has been restored Send news release to customer resource and informational partners, as appropriate | | |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Send notifications to customers, as needed [after PG&E's customer notification are sent] | | <ul style="list-style-type: none"> Report any outage areas, as needed Provide feedback on closures of CRC locations Send notifications to customers, as needed [after PG&E's customer notification are sent] | | <ul style="list-style-type: none"> Provide feedback/comments to de-energization event report |

LEGEND:
■ PG&E
■ Public Safety Partners/ State Agencies
■ Customers
■ Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather,
 and pge.com/pspsupdates.


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3.4 PSPS Preparedness

3.4.1 Organization

All employees involved with a PSPS event will be oriented to the PSPS Annex, applicable department emergency plans, and their respective emergency centers' contact list. Refer to [EOC Intranet site](#) for additional information on EOC staffing plans, training, job aids, and further EOC related information.

A staffing plan and/or contact list identifies on-call individuals for each emergency center.

The on-call responsibilities include the following:

- Ensure availability during defined schedule.
- Maintain a heightened level of awareness of all potential, forecasted, and in-process PSPS events.

3.4.2 Readiness Expectations

EP&R SE determines and posts EOC on-call teams, rotations, and yearly scheduling. Rotations and scheduling can be adapted as necessary. EOC on-call distribution lists are maintained to ensure team notifications are timely and accurate.

For more information see [CERP Section 8.3](#).

3.4.3 Call-out Procedures

The on-call EOC Commander initiates notification process of select internal representatives to participate in Readiness Posture and separately for EOC Activation.

EOC Activation is announced by EP&R S&E through standard modes of communication to on-call teams.

3.5 Pre-Event

3.5.1 Pre-Event Preparation – Summary

Note: Readiness Posture is not a requirement for the OIC to activate the EOC and may not occur in all PSPS events.

3.5.2 Hazard Forecasting and Prediction

The potential for an R5-Plus weather forecast based on numerical weather prediction models and forecasted FPI and OPW models will trigger Meteorology to call EP&R S&E Director to discuss the forecast. These discussions may occur several days before the event depending on the forecast.

If the forecasted weather event is beyond the range of PG&E's high-resolution forecast model, PG&E utilizes a suite of public and proprietary global weather models to evaluate potential for strong, dry winds to occur with dry fuel conditions present. The frequency of weather updates increases leading up to a potential PSPS event as PG&E has more access to internal and federal high-resolution forecast data.

3.5.3 Decision to Declare Readiness Posture

Time permitting, the on-call EOC Commander can decide to declare readiness posture.

3.5.4 Notification on Readiness Posture

Upon request from the on-call EOC Commander or his/her delegate, EP&R S&E will make internal notifications that the EOC is moving into a readiness posture and those in pre-assigned positions are to report.

3.5.5 Event Specific Readiness Posture

When Meteorology identifies forecast models that have the potential for developing R5-Plus level conditions and there is advance time before de-energization is forecasted to be required, the on-call EOC Commander can call on representatives from select sections and officers to meet, track developing conditions, perform readiness tasks where possible, and when warranted make a recommendation to the OIC to activate the EOC for a potential PSPS event.

Readiness Posture is equivalent to EOC Activation Level 2, Enhanced Steady-State/Partial Activation, described within National Incident Management System (NIMS) as "certain EOC team members/organizations are activated to monitor a credible threat, risk, or hazard and/or to support the response to a new and potentially evolving incident."

3.5.5.1 Sections and Focus Areas

The on-call EOC Commander is responsible for overall coordination, insight, and readiness of activities related to Readiness Posture.

Sections and focus areas for Readiness Posture include Planning, Operations, Customer Strategy Officer (CSO), Liaison Officer (LNO), and Public Information Officer (PIO). See Figure 3-12 for overview of Readiness Posture sections and focus areas.

Planning

Roles

- Planning Section Chief and Deputy Planning Section PSPS Chief
- Meteorologist in Charge (MIC)
- PSPS Technical Lead
- HAWC Lead
- Transmission Asset Health Specialist (TAHS)
- Distribution Asset Health Specialist (DAHS)
- GIS Technical Specialist
- PSPS Portal Lead

- PSPS Process Lead
- Documentation Unit
- Resource Unit Leader

Focus Areas may include

- Forecast potential R5-Plus conditions.
- Set up PSPS event SharePoint.
- Build initial distribution and transmission event scope.
- Prepare initial maps.
- Prepare customer impact information and maps.
- Inquire about location and availability of resources.

Operations**Roles**

- Operations Section Chief
- Distribution Branch Director
- Transmission Branch Director
- Vegetation Management Branch Director
- Temporary Generation Branch Lead
- Information Technology Coordination Center (ITCC) PSPS Application Task Force Lead
- Safety Lead
- Vegetation Management Specialist

Focus Areas may include

- Analyze direct impacts of distribution scope.
- Review distribution configuration and identify switching opportunities for abnormal configuration.
- Analyze direct impacts of transmission scope.
- Perform preparations for power flow assessment.
- Identify high-priority A-type maintenance tags to be addressed.
- Identify any possible event scope related safety concerns.

Customer Strategy Officer**Focus Areas may include**

- Identify population of potentially affected Critical and Medical Baseline customers (source Planning Section from PSPS Viewer).

- Prepare notifications for Public Safety Partners and impacted customers.
- Identify potential Community Resource Center (CRC) sites.

Liaison Officer

Focus Areas may include

- Coordinate with Plans to determine event scope.
- Coordinate with AReps and tribal liaisons to Call cities, counties and Tribes informing about “elevated” weather.
- Confirm and activate Liaison team staffing.
- Reserve operator system for Systemwide Cooperators Calls.
- Create team collaboration folders, sites and contact lists to support team collaboration and agency notifications.

Public Information Officer

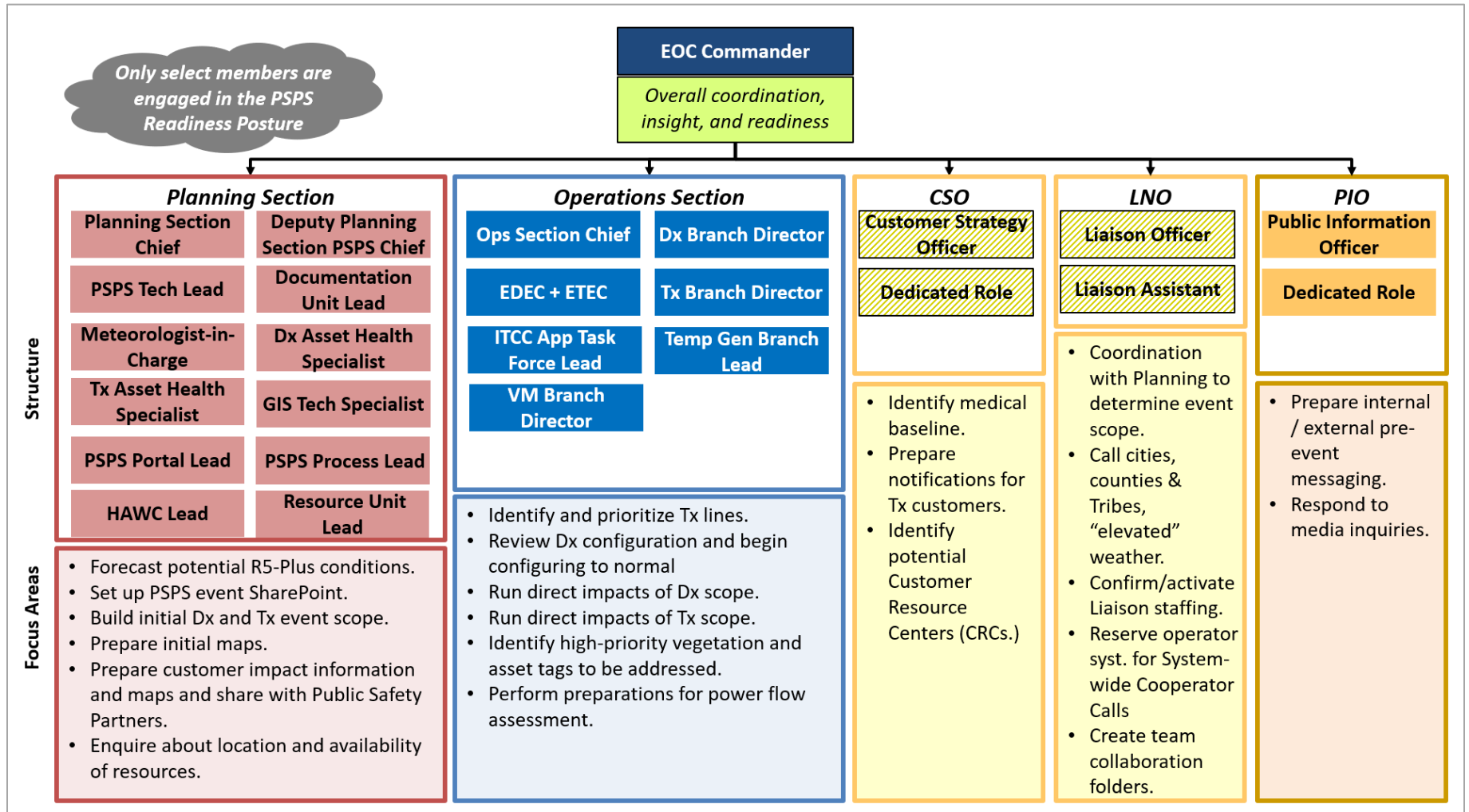
Focus Areas may include

- Prepare internal / external pre-event messaging.
- Respond to media inquiries.

Readiness Posture Overview

Figure 3-12 shows combined overview of Readiness Posture structure and focus area base on text in section 3.5.5.1.

Figure 3-12: Readiness Posture – Structure and Focus Areas



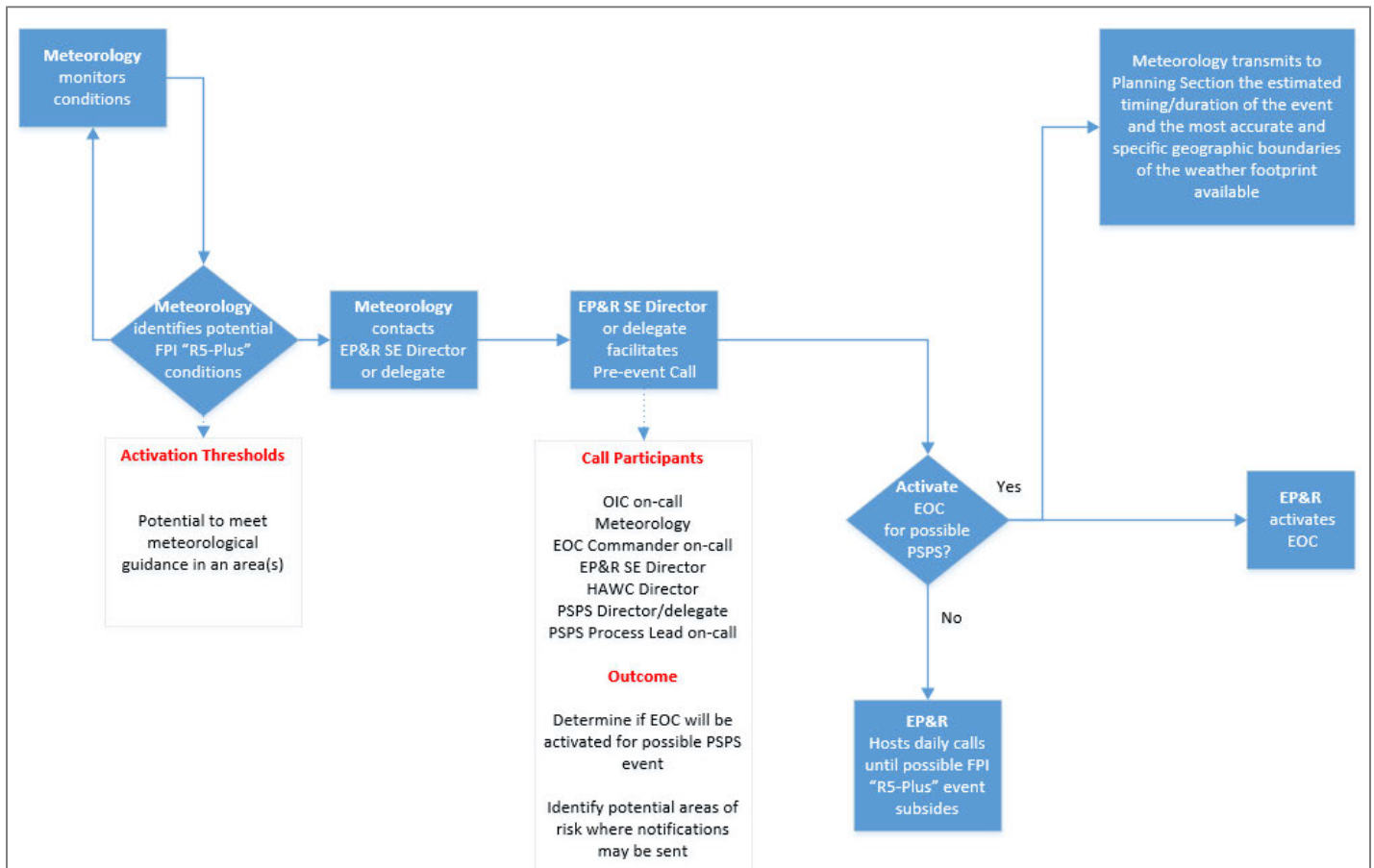
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3.6 EOC Activation Process for Potential PSPS Event

PG&E’s EOC has been established to coordinate overall response and support in an emergency. On an initial call established and facilitated by the EP&R S&E Director (or delegate) the OIC with input from on-call EOC Commander and representatives from Meteorology, EP&R SE, PSPS Process Lead and the HAWC will decide if forecasted conditions indicate a credible threat to warrant activating the EOC and all EOC team personnel (OIC decision **A** see Section 3.3.2).

Once the decision is made, standard procedures outlined in the CERP are followed to activate the EOC. Figure 3-13 shows the PSPS EOC activation process.

Figure 3-13: PSPS EOC Activation Process



The EOC operates under an Incident Command System (ICS) approach which is directed by an EOC Commander.

Details about the ICS approach and EOC activation process and execution are outlined in PG&E’s [CERP Section 8](#).

3.7 Notifications – Internal and External

3.7.1 Internal

When requested by on-call EOC Commander, EP&R SE sends out EOC activation notifications to EOC personnel that the EOC is activating for a PSPS.

3.7.2 External – CPUC, Cal OES, and Public Safety Partners

In compliance with Standard Six of G.O. 166, within one hour of identification of a major outage or other newsworthy event, EP&R SE must notify the CPUC and the Warning Center at California Office of Emergency Services (Cal OES) of the location, possible cause and expected duration of the outage.

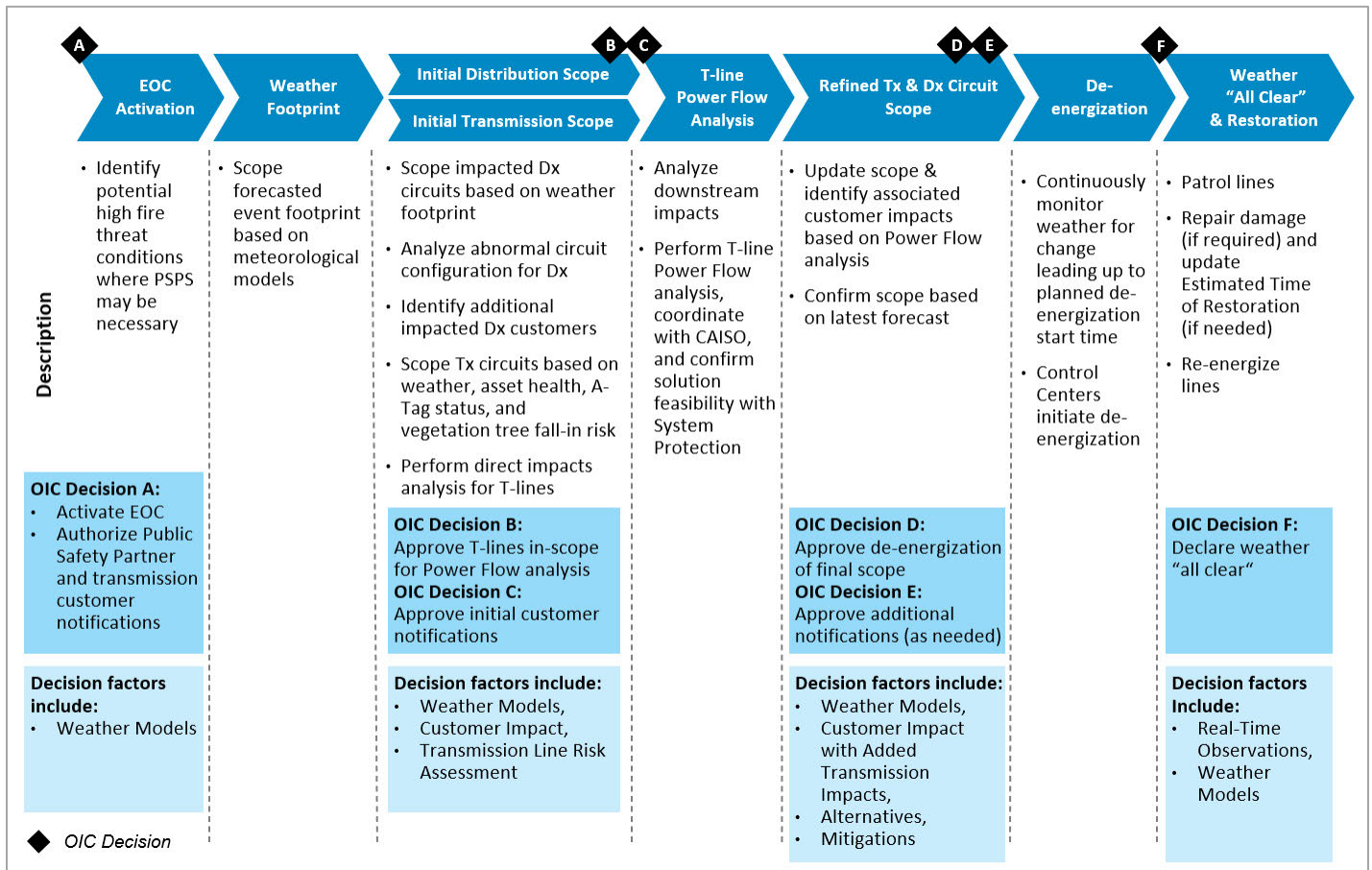
Per CPUC D.19-05-042 Liaison and Customer notify Public Safety Partners when the EOC is activated in anticipation of a de-energization event or whenever the determination is made that de-energization is likely, whichever occurs first. PG&E includes information as outlined in D.19-05-042.

3.8 PSPS Event

3.8.1 PSPS Event Overview

The overview in Figure 3-14 provides a high-level diagram of major PSPS phases, discussion points, deliverables, and decisions. It is a guide and not a prescription for PSPS events.

Figure 3-14: PSPS Event Overview with OIC Decisions



OIC Decisions:

- ◆ **A** Activate the EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
- ◆ **B** Approve event scope and initiate Transmission line power flow assessment.
- ◆ **C** Authorize customer notifications.
- ◆ **D** Approve final event scope & decision to de-energize.
- ◆ **E** Authorize additional customer notifications.
- ◆ **F** Declare weather "all clear" to begin patrol & restoration.

3.8.2 PSPS De-energization Playbook using PSPS Viewer and Transmission List

The PSPS Viewer and (when applicable) a Transmission PSPS direct impact analysis output or total impacts study output are used to create and update an event specific PSPS de-energization Playbook with versions A-D. The initial PSPS Playbook A is generated from the initial event in the PSPS Viewer, then sent to the DCC for review. The finalized PSPS Playbook D incorporates distribution circuits and abnormal configurations, direct and indirect transmission lines, Substations, and customers, that are being considered for de-energization. This information can then be used to notify the scope of the event with outside entities and customers.

De-energization Playbooks

Playbook A – Initial distribution playbook.

Playbook B – Adds distribution abnormal circuits from direct impacts and confirmed temporary generation.

Playbook C – Adds direct transmission impacts and updated confirmed temporary Generation.

Playbook D – Adds total transmission impacts (direct & indirect) and updated confirmed temporary generation.

3.8.3 Electric Transmission Emergency Center for PSPS

Initiation of a PSPS event triggers activation of the Electric Transmission Emergency Center (ETEC) at the primary location, which is currently at the Vacaville GCC or Grid Support Center (GSC). ETEC will serve as a hub for all transmission assets as well as communication and coordination between internal entities such as the EOC, Electric Distribution Emergency Center (EDEC), Substation Transmission Operations Emergency Center (STOEC), and external agencies such as California Independent System Operator (CAISO), municipally-owned utilities etc. ETEC consists of the GCC Supervisor(s), Operations Engineers (OEs), System Protection, Emergency Management System (EMS) (as required), and Remedial Action Schemes (RAS) Operations (as required).

The GCC Supervisor sends a “PSPS Awareness” notification to CAISO by phone and e-mail. This notification will consist of potentially impacted transmission lines and an estimated timeline of the PSPS event. After further analysis, EOC Planning Section will provide a list of transmission lines to ETEC and Operations Section Chief. Once the line list is received, ETEC team will begin the process to determine direct transmission impact analysis with support from Operations Engineering, System Protection, and the CAISO.

ETEC responsibilities include:

- Identifying directly impacted transmission assets and facilities within the potentially-impacted geographic scope meeting transmission line selection criteria, which involves the creation of a PSPS Direct Impacts analysis (also called “Tx Playbook C”) output spreadsheet indicating impacted lines and outage cards via Transmission Operations Tracking & Logging System, then sharing with CAISO.
- ETEC Lead sends the PSPS Direct Impact Summary to Electric Transmission Branch Director and EOC Planning Section Chief.

Upon the Planning Section receiving the PSPS Direct Impact Summary, presenting the list of T-lines for OIC approval to commence the power flow studies (OIC Decision **B** see Section 3.3.2)

Upon approval of OIC decision **B**, ETEC team initiates PSPS Total Impact Analysis (initiates an in-depth scenario analysis in parallel with CAISO's own impact study, which includes power flow studies and contingency analysis). These studies will help ETEC team and CAISO identify any necessary mitigation requirements to maintain the stability of the system when implementing PSPS.

The study results are then exchanged and validated with CAISO. When mitigation requirements are identified and agreed upon, ETEC team will provide all the operational requirements to System Protection, which will confirm overall protection coordination and adequacy of the grid through a complete Protection Dependability Study and Final Bus Fault Duty Analysis. CAISO, System Protection, and OEs will analyze the overall results and then agree upon the complete set of operational requirements for the implementation of PSPS (such as rotating outages, pro-rata load-sharing to minimize the impacts to other utilities, changes in relay settings etc).

ETEC team will then produce a PSPS Total Impact Summary and share with ETEC Lead, CAISO, EDEC, and STOEC. The ETEC Lead will provide to Electric Transmission Branch Director and EOC. The summary contains:

- Transmission lines impacted with voltage level information.
- Impacted substations and static estimated customer count.
- Transmission customers impacted (load, generators, municipally owned utilities, etc.).
- Estimated power generation impact in megawatt (MW).
- Estimated load impact (MW).
- Rotating outage plan projection (if needed) based on load forecast.

System Protection identifies transmission-level customers/entities that will remain energized but experience a fault duty change of greater than 15%, prompting the third party to perform a coordination study and potentially reset relays for the duration of the event. Notification of third-party transmission interconnection customers to be done as per established process through the Critical Infrastructure Lead (CIL).

ETEC team creates new outage cards or updates the existing cards with CAISO based on Total Impact Analysis results. Next, ETEC team identifies critical in-service lines for patrol prior to weather event, and then create a prioritized sequence for de-energization of transmission grid elements including load, generation, system protection settings, and other assets. ETEC Lead then shares the plan with STOEC, EDEC, CAISO, and EOC. Finally, based on all the information discussed above, ETEC team prepares PG&E's electric grid for the PSPS event. This involves coordination with CAISO, coordination with EDEC and STOEC.

3.8.4 Forecast R5-Plus Assessment Actions

When an R5-Plus weather event is forecasted, a pre-assessment review is conducted² that includes:

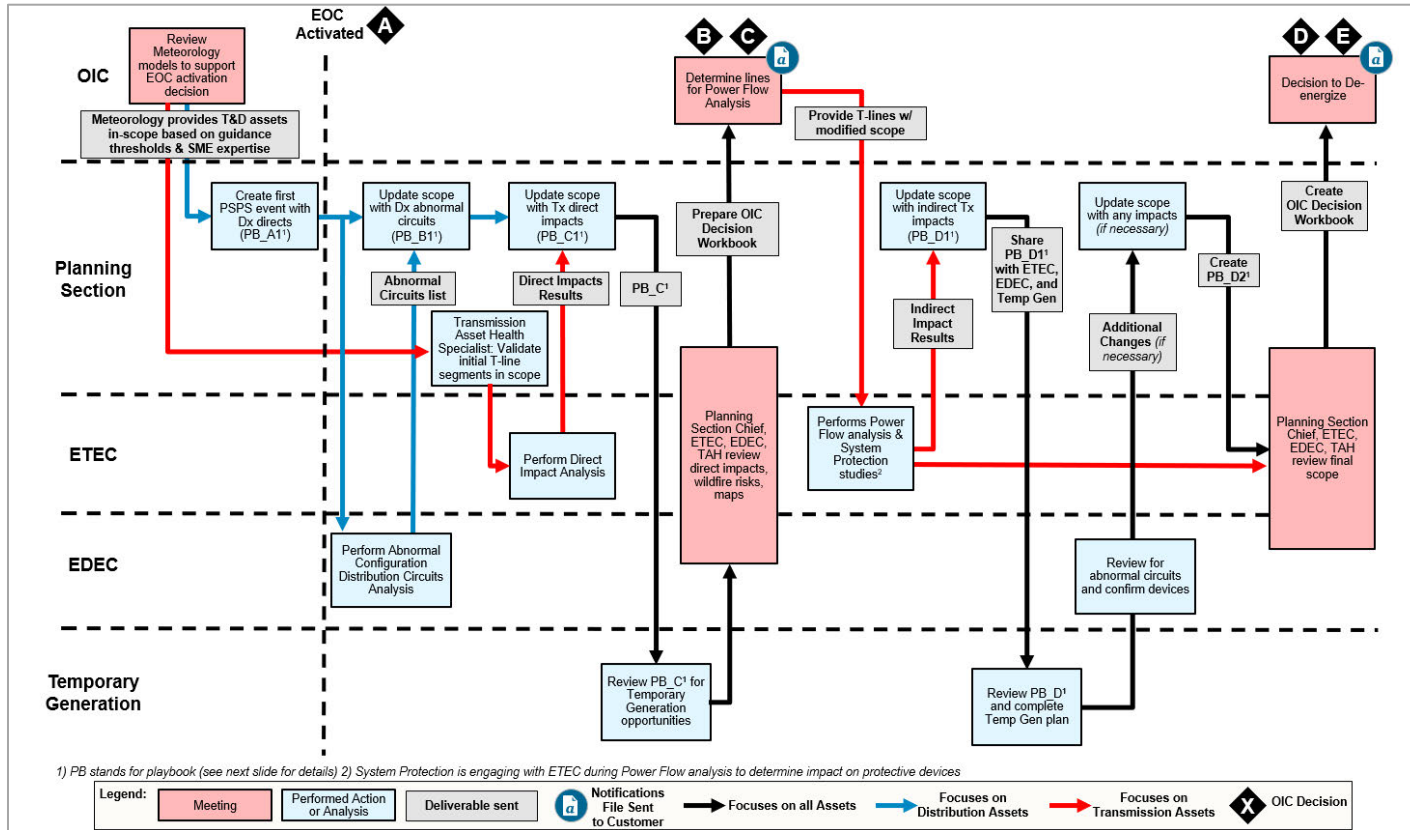
- Stopping specific types of work in areas where R5-Plus is forecasted according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#)".
- Reviewing high-priority maintenance tags (A and B tags) along high-risk areas (using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits and accelerating work if possible or needed.
- Reviewing planned work (e.g., Vegetation Management) along high risk areas (determined using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits.
- Determining if Enhanced Vegetation Management work has occurred.
- Evaluating Red Flag warnings, temperature forecast, and other weather conditions to determine if high-risk work (e.g., temperature impact to loading) can be safely completed prior to PSPS event).
- Confirming work is complete prior to PSPS event.

Aerial patrols may be considered for a pre-event grid assessment and will depend on efficacy prior to a forecasted R5-Plus event. The HAWC, in coordination with Aviation Services and Electric Operations, will make the determination if aerial patrols are warranted.

Figure 3-15 shows a process flow for the Transmission and Distribution PSPS scoping process including OIC Decisions A-E and Playbooks A-D. The process flow is limited to PSPS scoping and for that reason does not show OIC Decision F or Restoration Playbook F.

² The pre-assessment review may not be completed depending on time and employee safety concerns.

Figure 3-15: Transmission and Distribution PSPS Scoping Process




Note: Not rendered in figure, possible “break-ins” or having to loop back to the beginning due changes in forecasted weather.

OIC Decisions:

- ◆ **A** Activate EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
- ◆ **B** Approve event scope & initiate Transmission power flow assessment.
- ◆ **C** Authorize customer notifications.
- ◆ **D** Approve final event scope & decision to de-energize.
- ◆ **E** Authorize additional customer notifications.

De-energization Playbooks

- Playbook A – Initial distribution playbook
- Playbook B – Adds distribution abnormal circuits from direct impacts and confirmed temp generation
- Playbook C – Adds direct transmission impacts and confirmed temp generation
- Playbook D – Adds total transmission impacts (direct/indirect) and confirmed temp generation
- Restoration Playbook F not part of scoping process.

OIC Decision  (weather “all clear”) not part of scoping process.

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3.8.5 Resource Planning

The guiding principles for PSPS resource planning are listed below. Resource plans should:

- 1) Identify specific PSPS resource needs including resource requirements for patrolling circuits prior to restoration, field observation, and staging areas.
- 2) Strive for restoration of power to all customers affected by the PSPS event as quickly and safely after the weather “all clear” as possible while maintaining safety for customers and PG&E employees.
- 3) Have triggers for mutual assistance requests based on the size of the PSPS event.
- 4) Refine resource allocations as the event evolves and de-energization approaches.

The weather forecast will initiate resource planning via the Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) model that Meteorology produces for system outage forecasts. The SOPP model will inform staffing for response to the weather event.

The EOC allocates all QEW / crew resources based on FORCE tool outputs and REC crew requests. Extra resources above FORCE and/or SOPP allocated based on requests and availability of crews. The FORCE Tool provides a reference point based on inputs, but actual staffing may exceed or be below FORCE staffing models. Commonly, when there are not enough resources to meet the FORCE model or up to the requested resources the Resource Unit will attempt to balance resources based on the FORCE and/or SOPP outputs using a ratio/percentage base. EOC reviews output with RECs before starting dispatch.

Elements that influence allocations of air assets include.

- Transmission lines are patrolled exclusively by helicopters.
- The remaining helicopters available are then assigned for Distribution patrols.
- Based on this allocation of helicopters and patrol speed assumptions, the FORCE model provides an estimate of the ground patrol units by Division that will be required to patrol the de-energized Tier 2 and Tier 3 Distribution lines within a designated time frame.

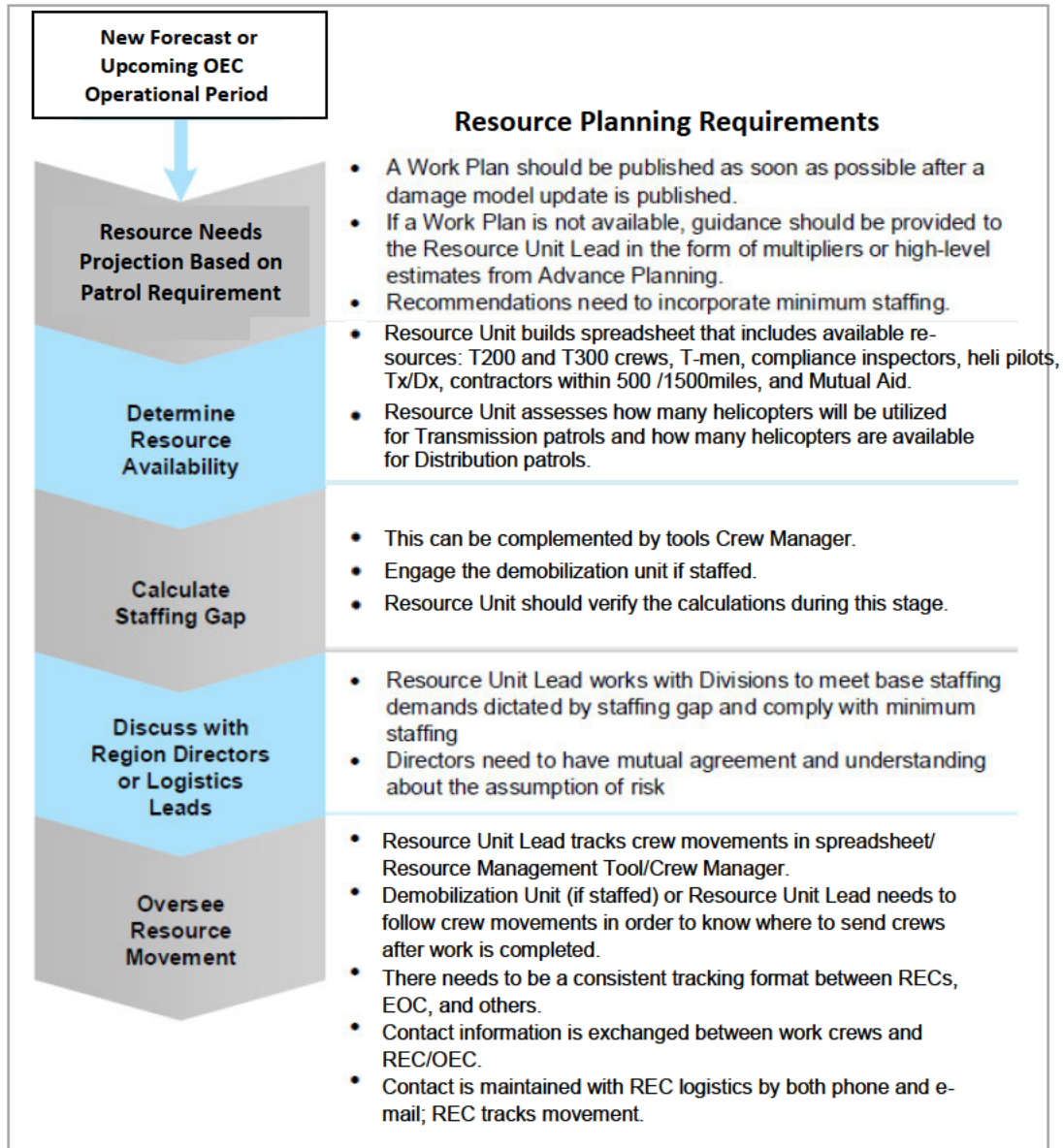
Elements that influence resource plans include:

- SOPP model and forecast system outages.
- Outage Management Tool (OMT) information on actual outage counts.
- Event timing (i.e. day of week, time of day).
- Circuits and customers impacted (i.e. circuit miles, amount and type of customers, circuit accessibility and/or visibility to aerial patrols).
- Resource availability and planned work.
- Availability of helicopters to conduct patrol.

- Grid awareness (i.e. abnormal switching, SCADA and protection capabilities).

The Operations Emergency Center (OEC) resource planning process is illustrated in Figure 3-16.

Figure 3-16: OEC Resource Planning Process



Each PSPS event is unique. Resource staging may vary but, in general, will be prepared in the following locations:

- Control Centers (various): Distribution and Transmission Control Centers: stage resources for system protection analysis and coordination of resources required for automatic switching and separately for manual switching.
- Service Centers, base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs), will vary based on forecast event. Field Observers, Vegetation Management crews, Restoration crews, Local Customer Representatives, and (potentially) Maintenance and Construction crews will await deployment from a local Service Center.
- Aviation Services consolidate operations to Vacaville and Winters. Vacaville will serve as the centralization of PG&E's aviation organization. Winters will be the main training center.

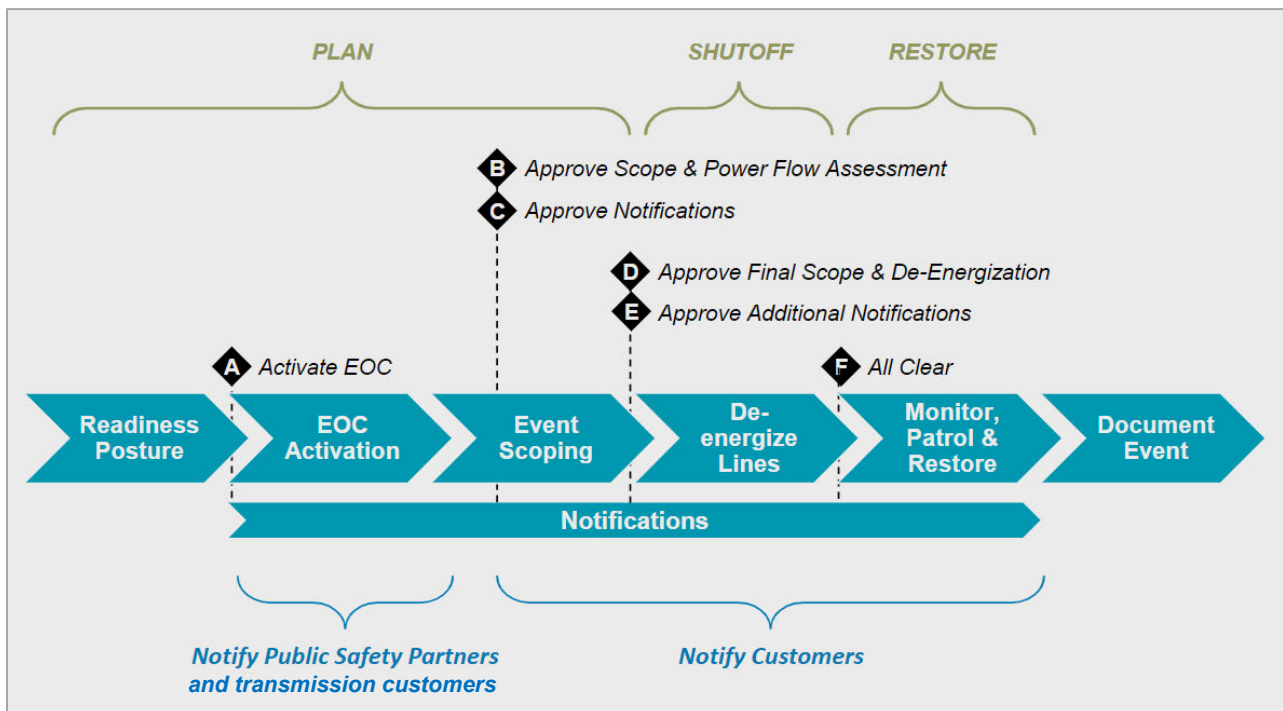
3.8.6 Field Observer Resourcing

Field observations are completed by members of Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

3.9 PSPS Event Scoping

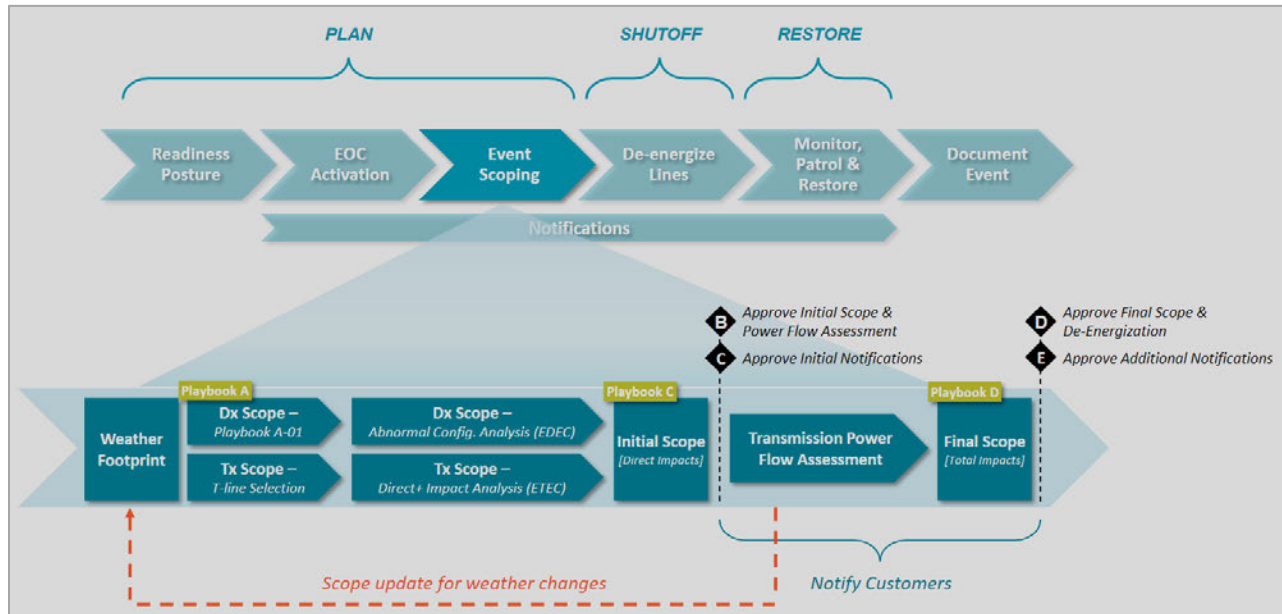
Scoping of a potential PSPS event can begin during Readiness Posture. If there is no Readiness Posture scoping begins after EOC activation. OIC Decisions **B** through **E** are made during the scoping phase. Figure 3-17 shows overview of PSPS sequence and event scoping.

Figure 3-17: PSPS Sequence with Event Scoping



Scoping of a PSPS event includes information from meteorology, distribution, transmission. Through an iterative process a series of Playbooks are created starting with Playbook A and leading towards Playbook D. Figure 3-18 shows components of the scoping process and Playbooks.

Figure 3-18: Scoping Components and Playbooks



3.10 Approval and De-Energization

3.10.1 OIC Approval to Shut off Power

The OIC will make the final decision to shut off power (OIC Decision **D**, see Section 3.3.2). This decision will be based on an assessment of the quantitative and qualitative factors listed in Section 3.3.1.

Upon confirming the decision to shut off power for safety, the OIC will hand off to the EOC Commander to execute the necessary steps to de-energize. The OIC can delegate the authority to the EOC Commander to adjust the scope of the event as necessary if there are emergent weather changes.

3.10.2 De-energization

The de-energization process consists primarily of the following actions:

- EOC team and OIC finalize scope to proactively de-energize based on evaluation of quantitative and qualitative information.
- OIC makes decision to proactively de-energize (OIC Decision **D**, see Section 3.3.2). If applicable in conjunction with OIC Decision **D**, OIC authorizes notifying any additional customers, OIC Decision **E**.

- Depending on the timing of OIC Decision D in comparison to the time of de-energization, with permission from the OIC, the EOC Commander may elect to reaffirm Decision D closer to the start of the weather event in a subsequent de-energization confirm/cancel/delay meeting to account for quickly changing weather conditions and allow for increased situational awareness closer to the time of de-energization.
- Preparations for notifications before de-energization include:
 - Planning Section confirms facilities for shutoff with Electric Operations via approved PSPS Playbook.
 - Planning Section uses the PSPS Viewer and Foundry tools to create updated customer lists, reports, event maps, and files reflecting de-energization plans created from the PSPS Viewer.
 - Planning Section prepares the initial Cal OES form.
 - The Digital Strategy team uploads content to the new PG&E alerts website including updated files for the affected area maps, updated files for the address lookup tool, and information that the decision to de-energize has been made.
 - The PSPS Portal Lead uploads content to the ArcGIS Online PSPS Portal including updated GIS layers for customer impacts and affected circuits, updated medical baseline and critical facility lists for agency users, and updated affected site lists for critical facility providers.
 - Liaison stages notifications to CPUC, cities, counties, Tribes, and other stakeholder groups informing them of imminent power shutoff (pointing users to the latest files on the web and Portal).
 - Prior to notifying transmission customers PG&E will engage Public Safety Partners as required by the CPUC. In order to ensure compliance with FERC Standards of Conduct, PG&E will communicate concurrently with the initial transmission PSPS scope for the given event (and subsequent modified transmission scopes) to Public Safety Partners who may also be electric wholesale market participants.
 - Planning Section / Digital strategy will post communications, including specifying the transmission PSPS scope, to PG&E's FERC Standards of Conduct website pge.com. PG&E has sought FERC guidance regarding these procedures and may modify these procedures based upon additional input from FERC.
 - Customer Team sends notifications to Public Safety Partners, Critical Customers, Critical Facilities and all other customers informing them of imminent power shut off.
 - PIO posts on social media and issues press release communications.
 - PG&E will make best effort attempts to provide affected customers, or their agents, with notice, but shall not be liable for interruption if notice cannot be provided in a timely manner, as required in [Electric Rule No. 14](#).

- If conditions exist that make it impossible to inform customers and other stakeholders of an imminent power shutoff, Customer Care and Liaison will send notifications to customer and stakeholders as soon as possible notifying them of the shutoff.
- Electric Transmission and Distribution Control Centers verify impacted circuits and devices.
- Electric Transmission and Distribution Control Centers coordinate opening and closing devices according to PSPS Playbook.
- Electric Transmission and Distribution Control Centers confirm that devices have been opened and that power is shut off.
- Once confirmed, the Transmission and Distribution Control Centers communicate to their respective EDEC/ETEC, who communicate to the respective Distribution and Transmission Branch Directors.
- Distribution Control Centers create outages in Distribution Management System (DMS) that appear in Outage Management Tool (OMT) for distribution to track PSPS devices proactively de-energized (including handing off to next shift).
- DCCs complete via SCADA or give switching instructions to OEC/TFL to complete circuit segmenting after de-energization is completed.
- EOC Commander ensures that Command Calls have appropriate timing to discuss re-energization and protocols (may be necessary in addition to standard schedule).
- DCC segments PSPS impacted distribution circuits following de-energization based on pre-identified locations per the approved Playbook and PSPS Circuit Segment Guides.

3.10.2.1 Community Resource Centers

To minimize PSPS outage impacts and serve our communities and vulnerable customers during a PSPS event, PG&E is required to open Community Resource Centers (CRCs) in impacted communities. CRCs provide customers and residents a safe location to meet their basic power needs, such as charging medical equipment and electronic devices, access to resources (water, snacks, restrooms, etc.), and up to date event information. PG&E works closely with impacted counties and Tribes to mobilize indoor and outdoor CRCs as soon as possible from the time of de-energization until the time electric service is fully restored. CRC standard operating hours are from 8:00 AM - 10:00 PM.

For additional details on: PG&E's coordination with counties, Tribes, and other key stakeholders in the selection of CRC sites and the formation of its CRC plan, details on site selection requirements and steps, resources available at CRCs, considerations for AFN and medical baseline customers, on-site and off-site support staff, and many other details related to the CRC program see the [CRC Plan](#).

3.10.2.2 Support for Access and Functional Needs Populations

PG&E recognizes that de-energization has a disproportionate impact on our most vulnerable populations, including Medical Baseline customers, as well as Access and Functional Needs (AFN) populations. Unique approaches and resources are required to ensure these customers are made aware of potential PSPS events and are prepared.

Before, during and after PSPS events, PG&E collaborates with a number of informational and resource partners to help broaden our message, provide resources, and assist with emergency preparedness. Refer to PG&E's [AFN plan](#) for specific details. PG&E collaborates with the California Foundation for Independent Living Centers (CFILC) through the Disability Disaster Access and Resource (DDAR) program. The DDAR program provides assistances to those customers who require continuous power for medical sustainability or need assistance charging medical devices during PSPS events. This may include but not limited to those in the aging population and those who may have disabilities.

The 23 local member Independent Living Centers (ILCs) are implementing this disaster readiness program with oversight by the CFILC. To view additional resources, partnerships and detailed information, see [resources page for accessibility, financial, language, and aging needs on pge.com](#).

3.10.2.3 Microgrids for Community Power Continuity

Objectives

PG&E has two microgrid initiatives designed to support customers during PSPS, each of which is configured to address a different type of PSPS impact:

1. **Temporary Substation Microgrids** are focused on energizing customers when the substation serving them is impacted by an upstream transmission line de-energization but the distribution lines coming out of the substation still have safe-to-energize load (i.e. transmission-level only impacts).
2. **Temporary Distribution Microgrids** are focused on energizing “main street corridors” with shared services and critical facilities when the distribution lines serving these areas are de-energized as a result of a PSPS event (i.e. distribution-level impacts or transmission-level impacts).

The microgrids are “temporary” in nature because they utilize mobile temporary generation.

The scale and scope of each temporary microgrid will vary. The common design elements among them are:

- A safe-to-energize polygon that can be isolated from the wider grid using sectionalizing devices. The scale and scope of the polygon, and whether sectionalizing devices are operated manually or remotely will vary by site.
- For Distribution Microgrid deployments, a pre-installed interconnection hub (PIH) made up of a pad-mounted transformer and recloser. The PIH is constructed to enable rapid mobile generation connection. The PIH design will be standardized across sites to speed up construction and simplify operating procedures.

Process

Step-by-step instructions including rental equipment needs, switching logs, and customer notification processes will be handled by the EOC and Distribution Control Centers for each temporary microgrid that is declared operationally ready.

3.10.2.4 Backup Power Support

As a general policy, PG&E does not offer backup generation to individual facilities. However, PG&E's policy allows for granting exceptions for critical facilities when a prolonged outage could have a significant adverse impact to public health or safety. (including illustrative examples):

- High risk to public safety (e.g., hospital with active trauma units; critical water or wastewater asset; city or county EOC).
- High risk of environmental hazard (e.g., chemical plant which risks toxic spill into local river).
- High risk to essential emergency response and support facilities (e.g., 911 call center; water pump availability compromises firefighting; critical telecommunications equipment or other support businesses that directly affect emergency services provision).

PG&E's EOC manages incoming requests for backup power support during PSPS events. Requests will be routed through an approval process within the ICS, and, if approved, will be fulfilled by PG&E in partnership with generator contractors.

Temporary generation requests and prioritization are reviewed on a rolling basis during PSPS events in accordance with [Utility Bulletin PSPS-4999-B001, Mobile Generator use during Public Safety Power Shutoff.](#)

3.11 PSPS Recovery Phase - Monitor, Patrol, and Restore


3.11.1 Re-energization Process

The process for re-energization (i.e. restoration) after a PSPS event is shown in Figure 3-19.

Figure 3-19: Re-energization Process

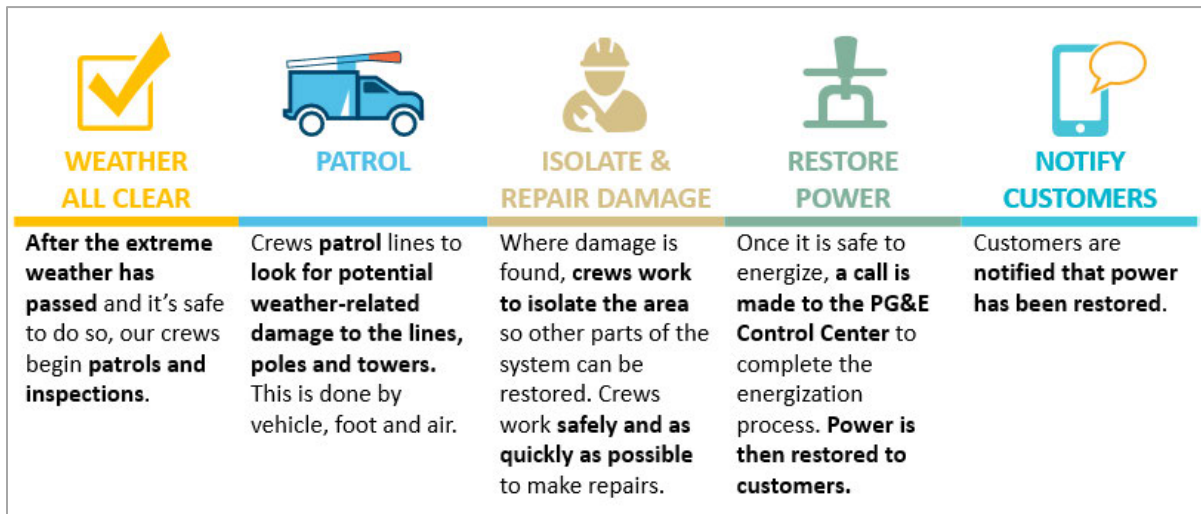


PSPS Patrol: After the severe weather has passed, a PSPS patrol consists of a visual assessment of assets to identify any condition that would prevent a circuit or portion thereof from being safely energized.

When possible, resources are pre-staged so that patrols can begin. To facilitate this pre-staging of resources, Meteorology provides a forecast of weather “all clears” by circuit prior to the OIC Decision  meeting to the Planning Section, which creates a “forecast” restoration playbook and sends this to the EOC Operations Chief. The EOC Operations Chief then cascades the Restoration Playbook F_Forecast to affected stakeholders³ in EOC Operations, by sending an e-mail with a link to the EOC SharePoint, along with the attached file.

The weather “all clear” sets a series of restoration steps in motion as shown in Figure 3-20.

Figure 3-20: Steps after Weather “All Clear”



PG&E intends to provide press releases and updates to pge.com for each of the phases above.

Note: In addition to the overview above, whenever there is new information about the process or through daily updates, PG&E notifies customers about any changes in ETOR and when power has been restored.

3.11.2 Monitor during De-energization

During de-energization the EOC will monitor the weather and impacts to the system (i.e. wind outages in non-high-fire threat areas that may still be impacted) as well as the presence of any emerging or existing fires.

The EOC will coordinate with the Safety Lead to confirm that all field personnel are following safety guidelines for high fire-threat risks, and that employees are not dispatched into potentially dangerous conditions.

³ This includes the OEC Commanders, REC Commanders, OEC Hawks, EMS Teams, EP&R Field Operations, etc.

Following complete de-energization of all lines in scope, the GCC continues to monitor grid integrity, and the ETEC initiates restoration sequence planning. This involves creation of a prioritized sequence for restoration of transmission assets and validation of the plan with the GCC and CAISO. This plan is then provided to the EOC and EDEC to allow for coordinating the restoration efforts once the weather event has passed.

For distribution, once identified assets in the event scope have been de-energized, DCC(s) having jurisdiction over impacted distribution facilities “set up” the de-energized portions of those circuits by “segmenting” to provide for “step restoration” (details in 3.9.4.1) once the weather event has passed. This segmenting consists of opening pre-identified devices that delineate circuit segment boundaries that are provided both to DCC and field patrol personnel to ensure alignment of patrol efforts once the event has passed.

3.11.3 Re-Energization Decision Factors

To begin patrol and restoration, current weather conditions must be below meteorology PSPS guidance, weather stations must report that winds are decreasing in strength, and field observations must confirm decreasing fire-weather conditions. Additionally, weather forecasts should also indicate that winds are forecast to continue decreasing in strength such that conditions will not exceed meteorology PSPS guidance in the immediate future.

3.11.3.1 Weather “All Clear” Decision Methodology

Weather “all clears” are called based on pre-defined areas that align with timing of weather conditions. This is known as the All Clear Zone methodology. Due to the large geographic span of some Fire Index Areas (FIA), The Meteorology Department has further divided FIAs into pre-defined boundaries to allow for varying geographic weather conditions. These All Clear Zones align with known meteorological phenomena, such as mountain tops and wind gaps which may experience longer periods of extreme weather. This allows for further granularity in calling weather “all clears”, thereby helping areas less prone to wind gusts or adverse conditions to be cleared and then restored more quickly.

Based on this weather “all clear” decision methodology, the OIC provides the weather “all clears” to begin the re-energization process. The OIC can declare weather “all clears” for specific areas and also for complete FIAs.

3.11.4 Patrols and Restoration

Following the OIC’s decision to declare weather “all clear”, Electric Operations begins procedures for patrol and restoration.

The Transmission Branch Director communicates transmission patrol results to the GCC Supervisor. GCC isolates all equipment with found trouble and reports the same to ETEC.

For Distribution facilities, circuit-based structured teams are typically formed and utilized to patrol the impacted “Event Specific Assets at Risk in HFRA” distribution grid assets for damage, and any damage is reported accordingly. The appropriate DCC and OEC will be notified of damage, and any repair work that will require the impacted asset to be cleared. If repairs are required, the Task Force Lead (TFL) notifies the DCC for further instructions. Assets requiring repair are analyzed and subsequent restoration plan adjustments are made when necessary, then communicated from the DCC to the TFL for alignment and execution.

Once the weather “all clear” is given, PG&E patrols PG&E owned lines to the point of service with Customer-owned lines/equipment.

If a privately-owned line (POL) is de-energized due to a PSPS event, PG&E will provide a courtesy patrol prior to re-energizing. If after the patrol, the line is deemed unsafe and repairs are needed by the POL owner, PG&E will not-re-energize until the corrections have been completed.

Field resources patrol lines according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#) and [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#). Crews do not have to patrol the entire line at once; rather, they can perform step restoration as they complete patrols.

3.11.4.1 Step Restoration

Crews re-energize circuits in segments as they have completed patrols instead of patrolling the entire line prior to re-energization.

- PSPS circuits have been analyzed to ‘pre-sectionalize’ them into smaller patrol zones called “segments”.
- Segments have been prioritized with alphabetical order labels in order of criticality depending on source availability.
- There is not a ‘one-size-fits-all’ approach and strategy for every circuit. Patrol and restoration are based upon infrastructure/customer criticality and impacts, with additional considerations typically being length, configuration, patrol types required (i.e., air, vehicle, foot) and given resource availability.
- A ‘guidance’ based approach for maximizing restoration has been implemented:
 - Simultaneous segment patrols and restoration.
 - Air and ground patrols.
- Communication strategies between TFLs and control centers.
- TFLs are the single point of contact between the DCC and field operation restoration activities. For guidance on restoration, see [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#).

3.11.4.2 The Re-energization Process

The re-energization process consists primarily of the following actions:

- Electric Transmission Grid and Distribution Control Centers (GCC, DCC), and Operations Emergency Centers (OECs) develop restoration plans and determine scope of restoration, including prioritization of circuits/lines and available resources (ground and aerial).
- The EOC provides an estimate of crews (ground and aerial) needed for patrols based on desired ETOR and amount of line miles in Tier 2 and Tier 3, terrain and accessibility of circuit.
- Meteorology provides a forecast of weather “all clears” by circuit prior to the OIC Decision **F** meeting to the Planning Section, which creates a “forecast” restoration playbook and sends this to the EOC Operations Chief, who then cascades this forecast to field operations.
- EOC Commander provides the OIC the recommendation to re-energize power (i.e. weather “all clear”) for All Clear Zones or globally for all areas previously de-energized for PSPS. If a recommendation is made only for a designated area/s, later recommendations will address remaining areas.
- The OIC gives approval to re-energize power (i.e. weather “all clear”, OIC Decision **F**) to designated All Clear Zones or globally for all PSPS de-energized areas . If a decision is made only for a designated area, later decisions will address remaining areas.
- Once an OIC Decision **F** occurs, then the Planning Section updates Restoration Playbook F to reflect the approved weather “all clears” and sends the updated Restoration Playbook to the EOC Operations Chief, who further cascades the information to field operations. This process is repeated for every subsequent Decision **F** meeting.

GCC, DCC and Field resources follow procedures found in PSPS-1000P-01 to execute the restoration process.

For guidance on the PSPS re-energization process, see and PSPS-1000P-01, PSPS for Transmission and Distribution Lines.

4 PSPS Information, Notifications, and Coordination Strategies

4.1 General Information about PSPS Program

PG&E continues outreach and education to share our PSPS criteria and meteorological guidance. This includes but is not limited to briefing the California Public Utilities Commissions (CPUC), California Department of Forestry and Fire Protection (CAL FIRE), California Governor's Office of Emergency Services (Cal OES), and local and tribal governments throughout PG&E's electric service territory. PG&E has also shared its general meteorological guidance information broadly with the public through a series of open houses, webinars, meetings and presentations beginning in 2018. The general meteorological guidance and criteria are also posted on PG&E's external-facing website and included in PG&E's PSPS Policies and Procedures available on pge.com PSPS page listed under outages.

To provide greater transparency for interested stakeholders, PG&E has provided detailed weather and PSPS forecasting information on PG&E's public-facing website at pge.com under "Outages" / Public Safety Power Shutoff select "Weather Awareness". This includes information on what conditions may lead to a PSPS event, real-time information from PG&E's high-definition camera network and weather stations, as well as 7-day localized forecasts for a potential PSPS event.

Customers are also informed about the PSPS program and how to prepare for a PSPS through various types of customer communications such as letters, doorhangers and information on pge.com. See Appendix D for examples.

4.2 Event Specific Information

Recognizing that de-energization for public safety can burden communities with risks and hardships, PG&E is committed to providing notice to customer and communities when severe weather, combined with heightened fire risk are forecasted. As part of this commitment, PG&E provides event information using a multi-channel notification approach through direct (i.e. phone calls, text and e-mails) and indirect (i.e., social media, local news, radio and the pge.com) outreach.

The EOC Planning Section is the central source for all event-specific data and maps. Public Information, Customer Care, Liaison and IT teams coordinate with the EOC Commander and Planning Section on required sequencing of notifications, consistent with CPUC guidelines.

Before notifications are sent out:

1. Planning Section, PIO, and CSO ensure all channels are ready to receive in-bound traffic (e.g., pge.com, the PG&E emergency web site, PG&E's PSPS Portal and call center).
2. Planning Section ensures data files are transferred to Digital Strategy (Emergency Web), PSPS Portal and Customer Section (notifications).
3. Planning Section / Digital Strategy uploads FERC notification to FERC Standards of Conduct after OIC Decision **C** and again at OIC Decision **E**.
4. The following describes PG&E's notification process for PSPS events, when possible, and depending upon conditions. When issuing Advance Notice for a potential PSPS event, PG&E will complete the following tasks:
 - Publish all web content for PSPS Portal and Emergency Web: Priority Partners page.
 - Submit Public Safety Power Shutoff State Notification Form to Cal OES
 - Contact CPUC Safety and Enforcement Division (SED) Director.
 - Conduct live calls to County Office of Emergency Services (OES), County and Local Public Safety Answering Points (PSAPs) and Tribal governments potentially impacted by the PSPS event.
 - Conduct coordination with CAISO through ETEC.
 - Execute automated calls, emails and texts to counties, cities, Tribes and Community Choice Aggregators (CCAs) potentially impacted by the PSPS event, which includes a link to PG&E's PSPS Portal and PG&E's Priority Partner page where event-specific information and maps can be found.
 - Execute automated calls, e-mails and texts to both critical facilities and other Public Safety Partners that are PG&E's customers and a critical facility (referred to as a "Critical Service Provider"). Notifications to the critical service providers will include a link to PG&E's Priority Partner page where event-specific information and maps can be found.

Starting approximately two days prior to de-energization, once the above notifications have been completed, PG&E will send the first notification to potentially impacted critical facilities and customers (including Medical Baseline), wholesaler, transmission and municipal utilities customers. Customers with active temporary generation efforts in their area will receive information specific to their area.

PG&E will take additional steps to notify customers who are enrolled in the PG&E Medical Baseline program. Event notifications to these customers are made through automated calls, texts, and emails in advance of de-energization and PG&E will ask these customers to confirm they have received the message.

For Medical Baseline customers and Self-Identified Vulnerable customers with whom PG&E is unable to make successful contact, PG&E representatives will also conduct doorbell rings to ensure they have received pre-energization notification to activate their emergency plan. PG&E will prioritize doorbell rings with those customers who rely on electricity for critical life-sustaining equipment.

PG&E will work to notify stakeholders on this timeline and to provide multiple notifications whenever possible:

- **Advanced Notice** (~3 days) prior to anticipated de-energization: notification to Public Safety Partners /Critical Public-Safety related facilities.
- **Watch** (~ 2 Days) prior to anticipated de-energization: notification to all potentially impacted customers and stakeholders/populations.
- **Watch** (~ 1 Days) prior to anticipated de-energization: notification of all potentially impacted customers and stakeholders/populations.
- **Warning** (day of anticipated de-energization) notification of all potentially- impacted customers and stakeholders/populations.
- **De-energization** notification of all potentially-impacted customers and stakeholders/populations.
- **Update** notification (if PSPS event / de-energization is extended/delayed/cancelled): notification of all potentially impacted customers and stakeholders/populations.

NOTE: Actual timing of notifications will be driven by the timing of weather, forecasting, and expected impacts.

Figure 4-1 shows a timeline for PSPS Notifications.

Figure 4-1: PSPS Notifications

| | PSPS Event | | | CPUC Report | | |
|---|----------------------|----------------------|-----------------------|------------------|----------------|----------------|
| | 72 hours ADVANCED | 48-24 hours WATCH | 12-0 hours WARNING | Power turned off | Weather Passed | Power Restored |
| Agency/Critical Customer/CBO* Resource Partner Notifications | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Customer Notifications Includes Address Alerts | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Media Outreach News releases, public briefings, social media | | ✓ | ✓ | ✓ | ✓ | ✓ |

*Community-Based Organization


4.2.1 Event Specific Information on PGE.com

Event specific information is made available to the public on the PSPS page of the [PG&E Emergency Web](#) including PSPS updates, maps, and a way for customers to do an address lookup to see if an address will potentially be affected. Updates to the site are made when possibility of PSPS event is announced, when new information is available along the way to decision to de-energize, weather “all clear” to begin restoration, information on patrols, estimated times of restoration (ETORs) and restoration progress/restored.

4.2.2 Initial Notification Sequence

Advanced Notice is sent out in a pre-specified sequence (approximately three days prior to de-energization):

1. Cal OES, CPUC, County OES, PSAP, Tribes and CAISO
2. City, County, CCAs
3. Level 1 Critical Customers (CC1s) including telecom, emergency hospital services, water agencies

The OIC makes decision  is to send the first wave of customer notifications.

Customer notifications are sent out in a prescribed sequence starting at Watch 2 Days Out:

1. Public safety partners
2. Other critical facilities, Medical Baseline, Residential and Commercial Customers
3. News release (depending on cycle)
4. Medical Baseline Doorbell Rings

Time permitting, public safety partner and customer notifications are sent out again at Watch 1 day out, Warning (imminent), at de-energization, and during the restoration process.

4.2.3 PSPS Portal - Event Specific Information for Public Safety Partners

During a potential PSPS event, maps and other event information are posted on a PSPS Portal on ESRI ArcGIS Online concurrent with the initial notification to Public Safety Partners. PG&E updates the maps and data files on the PSPS Portal as weather forecasts change and detailed customer impact assessments are performed. PG&E also validates that the information shared on the Portal is current twice daily at fixed times in the morning and afternoon.

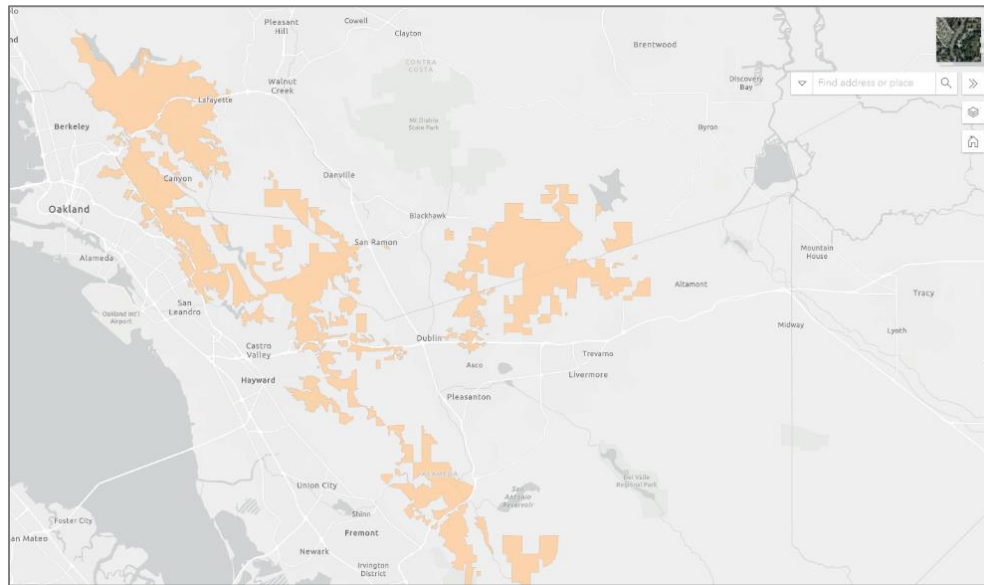
The PSPS Portal also has an interactive map that will allow the user to select various data sets for visualization. The map includes a search function to display customer and critical facility impacts within a geographic area, such as a particular city or county.

Users receive e-mail notifications when new files are available on the PSPS Portal and PSPS Portal users are also encouraged to check back every few hours as the information will be updated in real-time. Agency representatives aim to keep counties and Tribes informed during the event when changes to the Portal have been made.

Agency users must accept an online agreement related to customer privacy and data handling requirements to receive access to names and addresses of potentially impacted Medical Baseline customers, critical facilities and all impacted customers within a jurisdiction in advance of and during a PSPS event.

Event map: Allows the user to view a map of the areas projected to be affected by the shutoff event. These maps are parcel based without buffered areas. An example is shown in Figure 4-2.

Figure 4-2: Example Parcel Based Map



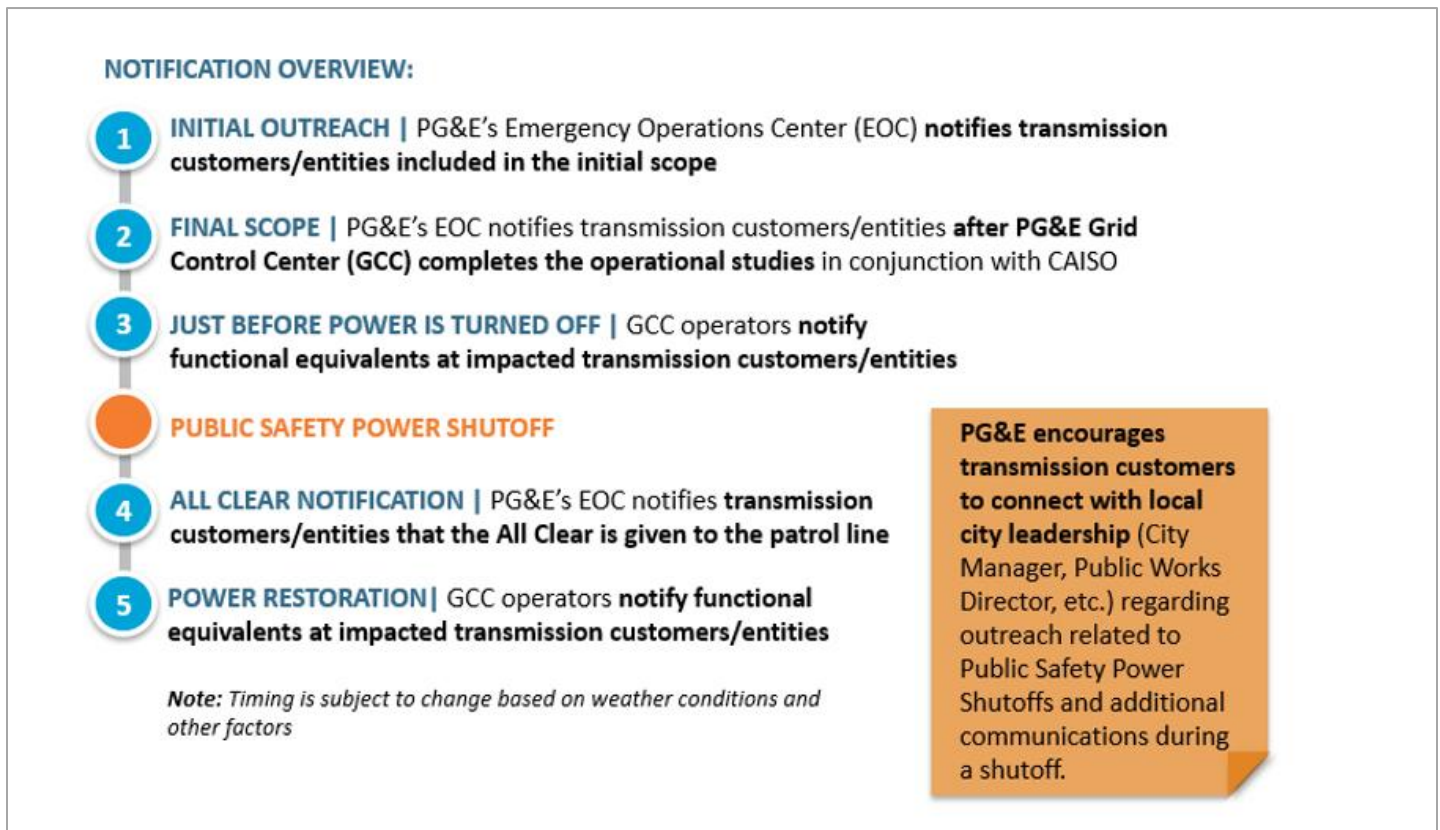
Event files: Access to PDF maps and GIS layers an event-specific Customer Impact Summary Report, for agencies, lists of Medical Baseline customers, Critical Facilities, and All Impacted Customers within the forecasted scope of the event and, for critical facility providers, a list of all sites within the forecasted scope of the event. This also includes files for ad hoc data requests from users.

Access: To get access to the PSPS Portal see Appendix D PSPS Portal – Instructions to Request Access

4.3 PSPS Notifications for Transmission Customers

PG&E will make best efforts attempt to provide affected customers, or their agents, with notice, but shall not be liable for interruption if notice cannot be provided in a timely manner, as required in [Electric Rule No. 14](#). Figure 4-3 shows a sequence for notifications of Transmission Customers.

Figure 4-3: Notifications for Transmission Customers



4.4 Identifying Impacted Customers

To effectively identify impacted customers and deliver notifications, Customer Section needs:

- Customer Impact and Customer Notification files
- Medical Baseline and Critical Facility customer data
- Event maps

Figure 4-4 shows the groups to be identified among impacted customers.

Figure 4-4: Identifying Impacted Customer



4.5 De-energization Customer Notifications

PG&E is committed to adhering to state directives for disseminating information during a PSPS event.

The OIC will make the decision to notify agencies and customers of PG&E's scope for de-energization (OIC decisions **C** [initial] and **E** [approve additional customer notifications (if scope has changed)]), see Section 3.3.2

PG&E notifies Cal OES via the Cal OES PSPS State Notification Form and the CPUC via email prior to making a decision to de-energize unless the threat to public safety would increase by taking time to first notify these agencies. PG&E will also notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications. For the transcripts of notifications see Appendix C.

Communications and external outreach to the public via website updates, press releases and social media updates, along with direct notification to potentially impacted customers will be made after agencies are notified of the decision to de-energize based on the strategy outlined in the section above.

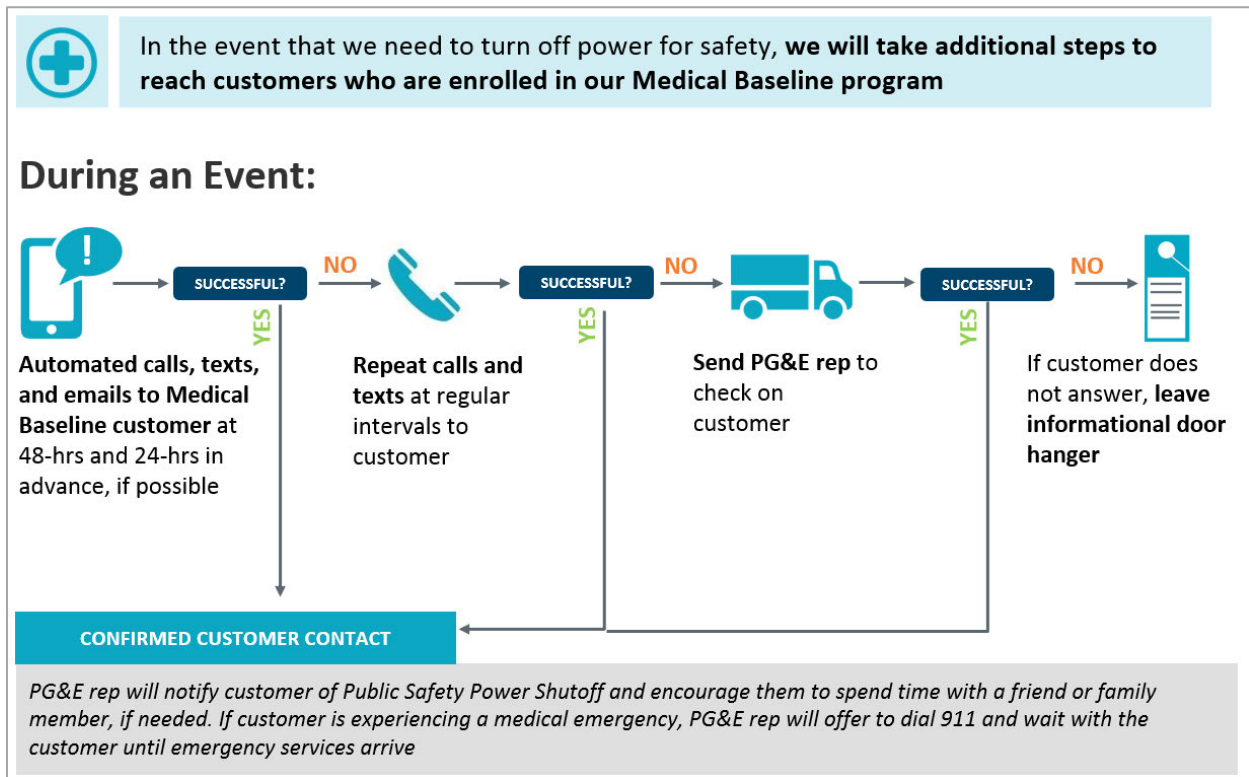
PG&E will provide as much notice as possible when a decision has been made to shut off power.

4.6 Medical Baseline Doorbell Ring Process

Successfully notifying and confirming acknowledgment of notifications to Medical Baseline customers is critical and of the highest priority to ensure they are aware of the potential de-energization and can execute their emergency plan accordingly.

If automated phone calls, e-mails, and text messages are not registering as having successfully reached these customers, and repeated calls are also not successful, PG&E will send representatives to the Medical Baseline customer’s address to ring the doorbell to ensure the resident has been notified of the potential PSPS. Figure 4-5 gives an overview of the Medical Baseline Doorbell Ring process.

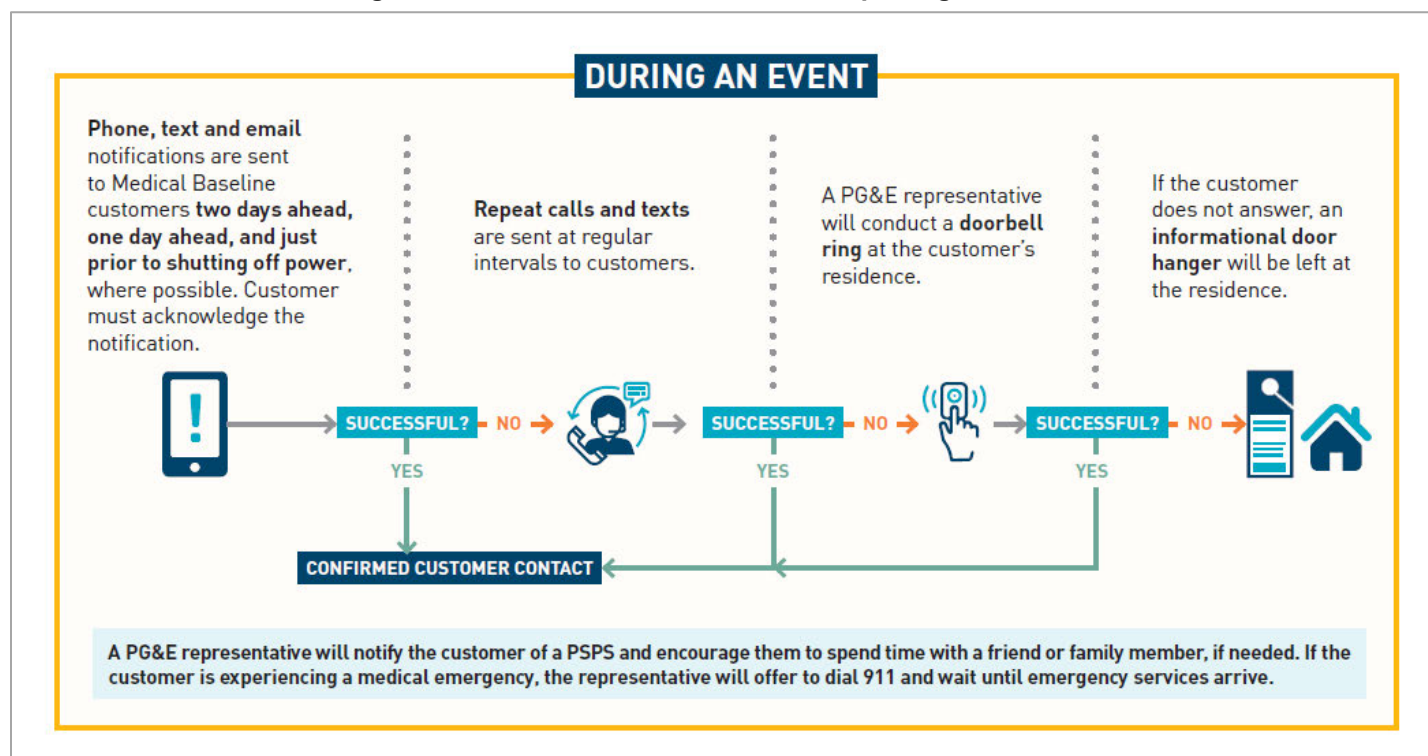
Figure 4-5: Medical Baseline Doorbell Ring Process



Medical Baseline Contact Success Reporting to EOC

Figure 4-6 shows the process towards Medical Baseline Success Reporting to the EOC.

Figure 4-6: Medical Baseline Success Reporting to the EOC



4.7 De-energization Cancellation Customer Notification

PG&E will also send a cancellation notice if the decision is made not to de-energize, when and where possible. For an example of a cancellation notice transcript see Appendix C.

4.8 Re-energization Customer Notifications

Affected customers will receive the following notifications during the restoration process.

- **Weather All Clear** (patrols begin): notification of all other potentially- impacted customers and stakeholders/populations and Public Safety Partners.
- **Estimated Time of Restoration (ETOR) Update** (available when OMT is updated with ETORs): notification of all other potentially- impacted customers and stakeholders/populations and Public Safety Partners with ETOR information. The ETOR provided at this time supersedes the global ETOR provided in advance of de-energization.
- **Power Restored** (re-energization is complete): notification to all impacted customers/populations with date and time their power was restored and notification to agencies with the information that their jurisdiction has been restored.

After the OIC and EOC Commander indicate a weather “all clear”, OIC Decision **F**, PG&E communicates the post-weather event update to impacted customers via phone call, e-mail, and text (based on customer/account contact information populated in their PG&E profile). PG&E will notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications.

As ETOR is updated by Operations, ETOR Update notifications will be sent to customers and public safety partners impacted by the PSPS event.

Upon restoration, impacted customers and public safety partners will receive a Power Restored notification.

For the transcripts of notifications, see Appendix C.

4.9 Social Media Engagement

PG&E uses social media, including Facebook, Instagram, Twitter and NextDoor, to direct users to its website where they can access important emergency preparedness information, as well as PSPS event updates and resources (e.g., CRC locations).

4.10 Master Meter Customer Notification

Master Meter customers are those that have a single account that covers multiple residences or business. Examples include apartment buildings and property management companies.

Since tenants and businesses in locations that have a Master Meter receive electric service from PG&E, but they are not customers, PG&E has no contact information to reach out before or during events. PG&E continues to conduct outreach to the Master Meter account holder and provides resources and information for each account holder to provide to their tenants.

4.10.1 Pre-event Outreach

PG&E continues to drive awareness of the PSPS program to customers that are tenants of master-metered accounts. This includes sending a tenant education kit to master-metered owners via direct mail and email (if an email address is available). This kit contains a letter to remind master-metered owners to maintain contact information for their tenants and distribute PSPS notification details to their tenants in the event of a PSPS event, as well as provide PSPS overview flyers that can be posted in communal areas. PG&E will also reach out to master-metered owners, among other channels, to promote Address Level Alerts, an education tool that can be utilized by tenants to receive PSPS notifications for a specific address. These alerts will be available via SMS or telephone calls in multiple languages.

4.10.2 Address Level Alerts

PG&E has established address level alerts for non-account holders such as master metered tenants. This enhanced notification option has replaced Zip Code Alerts. Details about ALA are available on pge.com, with Interactive Voice Recording (IVR) as the currently available channel. In Q2 2021, SMS and in-language (English + 15 languages) will launch, and PG&E will begin actively promoting the full suite of options to encourage adoption before the 2021 event season.

4.11 Agency Event Notifications and Coordination

4.11.1 What Agencies can expect before, during, and after a PSPS Event

4.11.1.1 Information Resources in advance of a PSPS event

The following information resources are available in advance of a PSPS event:

- Access to the PSPS Portal, which includes:
 - Planning maps
 - Lists of Medical Baseline program participants (customers and master metered tenants) in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.
 - Critical facilities in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.
- The [PSPS Policy and Procedures document](#) that includes information such as PSPS criteria, event notifications and customer resources.
- Access to a dedicated PG&E representative who can help provide additional materials or information regarding emergency planning and PSPS.
- A phone call to affected Office of Emergency Services (OES) from their dedicated PG&E representative when an upcoming event is being monitored.

4.11.1.2 Information Resources during a PSPS Event

The following information resources are available when the PG&E EOC has been activated for a PSPS event:

- An assigned Agency Representative who will assist with resolving local issues in real-time.
- A phone call to all Public Safety Answering Points in potentially affected areas.
- A phone call and e-mail to potentially affected county/tribal OESs with information regarding estimated event timing, availability of preliminary event maps and customer lists, and an offer to embed a PG&E representative in their local EOC. As well as, a phone call to neighboring counties to County OES impacted by potentially PSPS event.
- Automated calls, texts and e-mails at least once a day with event timing (i.e., de-energization, weather “all clear,” updates, restoration and/or cancellation) for their jurisdiction.
- Operational Area Cooperator calls hosted by Agency Representatives to review event-specific information changes and resolve local issues (Agency Representative and county to determine need and frequency).
- Daily Systemwide Cooperators Call hosted by PG&E’s EOC providing the latest high-level PG&E systemwide event updates.
- E-mail notifications to all PSPS Portal users when any updates are made.

- Resources uploaded to the PSPS Portal, including:
 - Situation Reports (posted twice daily).
 - Maps (interactive, PDFs and GIS layers) at a parcel-level and updated as decisions affecting shut off scope are made.
 - Summary reports with customer impact totals by jurisdiction.
 - Lists of potentially affected Medical Baseline program participants (customers and master meter tenants) and critical customer lists with names and addresses (for Public Safety Partner agencies that accepted the online agreement).
- Local governments are welcome to embed a representative in PG&E's EOC for any PSPS event. Once PG&E's EOC is activated, a request should be made to the Agency Representative, who can provide additional logistical details and notify PG&E's PE&R department.

4.11.1.3 Information Resources after a PSPS Event

The following information resources are available after a PSPS event:

- PG&E submits an event report to the California Public Utilities Commission (CPUC).
- A copy of the event report is provided to impacted cities, counties and Tribes.
- The report is posted on PG&E's website.

4.11.1.4 Emergency Operations Center Coordination

PG&E offers the following resources to support local Emergency Operations Centers (EOCs) during a PSPS event:

- **Agency Representative** will be assigned to each county and tribe to act as a single point of contact during an event. The Agency Representative can also staff a county or tribe's local EOC upon request.
- **Third-Party Representative** such as cities, counties, Tribes, water agencies and telecommunication providers may request to send/virtually embed a representative to the PG&E EOC during a PSPS event.
- **Customer Account Representatives** engage with critical customers locally during events, and a Critical Infrastructure Lead in PG&E's EOC engages with telecommunications and other key critical infrastructure providers.

NOTE: To further reduce the risk of Covid-19 transmission, PG&E provides remote support when able.

4.11.1.5 Sample Notifications to Agencies

During an event, PG&E will provide potential outage area maps at the parcel-level, without buffered areas. These maps will be located on the PSPS Portal and PG&E website. For more information on PSPS Portal see Section 4.2.3 on PSPS Portal for more information.

4.11.1.6 Notifications Process for Adjacent Agencies

The PSS will call County OES of neighboring counties adjacent to potentially affected jurisdictions to notify them of a potential PSPS event. They will also be invited to a once daily Systemwide Cooperators Call. The call-in information will be provided via email once PG&E's EOC is activated. All local and tribal governments will have access to event information through the PSPS Portal, regardless of whether they are expected to be impacted or not. Email notifications will also be sent via the PSPS Portal to all users when any event information has been posted.

4.11.1.7 PSPS Daily Calls

Figure 4-7 shows a schedule for PSPS daily calls.

Figure 4-7: PSPS Daily Calls

| SCHEDULE | |
|----------|---|
| 0800 | Operational Areas Cooperators Comms, as requested |
| 0900 | |
| 0930 | Tribal Cooperators Call |
| 1100 | |
| 1200 | Systemwide Cooperators Call Resource Partner Coordination Call |
| 1300 | |
| 1400 | |
| 1500 | Operational Areas Cooperators Comms, as requested State Executive Briefing |
| 1600 | Tribal Cooperators Call |
| 1700 | |

4.11.1.8 Systemwide Cooperators Call

At noon each day, PG&E's EOC will host a Systemwide Cooperators Call (Figure 4-8) to provide an update on the PSPS event. The call will be open to city, county and tribal governments, water agencies, telecom providers, emergency hospitals, community-based organizations and community choice aggregators within PG&E's service area, not just those within the PSPS scope.

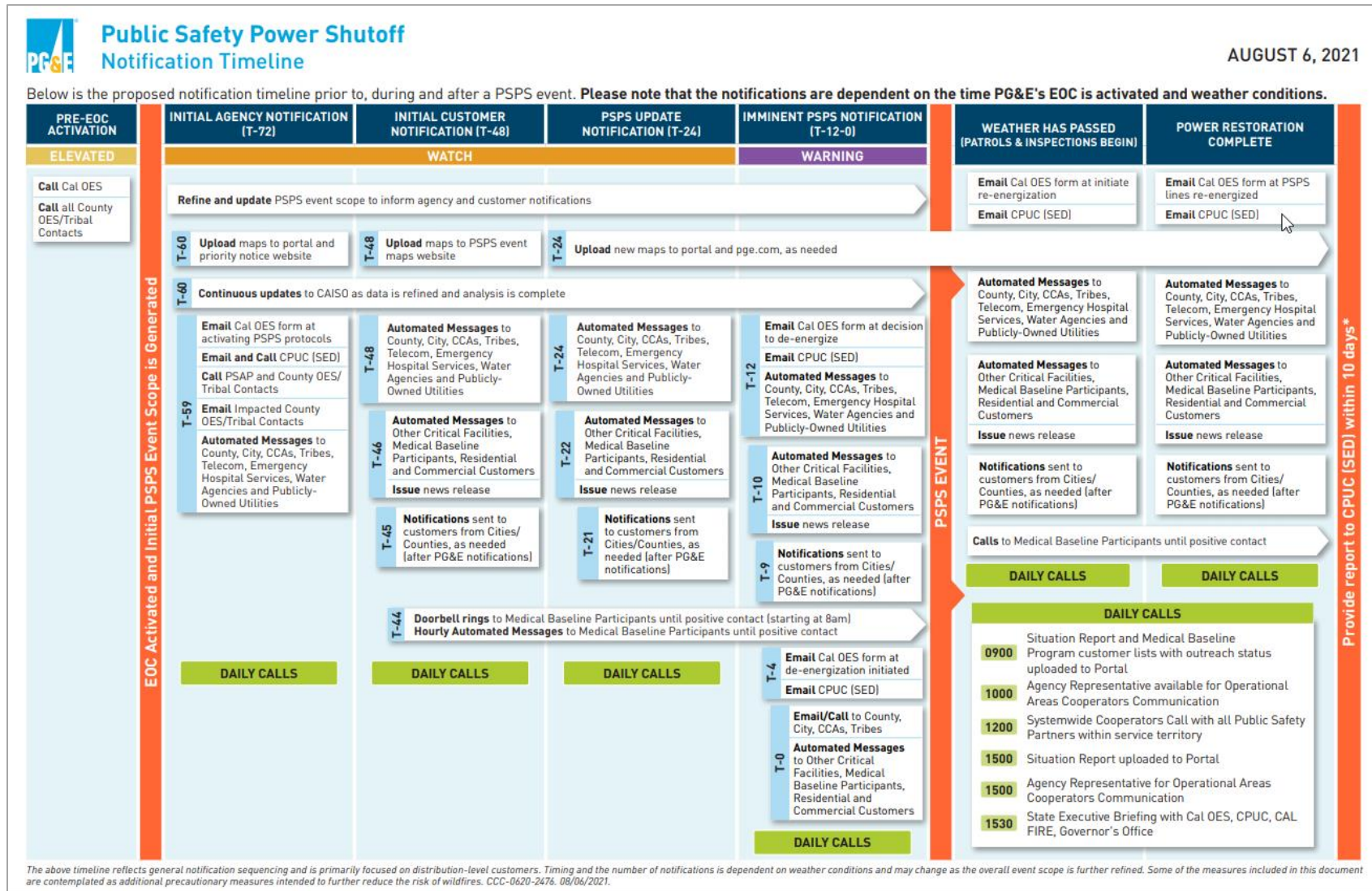
Figure 4-8: Agenda for Systemwide Cooperators Call

| AGENDA | | | | |
|------------------|-------------------------------|---|---------------------|--------|
| Meeting | | PG&E PSPS Systemwide Cooperators Call | | |
| Call Time | 1200-1230 | Leader | Liaison Officer | |
| Meeting Location | <i>Vendor to provide info</i> | Facilitator | Liaison Officer | |
| Call-In Info | <i>Vendor to provide info</i> | Recorder | Liaison Coordinator | |
| Item | Topic | Description | Lead | Time |
| 1 | Introductions | <ul style="list-style-type: none"> Welcome Meeting purpose Safety | Liaison Officer | 3 Mins |
| 2 | Weather | <ul style="list-style-type: none"> Weather updates | Meteorologist | 5 Mins |
| 3 | Operations | <ul style="list-style-type: none"> Key operational activities Counties currently in scope Timing of de-energization and restoration | Liaison Officer | 5 Mins |
| 4 | Agency Outreach | <ul style="list-style-type: none"> State agency outreach Agency notifications last completed/next anticipated Agency Representative outreach to counties/tribes | Liaison Officer | 5 Mins |
| 5 | Customer Outreach | <ul style="list-style-type: none"> Customers impacted Call Center wait time status Customer notification last completed/next anticipated Medical Baseline Program customer outreach status Community Resource Centers status Community Based Organizations update | Assistant CSO | 5 Mins |
| 6 | Public Information | <ul style="list-style-type: none"> Website stability status News release last completed/next anticipated PSPS Public Briefing timing | PIO | 5 Mins |
| 7 | Closing | <ul style="list-style-type: none"> Reminder to coordinate with PG&E contact for any questions Date and time of next call | Liaison Officer | 2 Mins |

4.11.2 PSPS Notification Timeline Overview

Figure 4-9 shows the timeline for PSPS notifications.

Figure 4-9: PSPS Notification Timeline



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5 PSPS Data Sources

The decision factors for considering PSPS are both quantitative and qualitative:

Quantitative measures include but are not limited to current conditions of wind speed, humidity, temperature, asset health, and live and dead vegetation moisture content.

Qualitative measures include real-time outage tracking, observations in the field, and third-party hazardous condition reporting (which will help validate forecasted weather conditions). PG&E Field Observers conduct field observations to verify that nothing is happening weather-wise earlier than expected, and to act as eyes on the ground to confirm that there is no need to execute earlier than expected based on weather forecasts.

All data created during a PSPS event are to be stored on in Foundry or on the [EOC SharePoint](#) in the respective EOC team folder. The Planning Section creates an event specific file structure during Readiness posture or at the beginning of the event and circulates the link to all teams so that the information can be centralized and stored according to Enterprise Records Information policies.

5.1 Weather Forecasting / Large Fire Probability Model – Quantitative Factors

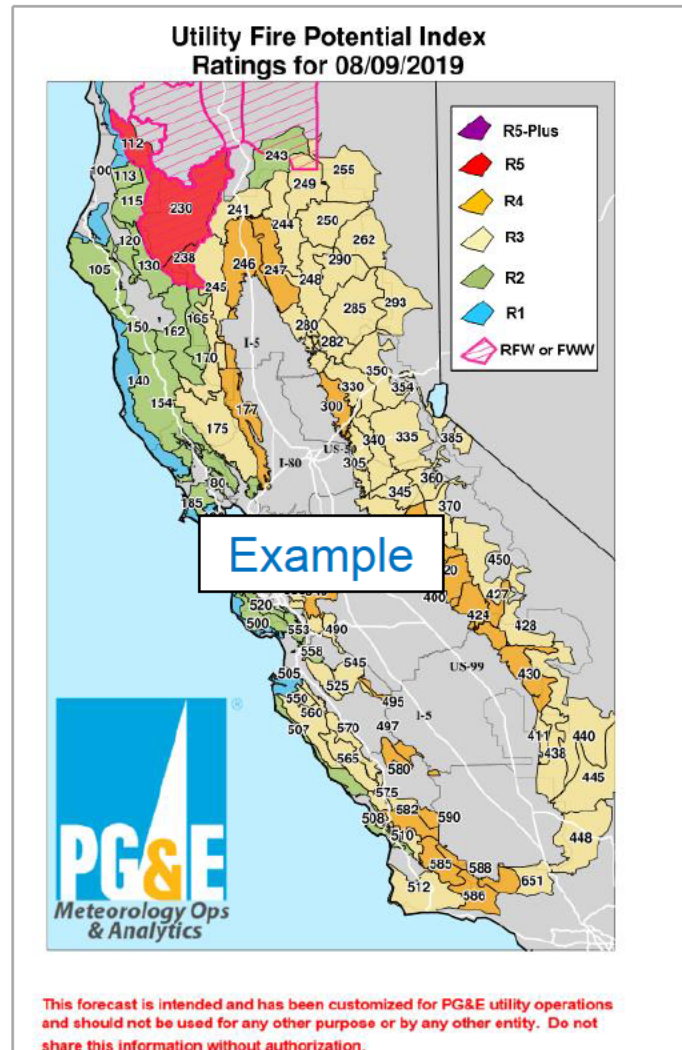
5.1.1 Fire Danger Rating Scale and Utility Fire Potential Index

Modeled fire weather and fuel conditions are combined in a Utility Fire Potential Index (FPI) to forecast daily fire danger ratings by FIA. The fire danger rating scale (shown below) and related thresholds are based on historical incidence of large fires across PG&E's territory, and the potential for increasingly severe and uncontrollable fires as the scale moves up from R1 to R5 as shown in Figure 5-1. An example map with utility fire potential index ratings is shown in Figure 5-2.

Figure 5-1: PG&E Utility Fire Potential Index Scale

| |
|---------|
| R1 |
| R2 |
| R3 |
| R4 |
| R5 |
| R5-Plus |

Figure 5-2: Example Map with Utility Fire Potential Index Ratings



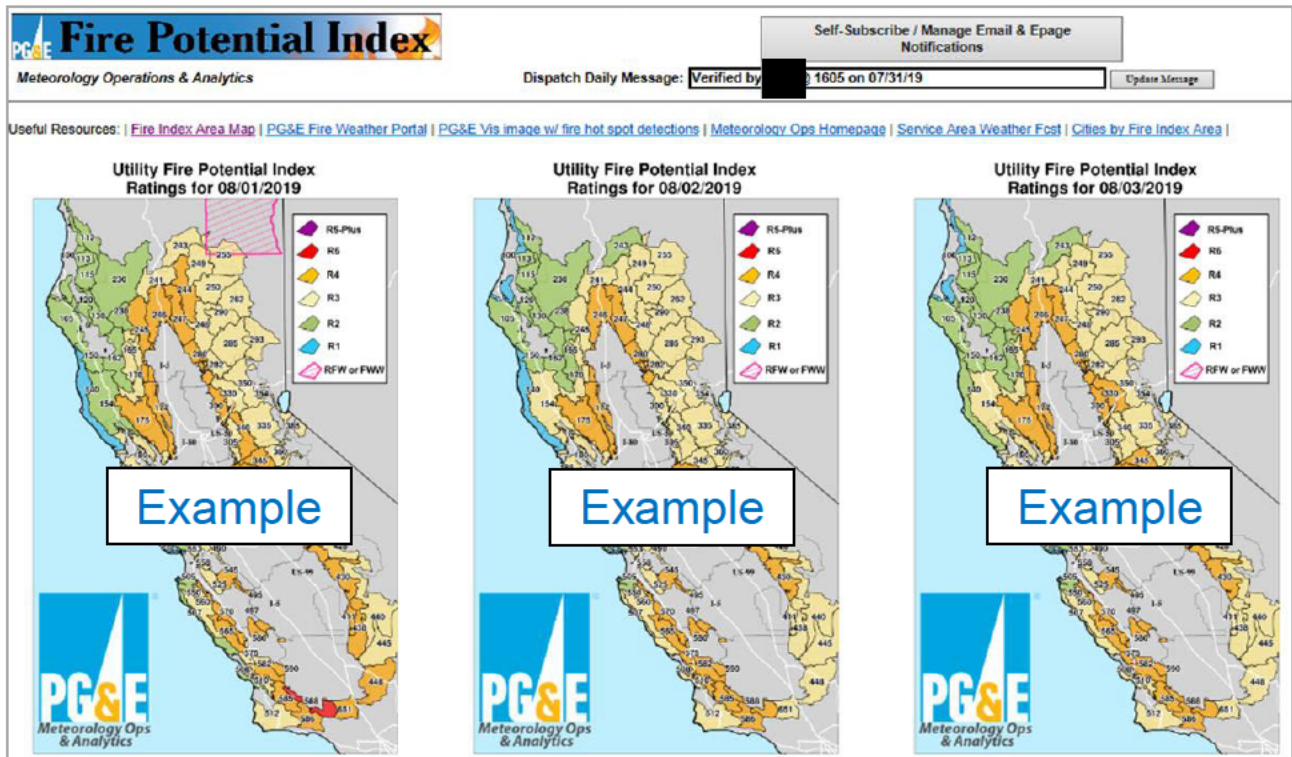
The FPI forecast describes the potential for fires to ignite and spread rated on a scale from “R1” (lowest) to “R5” (highest) specific to each FPI Rating Area. “R5-Plus” indicates there is elevated fire potential plus the potential for wind-related outage activity from the IPW model, which may warrant a PSPS event. The FPI model was calibrated using a high-resolution dataset of historical weather, fuel conditions, geographic-features and fires.

Utility Fire Potential Index (Utility FPI)

The Utility FPI is PG&E’s main operational fire danger rating system. It provides hourly output 4 days out.

Figure 5-3 shows an example of Fire Potential Index with ratings shown for three days.

Figure 5-3: Example Fire Potential Index



PG&E's Meteorology and Fire Science team developed and calibrated the Utility FPI using a robust 30-year meteorological dataset, combined with a fire occurrence dataset in the PG&E territory. The Utility FPI combines several factors including a fire weather index (wind, temperature, turbulence, and vapor pressure deficit) with fuel moisture data (10-hour, 100-hour and 1000-hour dead fuel moisture, woody and herbaceous live fuel moistures), topography (terrain ruggedness, slope, and wind-terrain alignment) and landcover type (grass, shrub, timber or urban).

The Utility FPI is a balanced random forest classification model. The Utility FPI outputs ratings from R1 (lowest) to R5 (highest) in defined geographic areas that drive operational mitigating actions to reduce the risk of starting a fire. These include altering reclosing operations as well as work activities in the field.

5.1.2 Ignition Probability Weather Model

PG&E's Meteorology and Fire Science team also developed the IPW forecast model for 2021. IPW is a location-specific model and related to the historic frequency of outages in an area based on the wind speed and other factors.

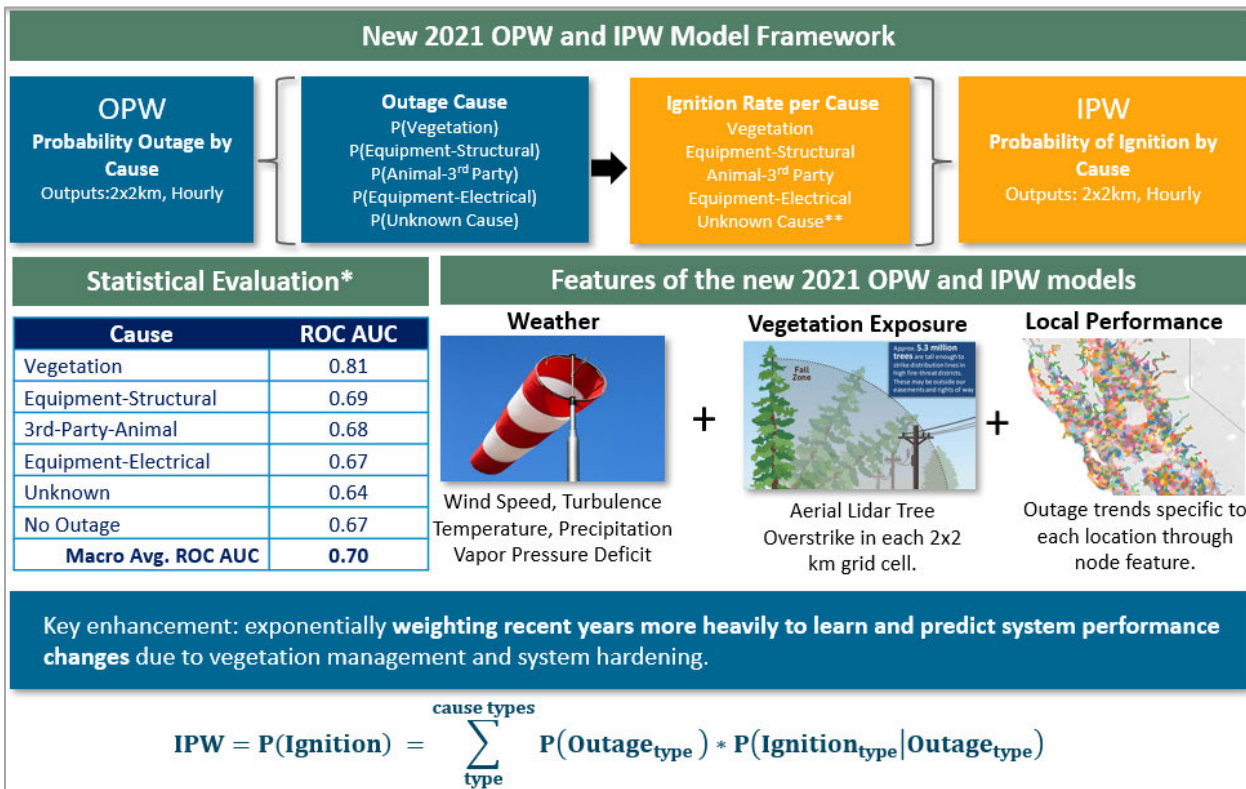
The 2021 OPW and Ignition Probability Weather (IPW) model version represents the next generation of distribution outage and ignition models building on the 2020 OPW 2.0 model. The core model is a new OPW model, that now can forecast outage probability by specific causes. The OPW output is transformed to an ignition probability (IPW) using known outage to ignition ratios for each outage cause.

The 2021 OPW model is trained on windspeeds from the 31 year down-scaled climatology at 2 x 2km resolution and approximately 500,000 sustained and momentary outages occurring on the distribution grid from 2008 to end of 2020. Excluded from these outages were underground outages and non-weather driven major event days, such as fires and earthquakes from the training dataset. PSPS event damages and hazards were also included in the training set.

The operational application of IPW is forecast four times per day producing hourly outage and ignition probabilities. The model has a forecast horizon of 129 hours ahead at the same 2 x 2 km resolution as the PG&E Operational Mesoscale Modelling System (POMMS), a configuration of Weather Research and Forecasting (WRF) model.

Figure 5-4 shows the framework for OPW/IPW.

Figure 5-4: OPW/IPW Framework



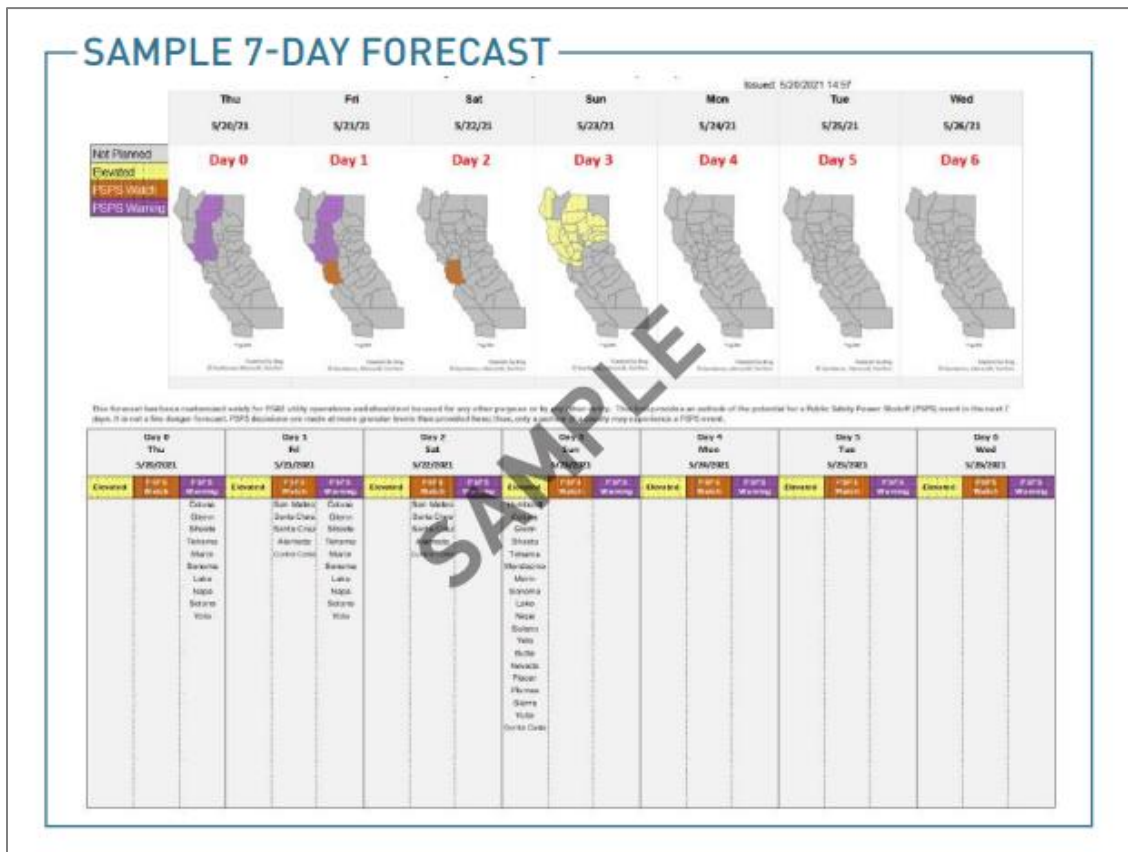
The CFP, the combination of IPW and Utility FPI, is forecast across PG&E’s territory four times daily at 2KM spatial resolution using PG&E’s Operational Mesoscale Model System (POMMS). The output of both models is evaluated daily by members of PG&E’s Meteorology and Fire Science team to determine if there is concurrence of a heightened outage risk from a wind event and the potential for large fires to occur. The IPW and Utility FPI models are also used with other factors and external forecasts as well as subject matter expertise to reach risk-informed decisions about PSPS.

For more information about PSPS decision criteria see Section 3.3.1.

5.1.3 7 Day Public Safety Power Shutoff Potential Forecast

A daily “7 Day Public Safety Power Shutoff (PSPS) Potential Forecast” is published on the [weather webpage](#) on [pge.com](#). This provides the public a view of risks PG&E Meteorologists are seeing over the next seven days. A forecast discussion is also provided that discussed the general weather pattern over the next seven days, the general state of fuel moistures and vegetation, and longer-range projections from federal agencies and climate outlooks. Figure 5-5 provides an example of the forecast.

Figure 5-5: Example of 7 Day Public Safety Power Shutoff Potential Forecast



PG&E PSPS Potential Key:

PSPS – If weather forecasts indicate an increased risk of wind-related damage to overhead electric lines combined with dry vegetation susceptible to fire ignition and spread, it may be necessary for PG&E to turn off the electricity serving that area. This is called a Public Safety Power Shutoff (PSPS).

Not Planned – Conditions that generally warrant a PSPS event are not expected at this time.

Elevated – An upcoming event (typically a period of adverse weather combined with dry fuels) is being monitored for an increased potential of a PSPS event.

PSPS Watch – The company Emergency Operations Center (EOC) is activated for a reasonable chance of executing PSPS to reduce public safety risk in a given geographic zone due to a combination of adverse weather and dry fuel conditions. A PSPS watch is typically only issued within 72 hours before the anticipated start of an event.

PSPS Warning – The company Emergency Operations Center (EOC) is activated and customers in areas being considered for PSPS have been or are being notified. This level indicates execution of PSPS is probable given the latest forecast of weather and fuels and/or observed conditions. PSPS is typically executed in smaller and more targeted areas than the PG&E Geographic Zones. This level does not guarantee a PSPS execution as conditions and forecasts may change.

Based on a detailed analysis of PG&E's high resolution 30-year climatology and historical weather patterns, conditions that may warrant PSPS are most likely to occur in September/October/November when fuels are typically at their driest levels and dry offshore winds occur before widespread rain. PSPS events are also possible at other times of year based on the lack of precipitation and droughts. For example, a persistently dry autumn or winter season may result in potential PSPS conditions extending later into the year.

5.2 Real-time Field Conditions

5.2.1 Field Observations

Real-time field observations are made to provide information about weather conditions on circuits forecasted to be in a PSPS event. The observers are to be in position prior to the forecasted PSPS de-energization timing and prior to the timing of the weather "all-clear". They provide information on the presence of R5-Plus conditions. With input from Meteorology, the HAWC makes decisions related to resourcing and location of Field Observers. Plans for use of Field Observers are reviewed by the EOC Commander.

Field observations are completed by members of the Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

Field Observers are sent to specific locations within or as close as possible to the expected weather footprint.

The number of Field Observers will vary depending on the scope of the event, surrounding terrain, facility attributes, and radio / cellular coverage.

On-the-ground, real-time field observations are conducted to provide qualitative as well as quantitative information (for example, flying debris, trees/branches down, conductor movement, ground level wind speed, relative humidity (RH), and temperature) about the presence of R5-Plus conditions and the possible need to trigger a PSPS event sooner than expected. Field observations are conducted by SIPT crews that have completed appropriate training.

When possible, Field Observers provide inputs to the HAWC from a designated area and observations will generally occur prior to the predicted weather event. It is expected that observers may report differing observations based on their specific location.

Field Observers will also be mobilized near the end of the wind event to aid in making a weather "all clear" decision. This acts as a second source in addition to real-time weather station observations to ensure that winds have subsided.

5.2.2 Field Observer Locations

Field Observers initially go to locations specified by the HAWC. When selecting sites for Field Observer locations, the HAWC will consider:

- Cellular phone and radio communications coverage
- Road access
- Altitude
- Open exposure
- Visibility to circuits
- Safety factors as reported by the Field Observers
- Field observation locations have been pre-identified for every Fire Index Area (FIA) within PG&E's service territory

5.2.3 Conditions to Observe and/or Validate

Field Observers note hazards related to wind conditions, which may lead to outages. They update conditions using the SIPT Viewer. If no mobile connection is available, Field Observers radio in observations to the HAWC, who manually input the data into the dashboard.

Field Observers must record observations including date/time and location specifics about the following conditions:

- Trees / branch movement
- Flying debris
- Conductor movement
- Local real-time wind speed data

The HAWC Lead and Technical Specialist review incoming observations and determine if conditions warrant additional field observation and submission of real-time condition videos. In certain circumstances, the information may warrant immediate consideration for PSPS initiation sooner than expected. This information is communicated to the Planning Section Chief, Meteorology and the EOC Commander.

5.2.4 Reporting Guidelines

Observations are classified as follows and depicted in Table 5-1.

- **No Movement:** No leading indicators of outages and little to no high winds in the area.
- **Slight Movement:** Some observations indicating R5-Plus conditions in the area.
- **Substantial Movement:** Many observations indicating R5-Plus conditions in the area.

Table 5-1: Reporting Guidelines for Field Observers

| Factors | Not | No | Slight | Substantial |
|---------|-----|----|--------|-------------|
|---------|-----|----|--------|-------------|

| | Applicable | Movement | Movement | Movement |
|-------------------------|---|--|---|---|
| Tree Observation | No trees in the area of assigned field observation | Leaves and small twigs in motion, small branches and bushes sway, slender branches and twigs move gently | Pole sized trees in the open sway noticeably, large branches in the open toss, tops of trees in dense stands sway (Wind extends small flag) | Large trees in motion, tree damage increases with occasional breaking of exposed branches and tops (Effort needed to walk against the wind) |
| Wire Movement | No visible assets in the area of assigned field observation | No visible impact of wind on assets | Overhead conductors occasionally in motion, not sustained. Gust have visible impact on assets (Umbrella use becomes difficult, empty garbage cans move in wind) | Assets visibly impacted due to weather, overhead conductors in sustained motion & whistling heard (Cars veer, damage to large tents, observable wind impacts) |
| Debris Movement | No debris in the area of assigned field observation | Loose paper and leaves begin to move (wind flutters small flag) | Debris movement observed during gusts, gentle movement during sustained winds | Visible debris (trash, dead leaves, bins, etc.) violently blowing around in constant motion |

5.3 Materials used to inform OIC

Materials used to inform the OIC include:

1. Meteorology Reports – Various models and reports showing useful weather information that will help EC or OIC in their decision-making process include:

- Pressure gradients.
- Forecasted humidity.
- High resolution POMMS Weather Model, FPI and IPW.
- Red Flag Warnings.
- North/South Ops Predictive Services forecasts.
- Asset risk/consequence information directly as well as in ArcGIS.

2. Maps – Maps showing assets in scope and outage area impacts (source – GIS Technical Specialist, PSPS Viewer, Google Earth):

- Asset locations.

- Impacted customers' locations.
 - Weather footprints.
- 3. Internal Situation Report – event-based summary displaying impacts of de-energization from planning to restoration** (source – Situation Unit, Foundry Tool):
- User-enabled plan selection with options to select and focus on specific time-places.
 - Customer counts by time-places, PG&E divisions, counties, cities, zip codes, circuits, for possible de-energization.
 - High level customer notification metrics for critical facility, medical baseline, life support, and general customers with optional notification drilldown information.
 - Automated restoration progress view.
- 4. PSPS Playbook** – Spreadsheet containing detailed information for each distribution or transmission asset in direct scope (source – PSPS Technical Specialist)
- Number of assets in scope.
 - Line miles in scope.
 - Customers in scope.
- 5. Transmission PSPS Scoping Analysis** - Presentation materials detailing transmission lines or sections of transmission lines within the geographic region of the PSPS event which are recommended to be in scope due to exceeding guidance of at least one of the Transmission Line scoping criteria or other known conditions (source – PSPS Transmission Asset Health Specialist) including the following:
- Summary of recommendation showing the number of lines by voltage proposed to be in scope.
 - Number of Transmission Customers and Municipalities affected.
 - Summary of Generation impacted.
 - Waterfall Chart detailing the number of lines that are in scope due to each transmission scoping criterion.
 - Detailed list of recommended Transmission lines for PSPS scope with the following information:
 - Transmission line name and voltage.
 - IF utilizing SCADA switches, THEN this would include the devices on either end of the scoped section of line, i.e., Switch #, junction name, substation.
 - Max of the Large Fire Probability of the structures on the line (product of the probability of failure of a structure at a given wind speed and the Fire Potential Index at that structure).
 - Open A-Tags on that line.
 - Vegetation Risk Index flag.

- High Vegetation Risk mitigation potential.
 - Identification of lines that may be removed from scope though tree removal prior to event start.
- A-tag mitigation potential.
 - Identification of lines that may be removed from scope due completion of required A-tag notifications prior to event start.

For information on documentation of OIC decision process see 8.1.1.

5.3.1.1 Transmission Scoping Process

On an event-by-event basis, PG&E considers the health of each transmission structure, vegetation risk near each structure, the local area wind speed and Utility FPI forecasts. Given the specific forecast and factors listed above, PG&E determines which structures exceed a risk guidance value outputting a preliminary scope of transmission lines to be deenergized.

The primary drivers for determining which structures and lines should be considered for PSPS is the Transmission Large Catastrophic Probability model (CFP_T), which is the combination of the FPI and Operability Assessment (OA) model. The model produces output for every transmission structure on an hour-by-basis. A Vegetation Risk Index (VRI) is also considered. The VRI takes advantage of LiDAR information about trees surrounding transmission lines and is used to prioritize those lines that have higher risk of vegetation impacts.

Ultimately, there is no single factor or threshold that will automatically trigger de-energization of any particular transmission line. Based on the relative wildfire risk calculated for each transmission line in the footprint, PG&E will exercise expert judgment to identify which transmission lines, if any, should be considered for de-energization. The transmission lines identified during this evaluation process drive the initial transmission PSPS scope.

PG&E then conducts a total impact analysis in coordination with the California Independent System Operator (CAISO) to ensure that the initial transmission PSPS scope is feasible and will not compromise reliable bulk power system operations.

This step is critical to support compliance with Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC) Reliability Standards, and to ensure that de-energizations will not negatively impact bulk power system integrity. This assessment process identifies the total count of customers who are likely to be impacted by a transmission PSPS event, including any publicly owned utilities/electric cooperatives, adjacent jurisdictions, and small/multi-jurisdictional utilities, as well as other facilities interconnected at the transmission level.

This step may also result in the identification of additional downstream PG&E distribution customers that would be impacted by transmission de-energization. Due to networked

configuration of the transmission system, customers and entities impacted by a transmission PSPS event may not be directly located within the weather event footprint itself or in a high-fire threat area.

If a potential transmission PSPS scope is feasible from a grid operations standpoint while maintaining compliance with regulatory standards, then the benefits of de-energization of the potential transmission lines will be weighed against the public safety risks of de-energization. If it is determined that the benefits of de-energization outweigh the risks of de-energization of those transmission lines, PG&E will de-energize the identified transmission lines in coordination with the CAISO, after the decision has been approved by PG&E's Officer-in-Charge (OIC).

5.3.1.2 Transmission Scoping Assessment and Scoping Dashboard

The Transmission PSPS Scoping Dashboard (example in Figure 5-6 is used to identify directly impacted transmission lines for inclusion in a PSPS event. This dashboard gathers and displays information related to Black Swan conditions, Large Catastrophic Probability transmission (CFP_T), FPI, asset health (Operability Assessment probability of failure), vegetation risk, and the presence of A-tags for any structure, segmentable section of line or entire line that exceeds minimum FPI guidance. This information is utilized to generate a list of directly impacted lines to be sent to ETEC for study. The results of this study are summarized in a presentation slide for the OIC at Decision **B**.

Figure 5-6: Example Tx PSPS Scoping Dashboard

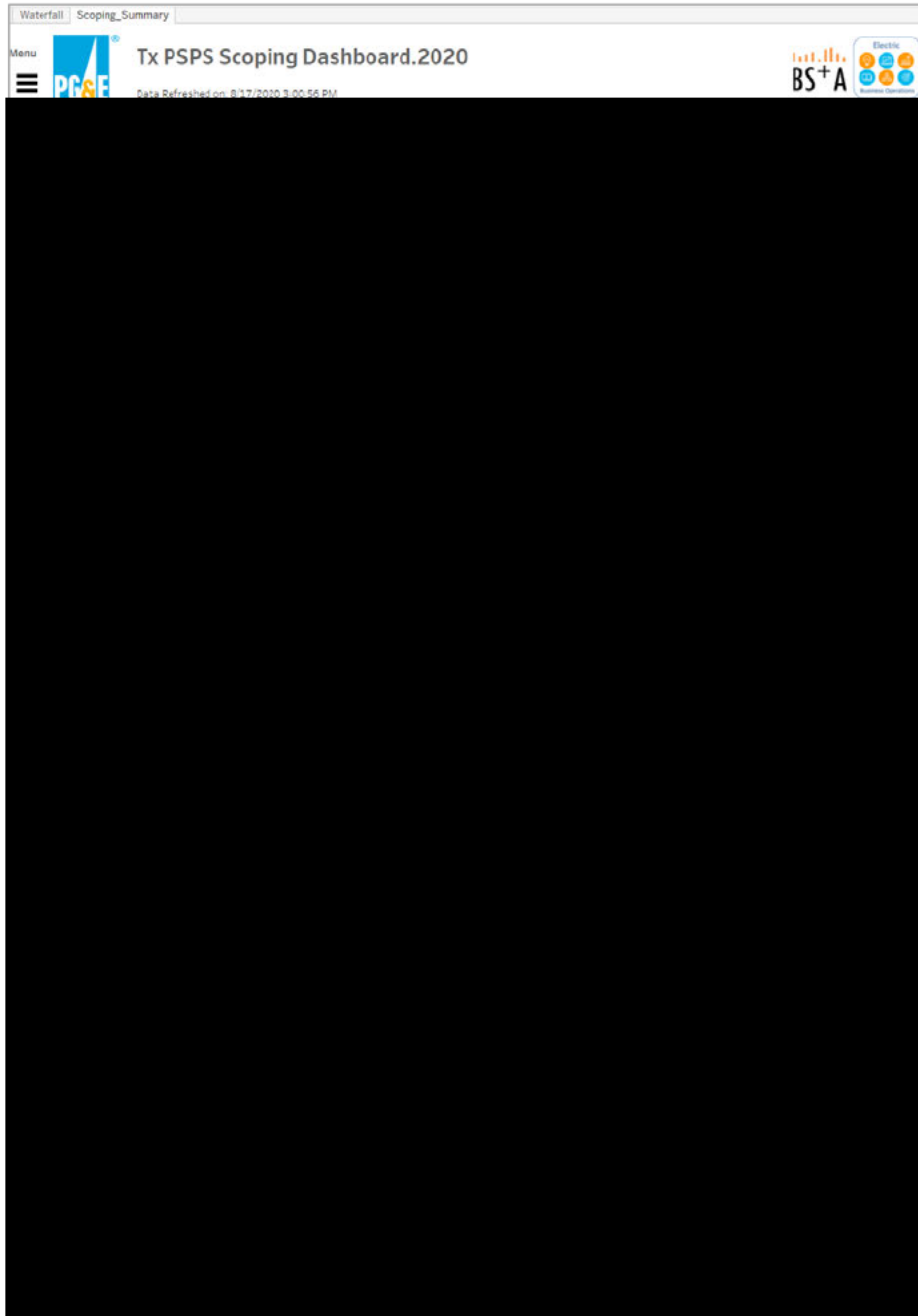
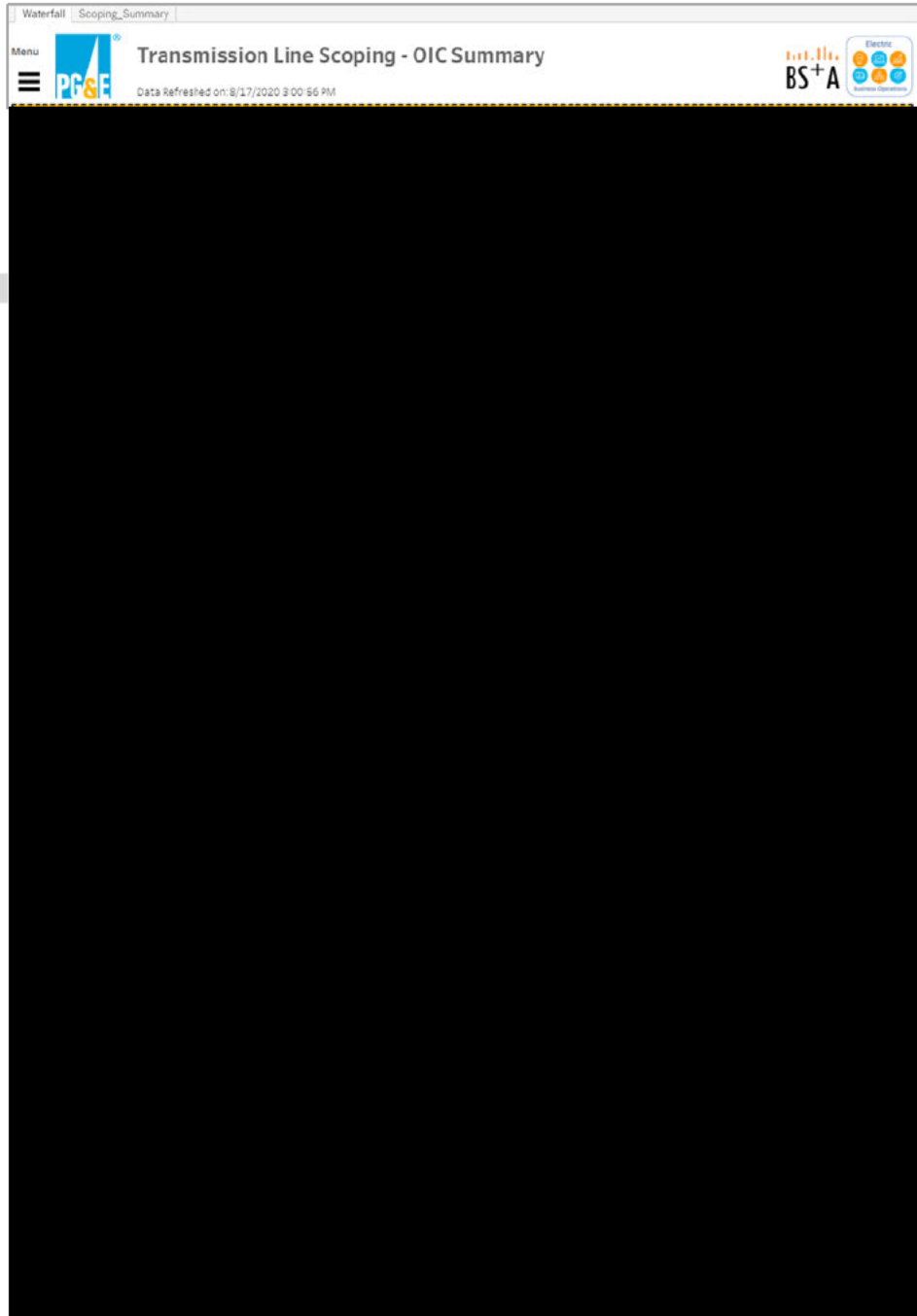


Figure 5-7 shows an example of the Transmission Line Scoping – OIC Summary.

Figure 5-7: Example Transmission Line Scoping – OIC Summary



Transmission Lines Operated at Distribution Voltage

For transmission idle lines or segments that are designed, constructed and maintained to transmission line standards, but are currently operated at distribution voltage serving distribution customer load (e.g., ETL.4317 METCALF-HICKS 1 & 2 115KV operating as a portion of the Hicks 2101 21 kV), the Transmission Asset Health Specialist (TAHS) will perform the Operability Assessment and provide a recommendation, based on applicable transmission PSPS thresholds, to the OIC for inclusion or exclusion in the overall scope of the PSPS event.

5.4 PSPS Viewer

The OIC, HAWC, Meteorology, the Operations Section, Planning Section, CSO, the PIO, and LNO use GIS systems information to inform the potential impacts of a PSPS event. The PSPS Viewer displays the circuits, premises, and facilities potentially - impacted by a PSPS event. The PSPS Viewer and PSPS Situational Intelligence Platform (Section 5.5) incorporate this information to support customer and stakeholder outreach and notifications.

The PSPS viewer is a tool used to translate meteorological scope to distribution circuit sections and to identify appropriate isolation devices to safely de-energize the distribution overhead electrical infrastructure in the area identified by meteorological team. This data is then integrated into PSIP to display and share the list of customers who will be affected when PSPS is executed for a specific area.

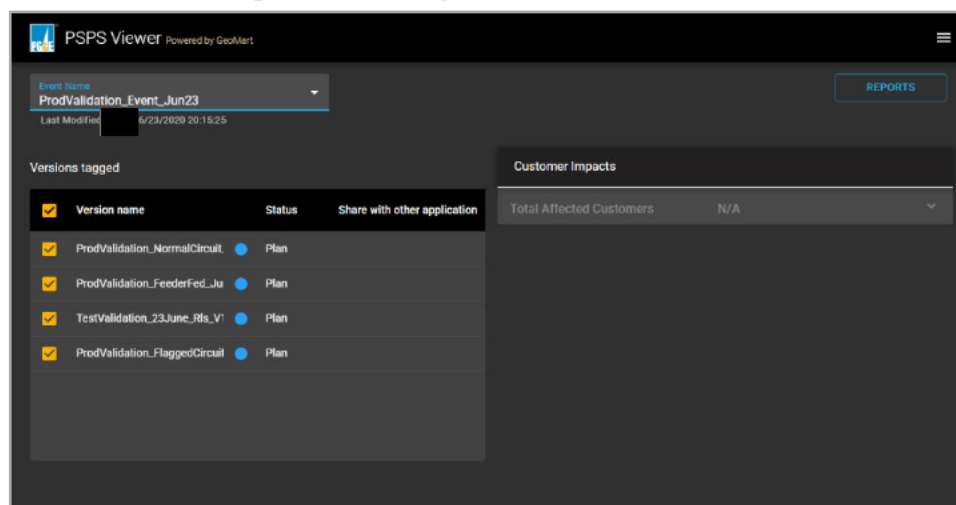
The PSPS Viewer identifies distribution customers and is based on the tracing and connectivity model in the Electric Distribution Geographic Information System (EDGIS). The PSPS Viewer can model abnormal configuration and temporary outages that are planned as a result of PSPS. The abnormal configuration includes the application of mid-feeder microgrids and substation temporary generation.

The PSPS Viewer:

- Is used for creating the De-energization Playbook as well as the Restoration Playbook.
- Provides information about impacted distribution overhead circuit miles used towards restoration planning and estimating resource needs.
- Is utilized to reflect the distribution feeders and associated customer impacts due to any Transmission PSPS action.

The PSPS Technical Lead and PSPS Technical Specialist are the primary users of the PSPS Viewer. Figure 5-8 shows an example of a PSPS Viewer screen.

Figure 5-8: Example View of PSPS Viewer



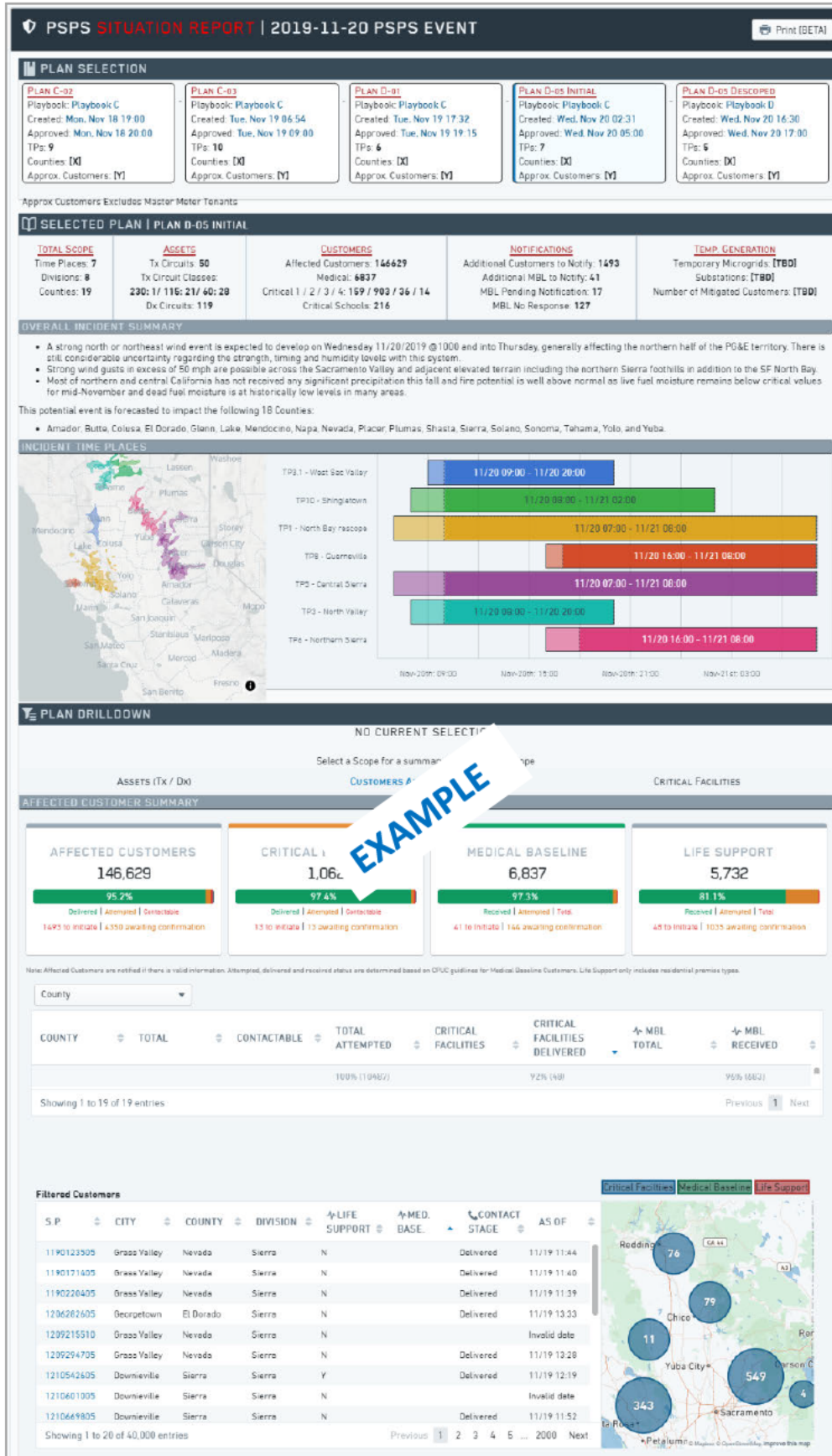
5.5 PSPS Situational Intelligence Platform

The PSPS Situational Intelligence Platform (PSIP) is built on PG&E's implementation of the Palantir Foundry system, which is currently connected to 50+ source systems that contain billions of records relevant to asset health analytics such as GIS, SAP, and CC&B.

The data platform does not replace the underlying source data systems of record, but rather provides a central platform to enable data integration/virtualization and access, support for data management and advanced analytics. PSIP is the central platform to inform PSPS decision-making, reporting, and communications. The features include PG&E's Situation Report, Customer Notification Management, Distribution and Restoration Playbook Management, Regulatory Reporting and more. The platform is also used to generate information shared with external parties such as CAL FIRE and local emergency management agencies.

In 2020, PG&E used this platform to develop and manage situational intelligence for all PSPS events. The Situation Report is an event-based summary displaying impacts of de-energization from planning to restoration. See example screen shot in Figure 5-9.

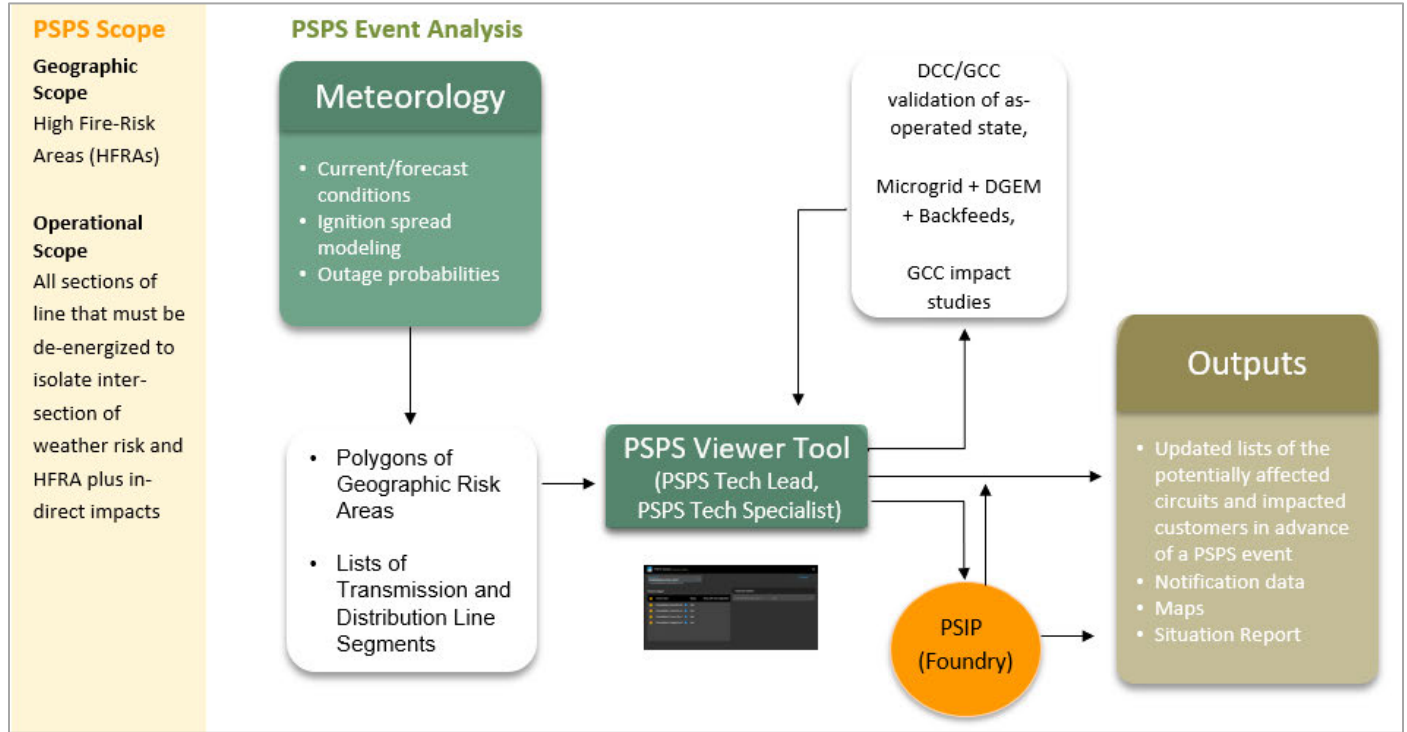
Figure 5-9: Example Situation Report



5.6 Data Sources and Flow of Information

The sequence in Figure 5-10 occurs as necessary in the EOC to enable the OIC and EOC Commander to make informed decisions during a PSPS event.

Figure 5-10: Data Sources and Flow of Information for Distribution Lines



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6 Performance Indicators

Performance Indicators for PSPS are under development as a means of monitoring select metrics and being able to show how the program progresses and improves. PG&E metrics for PSPS in 2021 will include:

6.1 Restoration Metric

Purpose: Measure PG&E's progress towards improving restoration times and customer experience in a way that incentivizes improvements, while reducing variation from factors beyond PG&E's control. This provides leadership a clear view of both our progress and our opportunities for improvement.

Description: The percentage of customers who are restored within 24 hours after weather "all clear" is declared.

- This calculation excludes customers whose restoration was delayed because of fire damage to assets, access restrictions by emergency services, or by other factors that PG&E cannot control or meaningfully mitigate.
- A customer is "all clear" if weather conditions permit safe patrol and restoration of both the customer's distribution line and upstream transmission lines.

6.2 Customer Impact Reduction Metric

Purpose: Measure PG&E's progress towards reducing the number of customers impacted by PSPS in a way that is intuitive to understand and aligns with other external reporting.

Description: The percentage of customers who did not experience a full-duration PSPS outage due to PG&E's PSPS customer impact reduction efforts, relative to the number of customers who would have been impacted without these efforts.

$$\% \text{ Mitigation} = \frac{\text{Customers Mitigated}}{\text{Customers Mitigated} + \text{Customers De-Energized}}$$

6.3 Customer Notification Metric

Purpose: To improve accuracy of the notifications PG&E sends to PSPS affected customers in advance of their outage.

Description: The number of distribution, transmission, and master meter tenant PSPS affected customers who receive notifications in advance of PSPS outages divided by the total number of PSPS-affected customers. This excludes customers with no contact information. Customers who receive a cancel notice as a last notice prior to de-energization yet were de-energized anyway will negatively impact this metric.

6.4 Substation Temporary Generation Readiness Metric

Purpose: Keep safe-to-energize customers impacted by upstream transmission level PSPS outages energized.

Description: In 2021, PG&E plans to pre-interconnect and test generation at 10 substations microgrids and will also develop energization plans for three additional substations' microgrids to allow them to receive generation more quickly, if needed.

6.5 Automated Distribution Sectionalization Metric

Purpose: Reduce the number of customers impacted during future PSPS events affecting the distribution system.

Description: The number of new installed automated distribution sectionalizing devices and SCADA commissioned by the start of peak PSPS season on 9/1/2021.

6.6 Temporary Distribution Microgrids Metric

Purpose: Increase quantity of temporary distribution microgrids with pre-installed interconnection hubs available to energize "main street" corridors with critical and shared community services during PSPS events relative to 2020.

Description: The total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2021 minus the total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2020. This is an end-of-the-year metric.

6.7 Transmission Line Switches Metric

Purpose: PSPS events can cause significant disruption to communities and customers. PG&E plans to continue implementing our transmission segmentation strategy to minimize the number of customers impacted during future PSPS events by narrowing down the segments of a circuit to de-energize.

Description: Future installation of all identified HFTD transmission sectionalizing devices will be prioritized based on potential PSPS benefit (such as expected frequency of a line being de-energized and impact of de-energization) to provide operational flexibility during future PSPS events. These switches also contribute to overall reliability outside of PSPS events. Approximately 200 additional switches are planned in the next three to five years.

6.8 Emergency Backup Generation at PG&E Facilities Metric

Purpose: Provide PG&E facilities with emergency backup power to support the entire campus for the purpose of longer duration PSPS events.

Description: Three phase project with a commitment to have 23 of 52 locations completed at the highest priority facilities by 12/31/2021. Completed facilities to include emergency generation system capable of backing up the campus in its entirety. In order to achieve this, it is expected that existing emergency generators, automatic transfer switches, and in most cases, main switchboards, will need to either be replaced or reconfigured in order to achieve emergency generation back up the for the entire site.

For information on further metrics related to wildfire mitigation and PSPS see [2021 Wildfire Mitigation Plan](#) Table 11 in separate file Attachments for PG&E 2021 Wildfire Mitigation Plan.

7 Training and Exercises

7.1 Training Program

PG&E supports and conducts various training platforms throughout the year relating to and supporting PSPS response activity. This includes emergency preparedness, response principles, the CERP, and activity unique to a PSPS response.

PG&E's emergency preparedness and response efforts function on Incident Command System (ICS) principles. ICS and Standardized Emergency Management System (SEMS) training courses are assigned to all emergency and coordination center personnel.

7.2 Exercise Program

PG&E's Emergency Preparedness & Response Strategy & Execution Exercise Team plans, coordinates, and conducts the exercises for PSPS and other hazards.

All exercises are designed and executed in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology and in alignment with the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E EP&R S&E Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises also fulfills a key component of compliance with CPUC GO 166, specifically Standard 3, parts *a* and *b*.

In support of PSPS readiness, PG&E is required to conduct both a table-top exercise (TTX) and a functional exercise.

Training for the PSPS program is updated and administered annually. For more information see [CERP Section 3.7 Training and Exercises Program](#).

7.3 PSPS Specific Training Program

The PSPS Specific Training Program is designed to prepare personnel to respond to PSPS events. This training program delivers general PSPS specific content to all personnel who would respond to a PSPS event. Additionally, this training program includes tailored curriculum paths designed for specific roles in EOC which are only activated during a PSPS event.

Supplemental role specific training is designed and developed to address PSPS specific responsibilities all-hazards roles assume during a PSPS event. All PSPS specific trainings include activities and exercises to facilitate learning, performance support tools to support the learning inside and outside the learning environment, and knowledge and skill checks to ensure competence and instill confidence.

The training content is updated each year to reflect the improvements to PG&E's PSPS program. The delivery of PSPS specific trainings aligns with the start of the PSPS season and evaluated for effectiveness at the end of each PSPS season.

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8 Documenting PSPS Event

8.1 Internal PG&E

8.1.1 OIC Decision Records

The PSPS Recorder documents the OIC's decision to de-energize, update scope or re-energize using templates for OIC decision-making records. The Recorder is also responsible for taking notes during other meetings involving the OIC, as needed.

8.1.2 After Action Report

The After Action Report (AAR) summarizes key information related to EOC activations and exercise play. EP&R S&E is responsible for ensuring that the AAR is completed for the annual exercise(s) as well as any incident involving the EOC activation. Please contact AAR Process Owner or EP&R S&E Lead Technical Writer at EOCHotwash@pge.com for questions regarding the AAR.

8.2 External

In addition to data provided to external partners during an event, PG&E is required to file two forms/reports that document the PSPS event: Cal OES PSPS State Notification Form updates and CPUC De-energization Report.

8.2.1 Cal OES PSPS State Notification Form

The Cal OES PSPS Notification Form is the official notification of PSPS updates from a utility to the Governor's Office of Emergency Services. The form provides critical information on PSPS event timing and scope and is intended to provide a general summary overview of potential/current impacts in a timely manner.

The Situation Unit in the Planning Section is responsible for filling out the Notification Form and seeking review and approval from the Planning Chief and EOC Commander. Once documented and saved onto the EOC SharePoint, the Situation Unit will submit the form and notify Deputy Planning Section Chief and PSPS Communications Coordinator.

The Cal OES Form should be submitted a minimum of twice a day (0700 and 1500), or in the event of a stage change or significant change in scope. A significant change in scope is an impact of +/- 50,000 customers or +/- a county.

- **Activating PSPS Protocols / Potential to De-energize** – IOU is considering a PSPS event due to incoming weather.
- **Decision to De-energize** – IOU has determined it will shut off power to some or all areas considered in the PSPS event.
- **De-energization Initiated** – IOU has begun process of shutting off power to areas determined in prior notifications/stages.
- **Re-energization Initiated** – IOU has determined that the weather event has subsided and has begun to assess power lines for re-energization.
- **Event Concluded** – IOU has re-energized all lines shut off due to PSPS event or no lines were shut off and the period of concern has passed.

Figure 8-1 shows example of Web Form and Figure 8-2 shows example form to be used as back-up for tech-down situations.

Figure 8-1: Example Cal OES PSPS State Notification Form (web form)

Public Safety Power Shutoff (PSPS) State Notification Form
This form should be filled out in accordance with the guidelines in the PSPS Standard Operation Guide. Please contact the California S...

IOU PSPS Notification Form to Cal OES

Utility Name:
Please Select

IOU Representative Contact Information:
Should be formatted as (Phone), XXX-XXX-XXXX, (Email), for example, John Hancock, 555-555-5555, j.hancock@email.com

Event Name:
Event should be named (Utility) PSPS Event (Date) (Time Submitted) for example, SCE PSPS Event 07/02/20 0700 hours.

Initial Notification:
Please Select

Phase:
Phase should indicate the geographic or timeframe of the event if there are multiple, if there are no phases please leave this field blank.

Weather Event Window:
Please indicate the timeframe of the weather event. Example: 07/02/20 at 0500 hours to 07/02/20 at 1200 hours.

Total Customers Potentially Impacted:

Total Medical Baseline Customers Potentially Impacted:

Potentially Impacted Counties:
Select all that apply

Total Number of Customers Currently De-energized:


Total Number of Medical Baseline Customers Currently De-energized:

Counties Currently Impacted by De-energization:
Select all that apply

Current PSPS Stages:
Select the current stage

Submit

Figure 8-2: Example Cal OES PSPS State Notification Form (tech-down back-up form)



Public Safety Power Shutoff (PSPS) State Notification Form

Please complete this form per instructions provided and send to the California State Warning Center at warning_center@oes.ca.gov. Upon submission of form, call the CSWC at (916) 845-8911 to confirm receipt. Please call with any questions.

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PSPS NOTIFICATION FORM

Please enter IOU representative contact information below. Please format per the example.

Click or tap here to enter text. Example: Name, Phone Number, Email
 Example: John Hancock, 555-555-5555, j.hancock@email.com

Additional contact information:
 Click or tap here to enter text.

GIS information:
 In addition to completion of the PSPS State Notification Form, the utility is responsible for including the following data points in their GIS environment:

| | | |
|--|---|--|
| <ul style="list-style-type: none"> • County • Circuit Name | <ul style="list-style-type: none"> • Energization Status <ul style="list-style-type: none"> ○ Monitoring ○ De-energized ○ Patrolling ○ Re-energized ○ Phase and timing | <ul style="list-style-type: none"> • Critical Care and /or medical baseline customer count • Critical infrastructure/essential customers • Total customer |
|--|---|--|

Please provide public GIS links to de-energization information.
 [Public GIS Link]

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Revised 05/01/2020 For Official Use Only – FOUO DRAFT

8.2.2 CPUC De-Energization Report

In accordance with CPUC [Resolution ESRB-8](#), [Decision \(D.\) 19-05-042](#), [Decision \(D.\) 20-05-051](#), [Decision \(D.\) 21-06-014](#), and [Decision \(D.\) 21-06-034](#) all Investor Owned Utilities (IOUs) are required to file a report with the director of the Commission's Safety and Enforcement Division (SED) no later than 10 business days following an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization but no de-energization occurred.

The PG&E PSPS De-energization Report to the CPUC (also called the 10-Day Report), is broken into 16 sections, each of which is assigned to a PSPS workgroup. Each section has a respective job aid, which the teams are required to fill out during the event and finalize shortly after restoration.

At the start of EOC activation, the PSPS PMO will notify responsible individual(s) to maintain information necessary for the CPUC report. The sections of the report and responsible business owners are outlined in Table 8-1.

Table 8-1: PG&E PSPS Report to the CPUC – Sections Draft

| Section | Section Name |
|---------|--|
| 1 | Executive summary |
| 2 | Decision-Making Process |
| 3 | De-energized Time, Place, Duration and Customers |
| 4 | Damage and Hazards to Overhead Facilities |
| 5 | Notifications |
| 6 | Local and State Public Safety Officer Engagement |
| 7 | Complaints & Claims |
| 8 | Power Restoration |
| 9 | Community Resource Centers |
| 10 | Mitigations to Reduce Impact |
| 11 | Lessons Learned from this Event |
| 12 | Other Relevant Information |
| | Officer Verification |
| | Appendix |

NOTE: The format of the CPUC De-energization Report is subject to change depending on regulatory requirements.

To access prior reports, use this [link to external PG&E website](#).

8.2.2.1 R. 18-12-005 Phase 1 (D. 19-05-042) Requirements

In addition to the reporting requirements in Resolution ESRB-8, CPUC decision R. 18-12-005 Phase 1 (D. 19-05-042) requires the electric IOUs to provide further information in the 10-Day Report including:

- Decision criteria leading to de-energization, including 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.
- A copy of all notifications, the timing of notifications, the methods of notifications and who made the notifications (the utility or local public safety partners).
- If the utility fails to provide advanced notification or notification according to the minimum timelines set forth in these Guidelines, an explanation of the circumstances that resulted in such failure.
- A description and evaluation of engagement with local and state public safety partners in providing advanced education and outreach and notification during the de-energization event.
- For those customers where positive or affirmative notification was attempted, an accounting of the customers (which tariff and/or AFN population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved.
- A description of how sectionalization, i.e. separating loads within a circuit, was considered and implemented and the extent to which it impacted the size and scope of the de-energization event.
- An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks.
- The timeline for power restoration (re-energization) in addition to the steps taken to restore power as required in Resolution ESRB-8.
- Lessons learned from the de-energization event.
- Any recommended updates to the guidelines adopted in Resolution ESRB-8 and this decision (19-05-042).

8.2.2.2 R. 18-12-005 Phase 2 (D. 20-05-051) Requirements

CPUC decision R. 18-12-005 Phase 2 (20-05-051) adds further requirements to the 10-Day including:

- Each electric investor-owned utility shall report on all potential or active de-energization events in its post event reports. These reports shall include a thorough and detailed description of the quantitative and qualitative factors it considered in calling, sustaining, or curtailing each de-energization event (including information regarding why the de-energization event was a last resort option) and a specification of the factors that led to the conclusion of the de-energization event.

- The electric IOUs should explain any false communications in the post event reports by citing the sources of changing data, and lessons learned should be incorporated in ongoing de-energization communications and notifications to increase their accuracy and effectiveness.
- For any circuits that require more than 24 hours to restore, the utility should explain why it was unable to restore each circuit within this timeframe in its post event report.

8.2.2.3 R. 18-12-005 Phase 3 (D. 21-06-034) Requirements

CPUC Decision 8.2.2.3 R. 18-12-005 Phase 3 (21-06-034) adds further requirements to the 10-Day including:

- In its post-event reports, each electric investor-owned utility must provide the number of customers notified in comparison to the number of customers de-energized

For more information about reporting requirements in Phase 3, see [Phase 3 Decision](#), Appendix A, Section K.

8.2.2.4 I. 19-11-013 PSPS Order Instituting Investigation (D. 21-06-014) Requirements

CPUC decision I. 19-11-013 PSPS Order Instituting Investigation (OII) (D. 21-06-014) adds further requirements to the 10-Day Report including:

- Quantification of public risk and harms and how they were weighed in decision making.
- Separate sections on PSPS as a last resort, alternatives considered, mitigation measures employed.
- Best Practices discussed in Joint-IOU Working Group Meetings.

For more information about reporting requirements in PSPS OII see [CPUC Decision 21-06-014](#).

8.2.3 Twenty-eight Day PPS Report

At the conclusion of each 2021 PPS event, PG&E will submit a report within 28 to Judge Alsup. The requirements for the Twenty-eight Day PPS Report include updates for the following items:

- **Item 1:** How many circuits were turned off in the PPS.
- **Item 2:** How many of such circuits had limbs and/or trees blown or fallen onto the lines (as determined in the post-storm inspection).
- **Item 3:** How many of such strikes would, in the judgment of PG&E, have started a fire (regardless of size) had the circuit been energized at the time of the strike.

- **Item 4:** How many circuits left energized had limbs and/or trees blown or fallen onto the lines by the storm without causing a fire.
- **Item 5:** How many circuits left energized with strikes that in fact resulted in fires (regardless of size).

These five items should each be further broken down by those circuits that were in substantial compliance with Section 4293 as well as PG&E's Wildfire Mitigation Plan (WMP) versus those circuits that were not at the time of the PSPS event.

8.2.4 Pre-Season Report

The Pre-Season Report is a requirement by the CPUC for all IOUs to file annually by July 1st. In general, the purpose of the Pre-Season Reports should be to describe all the actions the IOUs have taken, or are taking, in preparation for potential PSPS events during the upcoming wildfire season; as part of such description, the IOUs should specify lessons learned from past events, and how they are applying those lessons to their current preparations.

For more information on requirements for the Pre-season Report see [Phase 3 Decision](#) Section 6.11 and Appendix A, Section K.

Details expected to be confirmed by the CPUC at a future date.

NOTE: First expected Pre-season report to be submitted in 2022.

8.2.5 Post-Season Report

The Post-Season Report is a requirement by the CPUC for all IOUs to file annually by March 1st. In general, the purpose of the post-season reports is to describe all the actions the IOUs took with respect to calling PSPS events, including specific notifications and measures taken to mitigate the impacts of PSPS events on different customer segments and communities.

For more information on requirements for the Post-season Report see [Phase 3 Decision](#) Section 6.11 and Appendix A, Section K.

Details expected to be confirmed by the CPUC at a future date.

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9 Appendices

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Appendix A. Glossary and Acronyms

A.1 Acronym List

| Acronym | Long form |
|----------|--|
| AAR | After Action Report |
| ADA | American with Disabilities Act |
| AFN | Access and Functional Needs |
| BC(P) | Business Continuity (Plan) |
| BES | Business Energy Solutions |
| CAISO | California Independent System Operator |
| CAL FIRE | Department of Forestry and Fire Protection |
| Cal OES | Governor's Office of Emergency Services |
| CAP | Corrective Action Program |
| CCAs | Community Choice Aggregators |
| CCECC | Customer Contact Emergency Coordination Center |
| CERP | Company Emergency Response Plan |
| CEUA | California Emergency Utilities Association |
| CFILC | California Foundation for Independent Living Centers |
| CIMC | Corporate Incident Management Council |
| CRC | Community Resource Center |
| CRESS | Corporate Real Estate |
| CSO | Customer Strategy Officer (EOC) |
| CWSP | Community Wildfire Safety Program |
| DCC | Distribution Control Center |
| DMS | Distribution Management System |
| DSO | Distribution System Operation |
| Dx | Distribution |
| EC | EOC Commander |
| EDEC | Electric Distribution Emergency Center |
| EDGIS | Electric Distribution Geospatial Information System |
| EOC | Emergency Operations Center |
| EP&R SE | Emergency Preparedness and Response Strategy and Execution |
| ETEC | Electric Transmission Emergency Center |
| ETOR | Estimated Time of Restoration |
| FERC | Federal Energy Regulatory Commission |
| FIA | Fire Index Area |
| FORCE | Field Operations Resource Calculator ETOR |
| FPI | Fire Potential Index |
| FSS | Field Safety Specialist |
| GCC | Transmission Grid Control Center |
| GEC | Gas Emergency Center |
| GIS | Geographic Information System |
| HAWC | Hazard Awareness and Warning Center |
| HFTD | High Fire Threat District |
| HRO | Human Resources Officer |

| Acronym | Long form |
|---------|---|
| I&I | Intelligence and Investigations |
| ICS | Incident Command Structure |
| ILC | Independent Living Center |
| IOU | Investor Owned Utility |
| IT | Information Technology |
| ITCC | Information Technology Coordination Center |
| LCE | Local Customer Experience |
| LNO | Liaison Officer (EOC) |
| LoB | Line of Business |
| MBL | Medical Baseline |
| MIC | Meteorologist-in-Charge |
| MW | Megawatt |
| NDA | Non-Disclosure Agreement |
| NERC | North American Electric Reliability Corporation |
| NOAA | National Oceanic and Atmospheric Administration |
| OAFN | OES' Office of Access and Functional Needs |
| OE | Operations Engineer/Operations Engineering |
| OEC | Operations Emergency Center |
| OIC | Officer-in-Charge (EOC) |
| OMT | Outage Management Tool |
| OPW | Outage Producing Winds Index |
| OWF | Other Wildfire Areas |
| PIH | Pre-installed interconnection hub |
| PIO | Public Information Officer (EOC) |
| POL | Privately Owned Line |
| POMMS | PG&E's Operational Mesoscale Model System |
| R&R | Rewards & Recognition |
| RAS | Remedial Action Schemes |
| REC | Regional Emergency Center |
| RH | Relative Humidity |
| SBFW | Santa Barbara Wildfire Area |
| SCADA | Supervisory Control and Data Acquisition |
| SCE | Southern California Edison |
| SDG&E | San Diego Gas & Electric |
| SED | CPUC Safety and Enforcement Division |
| SIPT | Safety and Infrastructure Protection Teams |
| SIV | Self-identified Vulnerable |
| SOC | State Operations Center |
| STOEC | Substation Transmission Operations Emergency Center |
| T&D | Transmission and Distribution |
| T-Line | Transmission Line |
| Tx | Transmission |
| WIV | Wildfire Incident Viewer |

A.2 Glossary

Access and Functional Needs (AFN) populations: Individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant.

After-Action Report (AAR): A structured review or de-brief process of an event, focused on performance standards, that enables participants to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. After action reviews, informal or formal, follow the same general format, involve the exchange of ideas and observations, and focus on improving performance. (from NWCG)

CPUC De-Energization Report: In accordance with Resolution ESRB-8, all IOUs are required to file a report with the director of the Commission's Safety and Enforcement Division no later than 10 business days after an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization though no de-energization occurred.

Critical Facilities (Critical Infrastructure Customers) "Critical Facilities" and "Critical Infrastructure" refer to facilities and infrastructure that are essential to the public safety and that require additional assistance and advance planning to ensure resiliency during de-energization events.

The CPUC adopted the following interim list of Critical Facilities and Critical Infrastructure, as aligned with Department of Homeland Security's Critical Infrastructure Sectors:

- Emergency Services Sector: Police Stations, Fire Stations, Emergency Operations Centers.
- Government Facilities Sector: Schools, Jails and prisons.
- Healthcare and Public Health Sector: Public Health Departments, Medical facilities, including:
 - hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers and hospice facilities.
- Energy Sector: Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly owned utilities and electric cooperatives.
- Water and Wastewater Systems Sector: Facilities associated with the provision of drinking water or processing of wastewater including facilities used to pump, divert, transport, store, treat and deliver water or wastewater.
- Communications Sector: Communication carrier infrastructure including selective routers, central offices, head ends, cellular switches, remote terminals and cellular sites.
- Chemical Sector: Facilities associated with the provision of manufacturing, maintaining, or distributing hazardous materials and chemicals.

NOTE: Some customers meet the criteria of being both a Public Safety Partner & Critical Facility, which include: Emergency services sector, water and wastewater providers, communication service providers and emergency hospitals.

CSV file: Comma-separated values. A CSV file is a simple file format used to store tabular data, such as a spreadsheet.

De-energization / De-energize: The process of shutting off power.

Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Model:

The DSO SOPP is a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Electric Compliance (EC) Tag/Notifications: The SAP record that holds the data identifying a compelling abnormal or regulatory condition.

Emergency Preparedness and Response Strategy and Execution (EP&R S&E): An overarching organization that leads initiatives focused on enhancing company-wide emergency preparedness and response.

Emergency Operations Center (EOC): A central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency and ensuring the continuity of operation of a company.

Fire Ignition Utility Threat Index: a CPUC index that provides information about where utility caused fires of high consequence are probable based on topography, fuel types, and proximity to utility assets (similar basis of analysis for determining Tier 2 and 3 HFTDs).

Fire Index Area (FIA): Boundaries originally designated by the California Department of Forestry and Fire Protection and United States Forest Service for the purpose of establishing a fire-danger rating for that area based on local conditions. There are 109 rating areas in the Company service territory. A map of the FIAs can be viewed at http://www.t2/Weather/EO/FireIndex/fireindex_2011.pdf.

Fire Index Rating: A rating used by fire agencies to determine the risk of fire and its likely behavior. Its calculation considers fuel moisture, humidity, wind speed, air temperature, and historical fire occurrence. These ratings are as follows:

- **R1** – Very little or no fire danger
- **R2** – Moderate fire danger
- **R3** – When fire danger is so high that care must be taken using fire-starting equipment. Local conditions may limit the use of machinery and equipment to certain hours of the day.
- **R4** – Fire danger is critical. The use of equipment and open flames are limited to specific areas and times.
- **R5** – Fire danger is so critical that the use of equipment and open flames are not allowed at any time.
- **R5-Plus** – Fire danger is at R5 "plus" high risk weather trigger of strong wind.

Fire Potential Index (FPI): see Utility Fire Potential Index.

First/Emergency Responders: Individuals who, in the early stages of an incident, are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers. The term “emergency response providers” includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

Geographic Information System (GIS): A system that integrates many types of data that are designed to capture, manage, analyze, and present geographic and spatial information.

Hazard Awareness and Center (HAWC): The physical operations center that monitors for wildfires. The HAWC leadership communicates and informs other PG&E Lines of Businesses (LOBs) and Executive Leadership about potential wildfire impacts.

High Fire Risk Area (HFRA): The HFRA Map considers catastrophic fire risk factors and utility infrastructure and was developed by considering incremental changes to the HFTD map boundaries to add areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

High Fire Threat Districts (HFTDs): Per D.17-01-009, areas of the State designated by the CPUC and CAL FIRE to have elevated wildfire risk, indicating where utilities must take additional action (per GO 95, GO 165, and GO 166) to mitigate wildfire risk.

The districts have three levels:

- **Zone 1:** High Hazard Zones on the U.S. Forest Service-California Department of Forestry and Fire Protection (CAL FIRE) joint map of Tree Mortality High Hazard Zones
- **Tier 2:** Elevated risk for utility-associated wildfires
- **Tier 3:** Extreme risk for utility associated wildfires

High Impact Critical Customers: Non-residential customers that may present a significant community impact in the event they experience a sustained outage but do not meet the CPUC criteria for a Critical Facility Customer.

High Priority Vegetation Tag: “Priority 1” and “Priority 2” vegetation tags which are created when trained vegetation inspectors identify trees or limbs that currently present elevated risk and must be worked on an expedited basis. Inspectors use Priority 1 tags for vegetation (i) in contact or showing signs of previous contact with a primary conductor; (ii) actively failing or at immediate risk of failing and which could strike PG&E’s facilities; or (iii) presenting an immediate risk to PG&E’s facilities. Inspectors use Priority 2 tags for vegetation that does not rise to the level of Priority 1 but has encroached within the PG&E minimum clearance requirements or has an identifiable potential safety issue requiring expedited work.

KMZ file: KMZ stands for Keyhole Markup language Zipped. KMZ is a file extension for a placemark file used by Google Earth Pro. It is a compressed version of a KML (Keyhole Markup Language) file. KMZ files are zipped .KML files, which make them easier to distribute with multiple users.

Large Fire Probability Model for Distribution (LFPD): The Large Fire Probability Model for distribution is the product of the probability of an outage (OPW Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Large Fire Probability Model for Transmission (LFP_T): The Large Fire Probability Model for transmission is the product of the probability of an outage (OA Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Life Support Equipment: A medical device to sustain life as defined by PG&E at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/life-support-equipment.page.

Medical Baseline: A PG&E financial assistance program for residential customers who have special energy needs due to certain qualifying medical conditions.

Notification: A communication intended to inform recipients of an unscheduled event for which contingency plans are in place.

Officer-in-Charge (OIC): PG&E maintains an Officer-in-Charge on-call list during wildfire season (typically June through October). Prior to a PSPS event, the on-call list will be used to identify the Officer-in-Charge for PSPS decision-making. The power shutoff decision will be made by the designated (OIC) with the support from Emergency Operations Center (EOC) leads.

Outage Areas: Shared via ESRI compliant GIS files per the Joint Letter issued by CPUC, Cal OES, CAL FIRE. OAs are provided as generalized polygons that display potential or actual circuit areas for de-energization in a PSPS event. Outage Areas are subject to change during the course of an event.

Patrol Inspection: In accordance with GO 165, a simple visual inspection of applicable utility equipment and structures that is designed to identify obvious structural problems and hazards. Patrol inspections may be carried out in the course of other company business.

PG&E Operational Mesoscale Modeling System (POMMS): PG&E Operational Mesoscale Modeling System (POMMS) that provides a high-resolution numerical weather prediction system. Technosylva Suite of wildfire simulation software applications whose propagation and consequence outcomes are based on available fuels, topography, and weather; as well as building and population locational data. Technosylva simulation outputs are used as the source of spatially resolved fire severity data that is the primary input into the spatial consequence calculations.

Playbooks (PSPS):

- **De-energization Playbook:** The list of transmission lines and distribution circuits planned to be de-energized as part of the PSPS event. The De-energization Playbook has 4 main versions A, B, C, D, each playbook updates the previous. Version A is initial distribution impacts. Version B is distribution impacts including abnormal conditions and confirmed mitigations. Version C is distribution abnormal and transmission direct impacts, also including downstream impacted transmission lines. Version D is distribution abnormal and transmission direct and indirect impacts including System Protection. The letter “E” is not used for playbooks.
- **Restoration Playbook F:** The Restoration Playbook contains a list of all circuits by Division, impacted by the PSPS Event, along with the associated All Clear Zones for each circuit and the segment/patrol guides. Prior to the first OIC Decision F meeting, Meteorology provides a forecast of Distribution all clear times for each All Clear Zone in the Playbook, which are then input in the Playbook. At this stage, the Restoration Playbook is named “Restoration Playbook F01_Forecast”.

When the first Decision F meeting occurs, the approved all clear times for each approved All Clear Zone are input in the Restoration Playbook, and the corresponding forecast times are grayed out. After the first OIC Decision F meeting, the Restoration Playbook F01_Forecast is then renamed “Restoration Playbook F01_Approved”. This playbook thus notes which areas have been approved for weather “all clears” and which areas will have to be approved in subsequent OIC Decision F meetings.

Polygon (meteorology): When GIS software is an enclosed area, the resulting shape is known as a polygon. For PSPS, PG&E is providing potential outage areas through buffering protection zone portions of circuits as polygons in both shapefiles and KMZ files.

Priority 1 (P1)Condition:

A Priority 1 condition is a hazard that meets any of the following scenarios:

- The vegetation is in contact or showing signs of previous contact with a primary conductor.
- The vegetation is actively failing or at immediate risk of failing and could strike the facilities.
- The vegetation presents an immediate risk to the facilities.

A PG&E Vegetation Management Priority 1 classification aligns with CPUC General Order (G.O.) 95, “Reporting and Resolution of Safety Hazards Discovered by Utilities,” Rule 18, Priority Level 1 definition as stated: An immediate safety and/or reliability risk with high probability for significant impact. Take action immediately, either by fully repairing the condition or by temporarily repairing and reclassifying the condition to a lower priority.

Priority 2 (P2) Condition:

A Priority 2 condition is a hazard that meets at least one of the following scenarios:

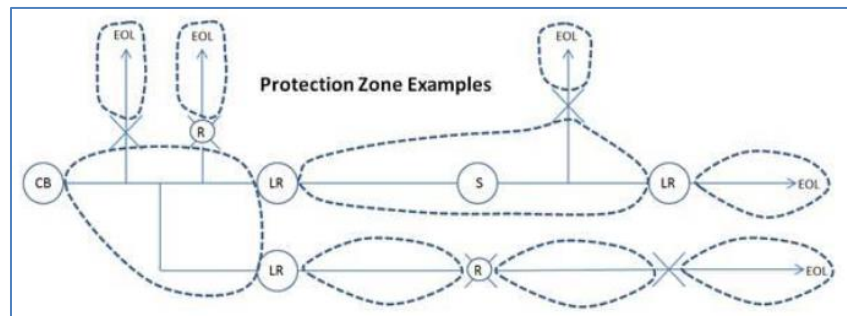
- A Priority 2 condition meets at least one of the following scenarios
- The vegetation has encroached within the PG&E minimum clearance requirements and is not in contact with a conductor

The vegetation has an identifiable integrity issue that does not classify as a Priority 1 condition, is likely to strike facilities, and may manifest into a risk before the next scheduled inspection.

A PG&E Vegetation Management Priority 2 classification aligns with and often exceeds the CPUC General Order (G.O.) 95, "Reporting and Resolution of Safety Hazards Discovered by Utilities," Rule 18, Priority Level 2 definition as stated: A variable (non-immediate high to low) safety and/or reliability risk. Take action to correct within specified time period (fully repair, or by temporarily repairing and reclassifying the condition to a lower priority). Time period for correction to be determined at the point of identification by a qualified company representative (overhead: 0-59 months).

Protection Zone: The area between two protective devices (i.e., starts at the device that relayed and/or locked out or blown) such as a Circuit Breaker (CB), Line Recloser (LR), Switch (S), Fuse (X), Interrupter (I), TripSaver, and End of Line (EOL), and continues downstream until all of the next protective devices are reached which could include multiple branches of the circuit. See Figure 9-1.

Figure 9-1: Protection Zones



Public Safety Partner: First/emergency responders at the local, state and federal level, water, wastewater and communication service providers, affected community choice aggregators, publicly-owned utilities/electrical cooperatives, the CPUC, the California Governor's Office of Emergency Services and the California Department of Forestry and Fire Protection.

The term "emergency response providers" includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

PSPS Event: The time period from the first public safety partner notified of a planned public safety de-energization to the final customer re-energized.

PSPS Patrol: After the severe weather has passed, a PSPS patrol consists of a visual assessment of assets to identify any condition that would prevent a circuit or portion thereof from being safely energized.

Public Safety Partner: First responders at the local, state, and federal level; water, wastewater, and communication providers; Community Choice Aggregators; affected Publicly Owned Utilities/electric cooperatives; CPUC; Cal OES; and CAL FIRE.

Public Safety Power Shutoff Program (PSPS): A Program to proactively de-energize distribution and transmission lines that traverse the high fire-risk area under severe weather.

Re-energization / Re-Energize: The process of turning the power back on.

Red Flag Warning: A warning issued by the National Weather Service to alert fire officials and firefighters of potentially dangerous and imminent fire weather conditions.

Safety and Infrastructure Protection Team (SIPT): in-house team that can be used for pre-treatment, standby, and asset protection. These teams will engage at the operational level with internal and external. They provide inspection, assessment, and medical standby services for day-to-day high-risk work being performed in the system. They also provide field observations for PSPS events.

Sectionalizing: The process of creating segmented power lines by separating loads within a circuit.

Section of Segments: The portion of power line that has been bounded by sectionalizing devices or the end of the distribution line.

Self-Identified Vulnerable: a category for residential (AFN) to supplement Medical Base Line that is made up of customers that have self-identified vulnerable program.

Shapefile: a simple, non-topological format for storing the geometric location and attribute information of geographic features. Geographic features in a shapefile can be represented by points, lines, or polygons (areas).

SOPP Model (The Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Modeling System): a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Standardized Emergency Management System: The system required by Government Code §8607 (a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS provides for a multiple level emergency response organization and is intended to structure and facilitate the flow of emergency information and resources within and between the organizational levels.

Step Restoration: When a substation is re-energized, and circuits are subsequently safely energized in segments as patrols continue to confirm areas are free of damage or hazards.

Sustained Wind: The average observed wind speed value over a two-minute period.

System Hardening: Contiguous sections of overhead facilities built to the wildfire rebuild design guidance (TD-9001B-009 rev 2) where the most prominent feature is the covered conductor and minimized exposed energized components.

Transmission Impacts:

- **Direct Impact (D):** Lines considered to have an unacceptable level of ignition risk, wildfire consequence or combination thereof and thus scoped for de-energization on a particular PSPS event.
- **Direct Impact Plus (D+):** Lines and substations identified using TARA to have lost connectivity to the grid given the set of direct impacts.
- **Indirect Impact (I):** Lines and substations that will be de-energized due to operational setups identified through Power Flow and Fault Duty studies to ensure safety, security or stability of our system given the set of Direct Impact and Direct Impact Plus lines and substations.

Wildland Fire: A fire in an area of combustible vegetation occurring in rural areas.

Wind gust: a rapid fluctuation of wind speed with variations of 10 knots or more between peaks and lulls, typically, determined by averaging observed values over a three-second period.

Utility Fire Potential Index (FPI): The Fire Potential Index Model, also referred to as the FPI Model or the Utility FPI Model, combines several factors including a fire weather index (wind, temperature, and humidity) with fuel moisture data (10-hour dead fuel moisture and live fuel moistures), and landcover type (grass, shrub/brush, or forest). The FPI Model outputs the probability of a small fire becoming a large fire. The FPI forecast describes the potential for fires to spread rated on a scale from “R1” (lowest) to “R5” (highest). The FPI Model is run at 2 x 2 km resolution and provides hourly forecasts out 4 days.

Vulnerable Populations: Individuals who have physical, developmental, intellectual disabilities; chronic conditions or injuries, are limited English proficient or non-English speaking; older adults, children, people living in institutionalized settings, low-income, homeless and/or transportation-disadvantaged (i.e., dependent on public transit) and pregnant women)

Weather “all-clear”: The Officer-in Charge gives approval to start restoration and can be issued for all impacted areas at once or for specific areas.

Appendix B. Supporting Documents and Links

B.1 Supporting Documents

The following documentation and procedures are supplemental to this Guidance Document and should be referenced as necessary for PSPS preparation and execution.

| Document Name | Owner |
|--|-----------------------------------|
| EMER 3001M Company Emergency Response Plan (CERP) | EP&R S&E |
| EMER-3105M Fire Annex | EP&R S&E |
| MCV Reservation | IT |
| PSPS-4999-B001, Mobile generator use during Public Safety Power Shutoff (PSPS) | Temp Gen |
| TD-1464S Preventing and Mitigating Fires While Performing PG&E Work | Electric Ops/HAWC |
| TD-1464P-01 Fire Index Patrol and Non-Reclose Process | PSPS Organization |
| PSPS-1000S, Public Safety Power Shutoff (PSPS) | PSPS Organization |
| PSPS-1000P-01 Public Safety Power Shutoff for Distribution and Transmission | PSPS Organization |
| Customer Notifications | Customer Care |
| External Notifications | External Affairs / Regulatory |
| Wildfire Mitigation Plan (WMP) | Community Wildfire Safety Program |

B.2 Links related to PSPS

| Topic/ SharePoint/ Webpage | Link |
|--|---|
| EOC SharePoint | https://pge.sharepoint.com/sites/EOCResources/SitePages/EOC%20Training.aspx |
| EOC Incidents SharePoint | https://pge.sharepoint.com/sites/EOCResources/EOC%20Incidents/Forms/AllItems.aspx |
| PSPS Training and Guidance Documents | https://pge.sharepoint.com/sites/EOCResources/PSPS%20Training%20and%20Guidance%20Documents/Forms/AllItems.aspx |
| PG&E Utility Fire Potential Index (FPI) Forecast | To self-subscribe or unsubscribe to these notifications, navigate to the Subscribe/Unsubscribe page. |
| PSPS Landing Page | pge.com/psps |
| PSPS Event Updates Page | pge.com/pspsupdates |
| Wildfire Safety Landing Page | pge.com/wildfiresafety |
| MBL Program | pge.com/medicalbaseline |
| PSPS Updates and Alerts | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-updates-andalerts.page |
| PG&E Disability and Aging (AFN) Page | pge.com/disabilityandaging |
| PSPS Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-support.page |
| Prepare for PSPS | pge.com/en_US/residential/outages/publicsafety-power-shutoff/prepare/prepare-forpsps.page |
| Why PSPS Events Occur | https://www.pge.com/en_US/residential/outages/public-safety-power-shutoff/why-psps-events-occur.page |
| Minimizing PSPS Events | pge.com/en_US/residential/outages/publicsafety-power-shutoff/minimizing-pspsevents.page |

| Topic/SharePoint / Webpage | Link |
|-------------------------------|---|
| Wildfire Recovery and Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-support.page |
| PSPS Event Reports | pge.com/pspsreports |
| Wildfire Mitigation Plan | https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page?WT.mc_id=Vanity_wildfiremitigationplan |

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Appendix C. Catalog of Notification Scripts

Catalog of Notifications Scripts

1. T-66 – ADVANCED PRIORITY PARTNER NOTIFICATION
2. T-24-48 HOURS – WATCH
3. T-4-0 HOURS – WARNING
4. CANCELATION
5. DE-ENERGIZATION
6. UPDATE
7. INSPECTING
8. RESTORED

For current scripts see [link to notifications.](#)

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Appendix D. PSPS Portal – Instructions to Request Access



PSPS Portal Job Aid

PORTAL ENTERPRISE ACCOUNT—PGEISPORTAL

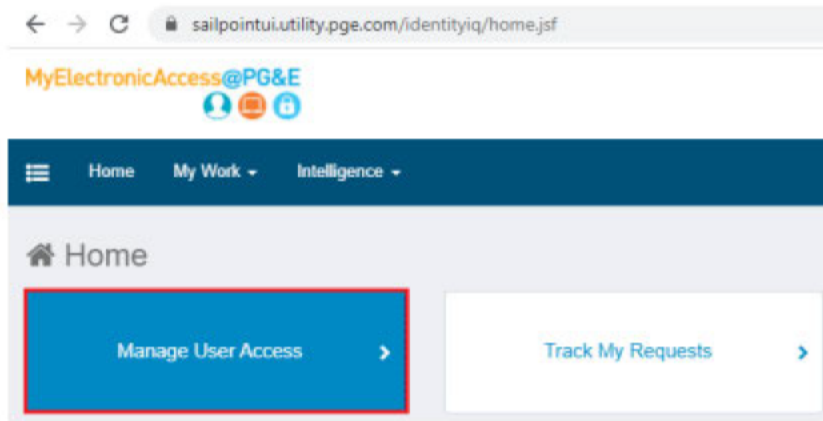
July 2021

Purpose: Provides step-by-step instructions to create PSPS Portal Enterprise Account and complete access set-up

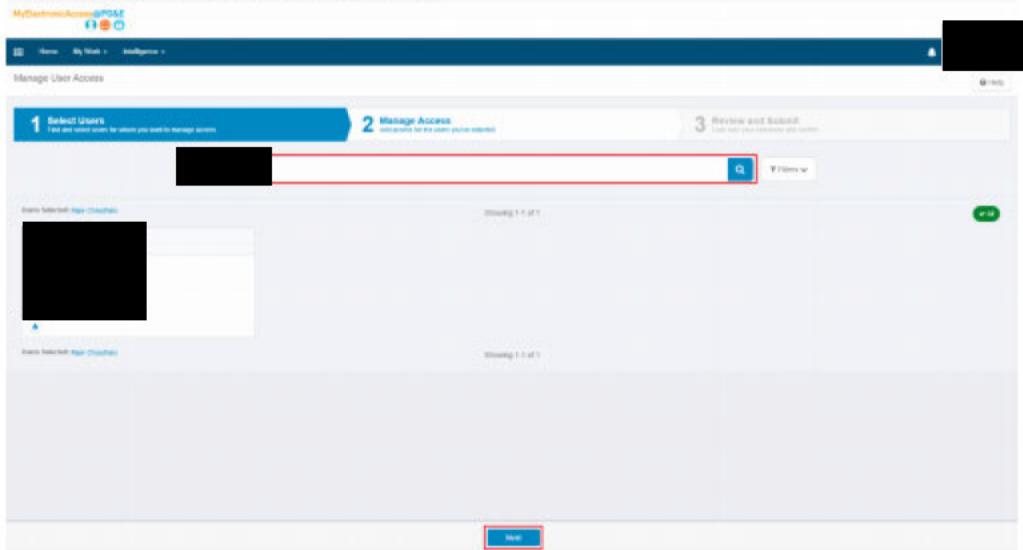
PORTAL ENTERPRISE ACCESS REQUEST INSTRUCTIONS

1. To request for Portal Enterprise access, on your web browser, go to [SailPoint](#) site (also known as MyElectronicAccess)

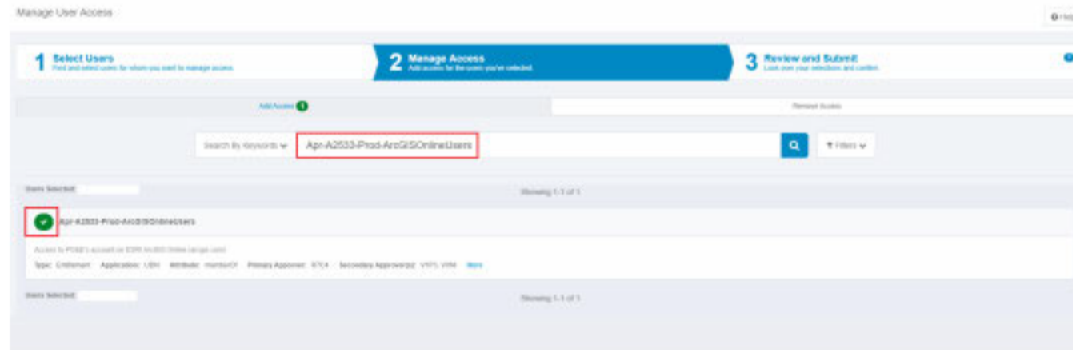
*Click Manage User Access



2. Select Users (Search for them if you're requesting access on someone else's behalf). The user's name should be on the top left corner. Click the check mark next to your name to turn the circle Green. A Blue 'Next' button will appear in the bottom of the browser window. Click 'Next' at the bottom of the screen

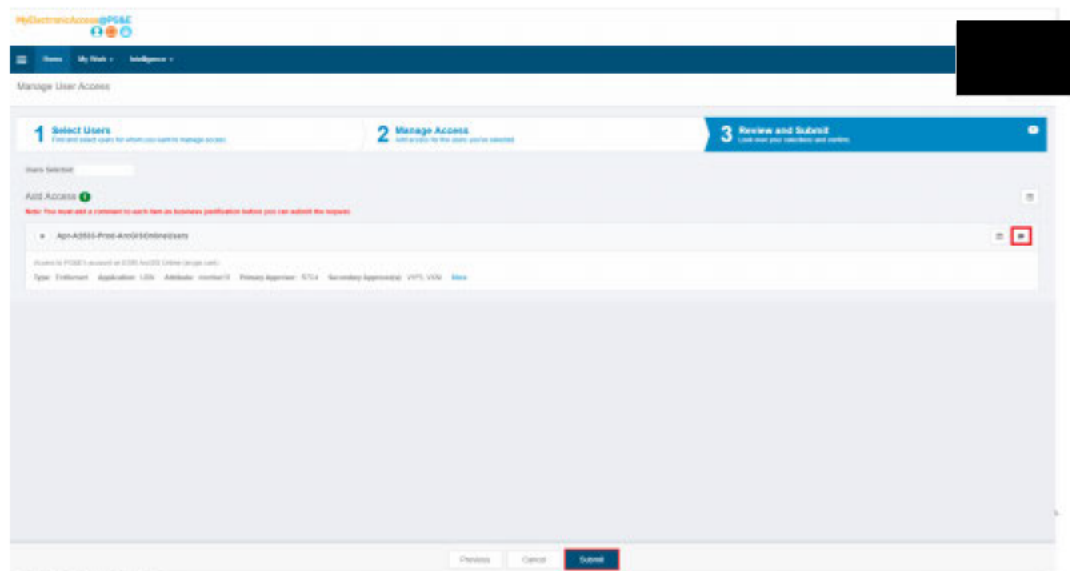


3. In the search box type keyword **“GeoHub-PROD-Creator”** and click search icon



Click the Check mark icon next to the **“GeoHub-PROD-Creator”** so that the circle turns Green, just like when you were selecting your name. This will also bring up the ‘Next’ button at the bottom of your browser. Please click the ‘Next’ button

4. Type in a Justification: to do this Click on the Comment Icon to the right of the **“GeoHub-PROD-Creator”** selection rectangle. Don’t forget to **Save** the Comment.



Example Comment: “I need to be able to view the PSPS Impacted Area Maps, and Impacted Customer Lists in pgegisportal in order to provide support to Public Safety Partners, in an effort to assist the customers in a PSPS event.”

5. Indicate the **Start Date** and **End Dates** for the access requested by clicking on the calendar icon next to the Comments button



You can track your request's progress through the MEA link at the top of the page under 'Track my Requests' (directly to the Right of 'Manage User Access').

Note: Your request will be routed to your supervisor first and then to site owners of pgegisportal within the IT GISCOE. For follow-up questions for the IT GISCOE, please contact [GeoMart OnM Support](#)

NEXT STEPS (once you get access to Enterprise Login)

1. Try logging into <https://pgegisportal.maps.arcgis.com> using the "Sign In" button on the top right corner of the web page



2. Once you click on sign in, you'll be directed to the Sign In options window from which pick up the "Enterprise Login" option



3. Clicking on the blue PG&E Enterprise Portal button may present the following two (or just one) windows in which you'll need to enter your 4 character LAN ID and network password to finally be able to login into the pgegisportal site.

Note: In case of any issues while logging into the pgegisportal site using your LAN ID and password and Enterprise login option, reach out to the GeoMart O&M support team by raising a ticket at the [GeoMart Ops front door web page](#) and choose Application as **AGOL - ArcGIS Online** and Request types as **"Other"** as shown in the screenshot given:

Application: *

AGOL - ArcGIS Online ▾

Request Type: *

Other ▾

ACTION ITEMS ON YOU:

Since **'Public Safety Power Shutoff Portal Members'** group does not exist in PGEISPORTAL, we are unable to add you in that group but your Enterprise account in pgegisportal is invited to join the group, you are also made a member of new group **'PSPS Portal Members'** in PGEISPORTAL.

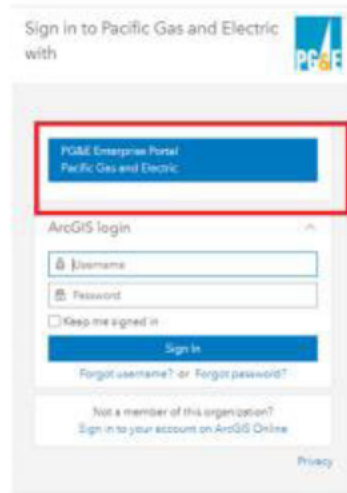
Your PGEISPORTAL Enterprise user ID role is changed to **'PSPS Portal Users'** if your current role was **'Viewer'**, else it remains unchanged.

1. Login to <https://pgegisportal.maps.arcgis.com/> with your Enterprise Account.

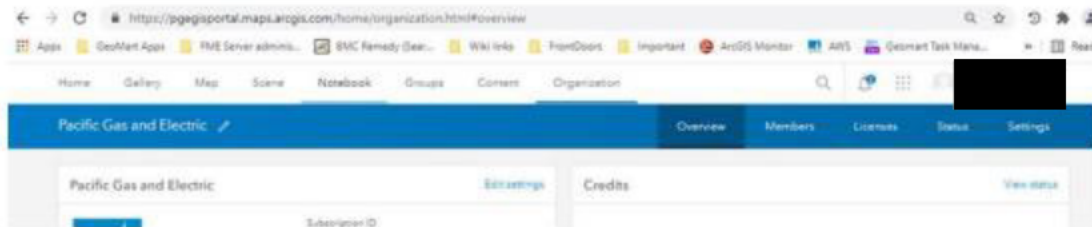
2. It should take you to this page, where you have to click Sign In option.



- 3. After clicking, you should get this window, where you have to click this blue button to login on "Enterprise"



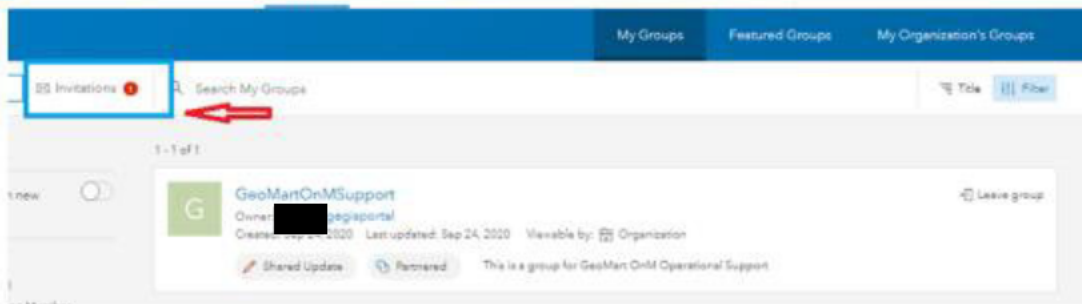
- 4. After clicking on this, you should land on the following page:



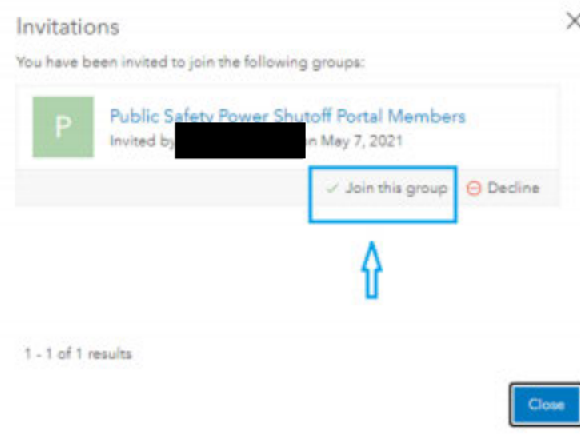
- 5. Go to "Groups" tab.



- 6. Inside My Groups, on the top left corner, You should see invitations, click on that.



7. After clicking "Invitations" following pop-up window should appear, click on join the group.



Note: Please also verify if your **role** was "Viewer", it should have been **updated to "PSPS Portal Users"**

Your new enterprise account in PGEGISPORTAL should be member of all groups where your current PSPS portal account is member of (except those which does not exist in PGEGISPORTAL and groups out of PGEGISPORTAL, which means groups maintained by other organizations/ vendors).

8. Validate your group membership and if you think your group membership in PGEGISPORTAL is missing when compared to your respective PSPS portal, or in case of any issues kindly reach out to the GeoMart O&M Support team by raising a ticket at the [GeoMart Ops front door web page](#)

~ End of Instructions ~

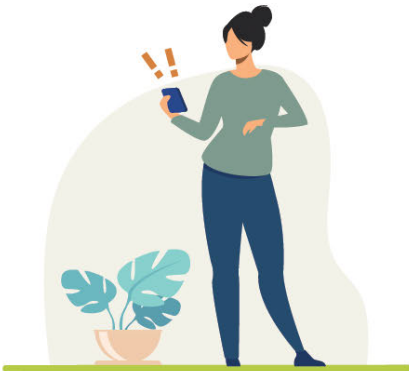
Appendix E. Example Customer Communication Materials for PSPS

E.1 Example CWSP PSPS Customer Postcard

IMPORTANT SAFETY MESSAGE FROM PG&E

Your contact information is out of date.

We know losing power disrupts lives. Consider updating your contact information today to stay informed and prepared for power outages.



PG&E Update today by visiting pge.com/mywildfirealerts or by calling **1-866-743-6589**.

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2020 Pacific Gas and Electric Company. All rights reserved. CCC-0321-3205. 3/12/2021

Update your contact information today in three easy steps.

- 1** Log in to your account at pge.com/mywildfirealerts
- OR -
Call us at **1-866-743-6589**
- 2** Provide your phone number(s) and email address(es) and/or an alternate contact who can reach you before an outage
- 3** Select your language preference for PG&E notifications

 For translated support in over 250 additional languages, contact PG&E at: [1-866-743-6589](tel:1-866-743-6589).



Pacific Gas and Electric Company
P.O. Box 997320
Sacramento, CA 95899

E.2 Example CWSP PSPS Medical Baseline Customer Door Hanger



DATE:



⚠ IMPORTANT NOTICE:
Your power may be shut off for safety

Your safety is our most important priority. Electricity at your address may be impacted today or tomorrow.
(see date above)

Severe weather is forecast. For public safety, we may need to turn off power to prevent wildfires. This is called a Public Safety Power Shutoff (PSPS).

ACTION REQUIRED:
We have been unable to reach you

- Update your contact information and set your language preference for PSPS notifications at pge.com/mywildfirealerts or by calling **1-866-743-6589**.
- Watch for notifications from **1-800-743-5002**, PGECustomerService@notifications.pge.com or **976-33**. Answer the phone or reply "1" to let us know you have received our notifications.

 **Tip:** Save PG&E's number as a contact.

 **Note:** If notifications go unanswered, we will continue to try to make contact.

We know how important power is for your medical and independent living needs.
Take these steps to prepare:

-  **Plan for medical needs** like medications that require refrigeration or devices that need power.
-  Call 911 immediately if you or a family member are experiencing a medical emergency.
-  **Build or restock your emergency kit** with flashlights, batteries, first aid supplies, food, water and cash.
-  **Keep your devices charged** and **identify backup power methods.** pge.com/backuppower
-  **Find your local Community Resource Center** to charge devices and get basic supplies. pge.com/crc
-  **Discover additional resources** such as portable batteries and information on financial assistance. pge.com/disabilityandaging
-  Visit the **Disability Disaster Access and Resources website** for additional support during a power shutoff. disabilitydisasteraccess.org

Find resources that can help you stay safe during an outage. pge.com/pspsupport

FOLLOW US FOR UPDATES AT:

 @PGE4Me   @pacificgasandelectric

 For translated support in over 250 additional languages, please contact PG&E at **1-866-743-6589**.

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2021 Pacific Gas and Electric Company. All rights reserved. OCC-0321-3317, 03/30/2021.

For current PSPS information, visit: pge.com/pspsupdates

See reverse for steps you can take to prepare →

E.3 Example CWSP PSPS Bill Insert

AN IMPORTANT SAFETY MESSAGE

How will you be notified of a Public Safety Power Shutoff?



At Pacific Gas and Electric Company (PG&E), our most important responsibility is the safety of the customers and communities we are proud to serve. That is why we may need to turn off power to prevent wildfires during severe weather. This is known as a **Public Safety Power Shutoff (PSPS)**.



We know how disruptive it is to be without power.

We are listening to our customers and finding ways to reduce the impact of PSPS events, without compromising safety. To learn more, visit pge.com/pspsupport.

Keep your contact information up to date so you are informed about PSPS events before and during outages.

Visit pge.com/mywildfirealerts or call **1-866-743-6589** to update your information and select your preferred language for PSPS notifications. Notifications will be made through automated calls, texts and emails.



As a PG&E account holder, you will automatically receive notifications for your home and/or business. **If you would like to know about potential PSPS events** at other important addresses, such as work, school or family members' homes, consider signing up for Address Alerts at pge.com/addressalerts.

For translated support in over 200 additional languages, contact PG&E at 1-866-743-6589.



Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2021 Pacific Gas and Electric Company. All rights reserved. 5.21 CCC-0321-3228

E.4 Example CWSP PSPS Preparedness Brochure – General Version

PUBLIC SAFETY POWER SHUTOFF

How can you prepare?

- Is your contact information and language preference updated?**
 Update your information for notifications at pge.com/mywildfirealerts or call 1-866-743-6589.
- Do you have an emergency plan?**
 Create a personalized plan and review safety tips at safetyactioncenter.com.
- Do you rely on power for medical or mobility needs?**
 Enroll in our Medical Baseline Program at pge.com/medicalbaseline.
- Are you a solar customer considering battery storage?**
 Learn about assistance to cover up to 15% of the cost and make your home more resilient at pge.com/batteryncentive.
- Do you need additional resources?**
 Access food replacements and find information on financial assistance at pge.com/disabilityandaging.

Follow us on:

PUBLIC SAFETY POWER SHUTOFFS

IMPORTANT SAFETY INFORMATION FOR YOU

What is a Public Safety Power Shutoff (PSPS)?

With wildfire risk in our state continuing to grow, we are working year-round and nonstop to make our system safer. High winds can cause trees and debris to contact energized lines, damage our equipment and cause a wildfire. That is why, during severe weather, we may need to turn off power to help prevent wildfires.

We carefully review a combination of factors when deciding if power must be turned off. These include, but are not limited to:

- Low humidity levels, generally 30% and below
- Forecasted high winds above 20 mph and gusts above 30-40 mph
- Condition of dry material on the ground and vegetation near lines
- Red Flag Warning declared by the National Weather Service
- Real-time observations on the ground

Power lines travel long distances.
 A line that serves your community may need to be shut off if severe weather affects even a portion of that line further up the road. That is why your power may be shut off even if it is not windy at your home or business.

Pacific Gas and Electric Company
 P.O. Box 997320
 Sacramento, CA 95899

PREPARE NOW FOR WILDFIRE SEASON

For translated support in over 250 additional languages, please contact PG&E at 1-866-743-6589. Available for download in Spanish, Chinese (Mandarin and Cantonese), Vietnamese, Korean, Tagalog, Russian, Arabic, Farsi, Punjabi, Japanese, Khmer, Hindi, and Portuguese at pge.com/psps.

Some of the resources included in this document are provided as suggested. PG&E makes no warranty, representation or endorsement for any third party. PG&E reserves the right to change this document without notice. © 2021 PG&E. All rights reserved. CEC 0671-3097-0007/2021.

How is PG&E reducing the impact of PSPS events this year?

We know losing power disrupts lives. That is why we are doing even more this year to help customers and communities before, during and after PSPS events. We are:

- **Partnering with community-based organizations** to provide food replacements, portable batteries and hotel stays to qualifying customers and those with medical needs
- **Providing better information** about when power will be turned off and back on, available in 16 languages
- **Offering more options for backup power**, including portable batteries and generator rebates for qualifying customers
- **Preparing additional Community Resource Center sites** to support customers

To learn more about PSPS events, visit pge.com/psps.

SUPPORTING YOU BEFORE, DURING AND AFTER

BEFORE
DURING
AFTER

More resources than ever before are available to support customers

| | | |
|---|---|--|
| <ul style="list-style-type: none"> ■ OUTAGE NOTIFICATIONS Update your language preference at pge.com/mywildfirealerts. ■ LOCAL SUPPORT Find support and resources from local organizations for access and functional needs at disabilitydisasteraccess.org. ■ TRANSPORTATION AND HOTEL ACCOMMODATIONS Access support provided through local Disability Disaster Access and Resource Centers for those who are power-dependent on medical or assistive technology devices at disabilitydisasteraccess.org. | <ul style="list-style-type: none"> ■ REAL-TIME INFORMATION Stay informed about the event at pge.com/pspsupdates. ■ COMMUNITY RESOURCE CENTERS Find safe locations to go to charge your devices and get basic supplies at pge.com/crc. ■ MEAL REPLACEMENTS Find food for you and your family through local food banks at pge.com/pspsresources. | <ul style="list-style-type: none"> ■ RESTORATION UPDATES Stay informed about when to expect the power back on at pge.com/pspsupdates. ■ POST-EVENT FOOD SUPPORT Find local food banks to access meal replacements up to three days after power is restored at pge.com/pspsresources. ■ STAY PREPARED Restock your supply kit and update your emergency plan at safetyactioncenter.com. |
|---|---|--|

NEW FOR 2021

Self-certify for Vulnerable Customer status | You can now sign up to receive additional PSPS notifications, including an in-person visit if needed, if anyone in your home has a condition that could become life threatening if power is disconnected.

Apply at: pge.com/vrcstatus

Address Alerts | Receive notifications about PSPS events for any additional addresses you care about, such as:

- The home of a friend or loved one
- Your child's school or day care
- Your work or business

Enroll at: pge.com/addressalerts

How will you know about a PSPS?

We will share what we know as soon as we can, keeping in mind that weather can be uncertain and change quickly.

You will be notified in advance through automated calls, texts and emails.

We will also use pge.com, social media, local news and radio outlets to keep you informed and updated.

Make sure your contact information is up to date.

Visit pge.com/mywildfirealerts.

Watch for notifications about potential PSPS events from:

| | |
|--|-----------------|
| CALLS 1-800-743-5002 | TEXTS 976-33 |
| EMAILS PGCustomerService@notifications.pge.com | |

Save PG&E's number (1-800-743-5002) as a contact in your phone, so you know when we are trying to reach you.



*Pacific Gas and
Electric Company*[®]

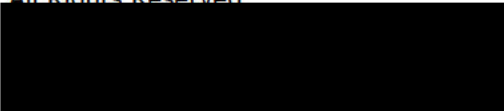
Public Safety Power Shutoff Annex

to the Company Emergency Response Plan

GENERAL INSTRUCTIONS: The Public Safety Power Shutoff Annex is one of the hazard-specific annexes to the Company Emergency Plan (CERP). Refer to this document in conjunction with the CERP and other supporting documentation and resources as specified in different sections of this document.

This document continues to be developed as the PSPS program evolves and improves. Revisions and modifications may be made to reflect adherence to various ongoing Regulatory and legislative proceedings involving PSPS as well as business and/or operational considerations.

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<http://www.pge.com>

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Document Control

PSPS Team maintains this Annex. This section records the revisions made to the PSPS Annex the responsible persons for its preparation, maintenance, review, updating, and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| Cover | [REDACTED] | Change: Address on Cover to Vacaville. | 02/10/2022 |
| Change Request Form | [REDACTED] | Revision: Revised text with addition of online change request form. | 02/10/2022 |
| Document SME Reviewers | [REDACTED] | Change: Annex template that has this category lists all reviewers of Annex (not limited to those previously listed as reviewers in EDRS). | 02/10/2022 |
| 1.4.1 CPUC Decisions 19-05-042: Decision in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005) | [REDACTED] | Revision: Minor verbiage edits from formerly "stipulating requirements" to "additional guidelines". Removal of term "rulings". | 03/08/2022 |
| 1.5 Annex Maintenance | Angie Gibson | Revision: Term "Business Units" replaces "Lines of Business" throughout document. | 04/01/2022 |
| | [REDACTED] | Revision: Annex to be approved by Vice President of Electric System Operations and the Vice President of Emergency Preparedness and Response. | 03/09/2022 |
| 1.6 PSPS Annex Organizational Structure | [REDACTED] [REDACTED] | Addition: Under Section 3 now listing "Purpose", "Scope", and "Decision Making". | 03/28/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 2.1 Emergency Roles and Responsibilities | [REDACTED] | Revision: Emergency Operations Center Organization Chart: listing "Situation Unit" without "Analysis", addition "Resource Management Unit" and "Hazard Awareness & Warning Center", removal of "Diablo Canyon Power Plant", "Tech Specialist AFN" to match up with next version of CERP. | 03/01/2022 |
| | [REDACTED] | Listing "Liaison Officer" without "Agency". | 02/24/2022 |
| | [REDACTED] [REDACTED] | Removal: "Legal Officer" | 03/03/2022 |
| 2.5 EOC Command Staff Figure 2-4 | [REDACTED] [REDACTED] | Removal: "Legal Officer" Addition: NOTE - An attorney is on-call for all EOC activations and has a new title, "Legal Advisor". | 03/23/2022 |
| | Angie Gibson | Removal: "Legal Officer" text as on-call availability of "Legal Advisor" is not limited to PSPS. | 04/01/2022 |
| 2.6 Customer Strategy Officer | [REDACTED] | Revision: Revised text additional responsibilities. Addition: Role descriptions "Customer Strategy Notification Hawk" "Customer Strategy Customer Resource Center Lead" "Customer Strategy Communications Lead" "Customer Strategy Critical Infrastructure Lead" "Customer Strategy Backup Generation Lead" "Customer Strategy Access and Functional Needs Lead" | 03/30/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 2.7 Liaison Officer and Supporting Roles | [REDACTED] | Revision: Change from LPA to “Local Government Affairs” (LGA). | 02/24/2022 |
| | [REDACTED] | Revision: Correction to “State Operations Center (SOC) Liaison. | 03/01/2022 |
| | [REDACTED] | Revision: “once daily” to State Executive Briefings, for purpose of “external situational awareness.” | 02/24/2022 |
| 2.7.1 Assigned City / County Agency Representatives | [REDACTED] | Addition: “City” in title and text | 02/24/2022 |
| | [REDACTED] | Revision: Reporting to the Liaison Branch Managers or Group Supervisor depending on the scale of the event. | |
| 2.8.2 Digital Strategy Lead | [REDACTED] | Revision: removal of role description “Digital Strategy Publisher”. | 02/17/2022 |
| 2.9 Safety Officer | [REDACTED] | Revision: removal of “operations crew deployment plans”. | 03/01/2022 |
| 2.10.1 Human Resources Branch | [REDACTED] | Revision: various parts of text. | 02/18/2022 |
| 2.11 Intelligence and Investigation Section Chief and Supporting Roles | [REDACTED] | Addition: “in conjunction with the PSPS I&I Section Process Manager”. | 02/28/2022 |
| 2.12 Logistics Section Chief | [REDACTED] [REDACTED] | Addition: security and medical devices. | 02/28/2022 |
| 2.13.2 Electric Distribution Operations Branch Director | Angie Gibson | Addition: Operation Emergency Centers (OECs). | 04/01/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|--|--|--------------------------|
| 2.13.5 Generation Branch Director | [REDACTED] [REDACTED] | Addition: First bullet on sharing situational intelligence. Revision: Second bullet verbiage. | 04/04/2022 03/23/2022 |
| 2.14.1 Deputy Planning Section Chief | [REDACTED] [REDACTED] | Revision: bullets starting with “Coordinating” replacing former “Directing”. | 03/03/2022 |
| 2.14.2 PSPS Deputy Planning Section Chief | [REDACTED] [REDACTED] [REDACTED] | Revision: Bullet on verifying and approving PSPS deliverables. | 03/01/2022 03/03/2022 |
| 2.14.2 Figure 2-5 Planning Section with PSPS Specific Roles | [REDACTED] [REDACTED] [REDACTED] Angie Gibson | Revision: Update of org chart to add new roles and revised titles of roles. Delineation of Sit Unit to Deputy Planning Section Chief. | 03/18/2022 04/21/2022 |
| 2.14.3.1 PSPS Communications Coordinator | [REDACTED] | Addition: sub-bullets on Huddle Board and problem solving. | 03/15/2022 |
| 2.14.3.2 PSPS Distribution Asset Health Specialist | [REDACTED] | Addition: Vegetation Management. | 02/24/2022 |
| 2.14.3.3 PSPS Portal Unit Leader | [REDACTED] [REDACTED] [REDACTED] | Addition/Revision: New bullets and revisions including updating of PSPS event data, assisting users, and performing quality control. | 02/24/2022 02/25/2022 |
| 2.14.3.6 PSPS Recorder | [REDACTED] | Addition: Bullet on completing form in PSIP after each OIC Decision F Meeting to input exact time of approval for each “All Clear Zone”. | 03/24/2022 |
| 2.14.3.7 PSPS Risk Analyst | [REDACTED] [REDACTED] [REDACTED] | Addition: Description of new role. | 03/08/2022 03/10/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------------------------|
| 2.14.3.8 PSPS Technical Unit Leader | [REDACTED] | Revision: Minor verbiage changes. | 02/24/2022 |
| 2.14.3.10 PSPS Transmission Asset Health Specialist | [REDACTED] [REDACTED] | Revision: Updates to bullets. Removal: Bullet on comparing customer impacts compared to past events to feed into PSPS Impact Reduction Metric, as no longer performed. | 02/15/2022 04/01/2022 |
| 2.14.4.4 HAWC Lead | [REDACTED] | Removal: I&I team. | 02/22/2022 |
| 2.14.4.7 Meteorology | Angie Gibson | Revision: Change to contacting Vice President of EP&R from on call Director. | 04/01/2022 |
| 2.14.4.9 Meteorology Technical Specialist | [REDACTED] | Revision: Corrected role title. | 03/26/2022 |
| 2.14.4.10 Resource Unit Leader 2.14.4.11 Resource Management Unit Leader | [REDACTED] | Revision: clarification through revised bullets and adjustments between roles. | 04/01/2022 |
| 3.1 Purpose of Public Safety Power Shutoff | [REDACTED] [REDACTED] | Revision: Minor verbiage updates, prevent replaces mitigate for catastrophic wildfires. Addition: "...associated with electric equipment...", "proactive" de-energizations. | 03/03/2022 03/30/2022 |
| 3.2 General Scope for PSPS | [REDACTED] [REDACTED] | Addition: "General" added to title for better separation from "in-event" scoping. | 03/25/2022 |
| 3.2.1 Geographic Scope | [REDACTED] [REDACTED] | Revision: Updated text and images including information on HFRA and HFTD. | 03/11/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 3.2.3 Time Places | [REDACTED] | Revision: new location, previously in Chapter 4. | 03/28/2022 |
| 3.3.1 Public Safety Power Shutoff Criteria Figure 3-3 | [REDACTED] | Revision and Addition: Text and images related to Transmission. | 03/10/2022 |
| 3.3.2 Example Sequence of a PSPS Event | [REDACTED] | Revision: Example moved up in chapter. | 03/28/2022 |
| 3.3.3 PSPS Event Activity Timeline | [REDACTED] | Revision: Updated timeline, move into earlier position in chapter. | 03/28/2022 |
| 3.3.4 Decisions made by Officer-in - Charge Figure 3-13 | [REDACTED] | Addition: transmission customers and "Confirm/Cancel/Delay Meetings". | 03/28/2022 |
| 3.3.4 Decisions made by Officer-in - Charge | [REDACTED] | Addition: Text on Confirm/Cancel/Delay Meetings. | 03/26/2022 |
| 3.5.2 Hazard Forecasting and Prediction | Angie Gibson | Revision: VP EP&R replaces EP&R S&E Director. | 04/01/2022 |
| 3.5.3 Event Specific Readiness Posture Figure 3-12 | [REDACTED] | Revision: Updates to overview and associated text for Readiness Posture. Overview moved to before Readiness Posture text description. Integrated text from former sections on Decision to Declare Readiness Posture and Notification on Readiness Posture. | 03/23/2022 |
| 3.5.4 Readiness Posture - Section and Focus Areas | [REDACTED] | Addition: Safety Officer. | 03/24/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 3.6 Response - EOC Activation Process for Potential PSPS Event And Figure 3-13 PSPS EOC Activation Process | Angie Gibson | Revision: Update to VP of EP&R from formerly Director of EP&R S&E. | 03/01/2022 |
| | [REDACTED] | Addition: Planning Section Chief. | 04/01/2022 |
| | [REDACTED] | Addition: OIC Decision A and possible dynamic circumstances. | 03/03/2022 |
| 3.7.1 Internal Notifications | [REDACTED] | Revision: VP of EP&R SE or Planning Section Chief instructs the EOC Communication Technical Specialist in coordination with the EOC Coordinator to sends out EOC activation notifications. | 03/01/2022 |
| | Angie Gibson | | 04/01/2022 |
| 3.8.1 PSPS Event Overview | [REDACTED] | Addition: Confirm/Cancel/Delay Meeting under "De-energization" column. | 04/01/2022 |
| 3.8.2 PSPS De-energization Playbook using PSPS Viewer, PSPS Situational Intelligence Platform, and Transmission List | [REDACTED] | Addition: PSPS Situational Intelligence Platform in title and text. | 02/28/2022 |
| 3.8.3 Electric Transmission Emergency Center for PSPS | [REDACTED] | Addition: Transmission System Operations (TSO). | 02/24/2022 |
| 3.8.4 Forecast FPI of R5-Plus - Assessment Actions | [REDACTED] | Addition: Text and reference on Fire Potential Index. | 03/28/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|------------|
| 3.8.5 Resource Planning and Figure 3-16 OEC Resourcing Process | [REDACTED] | Addition: Clarification for weather or for PSPS events. Revision: Updates to Figure 3-16 removing "within 500/1500 miles." | 02/28/2022 |
| | [REDACTED] | Addition: FORCE and SOPP. Revision: minor verbiage edits. | |
| | [REDACTED] | Addition: "including availability of helicopters for Distribution line patrols." | |
| 3.9 PSPS Event Scoping Figure 3-17 PSPS Process with OIC Decisions Figure 3-18 Scoping Components and Playbooks | [REDACTED] | Revision: New graphic. | 03/30/2022 |
| 3.10 De-energization | [REDACTED] | Revision: "relation" replaces former "comparison." | 03/03/2022 |
| 3.11.1 Re-energization Process | [REDACTED] | Removal: Outdated graphic. | 03/09/2022 |
| | [REDACTED] | Revision: Various parts of text. | 03/07/2022 |
| and | [REDACTED] | Revision and Addition: Last two bullets on PSPS Recorder inputting. | 03/31/2022 |
| Figure 3-20 Steps after Weather "All Clear" | [REDACTED] | Revision: Update graphic to show that customer notifications start with weather "all-clear". | 03/28/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|------------|
| 3.11.2 Monitor during De-energization | [REDACTED] | Revision: Correction to “Safety Officer” from formerly listing “Safety Lead”. | 04/11/2022 |
| | [REDACTED] | Addition: Prioritized sequence of restoration discussed/developed with both the EOC and EDEC. | 03/07/2022 |
| | [REDACTED] | Addition: Customer Owned Lines (COL) and Foreign Owned Transmission Lines (FTL). | |
| 3.11.3 Re-energization Factors | [REDACTED] | Addition: Conditions including declining pressure gradients. | 02/28/2022 |
| 3.11.5 Patrols and Restoration | [REDACTED] | Addition: Customer Owned Lines (COL) and Foreign Owned Transmission Lines (FTL). | 03/07/2022 |
| 4.1.1 Community Resource Centers | [REDACTED] | Revision: Moved section to Chapter 4 from Chapter 3. | 03/26/2022 |
| 4.1.2 Support for Access and Functional Needs Populations | [REDACTED] | Revision and Addition: Including California Network of 211 | 02/18/2022 |
| | [REDACTED] | Revision: Moved section to Chapter 4 from Chapter 3. | 03/26/2022 |
| 4.1.3 Microgrids for Community Power Continuity | [REDACTED] | Revision: Moved section to Chapter 4 from Chapter 3. | 03/26/2022 |
| 4.1.4 Backup Power Support | [REDACTED] | Revision: Moved section to Chapter 4 from Chapter 3. | 03/26/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|--|------------|
| 4.2 Identifying Impacted Customers | [REDACTED] | Addition: Self-Identified Vulnerable, AFN characteristics customers. | 02/18/2022 |
| 4.2 Figure 4-4 Identifying Impacted Customers | [REDACTED] | Addition: Transmission customers. | 02/18/2022 |
| | [REDACTED] | Addition: Figure 4-4 Self-Identified Vulnerable, AFN characteristics customers. | 02/18/2022 |
| 4.3 Event Specific Information | [REDACTED] | Addition: LNO. | 02/28/2022 |
| 4.3.1 PSPS Portal - Event Specific Information for Public Safety Partners | [REDACTED] | Revision and Addition: Twice daily validation at 0900 and 1500 of Portal content, enhanced data access, County PDF maps. | 02/25/2022 |
| | [REDACTED] | Addition: Confidentiality agreement. | 03/31/2022 |
| 4.3.3 7 Day Public Safety Power Shutoff Potential Forecast And Figure 4-4 PSPS Notification Timeline | [REDACTED] | Revision: Moved to Chapter 4 from formerly Chapter 5, as is not in itself a data source. | 03/28/2022 |
| | [REDACTED] | Addition: Figure 4-4. | 03/30/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 4.4.1 Initial Notification Sequence | [REDACTED] | Revision: "Priority Notice" replaces former "Advanced Notice", move wholesaler, transmission and municipal utilities customers. Addition: If Transmission lines are in scope, posting FERC posting. | 03/03/2022 |
| | [REDACTED] | Revision: 48-72 hours replaces former 3 days, within 24-48 hours replaces 2 days. Addition: Publicly Owned Utilities (POUs). Addition: Transmission-level customers, Watch Notification within 24-48 hours, Priority Public Safety Partners page. | 03/31/2022 |
| 4.6 Doorbell Ring Process and Figure 4-6 | [REDACTED] | Revision: Doorbell ring process replaces "Door Knock Process" and in Figure 4-6. Addition: Self-Identified Vulnerable. | 03/01/2022 |
| 4.7.1 Pre-event Outreach | [REDACTED] | Revision: Deleted text on reaching out to master metered owners to promote address-level alerts. | 02/23/2022 |
| 4.7.2 Address Level Alerts | [REDACTED] | Revision: shortening of text. | 02/23/2022 |
| 4.8 PSPS Notifications for Transmission Customers Figure 4-8 | [REDACTED] | Revision: Update to Figure 4-8. | 02/18/2022 |
| 4.9.1.1 Information Resources in advance of a PSPS event | [REDACTED] | Addition: Summary Customer Impact tabular files. Revision: Agency Representative replaces former "dedicated PG&E employee". | 03/01/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 4.9.1.4 Emergency Operations Center Coordination | [REDACTED] | Revision: Updated bullet to Account Managers and Local Customer Strategy Officers engage with critical customers locally. | 02/18/2022 |
| 5.3 Materials used to inform Officer-in-Charge | [REDACTED] | Addition: Bullet on other external reports as necessary Removal: Listing of Playbook Addition: HAWC Report Revision: Bullet - detailed list of recommended Transmission lines for PSPS scope with the associated rationale for inclusion in PSPS Scope, deletion of further bullets consolidated into revision. | 03/03/2022 |
| 5.3 Materials used to inform Officer-in-Charge (cont.) | [REDACTED] | Addition: PSPS Tags Report. | 02/25/2022 |
| 5.4 PSPS Viewer and Figure 5-7 | [REDACTED] | Revision: First bullet - Is used for creating the scope of de-energization. This information is shared with PSPS Situational Intelligence Platform (PSIP) to generate the De-energization Playbook and Restoration Playbook. Revision: Updated example image. | 02/28/2022 |
| 6.1 Customers Restored within 24 Hours | [REDACTED] | Revision: Formerly "Restoration Metric". | 03/18/2022 |
| 6.2 Estimated Time of Restoration | [REDACTED] | Addition: New metric. | 03/18/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|--------------------------|
| Customer Impact Reduction Metric | [REDACTED] | Removal: Listing of metric. | 04/01/2022 |
| 6.3 Customers Notified Prior to Shutoff | [REDACTED] [REDACTED] | Revision: Renaming metric from formerly "Customer Notification Metric", changes to description. | 02/18/2022 03/18/2022 |
| 6.4 Substation Temporary Generation Readiness Metric | [REDACTED] | Revision: description. | 03/11/2022 |
| 6.5 Automated Distribution Sectionalization Metric | [REDACTED] | Revision: Description text with 2022 target. | 02/25/2022 |
| 6.6 Temporary Distribution Microgrids Metric | [REDACTED] | Revision: Updated to 2022 in Purpose and Description. | 03/11/2022 |
| 6.7 Transmission Line Switches Metric | [REDACTED] | Revision: Updated Description text. | 03/03/2022 |
| 6.8 Emergency Backup Generation at PG&E Facilities Metric | [REDACTED] | Revision: Updated Description text. | 03/30/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|------------------------------|
| 7.1 Training Program 7.1.1 PSPS Specific Training Program | [REDACTED] | Revision: Combined previously separate Training Program and PSPS Specific Training Program into one section/sub-section Addition: Each role in the EOC requires a specific set of SEMS/ICS training. | 03/29/2022 |
| 7.2 Exercise Program | [REDACTED] | Addition: Annually prior to July 1 st for functional exercise. | 03/02/2022 |
| 8.1.2 After Action Report | [REDACTED] | Revision: Updated text. | 02/23/2022 |
| 8.2.1 Cal OES PSPS State Notification Form | [REDACTED] | Addition: Either Planning Section PSPS Deputy Chief or the Situation Unit will also call the Warning Center at CalOES to confirm form submission & receipt. | 02/28/2022 |
| 8.2.2 CPUC De-Energization Report and Table 8-1 | [REDACTED] | Revision: ESRB-8 and Decision (D) 20-50-051 replacing three Decision documents: Decision (D.) 19-05-042, Decision (D.) 21-06-014, and Decision (D.) 21-06-034. Revision: Update to Table. | 03/31/2022 02/28/2022 |
| Twenty-eight Day PSPS Report | [REDACTED] | Removal: Report as no longer required. | 02/28/2022 |
| 8.2.4 Post-Season Report and Table 8-2 | [REDACTED] | Addition: More information on POSTR and table. | 02/28/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|-----------------------|------------|
| 8.2.5 Post Season Data Report and Table 8-3 PG&E PSPS Report to the CPUC - PSDR | [REDACTED] | Addition: New report. | 02/28/2022 |

Revision Log

| Document Number | Title |
|-----------------|-----------------------------------|
| EMER-3106M | PSPS Annex, 08/17/2022, version 4 |

Reference Documents

| Document Number | Title |
|-----------------|---|
| EMER-2001S-F01 | Change Request Form |
| EMER-3001M | Company Emergency Response Plan (CERP) (v7) |

Document Preparer

| Name | Position |
|------------|---------------------------|
| [REDACTED] | Program Manager, PSPS PMO |

Document Owner

| Name | Position |
|------------|--|
| [REDACTED] | Interim Director, Public Safety Power Shut Off |

Document SME Reviewers

| Name | Position |
|------|----------|
|------|----------|

| Name | Position |
|------|--|
| | Senior Manager, Helicopter Services |
| | Manager, Electric Program Management |
| | Electric Program Manager, Principal |
| | Technical Writer, Expert |
| | Mgr, PSPS Product Management |
| | Supervisor, Incident Investigations |
| | Electric Program Manager, Expert |
| | HR Emergency Management Specialist, Principal |
| | Communications Representative, Principal |
| | Director, TLine M&C |
| | Electric Emergency Management Specialist, Expert |
| | Business Analyst |
| | Director, Dispatch and Scheduling |
| | Electrical Engineer, Principal |
| | Integration and Bundling, Principal |
| | Director, Distribution Control Center |
| | Senior Manager, Infrastructure & Cloud |
| | Manager, Forecasting and Operations |
| | Public Safety Specialist, Principal |
| | Government Relations Representative, Sr |
| | Director, Public Safety Power Shutoff |
| | PSPS Customer Outreach Strategist, Expert |
| | Senior Counsel |
| | Electric Program Manager, Principal |
| | Grid Innovation Engineer, Expert |
| | Supervisor, Planning, Standards, Training, Reporting |
| | Transmission Planning Engineer, Sr-ESC |
| | Business Analyst, Senior |

| Name | Position |
|------|--|
| | Wildfire Risk Analyst |
| | Supervisor, Hazard Awareness Warning Center |
| | Director, Agency Outreach |
| | Electric Emergency Management Specialist, Expert |
| | Sr. Manager, Division Leader Local Cust Experience |
| | Business Analyst, Principal |
| | Sr Manager, Emergency Management |
| | Electric Program Manager, Principal |
| | Electric Program Manager, Expert |
| | Director, Work and Readiness |
| | Regulatory Rel Advocacy Manager, Principal |
| | Electric Program Manager, Principal |
| | Sr. Director, Major Program/Project Delivery |
| | Electric Program Manager, Expert |
| | Manager, T&S Technical Programs |
| | Emergency Mgmt Specialist, Expert |
| | Electric Program Manager, Expert |
| | Emergency Response, Principal |
| | Manager, Hazard Awareness Warning Center |
| | Program Manager, Senior |
| | Supply Chain Emergency Mgmt Specialist, Principal |
| | Gas Program Manager, Expert |
| | Emergency Preparedness Specialist, Principal |
| | Product Manager, Principal |
| | Manager, Communications |
| | Sr Manager, Electric Program Management |
| | IT Solutions Engineer, Expert |
| | Manager, Enterprise Safety Programs |

| Name | Position |
|------------|--|
| [REDACTED] | Electric Program Manager, Principal |
| [REDACTED] | Manager, Emergency Management & Public Safety |
| [REDACTED] | Supply Chain Emergency Mgmt Speclst, Principal |
| [REDACTED] | Product Manager, Principal |
| [REDACTED] | Product Manager, Senior |
| [REDACTED] | Manager, Emerg Mgmt & Public Safety |
| [REDACTED] | Process Manager, Expert |
| [REDACTED] | Manager, Emergency Preparedness |
| [REDACTED] | Emergency Preparedness Specialist, Principal |
| [REDACTED] | Supply Chain Emergency Mgmt Speclst, Principal |
| [REDACTED] | Program Manager, Principal |
| [REDACTED] | Manager, Business Finance |
| [REDACTED] | Director, Portfolio Planning and Delivery |
| [REDACTED] | Program Manager, Principal |
| [REDACTED] | Product Manager, Expert |

Document Approvers

| Name | Position |
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Major Work Category:

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|--|----------------|---|-----------------------------------|
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| <input type="button" value="Consolidate Files"/> | | Gibson, Angelina | Approved on 4/20/2022 11:57:29 PM |
| | | [REDACTED] | Approved on 4/11/2022 8:49:13 AM |
| | | Quinlan, Mark | Approved on 4/13/2022 8:52:13 AM |

Change Request Form

To request changes, corrections, or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of [EMER-2001S-F01](#), Change Request Form, to EPRCERP@pge.com, or by submitting a request through the [online change request here](#). The [EMER-2001S-F01](#) is located on the [Guidance Document Library](#).

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once the Bulletin is communicated, a copy will be placed under the respective annex located in the GDL and be included as content in the next annex update.

1 Introduction

1.1 Purpose

The purpose of the PSPS Annex is to provide a high-level overview of Pacific Gas and Electric, Company's (PG&E) actions and strategies regarding Public Safety Power Shutoff (PSPS).

PG&E's goal is to provide safe, reliable, affordable and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions and develop processes to ensure the safe, prompt and efficient restoration of services.

In support of that goal, PG&E has developed a Company Emergency Response Plan (CERP) to provide staff with a safe, efficient and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the CERP.

1.2 Scope

The scope of this Annex covers actions and strategies to prepare for, respond to and recover from risk of wildfire ignition related to PG&E assets leading to de-energization for public safety during dry severe weather conditions. This Annex depicts PG&E's coordination and communication, both internal and external, that provide an organized and comprehensive approach to managing PSPS. This Annex references other technical and operational plans that demonstrate how certain actions and strategies are implemented; it is not a replacement or substitute for those documents.

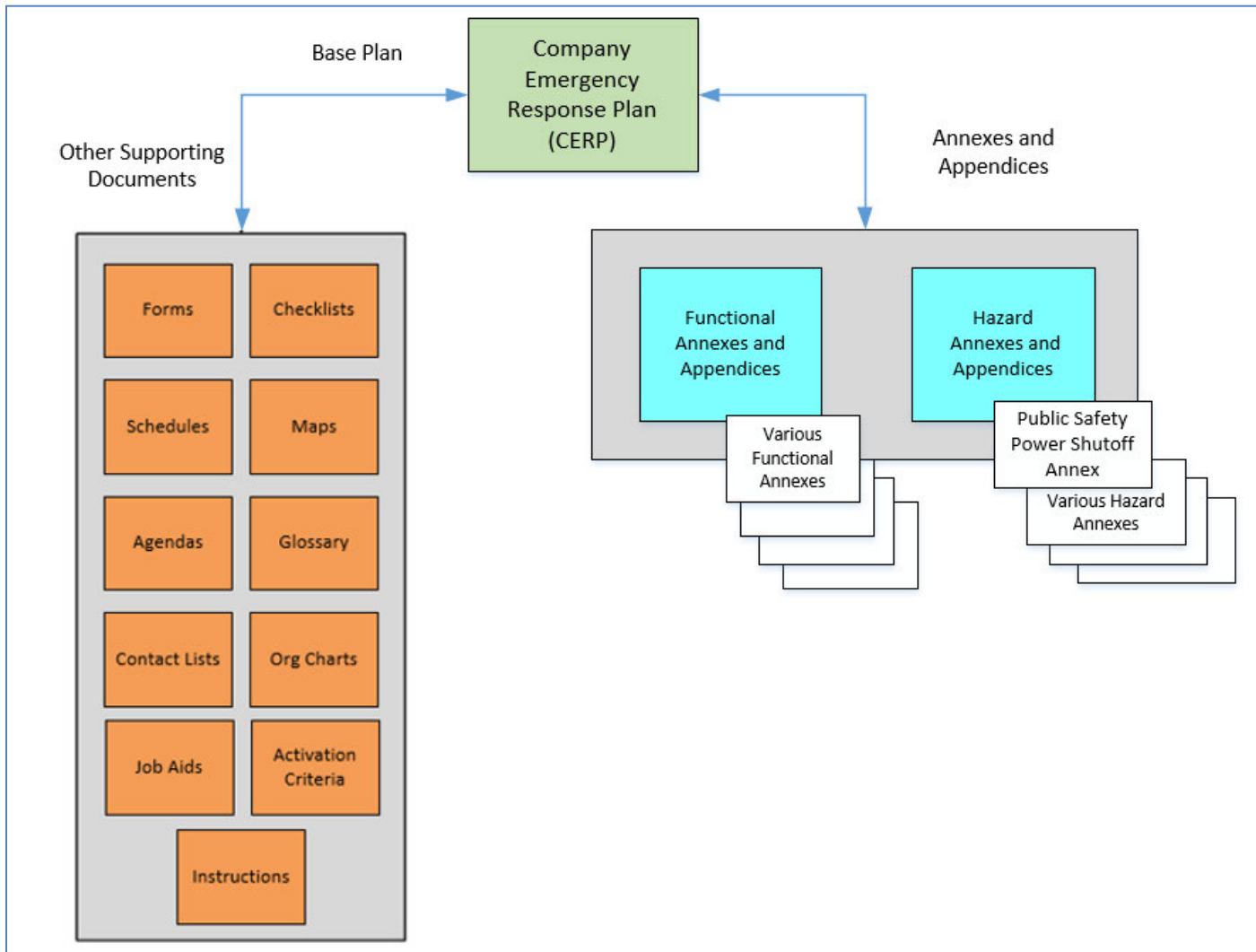
This Annex will:

- Provide a broad overview of PG&E's emergency organization for PSPS.
- Create an inter-departmental outline of PSPS actions and strategies.
- Identify roles and responsibilities pertaining to PSPS.

1.3 PSPS Annex Relation to CERP and Supporting Documents

The PSPS Annex is a hazard-specific annex to the [Company Emergency Response Plan](#) (CERP). Figure 1-1 below illustrates the relation between this Annex, the CERP, other annexes, and supporting documents. The representation in Figure 1-1 is not an all-inclusive list.

Figure 1-1: Company Emergency Response Plan Structure and Annexes



The CERP presents an emergency response structure with defined emergency roles and responsibilities in support of the Gas, Electric and other PG&E lines of business (LOBs) and externally among agencies and organizations including:

- Government (local, state, tribal and federal).
- Media.
- Other gas and electric utilities including mutual aid.
- Essential community services.
- Vendors.
- Public agencies.
- Emergency First responders.
- Contractors.

A key element of the CERP is the alignment of PG&E line of business support functions under a standardized event or incident management structure consistent with the National Incident Management System (NIMS), California Standardized Emergency Management System (SEMS) and the NIMS/SEMS component Incident Command System (ICS).

Under the NIMS, SEMS and ICS organizational structures, there are Command and General Staff positions. General Staff consists of five primary peer sections: Operations, Intelligence and Investigations, Planning, Logistics and Finance and Administration.

The PG&E emergency response model is organized, and the Emergency Operations Center (EOC) is staffed, using principles from NIMS, SEMS and ICS, including but not limited to:

- Following a unified approach (i.e., a single chain of command, adaptable to meet situational needs)
- Managing by a unified set of objectives, when possible, for single and dual commodity incidents.
- Managing equipment, facilities, personnel, procedures, and communications effectively.
- Standardizing operational structures and terminology to enable disparate groups to work and communicate together in a predictable, coordinated manner.
- The Command Staff includes the Public Information Officer, Safety Officer, Legal Officer and Liaison Officer. These individuals report directly to the Incident Commander during emergency or event activations.

1.4 Regulations and Authorities

This Annex, as part of the CERP, complies with the regulations and authorities listed below.

1.4.1 CPUC Decisions 19-05-042: Decision in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005)

On June 4, 2019, the Commission issued Decision (D.) 19-05-042, adopting additional guidelines for the utilities in developing, implementing and executing the PSPS programs beyond those previously established by Resolution ESRB-8.

D.19-05-042 provided for additional PSPS guidelines, including but not limited to:

- The development of a statewide public education and outreach campaign in coordination with the other utilities, Cal OES and CAL FIRE.
- The identification and notification of Public Safety Partners, Critical Facilities and Critical Infrastructure, Access and Functional Needs populations and all other affected customers leading up to and during a potential PSPS event, including upon completion of re-energization.
- Providing GIS maps with affected circuits and customers to Public Safety Partners during a PSPS event.
- Coordinating with local jurisdictions during an event including embedding a liaison officer at local EOCs or reserving seats in PG&E's EOC for local representatives.

- A post de-energization event report to be filed with the CPUC Safety and Enforcement Division (SED) for an evaluation of the reasonableness of the PSPS event.

The guidelines from the Phase 1 Decision built on existing requirements from previous decisions. Further information is available on [CPUC website PSPS page](#) including [Joint letter sent to utilities October 26, 2018](#), [Decision 12-04-024](#), [ESRB-8](#) and two letters that Resolution L-598 approved: [October 8, 2019 Letter to Utilities re: Providing Information to First Responders for Medical Baseline](#) and [October 23, 2019 CPUC letter to Utilities re: Providing Information to Counties and Tribal Governments](#).

1.4.2 CPUC Decision 20-05-051: Decision in Phase 2 of the De-Energization Proceeding (R.18-12-005)

On June 5, 2020, the CPUC issued D.20-05-051 adopting Phase 2 updated and additional utility PSPS guidelines. The Phase 2 Guidelines include new requirements including, but not limited to:

- Working Groups and Advisory Boards including how often to convene, who should be included and on what they should provide input.
- De-energization exercises.
- De-energization notifications.
- Community Resource Centers including hours of operation and services to be made available.
- Restoration of service including timing of notifications related to service restoration and how long it should take to fully restore power.
- Transportation resilience including details of pilot programs.

1.4.3 CPUC Decision 21-06-034: Decision in Phase 3 of the De-Energization Proceeding (R.18-12-005)

On June 29, 2021 the CPUC issued [D.21-06-034 adopting Phase 3](#) revised and additional PSPS guidelines. The Phase 3 Guidelines include new requirements, including but not limited to:

- Guidelines to Improve Planning, Preparation and Access to Resources During PSPS events.
- Guidelines to Enhance Notification of and Mitigate Impacts on Access and Functional Needs and Vulnerable Populations.

1.4.4 CPUC Decision 21-06-014 in the Order Instituting Investigation (OII) into Late 2019 PSPS Events

The Decision contains new requirements, including but not limited to:

- Forgo collection of revenues from customers that are associated with electricity not sold during future PSPS events until it can be demonstrated that utilities have made improvements in identifying, evaluating, weighing and reporting public harm when determining whether to initiate a PSPS event.
- Improve communications with customers dependent on electricity for medical reasons, especially life support, before, during and after a PSPS event.
- Share best practices and lessons learned for initiating, communicating, reporting and improving all aspects of PSPS events by regularly holding utility working group meetings.
- Provide Standard Emergency Management System (SEMS) training for all personnel and contractors involved in PSPS planning.
- File annual reports describing progress and status on improving compliance with PSPS guidelines.
- Support the CPUC's Safety and Enforcement Division's development of a standardized 10-day post-event reporting template.

1.5 Annex Maintenance

PG&E's Emergency Preparedness and Response Strategy and Execution (EP&R S&E) department is responsible for developing, updating and maintaining the CERP and its Annexes in collaboration with the subject matter experts from the responsible Business Units. Please refer to section 1.6 (Plan Maintenance) of the [Company Emergency Response Plan \(EMER 3001M\)](#) for information regarding document approval, revision and periodic maintenance. After approval, the CERP and its Annexes are published in PG&E's Guidance Document Library (GDL). You can access the site here:

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The PSPS Annex will be reviewed and updated in accordance with [Utility Standard EMER-2001S, "Company Emergency Operations Plans Standard"](#) and submitted to EP&R SE on an annual basis.

This Annex is produced and will be maintained by the Public Safety Power Shutoff organization in conjunction with the EP&R SE Planning Division. The PSPS staff works closely with affected organizations and individuals to include alignment with the CERP and other Annexes, updated information, new processes and advances in execution strategy for PSPS.

The PSPS Annex may be modified because of:

- Lessons learned from exercises and actual PSPS events.
- Key changes to processes, structure, responsibilities, new technologies, assessment procedures, restoration strategies, etc.
- Feedback generated by PG&E subject matter experts, the planning team, internal and external stakeholders, and users of the annex.
- Changes to laws or regulations pertaining to PSPS.

Each revision of the annex will be approved by the Vice President of Electric System Operations and the Vice President of Emergency Preparedness and Response. Records of revisions to the PSPS Annex will be maintained in the change register at the beginning of this document.

Those departments having assigned responsibilities under this annex are obligated to inform the PSPS organization when organizational or operational changes affecting this plan occur or are imminent.

1.6 PSPS Annex Organizational Structure

To ensure the information is comprehensive and user-friendly, this Annex has been organized by the following format:

Section 1 – Introduction – provides background information necessary to understand: the need for Annex; the subject matter; the governing regulations and the challenges PG&E faces regarding the topic.

Section 2 – PSPS – Emergency Organization and Responsibilities – provides information on EOC staffing, information on roles, which roles are part of Readiness Posture, which additional roles are part of EOC activation, calls out EOC roles that are specific to PSPS and describes PSPS specific responsibilities for affected EOC roles.

Section 3 – Concept of Operations

Purpose – provides goals of PSPS program.

Scope – provides information on general scope for PSPS.

Decision Making – provides information on PSPS related decisions.

Preparedness – provides information on how PG&E prepares to execute PSPS including general preparation, training, exercises and the Readiness Posture stood up in advance of EOC activation when possible.

Response – provides information on steps to activate EOC and preparations for possible de-energization to reduce risk of catastrophic wildfire.

Restoration – provides information on steps to restore power to customers.

Section 4 – PSPS Information, Notification, and Coordination Strategies – provides information on how customers are informed about PSPS in general and in advance, during and after an event and how PG&E coordinates with agencies and partners.

Section 5 – Data Sources – provides information on how and what data meteorology uses to determine projected weather footprints and describes tools used to produce customer lists for notifications and maps.

Section 6 – Performance Indicators – provides listing of selection of PSPS related metrics with purpose and brief description.

Section 7 – Training and Exercises – outlines training and exercises for PSPS.

Section 8 – Documenting Event – provides information on requirements and timelines for event documentation.

Section 9 – Appendices – provides a listing of abbreviations, a glossary of terms, information on supporting documents and PSPS related links, information on notification scripts and examples of customer communication materials.

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2 Emergency Organization and Responsibilities

2.1 Emergency Roles and Responsibilities

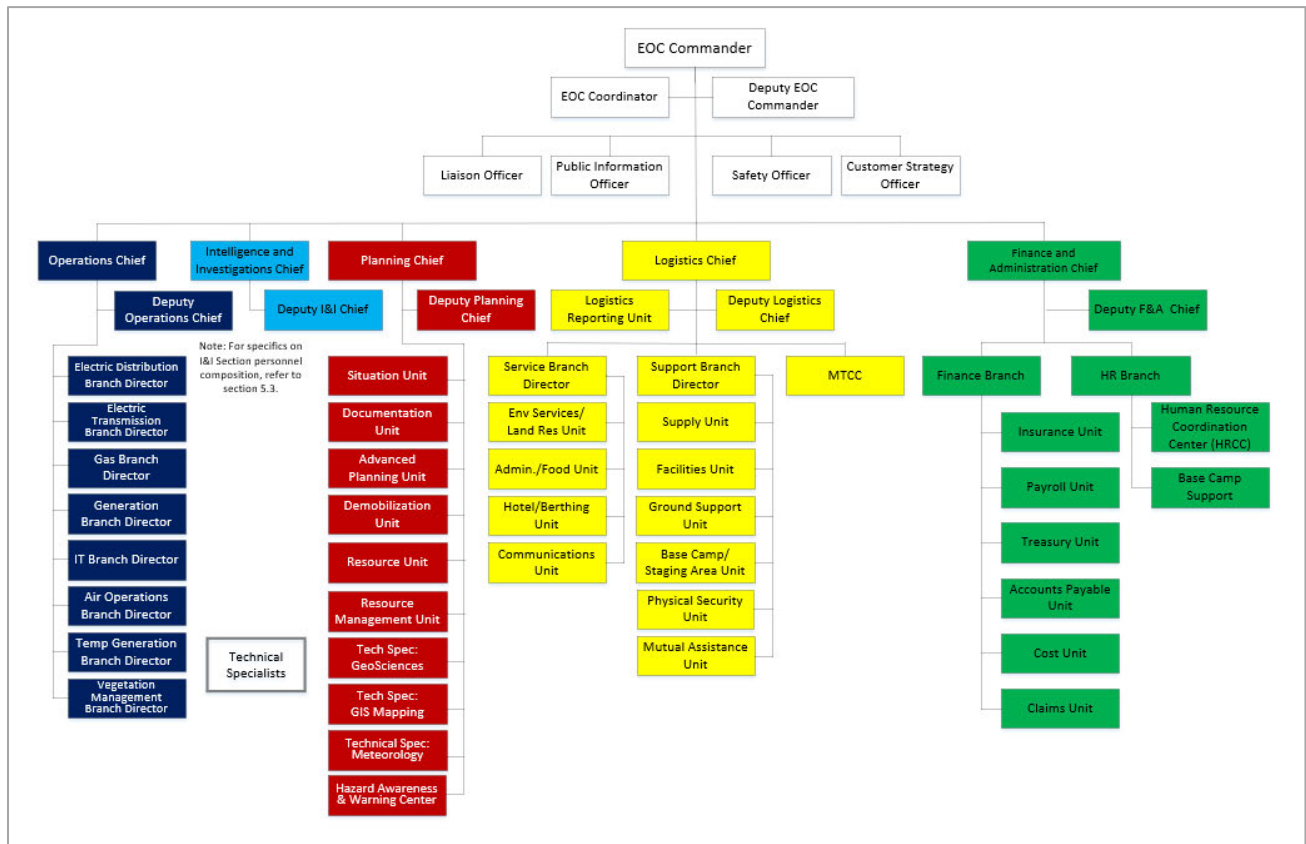
PG&E’s Emergency Preparedness and Response Strategy and Execution (EP&R SE) organization facilitates the pre-event conference call to determine if the Emergency Operations Center (EOC) should be activated for a potential PSPS event (see EOC Activation Process in section 3.6.) After the decision is made to activate the EOC, EP&R SE notifies appropriate staff of EOC Activation, opens the EOC and provides management of center services to assist sections and command staff in developing emergency response strategies and procedures for the event.

The activation sequence is outlined in the [Company Emergency Response Plan](#) (CERP). For general information on EOC roles see Incident Command System (ICS) checklists and position guides under [Roles and Responsibilities on the EOC intranet site](#).

For information about Covid-19 and the use of a Virtual EOC platform, see [CERP section 2.9.1](#).

The organizational chart in **Figure 2-1** shows the standard structure for EOC operations. Additional roles specific to PSPS not shown in this chart are described in section 2.14 Planning Section.

Figure 2-1: Emergency Operations Center Organizational Chart (CERP Section 5)



2.2 EOC Staffing for PSPS Event

This section lists standard EOC roles with specific responsibilities during PSPS and also roles specific to PSPS.

Standard Roles

For a PSPS event, the EOC staff consists of the standard sections according to the CERP: Command Staff, Operations, Intelligence and Investigations (I&I), Planning, Logistics and Finance and Administration.

PSPS Specific Roles

In addition to the standard EOC roles, there are PSPS specific EOC roles such as:

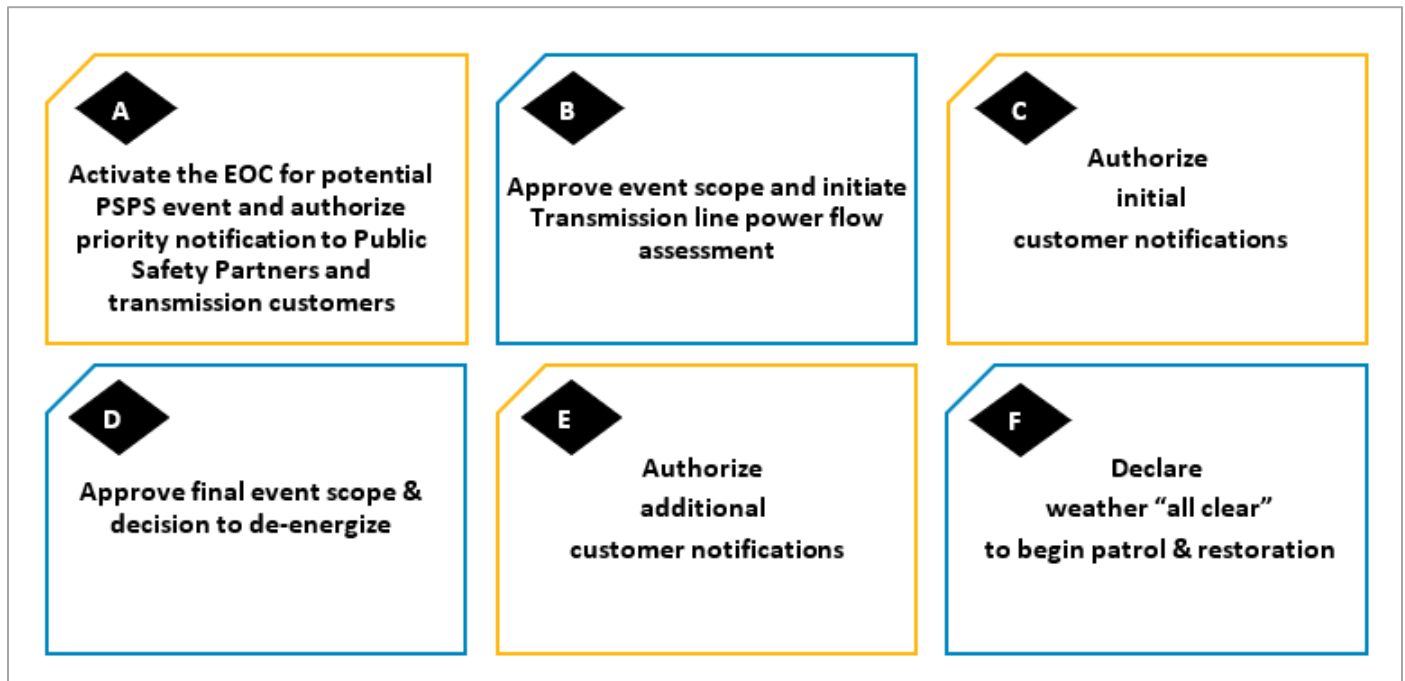
- Officer-in-Charge (OIC)
- Deputy Planning Section PSPS Chief
- PSPS Technical Unit Leader
- PSPS Technical Specialist
- PSPS Distribution Asset Health Specialist (DAHS)
- PSPS Transmission Asset Health Specialist (TAHS)
- PSPS Portal Unit Leader
- PSPS Portal Unit Support
- PSPS Process Unit Leader
- PSPS Recorder
- PSPS Communications Coordinator
- PSPS Risk Analyst
- Digital Strategy Lead
- Digital Strategy Publisher
- Digital Strategy Assistant
- Primary Voltage Generation Division Lead
- Secondary Voltage Generation Division Lead

2.3 Officer-in-Charge

The Officer-in-Charge (OIC) is a role specific to PSPS events and was created to engage higher-level management accountability of the decision given the magnitude and impact of PSPS, while also enabling rapid decision-making during a real-time PSPS event. The OIC receives situational awareness from the Command Staff and general staff of PG&E's EOC, including from the Meteorology, Planning, and Customer Sections.

There are six important PSPS decisions, called OIC decisions, of which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 2-2

Figure 2-2: OIC Decisions A - F



While the OIC is given the Authority to Act and owns the key decisions outlined above, the EOC Commander (EC) is responsible for executing on those decisions and owns the response executed by the Emergency Operations Center (EOC). The EOC operates under an Incident Command System (ICS) approach which is directed by an EOC Commander. The OIC approves all PSPS Decision Records and associated documentation following a PSPS event.

Additionally, the OIC may elect to delegate the authority of an OIC decision to specified individuals (EOC Commander[s] or Deputy OIC[s]) through a written confirmation outlining the parameters and timing of that delegation. However, the OIC retains full accountability for the OIC decisions made under the delegation of authority.

2.4 EOC Commander

The EOC Incident Commander leads PG&E's EOC activities. This includes ensuring the safety of all employees involved, initiating and approving the Incident Action Plan, and acting as a liaison with agency executives, governing boards and other organizations.

In addition, during PSPS the on-call EOC Commander (EC) is responsible for:

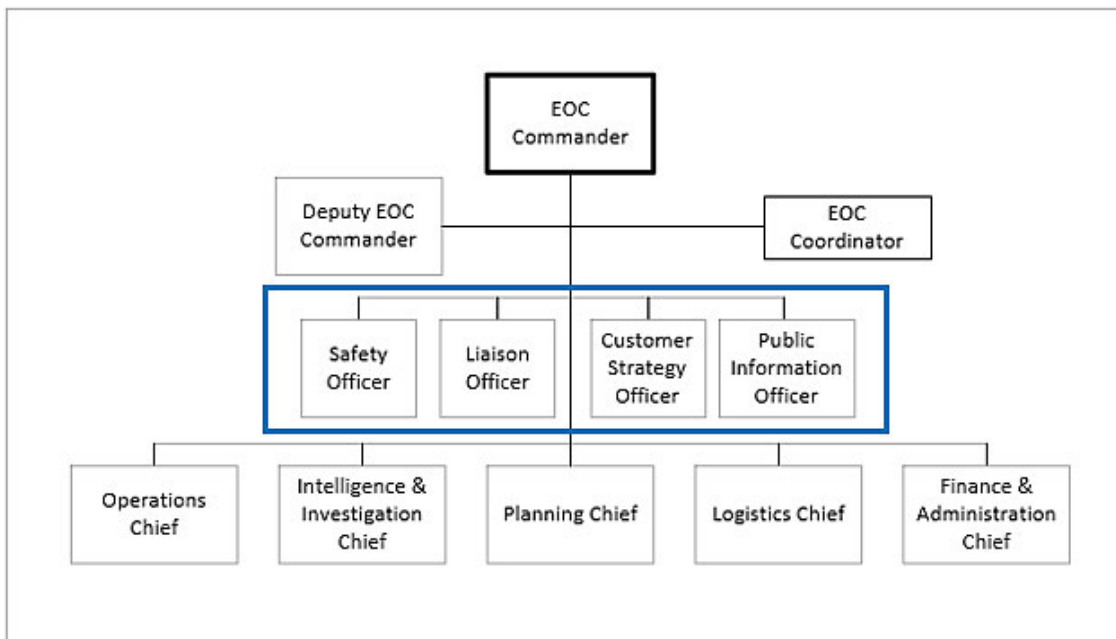
- Calling at own discretion on representatives from select sections and officers to meet for Readiness Posture, when warranted and time permitting, to track developing conditions and perform certain tasks (Note: Readiness Posture is not a requirement to precede OIC Decision A to activate EOC for PSPS.).
- Coordinating readiness of activities related to Readiness Posture.
- Advising OIC on decisions.
- Reviews OIC decision records and documentation.
- Executing on decisions made by OIC.

For more information on role of EOC Commander see [CERP Section 5.1.1](#).

2.5 EOC Command Staff

The organizational chart in Figure 2-3 displays the EOC Command Staff top-level structure. The Officer group is framed.

Figure 2-3: EOC Command System (CERP Section 5)



Note: Command Staff officers and related roles are listed in alphabetical order in this section. Role descriptions focus on PSPS specific responsibilities. In particular cases related roles are also described for their role specific to PSPS.

2.6 Customer Strategy Officer

The Customer Strategy Officer (CSO) is responsible for customer communications and outreach during a PSPS event. The CSO coordinates notifications and interactions with customers before, during and after a PSPS. Additional Customer Care emergency response roles will support the CSO as needed based on event size and scope.

In addition, the CSO's responsibilities during a PSPS event include:

- Verifying number of impacted customers including customer segmentation (i.e., critical public safety-related facilities such as police and fire stations, telecommunications providers, water agencies, utilities, healthcare facilities, schools and Access and Functional Needs (AFN) community which includes Medical Baseline customers).
- Sending customer notifications before, at de-energization, during and after an event to all customers - initially prioritizing notifications to critical public safety-related facilities and transmission customers.
- Identifying and opening Community Resource Centers (CRCs) to support impacted customers. Coordinating with CRC leads to gather real-time local intelligence for CSO/Logistics to respond accordingly; managing customer escalations; aggregating daily reports from each CRC for timely reporting; coordinating with local Independent Living Centers (ILC) and Community Based Organizations (CBO's) to support AFN customers in attendance as appropriate.
- Facilitating doorbell rings to notify Medical Baseline^[1] customers and Self-Identified Vulnerable customers that were not successfully contacted through initial automated notifications (i.e., e-mails, phone calls, and text messages).
- Coordinating with Community Choice Aggregators (CCA) relations teams to engage with potentially impacted CCAs during event.
- Managing customer escalations including commercial critical customers and those within the AFN population (i.e., MBL, Life Support, Self-Identified Vulnerable).
- Coordinating with the Customer Contact Emergency Coordination Center (CCECC) to provide event intelligence for staffing and communication needs.
- Working with OECs to gather real-time local intelligence to fully inform OIC and identifying escalations, challenges, and events that could impact the scope of the PSPS event.

^[1] Medical Baseline Customers are enrolled in PG&E's medical baseline program who rely on electric service for mobility or life sustaining medical reasons.

- Communicating with critical public safety-related customers, addressing customer escalations, and providing intelligence to the OIC for consideration when determining de-energization scope and prioritizing restoration.
- Coordinating with the Temporary Generation Branch team on prioritization of customer requests for temporary back-up power during an event.
- Coordinating with Billing Operations and Credit, Demand Response teams and additional internal partners regarding customer impacts.
- Coordinating with Electric Operations on Estimated Time of Restoration (ETOR) notifications and restoration priorities.
- Understanding Customer Service Office impacts and working with this team to mitigate customer impacts.

For more information on role of Customer Strategy Officer see [CERP section 5.1.6](#).

2.6.1 Customer Strategy Notification Hawk

During a PSPS event the Notification Hawk is responsible for:

- Executing on notification strategy approved by CSO to ensure timely and appropriate communications.
- Overseeing PG&E customer communications performance, especially that of critical commercial customers and residential Medical Baseline (MBL) customers.

2.6.2 Customer Strategy Customer Resource Center Lead

During a PSPS event the CRC Lead is responsible for:

- Overseeing the Customer Strategy activities during EOC readiness posture.
- Coordinating the activation, daily execution and closure of Community Resource Centers in partnership with Logistics and Liaison teams.

2.6.3 Customer Strategy Communications Lead

During a PSPS event the Internal Communications Lead is responsible for:

- Representing the Customer Strategy team on agency calls with a focus on CRCs and MBL updates, as well as any scope changes impacting customers and communities.
- Coordinating internal communications and updates within Customer Care.

2.6.4 Customer Strategy Critical Infrastructure Lead

During a PSPS event the Critical Infrastructure Lead is responsible for:

- Maintaining situational awareness for critical telecommunications infrastructure and transmission customers.
- Ensuring critical telecommunications infrastructure partners are receiving actionable data to assist in the mobilization of their internal resources to minimize community impacts.

2.6.5 Customer Strategy Backup Generation Lead

During a PSPS event the Backup Generation Lead is responsible for:

- Managing and maintaining overall documentation and tracking for all temporary generation requests.
- Providing temporary generation installation recommendations to the CSO, in partnership with Liaison team, for final approval.

2.6.6 Customer Strategy Access and Functional Needs Lead

During a PSPS event the AFN Lead is responsible for:

- Managing Community Based Organization partnerships and customer support strategies.
- Overseeing the response to MBL customer escalations received in the field, at CRCs and through the contact centers.
- Managing Customer Care senior leadership inquiries and requests.

2.7 Liaison Officer and Supporting Roles

The Liaison Officer (LNO) is responsible for leading the team that serves as the primary contact for representatives of local, tribal and state governments. In both a Single or Unified Command Structure, representatives from assisting or cooperating agencies and organizations coordinate through the LNO. The LNO participates in weather briefings, command and general staff meetings, and OIC decision meetings and informs the LNO team when key decisions are made or are expected. The LNO makes real-time decisions on behalf of the LNO Team.

In most PSPS events, the LNO will be supported by representatives from some or all of the following PG&E departments:

- Community Relations
- State Government Relations
- Federal Affairs
- Tribal Relations
- State Agency Relations
- Local Government Affairs (LGA)
- Regulatory Relations
- Public Safety Specialists
- State Operations Center (SOC) Liaison

The LNO oversees PSPS event notifications and interactions with external safety partners such as Tribes, cities, counties, state and federal agencies. Additional responsibilities include:

- Coordinating with Tribes, cities, counties, and other agencies to help ensure PG&E has the latest contact information for each agency.
- Working with tribal, city, county, and state contacts during PSPS events to coordinate and align operations and response.
- Sending notifications (before, during, and after a PSPS event) to Cal OES, the CPUC, Tribes, cities, counties, first responders and other external stakeholders.
- Receiving and reviewing Cal OES State Notification Forms from Planning Section and send to Cal OES Warning Center.
- Responding to and tracking inquiries from external stakeholders.
- Facilitating and managing once-daily State Executive Briefings and a once-daily Cooperator call for county, city, utility, and emergency management partners for external situational awareness.

For more information on role of Liaison Officer see [CERP Section 5.1.7](#).

2.7.1 Assigned City/County Agency Representatives

During an emergency incident, the primary role of the Public Safety Specialists (PSS) is to serve as the PG&E assigned City/County Agency Representative who coordinates and integrates PG&E's response with their assigned City/County Office of Emergency Services. For larger events, Local Public Affairs may also act as a PG&E assigned City/County Agency Representative. Cultural Resource Specialists will be Tribal Agency Representatives and will be assigned to regions as needed.

The Agency Representatives directly report to the Liaison Branch Managers or Group Supervisor depending on the scale of the event. The Liaison Branch Managers typically hold twice-daily conference calls to coordinate with the Agency Representatives and provide the current event information. The Agency Representatives then meet with their respective jurisdiction to relay the information and answer questions.

The initial priority of the field PSS team members, absent their required response to an existing emergency (e.g., fire, gas release), will be to respond to any regional (local/county) EOC location(s) if activated. The PSS team members would serve as a liaison to their assigned City/County Office of Emergency Services (OES). Other PSS members may be requested to support the needs of surrounding regions that may be potentially affected by a PSPS.

2.7.2 PG&E State Operations Center Liaison

The role of the PG&E State Operations Center (SOC) Liaison is to function as an ICS Agency Representative position to California's State Emergency Operations Center in Mather, California. During SOC activation, the SOC Liaison provides real-time coordination of PG&E information to the SOC Situation Unit (part of the Planning Section).

2.8 Public Information Officer

Each level of PG&E's emergency response may have a Public Information Officer (PIO) and/or public information function. However, when staffing the EOC, the PIO's role is to provide strategic communications counsel to the EOC Commander.

The PIO's responsibilities during a PSPS event include:

- Developing main narrative for talking points.
- Developing and implementing communications strategy to ensure "one voice" communications.
- Coordinating with Customer team, Liaison, and any other LOB stakeholders on communication materials.
- Coordinating emergency communication activities with other agencies, media, customers and others through verbal replies, on-camera interviews, written statements, press releases and social media.
- Providing early warning of a potential PSPS event when possible, using a combination of direct communication, traditional and social media.
- Informing employees through internal communications about the PSPS event.
- Responding to real-time media requests for information, interviews and status reports.
- Conducting press conferences and managing press questions and queries.

For more information on role of Public Information Officer see [CERP Section 5.1.5](#).

2.8.1 Digital Strategy Lead

The Digital Strategy Lead functions as the overall PSPS digital program (PSPS maps, address lookup, data tables, website user interface, etc.) subject matter expert, with knowledge of both the tools and how they function as well as the static content. The Lead is versed in the sequencing of tasks, who to turn to for help or to get technical questions answered.

Responsibilities include:

- Having situational awareness for the event and how the web should be updated in response to changing operations conditions.
- Coordinating with the various teams that support the web during events, including the Digital Strategy assistant, the GIS team, the Customer Care Emergency Contact Center (CCECC) team and the various branches represented in the huddle board (Planning, Liaison, Customer and PIO). For example: the huddle board execution is a set of steps that are followed in sequence and according to various protocols that must be followed in order to execute in a timely manner). The Lead is expected to understand upstream and downstream dependencies, the timing required for each step in the digital process, and the correct sequencing of events for accurate, timely web and customer notifications.
- Reviewing customer feedback and making on the fly optimizations to the customer experience when possible.

2.8.2 Digital Strategy Assistant

The Digital Strategy Assistant takes direction from the Digital Strategy Lead and works with the digital strategy publisher to ensure that all content posted is correct.

Responsibilities include:

- Having a strong understanding of what content should be on the site at various stages of a PSPS event.
- Proofreading the content put up by the publisher before it goes live to the public (including all 16 of the languages).
- Managing new translation requests that come in on the fly during events.
- Ensuring all new translations become part of the translations-library and that both translations and the subsequent draft web pages are reviewed and approved by in-country reviewers before going live to the public.
- Monitoring various chats for possible issues that need addressing, alerting the Digital Strategy lead when needed.
- Coordinating with the PIO branch on items like publishing press releases.

2.9 Safety Officer

The Safety Officer's responsibilities during a PSPS event include:

- Preparing safety messaging on potential hazards for line/office personnel, substation personnel, Field Observers, and contractors as well as disseminating safety messages to "EO EOC out" mailbox.
- Confirming Safety staff availability for EOC field support and availability of protective equipment and supplies as appropriate.
- Finalizing Field Safety Specialist (FSS) deployment plans based on Operational needs, operations crew deployment plans (e.g., one FSS for every XX line-personnel deployed).
- Accompanying Field Observers, crews, and patrols to support safe working and driving conditions as well as safe restoration activities as appropriate. Incorporating field observations into safety messaging.

For more information on role of Safety Officer see [CERP Section 5.1.4](#).

NOTE: Starting in 2022, the former "Legal Officer" role is no longer listed among the officers. An attorney is on-call for all EOC activations and has a new title, "Legal Advisor".

In the following section the group of Section Chiefs is listed in alphabetical order.

2.10 Finance and Administration Section Chief and Supporting Roles

The Finance and Administration Chief represents both the Human Resources Branch and Finance Branch.

For more information on role of Finance and Administration Chief see [CERP Section 5.6](#).

2.10.1 Human Resources Branch

The Human Resources Branch is within the EOC Finance & Administration Section. One of the Human Resources Emergency Response Team's (HR ER TM) three EOC activation response capabilities is specific to PSPS. HR's PSPS response is unique from the other response capabilities with its limited HR emergency roles activation and core capabilities requirements.

During PSPS responses, the HR ER TM consists of its HR EOC main floor emergency roles including the Finance & Administration Section (F&A Section) Chief, Deputy Chief and HR Branch Director roles. The HRCC Data emergency role which is initially activated in a standby role response posture and may be further activated to remote/virtual response posture to conduct impacted personnel analysis when required. The HRCC Synchronization Cell Manager may be activated in remote/virtual response posture to support HR ER TM follow-on staffing and team transition requirements. The HR Base Camp support is not required for PSPS events. The HR ER TM emergency roles response capability may be activated to support an incident complex escalation requiring HR full operational capability response when required (as seen with simultaneous wildfire response requiring HRCC emergency roles activation). F&A Section representation is not included in the PSPS Readiness Posture phase. When the EOC is activated, the F&A Section capability is available.

The HR Branch Director oversees HR's PSPS event response core capabilities which includes the following:

- Supervising the HRCC Data emergency role which is initially activated in a standby role response posture. The HRCC Synchronization Cell Manager may be activated to support HR ER TM staffing and team transition requirements. When activated both emergency roles are in the span of control of the HR Branch Director (the HRCC Unit Leader is not activated).
- Managing HR emergency response essential functions, submitting EOC reports, and developing and distributing the HR Common Operating Picture/HR Leadership message.
- Conducting impacted facility assigned personnel analysis when requested by the EOC Facilities Unit Leader. This capability requires the HRCC Data emergency role activation and impacted facility information provided by the EOC Facilities Unit Leader. Refer to the HR Annex, Appendix F. All-Hazard Impacted Personnel and Emergency Message Support process.

- Supporting the EOC Facilities Unit Leader with leadership guidance to ensure leaders are informed and support supervised impacted personnel effectively. Impacted facility managers support leaders with activating their emergency communications plans.
- Conducting impacted personnel residential analysis when requested by the EOC Commander. This capability requires the HRCC Data emergency role activation and impacted area zip code analysis provided by the EOC Geoscience Information System (GIS) technician. Refer to the HR Annex, Appendix F. All-Hazard Impacted Personnel and Emergency Message Support process.
- Coordinating with the Planning Section Chief, HAWC, Facilities Unit Leader, Physical Security Unit Leader, Safety Officer, and Operations Section Chief to support coworker safety and security related requirements.
- Facilitating coworker and leadership questions/issues that arise as part of the PSPS activation. The HR Help Line may be requested to support when required.

HR PSPS Event Guiding Principles. The PSPS event is a PG&E human safety-initiated incident and has unique differences from cybersecurity and natural hazard HR emergency responses. The HR PSPS response guiding principles are as follows:

- A PSPS response is not an impacted personnel disaster support event – support aid such as time off, lodging, and financial assistance is not expected to be available/appropriate during this type of incident. (The 2020 pandemic company-wide employee remote work policy requirement authorizes time off with permission with pay support to those impacted personnel unauthorized to report to a local PG&E facility and in a remote work location impacted by shutoffs.)
- PSEA emergency assistance grants are not expected to be available/appropriate for this event.
- HR policies, collective bargaining agreement (CBA) rules, and processes remain in effect.
- Business Unit leadership are responsible for managing, tracking, directing, and supporting their coworkers as they would during normal business operations.
- Daily Human Resources services remain active and available via normal communication and processes. Business Unit leadership requests support from their assigned HR Business Partner.
- PG&E coworkers residing within the PSPS impacted areas receive their primary communications from the Customer Care organization. HR leverages or redirects PG&E personnel inquiries to these communications as appropriate.
- Coworkers working in facilities within the PSPS impacted areas receive their primary communications from the Corporate Real Estate (CRESS) organization – which provides information about facilities availability during the PSPS event. HR leverages or redirects PG&E personnel inquiries to these communications as appropriate.

For further information on Human Resources see [CERP Section 5.6](#) and EMER-3006M, CERP Human Resources Annex, Section 4.2.3.

2.10.2 Finance Branch

The Finance Branch is part of the Finance and Administration Section. The Finance Branch's key functions for PSPS events include ensuring proper charging to event, creating event forecast, and maintaining key support functions such as cost unit, payroll, and accounts payable.

For more information on Finance Branch see [CERP Section 5.6.2](#).

2.11 Intelligence and Investigation Section Chief and Supporting Roles

The Intelligence and Investigation (I&I) Section Chief, in conjunction with the PSPS I&I Section Process Manager ensures compliance with the regulatory requirements that PG&E reports on any wind-related damage or hazards sustained by PG&E facilities during a PSPS event including Resolution ESRB-8, Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042 (Phase 1), and Ordering Paragraph 1 of Decision (D.) 20-05-051 (Phase 2) in addition to investigation of any other incidents arising out of the PSPS event (e.g., Fire/ignition). The I&I Unit's responsibilities during a PSPS event include:

- Maintaining the PSPS Damage Hazard Form via Inspect App and/or paper form to record damages and hazards observed in the post de-energization patrol.
- Receiving and aggregating the reports of damages and hazards (including photos) into a master table.
- Quality-controlling the damages and hazards documentation to verify they are PSPS qualified and reportable.
- Managing a PSPS Damage/Hazard dashboard to provide situational awareness to the damages/hazards identified during patrol, ensuring the dashboard is actionable by stakeholders.
- Drafting the language for the damage documentation section of the CPUC De-Energization Post-Event Report.
- Provide validated and structured damage and hazard data to satisfy data requests from external and internal stakeholders.

For more information on role of Intelligence and Investigations for PSPS see [CERP section 5.3.1](#).

2.12 Logistics Section Chief

The Logistics Section Chief is responsible for securing resources, supplies, food, lodging, vehicles and equipment rentals, fuel, security and medical services, as well as maintaining equipment for incident personnel.

For a PSPS event, the Logistics Section's responsibilities include:

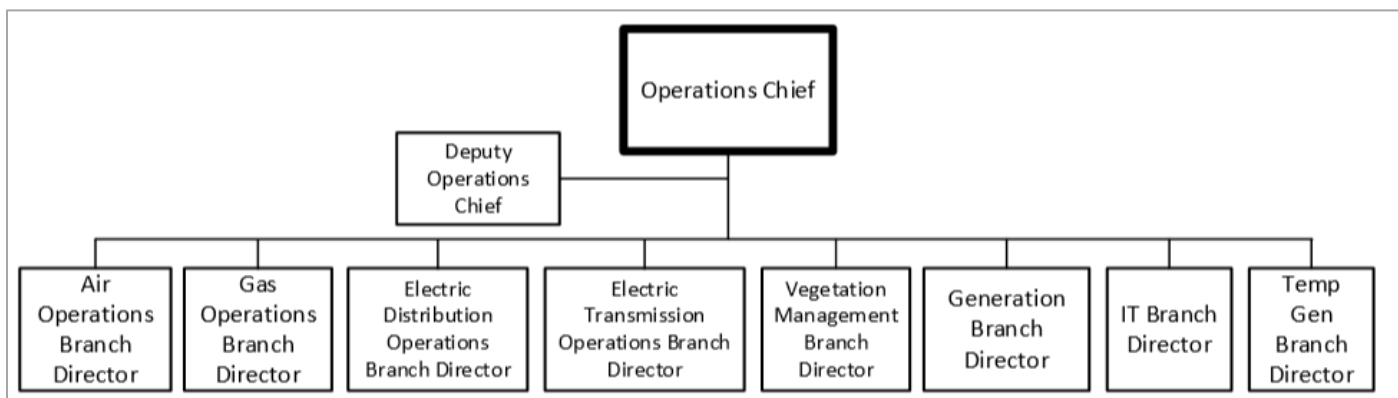
- Working with the Electric Operations and Customer Strategy teams to determine the need for base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs) (see Section 4.1.1 Community Resource Centers).
- Working with Land Acquisition to identify locations needed for base camps, staging areas, micro sites, material lay-down areas, and/or CRCs and confirming their availability.
- Staffing and supporting base camps, staging areas, micro sites, material lay-down areas, and/or CRCs activations.
- Securing resources for above needed sites including supplies, food, temporary lodging, vehicle and equipment rentals, flagging support, security services, IT support, fueling, and other needed resources.

For more information on role of Logistics see CERP [Section 5.5](#).

2.13 Operations Section Chief and Supporting Roles

The Operations Section Chief (Figure 2-4) implements the de-energization and restoration strategy for PSPS events and achieves the incident objectives set by EOC Commander and communicated in the Incident Action Plans (IAPs). The Operations Section Chief ensures coordination with other EOC sections and emergency centers (such as OEC).

Figure 2-4: General Staff – Operations Section (CERP Section 5.2)



The Operations Section, led by the Operations Section Chief / Coordinator, consists of the following eight (8) branches:

- Air
- Gas
- Electric Distribution
- Electric Transmission
- Vegetation
- Generation
- Information Technology
- Temporary Generation

Base descriptions of the eight branches of Operations Section are located in [CERP Section 5.2](#). Descriptions in this chapter specify additional responsibilities for a PSPS event.

Note: The Operations Branch Directors are listed in alphabetical order.

2.13.1 Air Operation Branch Director

Aviation Services interfaces with the Operations Section Chief and directly manages aviation asset requests from the EOC and assesses the current situation to potentially provide aerial support that could include patrolling lines.

Additional responsibilities include:

- Determining PSPS patrol aircraft deployment plan (for example, number of patrol aircrafts needed, number and location of aircrafts available, pilot resources available, timing of patrols).
- Coordinating with Cal Fire during PSPS on communications and access to airspace where they have Temporary Flight Restrictions (TFR).

For more information on role of Air Operation Branch Leader see [CERP Section 5.2.1](#).

2.13.2 Electric Distribution Operations Branch Director

The Electric Distribution Operations Branch Director coordinates with the Electric Distribution Emergency Center (EDEC) and Operations Emergency Centers (OECs) for the de-energization, and recovery and restoration of PG&E's electric distribution system. The branch also provides information on customer outages and field operational challenges to the EOC.

Electric Distribution Operations responsibilities during a PSPS event include:

- Providing “grid awareness” when a PSPS event is forecasted, which can include any work in progress (planned and unplanned), Critical Operating Equipment impacts to plan, Supervisory Control and Data Acquisition (SCADA) health, abnormal switching, load-at-risk, and protection studies.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, patrols, and restoration.

- Dispatching Medical Baseline door-knock resources to ensure successful notification when required.
- Reporting patrol progress, damage assessments, and repair progress.

For more information on role of Electric Distribution Operations Branch Director see [CERP Section 5.2.3](#).

2.13.3 Electric Transmission Operations Branch Director

The Electric Transmission Operations Branch Director coordinates with the Electric Transmission Emergency Center (ETEC) and Substation Transmission Operations Emergency Center (STOEC) to manage the restoration of the electric transmission system.

Electric Transmission Operations responsibilities during a PSPS event include:

- Defining and proposing risk and consequence targets for event.
- Performing and supporting an array of PSPS activities such as initial transmission line scoping, Direct and Total Transmission Impact Studies, system protection studies, rotating outages management, developing de-energization and restoration strategies, wildfire assistance, communicating and coordinating with the California Independent System Operator (CAISO), and ensuring that the grid is operated in a safe, reliable, compliant and event free manner.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, and patrols and restoration.
- Working with EDEC to ensure collaboration with ETEC and STOEC (e.g., outages, restoration times, etc.).
- Determining current status of transmission line and Substation damage assessments, patrolling efforts and workforce status.

For more information on role of Electric Transmission Operations Branch see [CERP Section 5.2.4](#).

2.13.4 Gas Operations Branch Director

The EOC's Gas Operations Branch supports and coordinates the response, repair, and restoration of PG&E's gas distribution and transmission systems. Execution of gas service restoration and repair will be coordinated from the Gas Emergency Center (GEC) and local OEC or OECs.

Gas Operations responsibilities during a PSPS event include:

- Providing Planning Section and Operations team with an assessment of facilities that may be impacted during a PSPS event.
- Ensuring Gas resources as needed for a forecasted PSPS event.
- Determining potential need to shut-in terminals and/or implement business continuity plans (BCP) based on de-energized facilities.

For more information on role of Gas Operations Branch Director see [CERP Section 5.2.2](#).

2.13.5 Generation Branch Director

The EOC's Generation Branch supports and coordinates the response, repair, and restoration of PG&E's power generation systems and associated facilities. The responsibilities of the Generation Branch Director for a PSPS event include:

- Providing situational intelligence to generation leadership to determine potential impacts and coordinate responses. This includes Power Generation leaderships teams and the On Call Duty Team Station Director at Diablo Canyon Power Plant (DCPP).
- Providing EOC leads with a list of PG&E generation systems and facilities (including hydro, fossil, renewables, battery storage and nuclear) that may be impacted during the PSPS event.
- Providing EOC leads with action/business continuity plans for each of the potentially impacted systems and facilities.
- Staging and mobilizing response resources as necessary
- Working with Electric Transmission, Electric Distribution and Grid Ops to coordinate power plant islanding, when applicable.

For more information on role of Generation Branch Director see [CERP Section 5.2.6](#).

2.13.6 Information Technology Branch Director

The EOC's Information Technology (IT) Branch Director coordinates the response of PG&E's IT resources and systems in support of all stages of PSPS. Responsibilities include:

- Providing the EOC with coordinated communication as to the readiness and any limitations of IT systems and support.
- Ensuring availability of IT capabilities to support the PSPS event (from applications including [PGE.com](#) and the PG&E Alert websites, to infrastructure, and facilities). This may include cancelling or postponing planned maintenance, deployments, and/or field activities.
- Determining / managing potential needs for IT logistical support in the field (radios, base camps, CRCs, etc.).
- Managing the impact of a PSPS outage on IT resources (e.g., radio support, SCADA / network communication devices, etc.).
- Responding to needs of the EOC and coordinating any needed changes to IT support, Information Technology Coordination Center (ITCC), Enterprise Network Operations Center (ENOC), field support, etc.

For more information on role of Information Technology Branch Director see [CERP Section 5.2.8](#).

2.13.7 Temporary Generation Branch Director and Supporting Roles

The Temporary Generation Branch Director is the main point of contact for temporary generation and develops the temporary generation strategy for potential PSPS events. Responsibilities of the Director include:

- Developing temporary generation strategy that maps to anticipated scope of event.
- Coordinating temporary generation strategy with Temp Gen Field Operations.
- Determining number of branch resources needed by function for event.
- Continuing to develop temporary generation strategy as event scope evolves in coordination with Temp Gen Field Leads.
- Managing ad-hoc requests from EOC groups; delegate and prioritize relevant requests.

For more information on role of Temporary Generation Branch Lead see [CERP Section 5.2.9](#).

2.13.7.1 Primary Voltage Generation Division Lead

The Primary Voltage Generation Division Lead's responsibilities include:

- Informing temporary generation deployment decisions for a given event by identifying which pre-planned sites (i.e., temporary microgrids and facilities to be supported with temp gen) are in-scope for that event and ready to operate.
 - Confirming existing temporary generators and microgrid field setup (i.e., where generators are staged, what microgrids are operationally ready, etc.)
 - Analyzing PSPS Playbooks to determine temp gen scope.
- Coordinating microgrid deployments with Temp Gen Field Operations and EDEC.
- Assessing grid solution alternatives for backup power support requests routed through Customer.
 - If grid solution exists, coordinating execution of grid solution.
 - If no grid solution exists, assessing feasibility of serving request with temporary generator fleet.
- For primary voltage requests, if backup power support is feasible and approved by Operations Section Chief, coordinating execution with EDCC and Temp Gen Field Operations.
- Coordinating microgrid demobilization following weather "all clear".
- Coordinating primary voltage backup gen demobilization following weather "all clear".

2.13.7.2 Secondary Voltage Generation Division Lead

The responsibilities of the Secondary Voltage Generation Division Lead include:

- Communicating to temp gen vendors which indoor Community Resource Centers require fueling support throughout the event.
- Coordinating with Customer Backup Generation (BUG) Lead to route ad-hoc backup power support requests through evaluation and approval process.
 - If a request is approved, the Secondary Voltage Lead ensures execution of temp gen support to fulfill that request.
- Coordinating with Temp Gen Field Operations and vendor to dispatch generators for approved ad-hoc backup power support requests.
- After restoration, coordinating generator retrieval strategy with Customer BUG Lead.

2.13.8 Vegetation Management Branch Director

The Vegetation Management Branch Director's responsibilities during PSPS include:

- Developing strategies and tactics to manage vegetation response in the field.
- Ensuring Vegetation Branch Support team members and Vegetation Management Operations Emergency Center (OEC) leads understand the EOC Operational Period objectives and have adequate resources.
- Establishing a cadence of receiving and reporting progress on field operations from Vegetation OEC leads.
- Planning vegetation patrols in areas impacted by an emergency to identify abatement and clearing/fuel reduction opportunities.
- Planning vegetation clearing/fuel reduction to reduce the fuel in and around the power poles and utility right-of-way using a variety of vegetation clearing/fuel reduction methods.
- Prioritizing the resource and equipment needs.
- Taking information from Planning Section to develop mitigation plan including identifying high-risk trees and trees with identified high priority tags.
- Reporting back to Planning Section on mitigation plan and execution of plan.

For more information on role of Vegetation Management Branch Director see [CERP section 5.2.5](#).

2.14 Planning Section Chief and Supporting Roles

The Planning Section (a.k.a. "Plans") is responsible for collecting, evaluating, and displaying event intelligence and information, and is the source of all event impact data. Updates are communicated broadly through the EOC.

Additional responsibilities include:

- Preparing and maintaining event documentation including the Situation Report, Cal OES Notification Form, and event Playbooks.

- Documenting circuits potentially in de-energization scope, customers potentially in de-energization scope, and customers proactively de-energized by PSPS event.
- Developing PSPS event impact maps in various formats to be used by Public Safety Partners and critical public safety-related customers.
- Developing long-range resource, contingency, and demobilization plans.

As per the [CERP Section 5.4](#), the Planning Section is led by the Planning Section Chief who is assisted by the Deputy Planning Section Chief. For PSPS a second deputy is active, the Deputy Planning Section PSPS Chief.

The Planning Section Chief is focused on leading/participating in meetings, representing the Planning Section perspective in OIC Decision meetings, approving the Cal OES form, and guiding the Planning section team members. For PSPS, the Planning Section Chief has two deputies: a Deputy Planning Section Chief and a PSPS Deputy Planning Section Chief.

2.14.1 Deputy Planning Section Chief

The Deputy Planning Chief is focused on more general EOC activities such as the Incident Action Plan (IAP), resource and demobilization plans.

Responsibilities include:

- Coordinating the completion of Internal and External Situation Reports.
- Coordinating the completion of the State Executive Briefing report.
- Assisting with the completion of the Cal OES PSPS notification form.

2.14.2 PSPS Deputy Planning Section Chief

The Deputy Planning Section PSPS Chief is focused on all PSPS activities such as Situation Reports, scoping process, etc.

Responsibilities include:

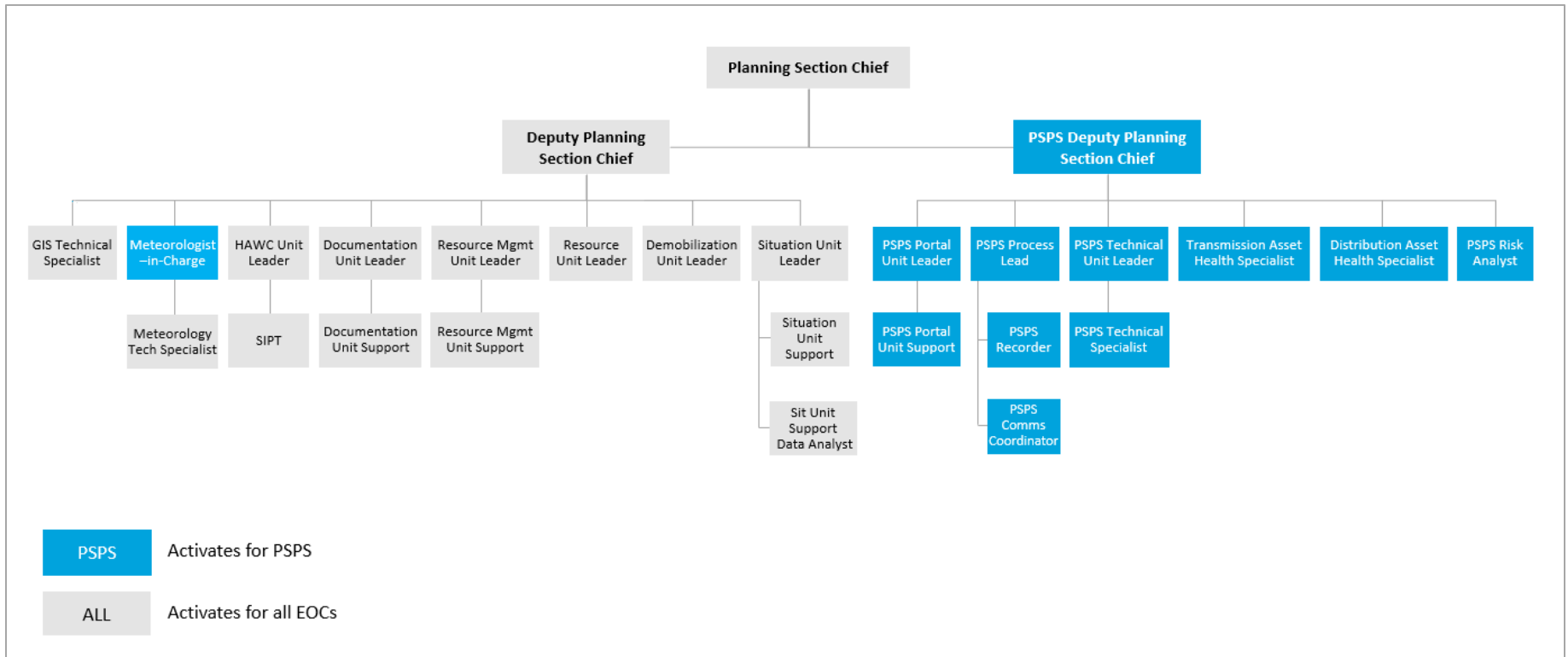
- Coordinating the PSPS activities for the Planning Section, including Playbook development and external communications.
- Coordinating with PSPS Portal Unit Leader and the External Communications team on posting of information to be shared with external entities.
- Overseeing, verifying, and may approve the export of outage, customer impact and notification data to the EOC shared drive, PSPS Portal, and other PSPS-related data requests.
- Verifying and approving various internal and external PSPS deliverables, including CalOES PSPS notification form, internal and external Situation reports, and State Executive Briefing report.

Note: The Deputy Planning Section Chief and PSPS Deputy Planning Section Chief work together closely and divide leadership responsibilities based on backgrounds, familiarity with the EOC, and other factors.

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Figure 2-5 gives an overview of the Planning Section with alignment of units, groups, and roles under the Deputy Planning Section Chief and the Deputy Planning Section PSPS Chief.

Figure 2-5: Planning Section with PSPS Specific Roles



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In addition to standard responsibilities outlined in the CERP, the following groups in the Planning Section have specific functions for a PSPS Event: Meteorology, Hazard Awareness Warning Center (HAWC), PSPS Technical roles, Situation Unit, and Resource Unit.

Note: Listing of roles is by alignment to either PSPS Deputy Planning Section Chief or Deputy Planning Section Chief and each list is in alphabetical order. Roles may be delegated to the Deputy Planning Section PSPS Chief and vice versa.

2.14.3 Roles aligning to PSPS Deputy Planning Section Chief

2.14.3.1 PSPS Communications Coordinator

The PSPS External Communications Coordinator supports the external communication alignment throughout all stages of a PSPS event.

Responsibilities include:

- Coordinating External Communications Huddle Board.
 - Maintain an active bridge line for the Communications (Comms) Huddle.
 - Accurately maintain the Comms Huddle Dashboard.
 - Ensuring all members of the Comms Huddle understand how the Comms Huddle functions and the expectations they will be held to.
 - Ensuring all members of the Comms Huddle are aware of the goal(s) and understand the path to accomplish the goal(s) for each comms sequence.
 - Taking notes of what occurred during each comms sequence – hurdles, root cause(s) of issues, decisions made, areas of for improvement, etc.
 - Conducting a +/- Δ for each comms sequence and document the details in the notes section.
- Guiding the External Comms Huddle members through the staging process and execution of the communications plans.
- Providing guidance on external communication requirements which guide the external communication process.
- Problem solving issues as they arise to ensure external communications are sent in timely manner while abiding to the spirit of the regulations.
 - Identifying issues quickly and bringing together members of the Communications Huddle who can mitigate the issue in a timely manner.

2.14.3.2 PSPS Distribution Asset Health Specialist

Responsibilities include:

- Identifying potential changes to scope due to P1/ P2 trees, and EC tags.
- Identifying and prioritizing vegetation tags and EC tags to work with Operations and Vegetation Management to complete in advance of de-energization. Open tags not addressed before de-energization may impact scope of PSPS event.

- Communicating with Operations and Vegetation Management on tag status as it relates to scope of PSPS event.
- Communicating with PSPS Technical lead and specialist on scope changes.
- Interfacing with meteorology to determine time-places associated with incremental tags.

2.14.3.3 PPS Portal Unit Leader

The PPS Portal Lead manages the publication of PPS event information from the PPS Viewer and PPS Situational Intelligence Platform (PSIP) into the PPS Portal for authorized external and internal users.

Responsibilities include:

- Coordinating with the PPS Situation Unit Leader and External Communications Process Coordinator to stage and publish event information to the PPS Portal.
- Completing PPS Event data twice daily, regardless of scope change, at 0900 and 1500.
- Assisting internal and external users with complex technical and data issues.
- Performing general PPS Portal data quality control (checking interactive map layers and file locations).
- When feasible, supporting PPS User Support to process user access requests.

2.14.3.4 PPS Portal Unit Support

The PPS Portal User Support is the primary point of contact for PPS Portal internal and external user management.

Responsibilities include:

- Processing internal and external user access requests, including routine continuous monitoring of the user request dashboard, user authentication, and account creation.
- Responding to requests for user support related to Portal account issues, and data availability/timing.
- Triaging technical issues for referral to IT and GIS specialists.

2.14.3.5 PPS Process Unit Leader

The PPS Process Lead manages the PPS overall event timeline and required execution points.

Responsibilities include:

- Building and sharing PPS event timelines.
- Coordinating OIC Decision meetings and de-energization confirm/cancel meetings.
- Serving as a process and regulatory compliance expert and advisor.
- Aiding with executive and external communications.

- Creating folder structure based off official event nomenclature.

2.14.3.6 PSPS Recorder

The PSPS Recorder supports the PSPS Process Lead.

Responsibilities include:

- Documenting OIC Decision-making meetings.
- Ensuring documentation is uploaded to EOC event Sharepoint site in appropriate folders.
- Assisting with management of PSPS overall event timeline and assisting the PSPS Process Lead.
- Maintaining notes of other meetings involving the OIC as needed.
- Completing a form in PSPS Situational Information Platform (PSIP) immediately after each Decision F meeting to input the exact time of approval for each “All Clear Zone”.
- Preparing EDRS routing of all decision documents.

2.14.3.7 PSPS Risk Analyst

Responsibilities include:

- Managing and applying consequence data based on meteorology forecasts and PSPS scoping data to evaluate the risk and benefits in calling a PSPS event to our customers.
- Leveraging PG&E developed Risk-Benefit tool to quantify risks and interpret results.
- Presenting results at EOC decision-making meetings to inform decision to de-energize.

2.14.3.8 PSPS Technical Unit Leader

The PSPS Technical Lead oversees and verifies the use of the PSPS Viewer and PSPS Situational Intelligence Platform (PSIP).

Responsibilities include:

- Supporting Planning Section Chief and PSPS Planning Section Deputy Chief for updates as necessary.
- Directing and supporting PSPS Technical Specialists.
- Inputting ETOR per time-place and per event into PSPS Viewer.
- Coordinating with the HAWC Lead on updates.
- Verifying updates to PSPS Viewer.
- Overseeing and verifying updates to the PSPS Playbooks (De-energization and Restoration) and alignment to the PSPS Viewer and PSIP.
- Interfacing with ETEC and EDEC to understand abnormal configuration related to impacts.

- Overseeing and verifying the updating of the PSPS Viewer and PSIP to align with OIC decisions on scope of the event.
- Coordinating and verifying the alignment of the PSPS Viewer and PSIP.
- Interfacing with Transmission Asset Health Specialist (TAHS) and Distribution Asset Health Specialist (DAHS) and incorporating changes to scope in PSPS Viewer and PSIP.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.

2.14.3.9 PPS Technical Specialist

The PPS Technical Specialist verifies the use of the PPS Viewer and alignment to the PPS decision reports.

Responsibilities include:

- Supporting PPS Technical Unit Leader.
- Updating PPS Viewer and PSIP to align with OIC decisions on scope of the event.
- Using PPS Viewer and PSIP to create/update PPS playbooks.
- Using PSIP to generate customer outage notifications and reports.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.

2.14.3.10 PPS Transmission Asset Health Specialist

The Transmission Asset Health Specialist (TAHS) validates transmission line segments to be included in scope and coordinates with ETEC (or GCC) on sections to be studied. The Transmission Asset Health Specialist further validates lines and transmission customers impacts of study and coordinates with PPS Technical Unit Leader and Critical Infrastructure Lead (CIL)(CSO) as needed. Responsibilities include:

- Using the “Transmission Scoping Dashboard” interacts with several parties to determine which T-lines should be in scope for de-energization for OIC Decision B: Set Transmission Power Flow scope. The dashboard ties together many different sources of information such as meteorology data, vegetation data, A tags, and structure-specific data.
- Identifying subset of lines in scope for de-energization that will require grounding mitigation due to induction.
- Sending the list of In Scope T-lines to ETEC for Direct Impact analysis. ETEC then produces the Direct Impact summary for the tab in Playbook C.
- Identifying the transmission customers in scope for 72-48 hours in advance of the forecasted start time of the PPS event.
- Developing OIC Decision B deck after ETEC sends out Playbook C summarizing transmission recommendations using the “OIC Decision B template”.

- Populating the standard FERC template with the list of transmission lines to be de-energized prior to each OIC B/C and the OIC D/E meetings, and sending it to the Digital Strategy Lead, who immediately posts them on the FERC website. This process is repeated for each OIC Decision B/C or OIC Decision D/E scope revision approval.
- Creating OIC Decision D materials after ETEC sends out Playbook D (incorporating transmission indirects from studies), using “OIC Decision D Waterfall Excel” and “OIC Decision D” templates.
- Supporting the “all clear” process for transmission lines by using the Tx All Clear Report to calculate “all clears” by t-line, update Playbook F as changes occur, and relay information to CIL.
- Supporting the Customer Critical Infrastructure Lead (CIL) by providing timely communication of completed playbooks C, D, F and OIC Decisions C and D, reviewing the customer list for accuracy, and answering any questions from the CIL.
- QA/QC-ing the final list of lines in scope and confirm times of de-energization/re-energization per line for the CPUC-De-energization Report (“10-Day Report”).

2.14.4 Roles aligning to Deputy Planning Section Chief

2.14.4.1 Documentation Unit

During a PSPS event, the Documentation Unit’s responsibilities include:

- Creating the draft Incident Action Plan (IAP) during Readiness Posture.

For more information on role of Documentation Unit see [CERP Section 5.4.2](#).

2.14.4.2 GIS Technical Specialist

The GIS Technical Specialist’s responsibilities include:

- Serving as Primary Liaison for the GIS Team in the EOC and Initial Point of Contact for PSS Team seeking GIS Support.
- Providing technical information to PSS Team from GIS Analysts: special request maps and map data layers, as appropriate, to support operations, planning, and other functions.
- Directing EOC map requests to members of the GIS team, as needed (Note PSPS Viewer should be first point of contact).
- Activating during PSPS event for both AM hours (6a – 6p) and PM hours (6p-6a).

2.14.4.3 Hazard Awareness & Warning Center

Hazard Awareness & Warning Center (HAWC) Lead is an advisor on the pre-assessment call where the OIC makes the decision to activate the EOC for a possible PSPS event.

Before activation of the EOC, the HAWC is responsible for identifying any ongoing incidents within the scope of the potential PSPS event.

During a PSPS event the HAWC is represented in the EOC by the HAWC Lead and the HAWC Technical Specialist. The HAWC uses the weather forecast and information within the Foundry based Situational Report to define the initial locations of Field Observations for the Safety & Infrastructure Protection Teams (SIPT).

For more information on role of HAWC Lead (formerly WSOC) see [CERP Section 3.1.1](#).

2.14.4.4 HAWC Lead

The HAWC Lead reports on fire conditions and behavior as well as the Field Observations. The Lead's responsibilities include:

- Coordinating information between the EOC Command and General Staff, HAWC, PSS Team (serving as PG&E Assigned County/Agency Representatives), and SIPT.
- Setting up and updating field observation schedules.
- Presenting observer intelligence during OIC briefing and decision-making meetings.
- Communicating with EOC staff as needed regarding fire situation, ignitions, and updates.

2.14.4.5 HAWC Technical Specialist

The HAWC Technical Specialist supports the HAWC Lead. The Technical Specialist's responsibilities include:

- Working with HAWC, Meteorology and SIPT Leadership to determine Field Observation locations.
- Entering the Field Observation locations into the Wildfire Incident Viewer (WIV), active incident dashboard, and SIPT Viewer.
- Ensuring that the Field Observation locations are accurate based on any scope changes.
- Summarizing active fires and field observation data to aid in PSPS decision-making.
- Interfacing with the HAWC to provide status updated and clarify information needs.

2.14.4.6 Safety Infrastructure Protection Team

When Safety Infrastructure Protection Teams (SIPT) are utilized during a PSPS event, their responsibilities include:

- Conducting field weather observations.
- Documenting field fuel conditions.
- Providing standby fire protection and medical response.
- Supporting generators and other energized assets as requested by the EOC Operations Section.
- Supporting fire prevention treatment efforts.

For more information on role of HAWC Lead (formerly WSOC) see [CERP Section 6.2.7](#).

2.14.4.7 Meteorology

PG&E has a dedicated Meteorology team that, in collaboration with key external partners, gathers, analyzes, and models weather and fire potential data. Preceding and during a PSPS event responsibilities include:

- Notifying the Vice President of EP&R when there is an increased potential of outages combined with heightened fire potential, which will initiate PSPS pre-assessment “Readiness Posture” (see Section 3.5.3).
- Defining the meteorological footprint of weather impacts that may warrant PSPS, including estimated event start and end times, for event scoping.
- Providing situational awareness and updates regarding current weather conditions and forecast models to the OIC, EOC Commander and EOC Command Staff.
- Publishing Utility Fire Potential Index (FPI) forecasts.
- Communicating Ignition Probability Weather (IPW) forecasts.
- Evaluating public and proprietary weather models.
- Evaluating fire spread consequence outputs from Technosylva.
- Evaluating Red Flag Warnings or Fire Weather Watches declared by the National Oceanic and Atmospheric Administration (NOAA) National Weather Service.
- Evaluating “High Risk” forecast triggers from the Northern and Southern California Geographic Area Coordination Centers Predictive Services.
- Advising HAWC on positioning of Field Observers as needed.
- Advising the OIC on when it is appropriate to declare weather “all-clear” conditions subsequent to de-energization.

2.14.4.8 Meteorologist-in-Charge

The Meteorologist-In-Charge (MIC) is the lead meteorologist in the EOC and consults with the OIC directly and frequently during PSPS events. The MIC is responsible for providing Meteorology reports and models that help define PSPS event scope and support OIC decisions. Additionally, the MIC assigns tasks to the Technical Weather Specialists and other supporting members of the meteorology team during an event.

2.14.4.9 Meteorology Technical Specialist

The Technical Weather Specialist (TWS) supports the Planning Section and other sections, such as Operations, during a PSPS event. The TWS consults with the MIC on the scope, timing and duration of the event. The TWS handles most ad-hoc weather-related requests in the EOC.

2.14.4.10 Resource Unit Leader

During a PSPS event the Resource Unit Lead’s responsibilities include:

- Tracking and analysis of resources assigned to the operation Version 7.0 Company Emergency Response Plan PG&E Internal EMER-3001M EOC Staffing Page 5-21 •

Development and maintenance of the Incident Organization Assignment List (ICS 203) and Organization Chart(s) (ICS 207).

- Establishing Check in/Out functions at the incident locations(RECs, OECs, Base Camps) and working to achieve total accountability and tracking of incident resources.
- Preparing and submitting the ICS-204 Resource Tracking form if required (total resource counts in the event).

2.14.4.11 Resource Management Unit Leader

During a PSPS event the Resource Management Unit Leader's responsibilities include:

- Setting strategy for staffing the event based on data and analytics provided by the Resource Unit Lead.
- Working with REC Leaders and Operation leaders providing staffing recommendations as part of the overall strategy for the event.
- Preparing the field operations resource calculation using the FORCE tool which provides estimated restoration patrol resources needed for Resource Management Unit Leader to provide staffing recommendation to meet CPUC restoration regulatory requirements.
- Tracking crew movements between Regions.

For more information on role of Resource Unit see [CERP Section 5.4.5](#).

2.14.4.12 Situation Unit

The Situation Unit is an All Hazard position and consists of three positions – Situation Unit Leader, Situation Unit Support, and Situation Unit Support Data Analyst. Each role is trained to be able to perform all common Situation Unit tasks. Tasks related to PSPS listed under each role may be shared or delegated to one of the other roles. The Unit operates in close communication with the PSPS Deputy Planning Section Chief and PSPS Technical Unit.

2.14.4.12.1 Situation Unit Leader

The Situation Unit Leader is responsible for leading, coordinating, and delegating the tasks to be fulfilled by the Sit Unit. During PSPS Situation Unit Leader responsibilities include:

- Updating the Plan Administration Tab in PSPS Situational Intelligence Platform.
- Using PSIP to configure and quality check the Internal and External Situation Report.
- Downloading the “All Affected Customer Report”.
- Communicating with PSPS Deputy Planning Section Chief and PSPS Technical Unit for status of key event stages and scoping abnormalities.

2.14.4.12.2 Situation Unit Support

Responsibilities include:

- Providing Emergency Web files to PSPS Portal Unit to be used for the public-facing website.
- Producing the State Executive Briefing deck to be distributed ahead of 1530 call with state agencies.
- Completing the Cal OES PSPS State Notification Form (Cal OES Form) with the latest and most accurate information at the specified submission points.

2.14.4.12.3 Situation Unit Support Data Analyst

Responsibilities include:

- Entering global Estimated Times of Outage Restored (ETORs) in Outage Management Tool (OMT).
- Tracking, documenting, and triaging issues via the Issues Tracker.
- Resolving technical problems in Foundry and Tableau dashboards.
- Resolving data anomalies encountered in the Situation Report.
- Addressing gaps in reporting and ad-hoc data requests, using tools such as “Planned All Affected Customers” and “Actual All Affected Customer tables” in PSIP.

For more information on the Situation Unit see [CERP Section 5.4.1](#).

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3 Concept of Operations

3.1 Purpose of Public Safety Power Shutoff

Following the 2017 and 2018 wildfires, as precautionary measures, PG&E expanded and enhanced its Community Wildfire Safety Program (CWSP) to further reduce wildfire risks and help keep our customers and the communities we serve safe. PSPS is one component of CWSP. The purpose of PSPS is to mitigate the risk of utility infrastructure contributing to catastrophic wildfire risk by proactively de-energizing PG&E facilities in the event of severe weather. The PSPS program is based on four guiding principles:

1. **Prevent catastrophic wildfires:** Prevent catastrophic wildfires associated with electric equipment located in high fire-risk areas while **minimizing potential public safety impact**.
2. **Execute de-energization events with no safety incidents.**
3. **Restore power quickly and safely:** Ensure power to all customers affected by the PSPS event is restored quickly and safely after the weather “all clear”.
4. **Communicate potential impact with internal and external stakeholders:** Provide timely and accurate notifications to customers, California Public Utilities Commission (CPUC), California Department of Forestry & Fire Protection (CAL FIRE, Governor’s Office of Emergency Services (Cal OES), Public Safety Partners and employees.

PG&E may proactively de-energize its facilities for other purposes that do not fall within the scope of a PSPS event, such as when requested by public first responders, CAISO or state agencies (for example, CAL FIRE), during an emergency, or to protect PG&E assets from the spread of an existing fire. Such proactive de-energizations are not PSPS events.

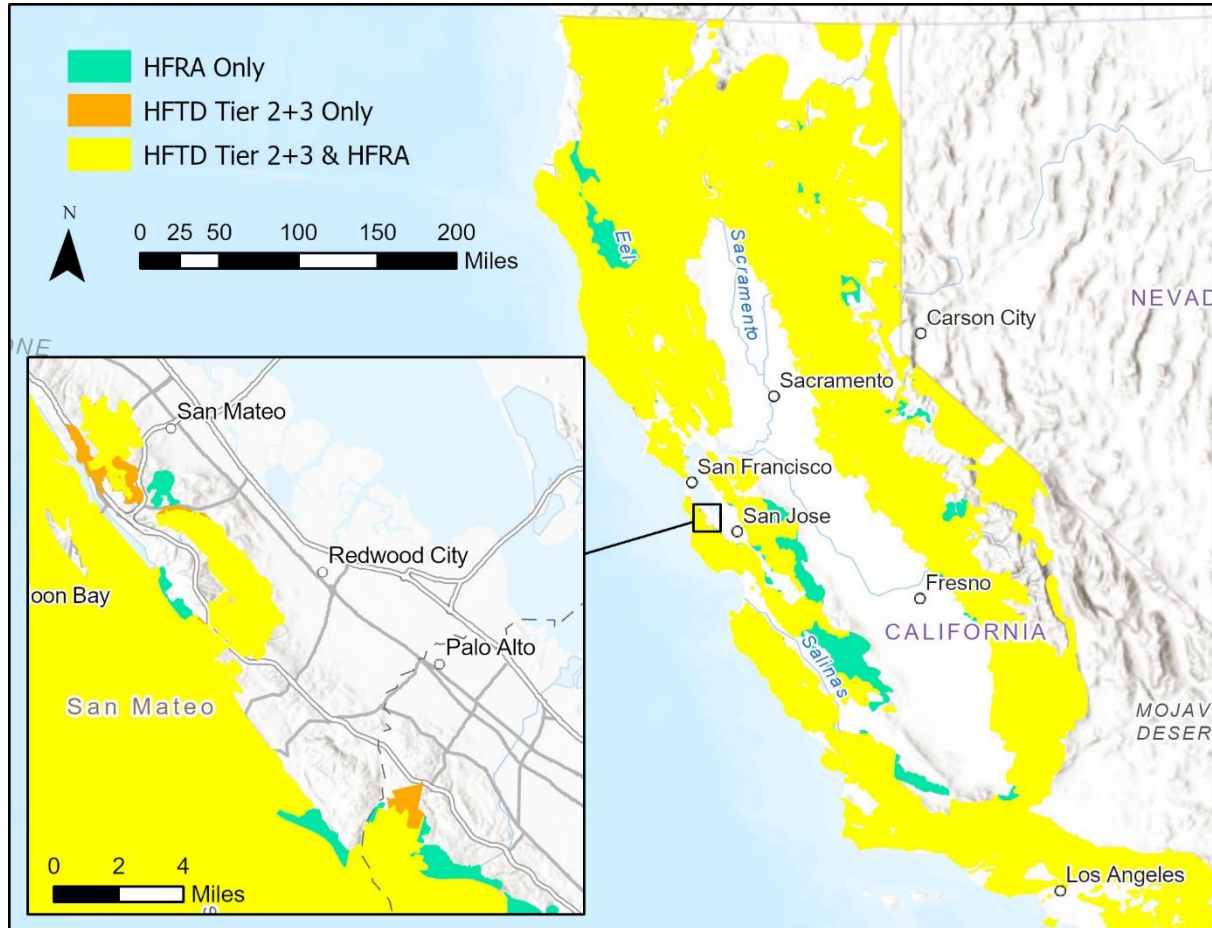
3.2 General Scope for PPS

3.2.1 Geographic Scope

To inform the geographic scope of PPS events, PG&E performs a fire threat assessment of its service territory focused on identifying areas where an ignition during an offshore wind event could lead to a catastrophic wildfire. These areas are collectively referred to as PG&E’s High Fire Risk Area (HFRA). All electric distribution and transmission infrastructure within the HFRA is potentially subject to PPS. In contrast, electric distribution and transmission infrastructure outside the HFRA is potentially subject to PPS only where its de-energization may be necessary to implement PPS for infrastructure inside the HFRA. In scoping for a PPS event, the HFRA serves as an initial geospatial filter, upon which event-specific geospatial data concerning weather and fuel conditions is overlaid and analyzed to arrive at a final PPS scope.

PG&E began development of the HFRA in 2020, using the Tier 2 and Tier 3 portions of the CPUC’s High Fire Threat District (HFTD) as a starting point, adding areas where there is potential for an ignition, during an offshore wind event, to lead to a catastrophic wildfire, and removing areas where such potential is absent. Figure 3-1 shows the spatial relationship between the HFTD and the HFRA, as of December 2021.

Figure 3-1: CPUC's High Fire Threat District and PG&E's High Fire Risk Area as of December 2021



3.2.2 Operational Scope

PG&E's PSPS program includes all electric lines that pass through HFRA — both Distribution and Transmission. The most likely electric lines to be considered for shutting off for safety will be those that pass through HFRA. Often lines that traverse HFRA also feed customers in non-HFRA. These customers could be impacted by risk associated with lines that could be many miles away.

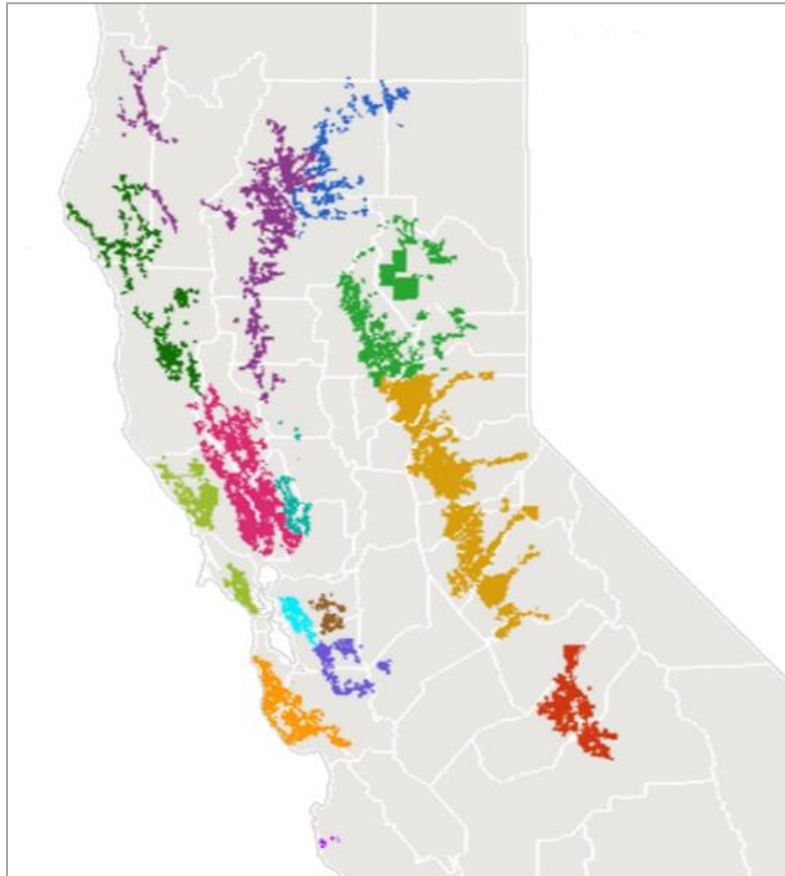
In an effort to minimize the impacts of PSPS, PG&E may operate selected sectionalizing devices closest to the identified risk area/s on a per event basis.

3.2.3 Time Places

Extreme weather may reach different areas at different times. A Time-Place (TP) is a portion of the PG&E grid where the impacted electric lines and geographical locations are aligned and is forecast to experience consistent timing for potential PSPS. Time-Places are identified for each PSPS event and receive consistent treatment for notifications and de-energization. Once actual weather conditions occur, weather "all clear" and service restoration times may vary due to actual weather conditions within a TP.

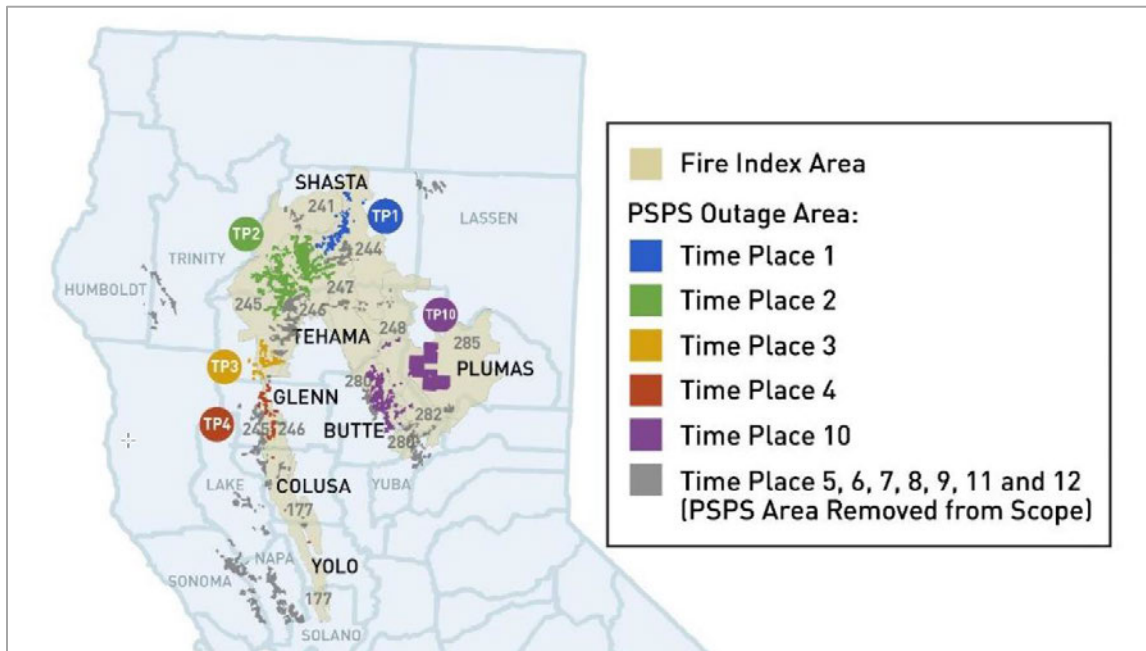
When there are multiple Time Places, each TP receives a number and is assigned a unique color for easy identification on a map as in Figure 3-2.

Figure 3-2: Example Map with colored Time Places



Each PSPS event is unique. Prediction models of severity of weather may change enough over time so that originally forecasted TPs can be removed from event scope. In Figure 3-3 initial TPs 5, 6, 7, 8, 9, 11, and 12 have been de-scoped.

Figure 3-3: Example Map with In-scope and De-scoped Time Places



3.3 Decision Making for PSPS

3.3.1 Public Safety Power Shutoff Criteria

PG&E monitors conditions across its service territory and evaluates whether to proactively de-energize electric lines in the interest of safety. PG&E must reasonably believe there is an imminent and significant risk that strong winds will topple its power lines onto tinder dry fuels or will cause major vegetation-related impacts on its facilities during periods of extreme fire hazard.

In order to ensure this risk exists, PG&E first applies a filter known as minimum fire potential conditions to all hours and locations of the forecast. These minimum fire potential conditions must all be met for a location to be considered for PSPS. This applies for both Distribution and Transmission. These minimum fire potential conditions consist of required values of:

- Sustained Wind Speeds
- Dead Fuel Moisture (10/100/1000-hour variants)
- Relative Humidity
- Live Fuel Moisture (Herbaceous and Shrub variants)
- PG&E Fire Potential Index

Meeting these minimum fire potential conditions does not mean automatic inclusion in PSPS scope. For distribution, once a location meets minimum fire potential conditions it must then hit a second set of guidance in order to be included in scope. These criteria are:

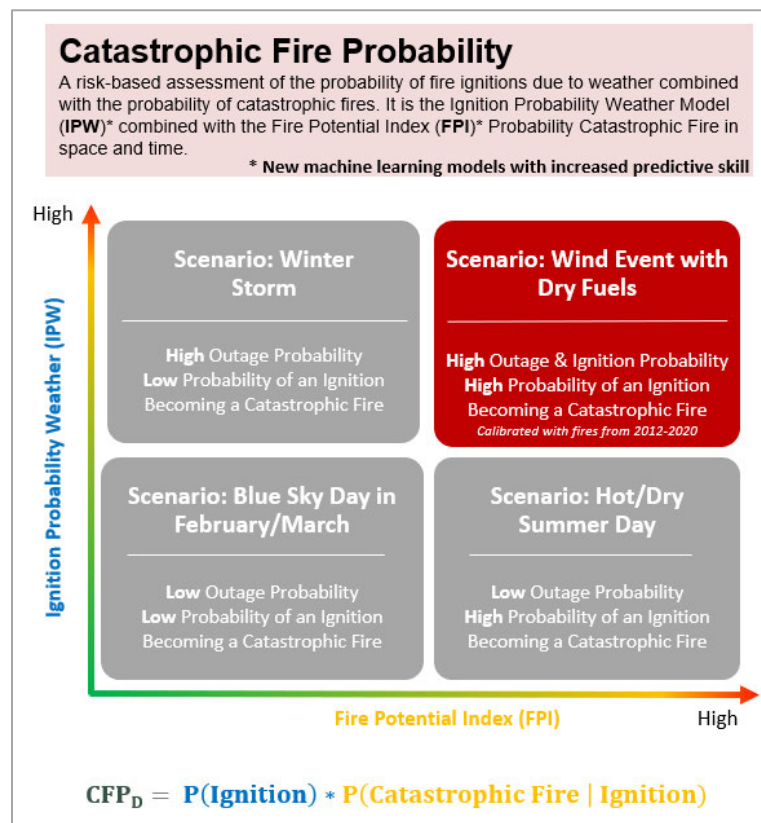
- Catastrophic Fire Probability (CFP_D)
- Catastrophic Fire Behavior (CFB)
- Vegetation and Asset Hazard Consideration

Also, the total number of POMMS (PG&E Operational Mesoscale Modeling System) cells that must meet minimum fire potential conditions and one of the above criteria should total to at least 25 grid cells (2 x 2 km).

CFP is calculated as the product of the PG&E Ignition Probability Weather (IPW) and the PG&E Fire Potential Index (FPI). The IPW model predicts the likelihood of an outage and resulting ignition, while the FPI model predicts the likelihood that an ignition would become a catastrophic fire.

Figure 3-4 shows a matrix for IPW and FPI.

Figure 3-4: IPW/FPI Matrix



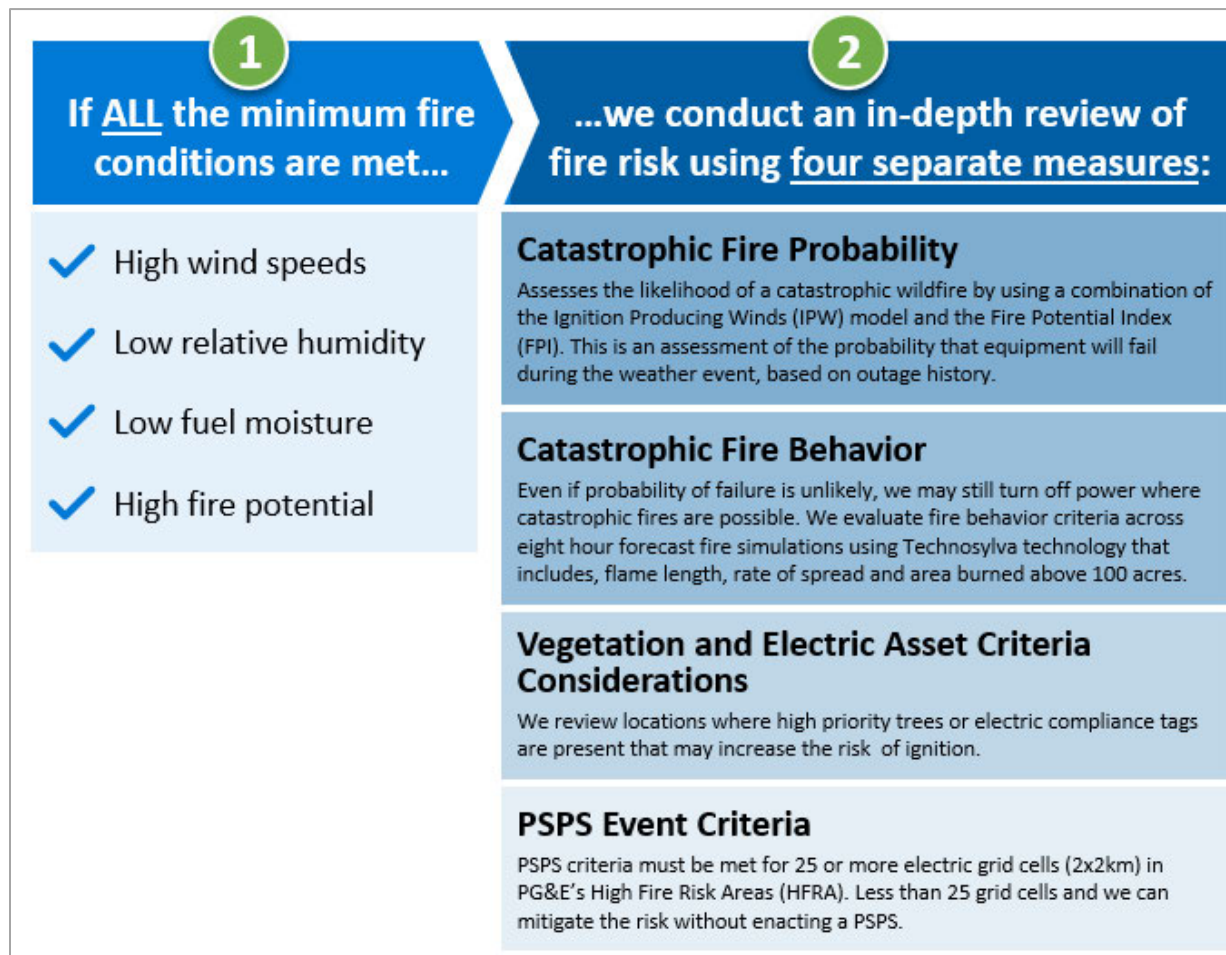
CFB is calculated using the outputs from the Technosylva Wildfire Analyst Enterprise (WFA) system. Technosylva ingests PG&E weather data, and then runs over 100 million fire spread simulations at 3 hour time intervals for the territory out multiple days, creating a dataset of potential consequence of new ignitions. In order to meet CFB guidance, an ignition must meet a set Flame Length, Rate of Spread, and 8 hour burned acreage.

The use of CFB helps PG&E identify areas where the potential consequence from an ignition is very high, but where the IPW score may be low due to high circuit resiliency.

Vegetation and Asset Hazard Consideration is the last criteria, which is met by the presence of certain distribution asset tags or tree designations. Grid cells that meet minimum Fire Potential Conditions that also contain certain trees (“P1” or “P2” trees) or certain distribution asset tags, which cannot be mitigated, are also recommended for inclusion in PSPS scope.

Figure 3-5 shows the Distribution PSPS framework.

Figure 3-5: Distribution PSPS Framework



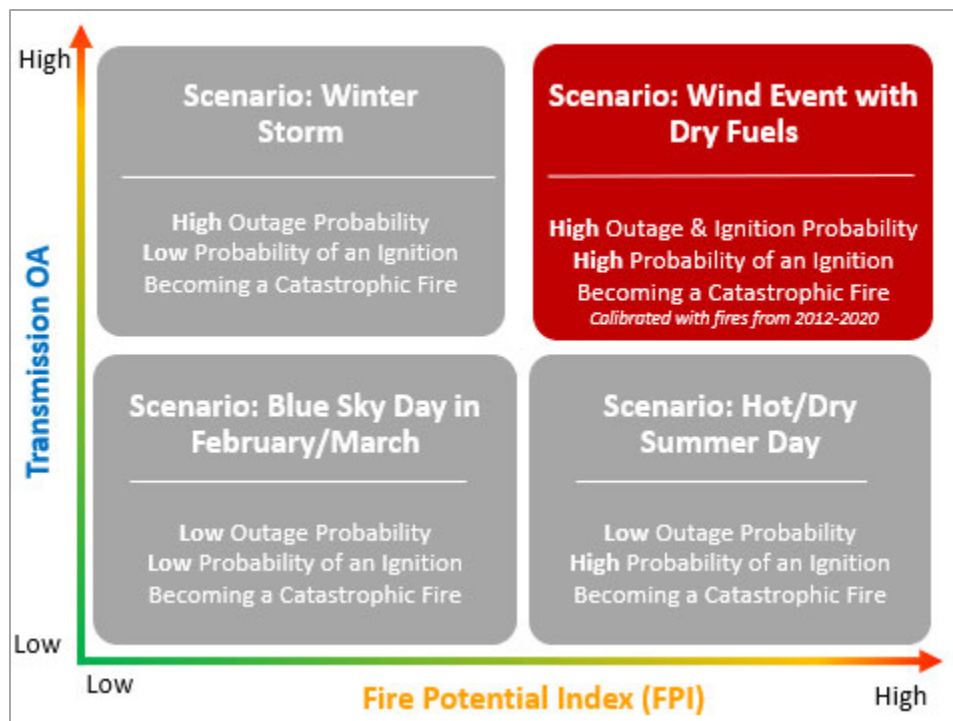
The criteria for Transmission Scoping for PSPS also begins with the minimum Fire Potential Conditions. Meeting these minimum fire potential conditions does not mean automatic inclusion in PSPS scope. For transmission, once a structure meets minimum fire potential conditions it must then hit a second set of guidance criteria in order for the transmission line or segment to be included in scope. These criteria are:

- Catastrophic Fire Probability -Asset (CFP_D-Asset)
 - Catastrophic Fire Probability -Induction (CFP_T-Induction)
- Catastrophic Fire Probability -Veg (CFP_T-veg)
- Catastrophic Fire Behavior (CFB_T)
- Vegetation and Asset Hazard Consideration
- Low Impact

CFP_T-Asset is calculated very similar to the distribution model, however the Outage Producing Winds Index OPW model is replaced with the Transmission Operability Assessment (OA) model, which provides fragility curves based on wind speeds for each transmission structure. For Transmission PSPS Decision Making these models are combined in both space and time.

Figure 3-6 shows a matrix for OA and FPI.

Figure 3-6: Matrix for Operability Assessment and Fire Potential Index

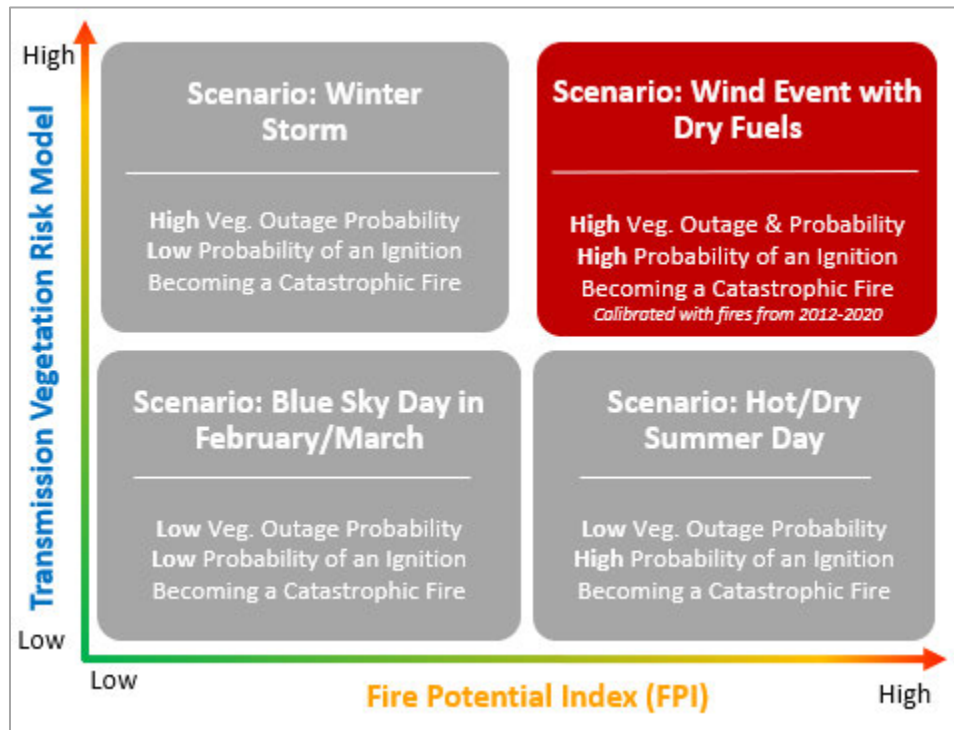


CFP_T-Induction is a subset of the lines that are in scope for CFP_T-Asset which also have indicators that show a higher risk for induction related ignitions even while the line or segment is deenergized. Additional mitigations are considered for these lines.

CFP_T-Veg is a combination of the tree strike model in space and time for each tree with PG&E's Fire Potential Index model. The Tree Strike Model provides a relative exposure ranking for trees which could strike a transmission line if the tree fails. Each tree has a unique tree ID and tree risk score.

Figure 3-7 shows a matrix for the transmission Vegetation Risk model and Fire Potential Index (FPI).

Figure 3-7: Matrix Transmission Vegetation Risk Model and Fire Potential Index



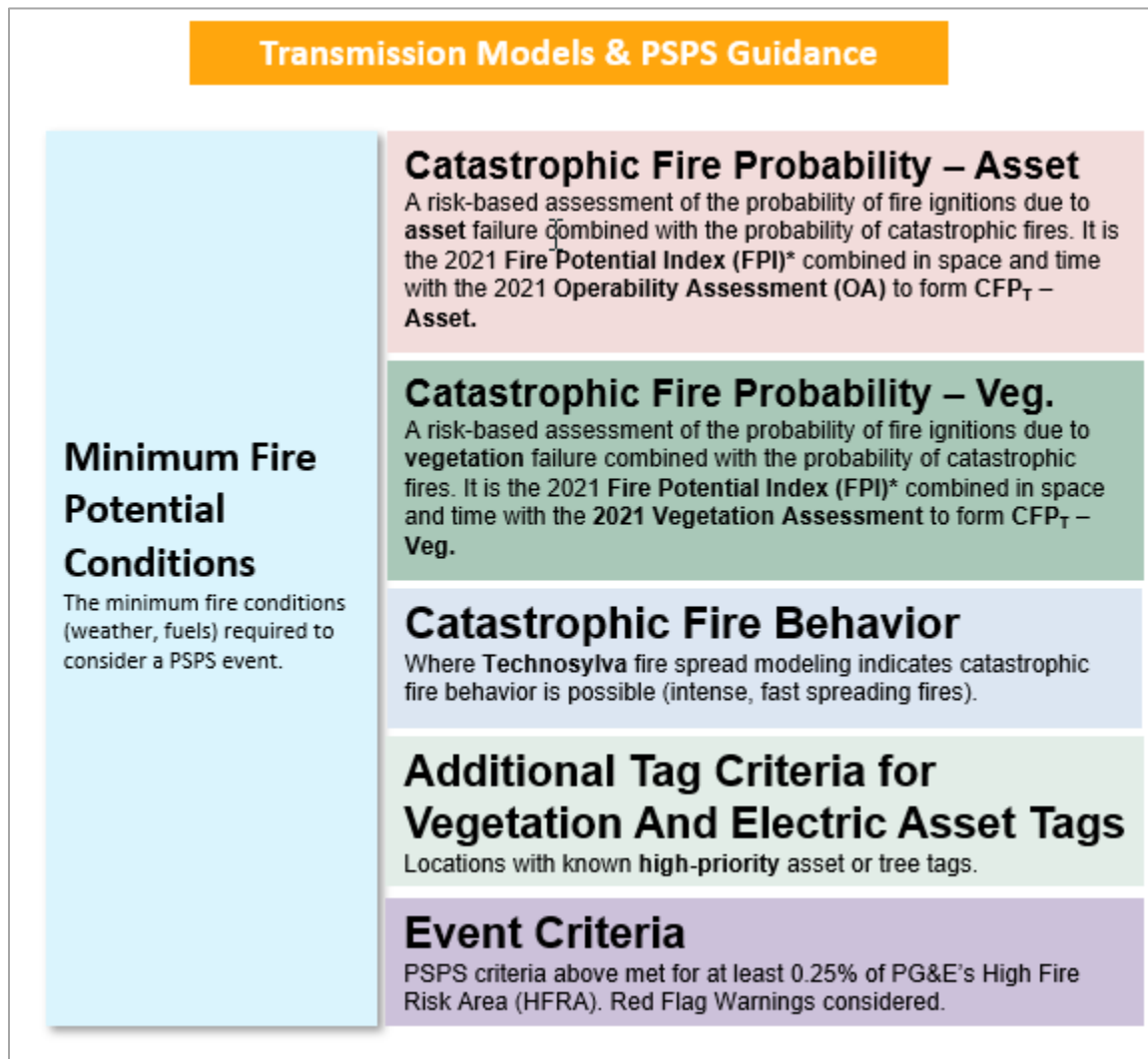
CFB_T is calculated the same as it is in the distribution model. Many of PG&E's high voltage transmission lines exhibit very high reliability, which is reflected in the Operability Assessment model. Transmission lines are only de-energized for Catastrophic Fire Behavior where Operability Assessment fragility is also above a minimum guidance level.

Vegetation and Asset Hazard Consideration is the last scoping criteria, which is met by the presence of certain transmission asset tags or tree tag designations. Transmission structures that meet minimum Fire Potential Conditions that also contain trees with high priority tags ("HNI" or "HNU") or certain transmission asset tags, which cannot be mitigated in the time before the weather start, are also recommended for inclusion in PSPS scope.

Low Impact lines are also considered in transmission. The Transmission Asset Health Specialist (TAHS) reviews the system to identify if there are lines that didn't meet any of the above scoping criteria but can be deenergized without impacting customers or causing other adverse effects to the grid.

Figure 3-8 shows the Transmission PSPS framework.

Figure 3-8: Transmission PSPS Framework



Although PG&E's models are the main drivers of PSPS decision making, no single factor drives PSPS, as each situation is dynamic and unique. PG&E carefully reviews a combination of many criteria when determining if power should be turned off for safety.

PG&E evaluates multiple forecasts from external weather agencies about the potential for fires that include Red Flag Warnings from the National Weather Service, High Risk forecasts of Significant Fire Potential from the Geographic Area Coordination Center (GACC) and fire weather outlooks from the Storm Prediction Center (SPC), which is part of the National Weather Service (NWS), within the National Oceanic and Atmospheric Administration (NOAA). This review ensures federal agencies also recognize a high potential for significant large fires.

During high risk periods PG&E meteorologists also take part in daily interagency conference calls that usually include multiple NWS local offices, the NWS western region headquarters, and representatives from the GACC. This call is hosted by the Northern California or Southern CA GACC offices. Agreements with Cal Fire and United States

Forest Service (USFS) leadership allow PG&E to participate on these calls while not influencing any forecasts issued by these independent agencies. During these calls the agencies present their views on the upcoming period of risk, discuss timing, wind speed and fuel moisture levels and align on when certain federal forecast products may be issued. PG&E greatly appreciates participation on these conference calls as it allows further PG&E coordination with external and independent forecast agencies on upcoming risk periods.

External forecasting models and services, such as the European Center for Medium-Range Weather Forecasts (ECMWF) and Global Forecast System (GFS), are also closely monitored.

PG&E meteorologists look for consensus and agreement among internal model forecasts and external forecasts. Agreement amongst the model forecasts supports higher confidence and accuracy in the forecasted conditions, while lack of agreement would indicate more variability in potential weather outcomes. For this reason, the review of external weather intelligence is a valuable and standard part of PSPS decision making.

In addition to this information, PG&E carefully reviews and considers the location of existing fires and where new fires are detected using the Satellite Fire Detection & Alerting System (FDAS), which uses data from five NOAA/NASA satellites to detect fires.

Sources of information besides internal forecast information that are considered for PSPS are listed below:

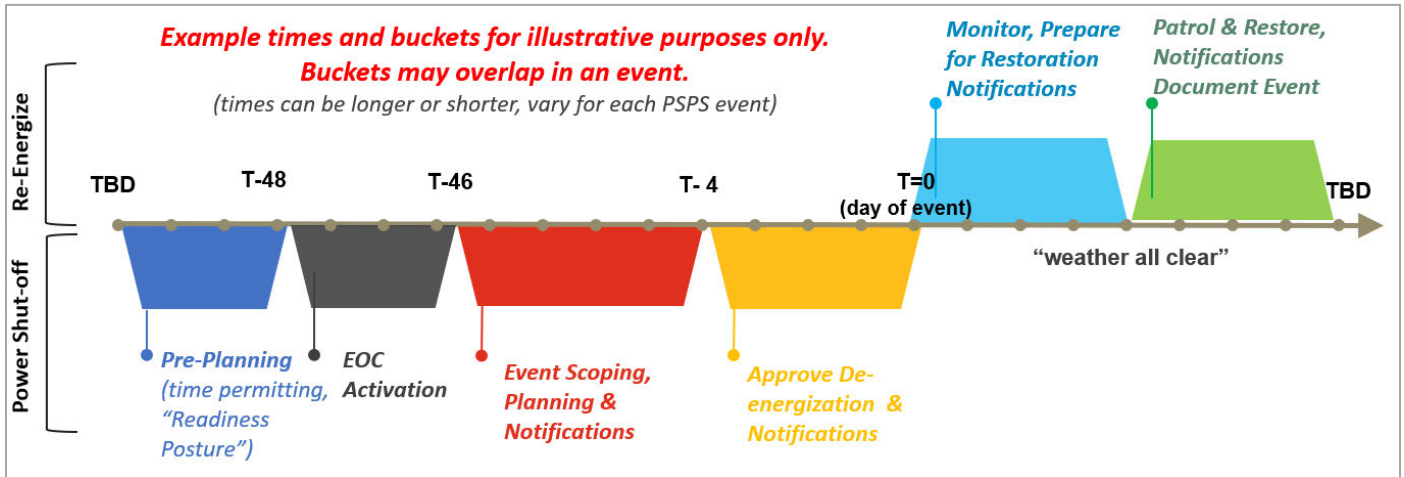
- Fire Weather Watches and Red Flag Warnings (Federal).
- High Risk of Significant Fire Potential (Geographic Area Coordination Center (GACC), Federal).
- Storm Prediction Center fire weather outlooks (National Oceanic and Atmospheric Administration (NOAA), Federal).
- Information received from agencies on Interagency Conference Calls during high risk periods.
- External forecasting services, including the European Center for Medium-Range Weather Forecasts (ECMWF), Global Forecast System (GFS).
- Field Observer information.
- Data from weather stations.
- Locations of existing fires.
- New fires detected – Satellite Fire Detection & Alerting System (FDAS).

PG&E is currently evaluating new technologies including fire-spread modelling to incorporate into PSPS decision-making. In the future, PSPS guidance may include and incorporate new scientific methods and models.

3.3.2 Example Sequence of a PSPS Event

Forecasts are subject to change quickly and preparation timelines adjust to forecasts for each PSPS event. Figure 3-9 shows a general example sequence for a PSPS event.

Figure 3-9: Example Timeline of PSPS Event



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3.3.3 PSPS Event Activity Timeline

Figure 3-10, Figure 3-11, and Figure 3-12 show an overview timeline for PSPS event activity from ~T-96 hours to T + 10 business days.

Figure 3-10: PSPS Event Activity Timeline (1 of 3)

| | PRE-EOC ACTIVATION [~T-96 HOURS] | EOC ACTIVATION (~T-72 HOURS) [ASSUMES AN 0600 ACTIVATION] | | ~T-48 HOURS | |
|--|--|--|---|--|---|
| | | AM | PM | AM | PM |
| METEOROLOGY | <ul style="list-style-type: none"> Meteorology identifies potential PSPS conditions | <ul style="list-style-type: none"> Weather model translated to weather polygons and overlaid with circuits to create scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope |
| | Continuous weather modeling | | | | |
| OPERATIONS | <ul style="list-style-type: none"> EOC Readiness Posture Evaluate open veg/maintenance tags | <ul style="list-style-type: none"> Officer-in-charge (OIC) decision to activate EOC for potential PSPS Receive approval and send transmission customer notifications | | <ul style="list-style-type: none"> OIC approves event scope and initiates Transmission power flow assessment Open local Operational Emergency Centers (OEC) | |
| | Develop utility crew resource plan, including air and ground resources | | | | |
| | Develop restoration plan, including prioritization of critical facilities | | | | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Review potential scope against temporary generation resource/ infrastructure locations | Refine deployment approach as PSPS scope evolves | | | <ul style="list-style-type: none"> Begin to assess ad hoc requests for backup power support, as applicable Coordinate with local agencies and stakeholders re: temporary generation usage |
| PORTAL | | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities and Medical Baseline/Self-Certified as Vulnerable customer lists to agency users that accepted the online agreement Share impacted site lists to critical facilities | Share maps and reports, if scope changes | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Call Cal OES re: change to "elevated" on weather website | <ul style="list-style-type: none"> Submit 0700 Cal OES form Update CPUC (SED) Update CAISO | <ul style="list-style-type: none"> Submit 1500 Cal OES form 1530: State Executive Briefing | <ul style="list-style-type: none"> Submit 0700 Cal OES form | <ul style="list-style-type: none"> Submit 0700 Cal OES form 1530: State Executive Briefing |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> Call County OES/Tribal Contacts re: change to "elevated" on weather website | <ul style="list-style-type: none"> Call Public Safety Answering Points Call and email County OES/Tribal Contacts re: scope, call info, CRCs and Agency Rep contact Call neighboring counties re: scope Email Systemwide Cooperators Call info Automated messages** | <ul style="list-style-type: none"> 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms |
| | Agency Rep Coordination with County OES/Tribal Contacts | | | | |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Update weather website to "Elevated" | | | <ul style="list-style-type: none"> Update weather website to "Warch" Upload maps to website Issue news release/talking points Share event information on multiple social media platforms | |
| CUSTOMER OUTREACH / NOTIFICATIONS | | | | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers** Automated messages to customers in substation and temporary microgrid scope, if possible** | <ul style="list-style-type: none"> Hourly automated messages** to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact Doorbell rings to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact |
| CUSTOMER SUPPORT | | <ul style="list-style-type: none"> Coordinate regarding Community Resource Center (CRC) locations Notify customer resource partners of potential event | | <ul style="list-style-type: none"> Confirm CRC locations and mobilize backup generation, as needed Send PSPS Toolkit and news release (as appropriate) to customer resource and informational partners | |
| LOCAL OES PROMPT | | <ul style="list-style-type: none"> Request County Rep in PG&E EOC, if needed Determine timing of Operational Areas Cooperator Comms Review and provide feedback on CRC locations Hold on sending customer notifications | | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing temp gen plans Begin notifications to customers, as needed (after PG&E's customer notification are sent) | |

LEGEND:
■ PG&E
■ Public Safety Partners/ State Agencies
■ Customers
■ Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates.

Figure 3-11: PSPS Event Activity Timeline (2 of 3)

| | -T-24 HOURS | -T-12 HOURS |
|--|--|---|
| | AM | PM |
| METEOROLOGY | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC <p>Continuous weather modeling</p> | <ul style="list-style-type: none"> Review PG&E weather station data to confirm timing and scope |
| OPERATIONS | <p>Develop utility crew resource plan, including aerial and ground resources; begin mobilizing resources into position for restoration, depending on expected event duration</p> <p>Develop restoration plan, including prioritization of critical facilities</p> | <ul style="list-style-type: none"> Host "Go/No Go" decision meeting Put circuits into configuration to avoid de-energization in certain areas |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Finalize initial list and prepare temporary generators/personnel for energization at substation microgrids, distribution microgrids and ad hoc backup generation sites (including critical facilities and hospitals) <p>Refine deployment approach as PSPS scope evolves</p> | <ul style="list-style-type: none"> Upon de-energization, energize generators at substation microgrids and distribution microgrids Deploy ad hoc backup generation support where feasible and critical to public safety (including critical facilities and hospitals) <p>Upon de-energization, affected circuits reconfigured for safe and efficient restoration</p> |
| PORTAL | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities <p>Share maps and reports, if scope changes</p> | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities |
| STATE AGENCIES | <ul style="list-style-type: none"> Submit 0700 Cal OES form <p>Update CAISO</p> | <ul style="list-style-type: none"> Submit 1500 Cal OES form Update CPUC (SED) 1530: State Executive Briefing |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** <p>Agency Rep Coordination with County OES/Tribal Contacts</p> | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Upload new maps to website (if needed) Issue news release/talking points Share event information on multiple social media platforms | <ul style="list-style-type: none"> Update weather website to "Warning" Upload new maps to website, if needed Issue news release/talking points Share event information on multiple social media platforms |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers and to customers in substation and temporary microgrid scope** <p>Hourly automated messages** to non-responsive Medical Baseline/Self-Certified as Vulnerable and self-identified vulnerable customers until receive positive contact</p> <p>Doorbell rings to non-responsive Medical Baseline/Self-Certified as Vulnerable and self-identified vulnerable customers until receive positive contact</p> | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers and to customers in substation and temporary microgrid scope** |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> Stand up CRCs Send news release to customer resource and informational partners, as appropriate | <ul style="list-style-type: none"> Stand up CRCs Send news release to customer resource and informational partners, as appropriate |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing critical facilities resiliency and temporary generation plans, as needed Assist with publicizing CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing critical facilities resiliency and temporary generation plans, as needed Assist with publicizing CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) |

LEGEND:
■ PG&E
 ■ Public Safety Partners/ State Agencies
 ■ Customers
 ■ Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates.

Figure 3-12: PSPS Event Activity Timeline (3 of 3)


| | WEATHER PASS / PATROLS AND INSPECTIONS BEGIN | | POWER RESTORATION (GOAL: RESTORE WITHIN 24 HOURS) | | T+10 BUSINESS DAYS |
|--|--|---|---|---|---|
| | AM | PM | AM | PM | |
| METEOROLOGY | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC Monitor PG&E weather stations to confirm conditions are safe to energize Recommend "weather all-clears" to Operations | | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC | | |
| OPERATIONS | <ul style="list-style-type: none"> OIC declares "weather all-clear" to begin patrols Begin aerial and ground patrols and inspections If damage is identified, repair | | <ul style="list-style-type: none"> Prioritize restoration of critical facilities, as is feasible | | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Develop restoration plan Assess any new ad hoc requests for backup power support; deploy temporary generators where feasible and critical to public safety (including critical facilities and hospitals) | | <ul style="list-style-type: none"> Shut off temporary generators and return customers to grid source Remove generators from sites where they were deployed as ad hoc backup power support if they are not stored seasonally on site | | |
| PORTAL | <ul style="list-style-type: none"> Share Situation Report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | | <ul style="list-style-type: none"> Share Situation Report | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Submit 0700 Cal OES form Update CPUC (SED) | <ul style="list-style-type: none"> Submit 1500 Cal OES form 1530: State Executive Briefing | <ul style="list-style-type: none"> Submit 0700 Cal OES form Update CPUC (SED) | <ul style="list-style-type: none"> Submit 1500 Cal OES form 1530: State Executive Briefing, as needed | <ul style="list-style-type: none"> File de-energization event report to CPUC (SED) |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages re: restoration timing** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms, as needed Automated messages** re: restoration Coordinate with County OES/Tribal Contacts re: CRC demobilization | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call, as needed 1500: Agency Rep available for Operational Areas Cooperators Comms, as needed | <ul style="list-style-type: none"> Email de-energization event report and survey feedback |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Post de-energization event report to website |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers re: restoration timing** | <ul style="list-style-type: none"> Live calls to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until receive positive contact | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers that restoration is complete** | | |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> CRCs Open Send news release to customer resource and informational partners, as appropriate | | <ul style="list-style-type: none"> Demobilize CRCs when entire county has been restored Send news release to customer resource and informational partners, as appropriate | | |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Send notifications to customers, as needed (after PG&E's customer notification are sent) | | <ul style="list-style-type: none"> Report any outage areas, as needed Provide feedback on closures of CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) | | <ul style="list-style-type: none"> Provide feedback/comments to de-energization event report |

LEGEND:

- PG&E
- Public Safety Partners/ State Agencies
- Customers
- Local OES Prompt

* **Public Safety Partners** include: County, City, CCAs, Tribes, Telecom, Emergency Hospital Services, Water Agencies and Publicly-Owned Utilities.
 ** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates.



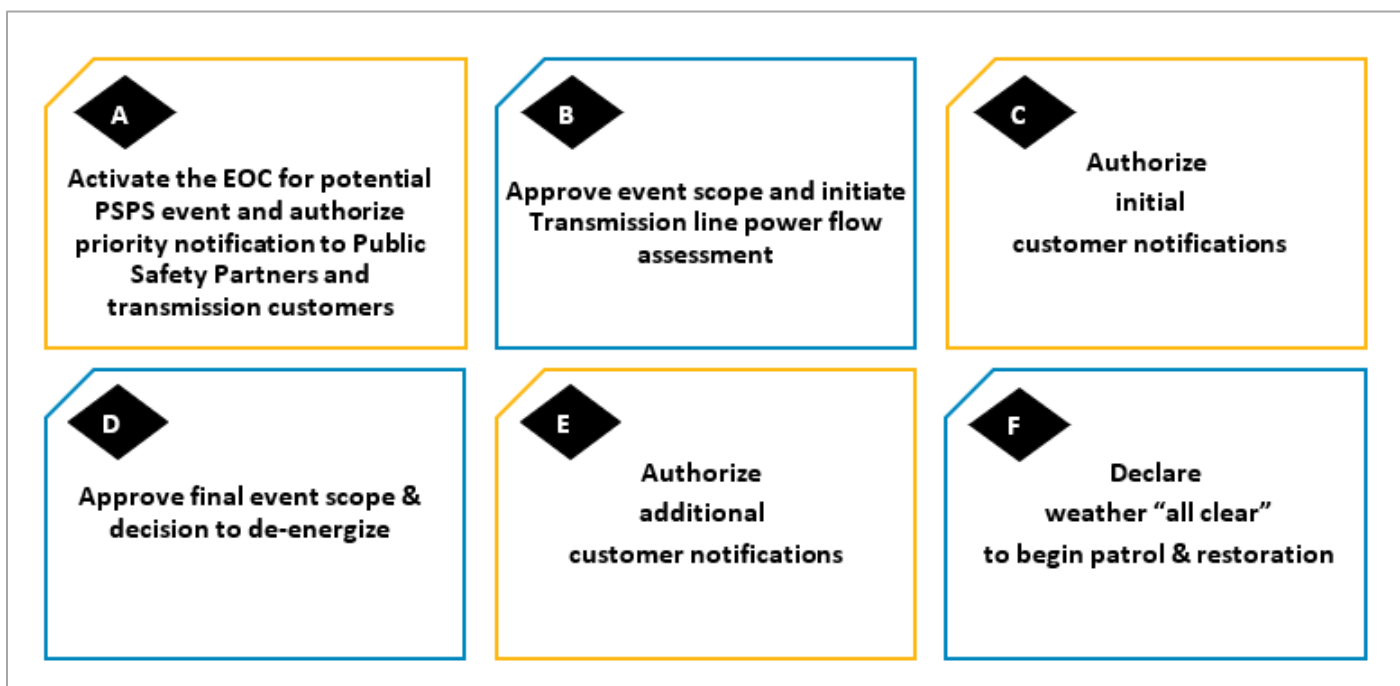
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3.3.4 Decisions made by Officer-in-Charge

A designated Officer-in-Charge (OIC) makes several key decisions throughout a PSPS event, including the ultimate decision to shut off power and to issue a weather “all-clear” to begin the process of patrols and restoration after high-risk weather conditions subside. In making these decisions, the OIC receives situational awareness from the Command Staff and general staff of PG&E’s EOC, including from the Meteorology, Planning Section, Customer Strategy, and other EOC sections.

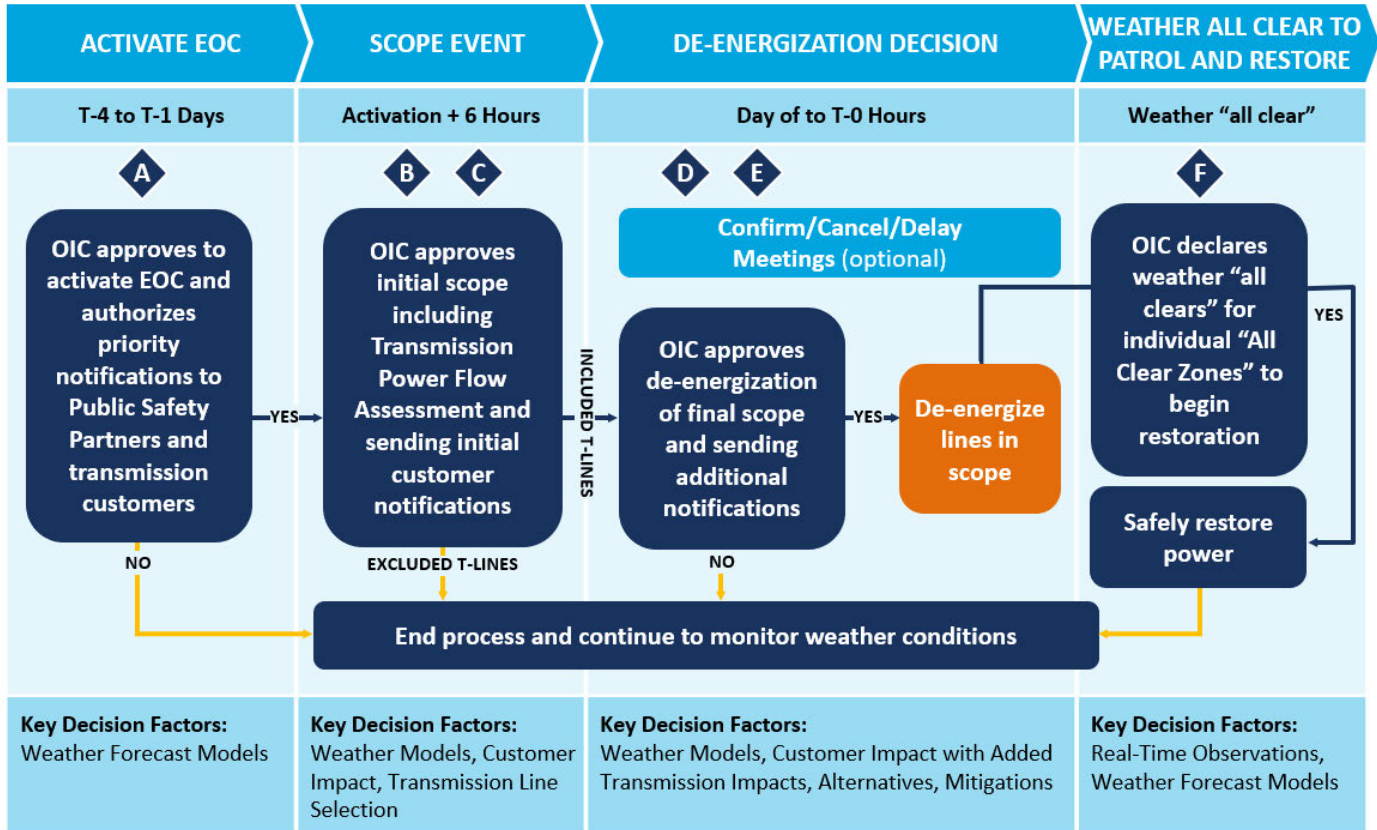
There are six important PSPS decisions, called OIC decisions which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly, and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 3-13.

Figure 3-13: OIC Decisions A – F



The sequencing of the PSPS decision process, with an example of approximate timing, and indicating what happens if a decision is made not to proceed and the process is ended with continued monitoring of weather conditions, is visualized in Figure 3-14.

Figure 3-14: Public Safety Power Shutoff Decision Process



PG&E’s meteorology team and HAWC will continue to closely monitor changing forecasts and conditions leading up to the event and update the OIC of any changes in the forecasts or conditions. Concurrently, PG&E will begin notifying all potentially impacted entities including state, local, and tribal agencies, public safety partners, and customers. Based upon the latest information provided by the meteorology team and Command and General Staff, the OIC will decide whether to proceed with de-energization of the transmission and distribution lines passing through the areas of forecasted risk.

To make this decision, the OIC will consider factors such as the availability of alternatives to de-energization and the ability to mitigate the adverse impacts on customers and communities in areas planned for shutoff through steps such as warning customers through notifications, mobilizing community assistance locations, implementing sectionalization and microgrids where possible, or providing back up power support under exception circumstances.

Based on the intelligence provided, the OIC must determine there is an imminent and significant risk of strong winds impacting PG&E assets, and a significant risk of large, destructive wildfires should ignition occur. The OIC must determine alternatives to de-energization are not adequate to reduce this risk and that the public safety risk of catastrophic wildfire outweighs the adverse impacts of de-energization within the given scope. If it is determined that de-energization is necessary to protect public safety, the OIC will approve the decision to de-energize the final scope of the event and send warning notifications to the customers in scope.

After the decision to de-energize is made, PG&E continues to actively monitor weather forecasts up until the planned de-energization time. The EOC Commander, Operations, and the Meteorology teams monitor approaching weather, and may hold a series of “Confirm/ /Cancel/Delay” meetings to [1] **Confirm** – confirm that weather has materialized and de-energization can proceed per plan, [2] **Cancel** - confirm that the weather threat did not materialize and the de-energization should be cancelled or [3] **Delay** - confirm that the weather threat is still imminent but has materialized slower than expected and the final decision to de-energize needs to be delayed. This final set of meetings immediately prior to anticipated de-energization allows PG&E to change course and reduce or expand the scope, as necessary, if there is an emergent change in the weather.

3.4 PSPS Preparedness

3.4.1 Organization

All employees involved with a PSPS event will be oriented to the PSPS Annex, applicable department emergency plans, and their respective emergency centers' contact list. Refer to [EOC Intranet site](#) for additional information on EOC staffing plans, training, job aids, and further EOC related information.

A staffing plan identifies on-call individuals.

The on-call responsibilities include the following:

- Ensure availability during defined schedule.
- Maintain a heightened level of awareness of all potential, forecasted, and in-process PSPS events.

3.4.2 Readiness Expectations

EP&R SE determines and posts EOC on-call teams, rotations, and yearly scheduling. Rotations and scheduling can be adapted as necessary. EOC on-call distribution lists are maintained to ensure team notifications are timely and accurate.

For more information see [CERP Section 8.3](#).

3.4.3 Call-out Procedures

The on-call EOC Commander initiates notification process of select internal representatives to participate in Readiness Posture and separately for EOC Activation.

EOC Activation is announced by EP&R S&E through standard modes of communication to on-call teams.

3.5 Pre-Event

3.5.1 Pre-Event Preparation

See Section 3.5.3 on event specific Readiness Posture.

Note: Readiness Posture is not a requirement for EOC activation and may not occur in all PSPS events.

3.5.2 Hazard Forecasting and Prediction

The potential for an R5-Plus weather forecast based on numerical weather prediction models and forecasted FPI and IPW models will trigger Meteorology to call the Vice President of EP&R to discuss the forecast. These discussions may occur several days before the event depending on the forecast.

If the forecasted weather event is beyond the range of PG&E's high-resolution forecast model, PG&E utilizes a suite of public and proprietary global weather models to evaluate potential for strong, dry winds to occur with dry fuel conditions present. The frequency of weather updates increases leading up to a potential PSPS event as PG&E has more access to internal and federal high-resolution forecast data.

3.5.3 Event Specific Readiness Posture

When Meteorology identifies forecast models that have the potential for developing R5-Plus level conditions and there is advance time before de-energization is forecasted to be required, the on-call EOC Commander can call on representatives from select sections and officers to meet, track developing conditions, perform readiness tasks where possible, and when warranted make a recommendation to the OIC to activate the EOC for a potential PSPS event.

Readiness Posture is equivalent to EOC Activation Level 2, Enhanced Steady-State/Partial Activation, described within National Incident Management System (NIMS) as "certain EOC team members/organizations are activated to monitor a credible threat, risk, or hazard and/or to support the response to a new and potentially evolving incident."

Time permitting, the on-call EOC Commander can decide to declare Readiness Posture.

Upon request from the on-call EOC Commander or his/her delegate, EP&R S&E will make internal notifications that the EOC is moving into a Readiness Posture and those in pre-assigned positions are to report.

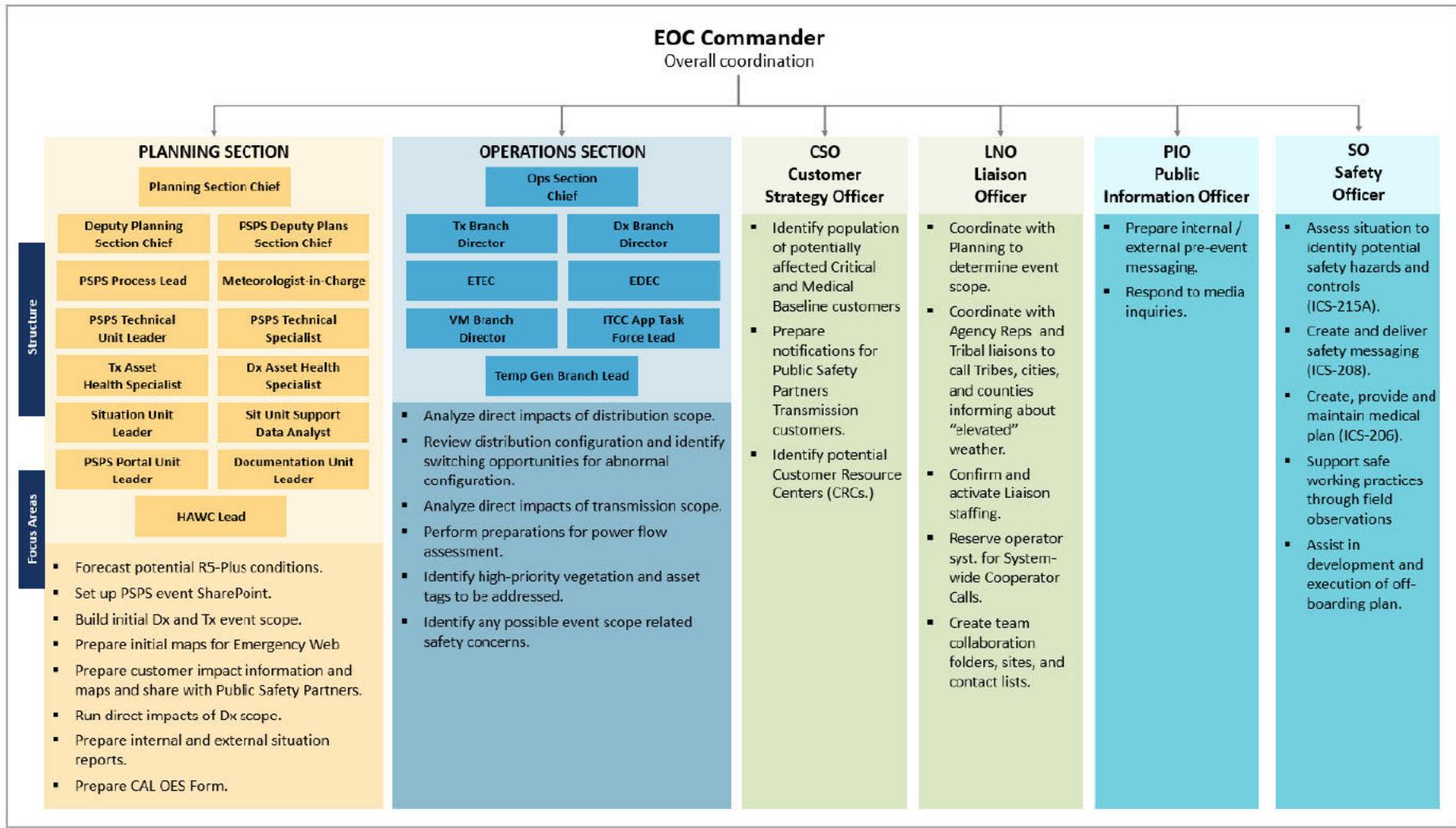
See Figure 3-15 for overview of Readiness Posture sections and focus areas.

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Readiness Posture Overview

Figure 3-15 shows combined overview of Readiness Posture structure and focus areas based on text in section 3.5.3

Figure 3-15: Readiness Posture – Structure and Focus Areas



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3.5.4 Readiness Posture - Sections and Focus Areas

The on-call EOC Commander is responsible for overall coordination, insight, and readiness of activities related to Readiness Posture.

Sections and focus areas for Readiness Posture include Planning, Operations, Customer Strategy Officer (CSO), Liaison Officer (LNO), Public Information Officer (PIO) and Safety Officer (SO). See Figure 3-15 for overview of Readiness Posture sections and focus areas.

Planning

Roles

- Planning Section Chief
- Deputy Planning Section Chief
- PSPS Deputy Planning Section Chief
- PSPS Process Lead
- Meteorologist-in-Charge (MIC)
- PSPS Technical Unit Leader
- PSPS Technical Specialist
- Transmission Asset Health Specialist (TAHS)
- Distribution Asset Health Specialist (DAHS)
- Situation Unit Leader
- Situation Unit Support
- Situation Unit Support Data Analyst
- PSPS Portal Unit Leader
- Documentation Unit Leader
- HAWC Lead

Focus Areas may include:

- Forecast potential R5-Plus conditions.
- Setting-up PSPS event SharePoint.
- Building initial distribution and transmission event scope.
- Preparing initial maps for Emergency Web.
- Preparing customer impact information and maps and share with Public Safety Partners.
- Preparing internal and external situation reports.
- Preparing State Executive Briefing materials.

Operations

Roles

- Operations Section Chief
- Distribution Branch Director
- Transmission Branch Director
- Vegetation Management Branch Director
- Temporary Generation Branch Lead
- Information Technology Coordination Center (ITCC) PSPS Application Task Force Lead
- Vegetation Management Branch Director

Focus Areas may include:

- Analyzing direct impacts of distribution scope.
- Reviewing distribution configuration and identify switching opportunities for abnormal configuration.
- Analyzing direct impacts of transmission scope.
- Performing preparations for power flow assessment.
- Identifying high-priority vegetation and asset tags to be addressed.
- Identifying any possible event scope related safety concerns.

Customer Strategy Officer

Focus Areas may include:

- Identifying population of potentially affected Critical and Medical Baseline customers (source Planning Section from PSPS Viewer).
- Preparing notifications for Public Safety Partners and Transmission customers.
- Identifying potential Community Resource Center (CRC) sites.

Liaison Officer

Focus Areas may include:

- Coordinating with Plans to determine event scope.
- Coordinating with Agency Representatives and tribal liaisons to call Tribes, cities, and counties informing about “elevated” weather.
- Confirming and activate Liaison team staffing.
- Reserving operator system for Systemwide Cooperators Calls.
- Creating team collaboration folders, sites and contact lists to support team collaboration and agency notifications.

Public Information Officer

Focus Areas may include:


- Preparing internal / external pre-event messaging.
- Responding to media inquiries.

Safety Officer

Focus Areas may include:

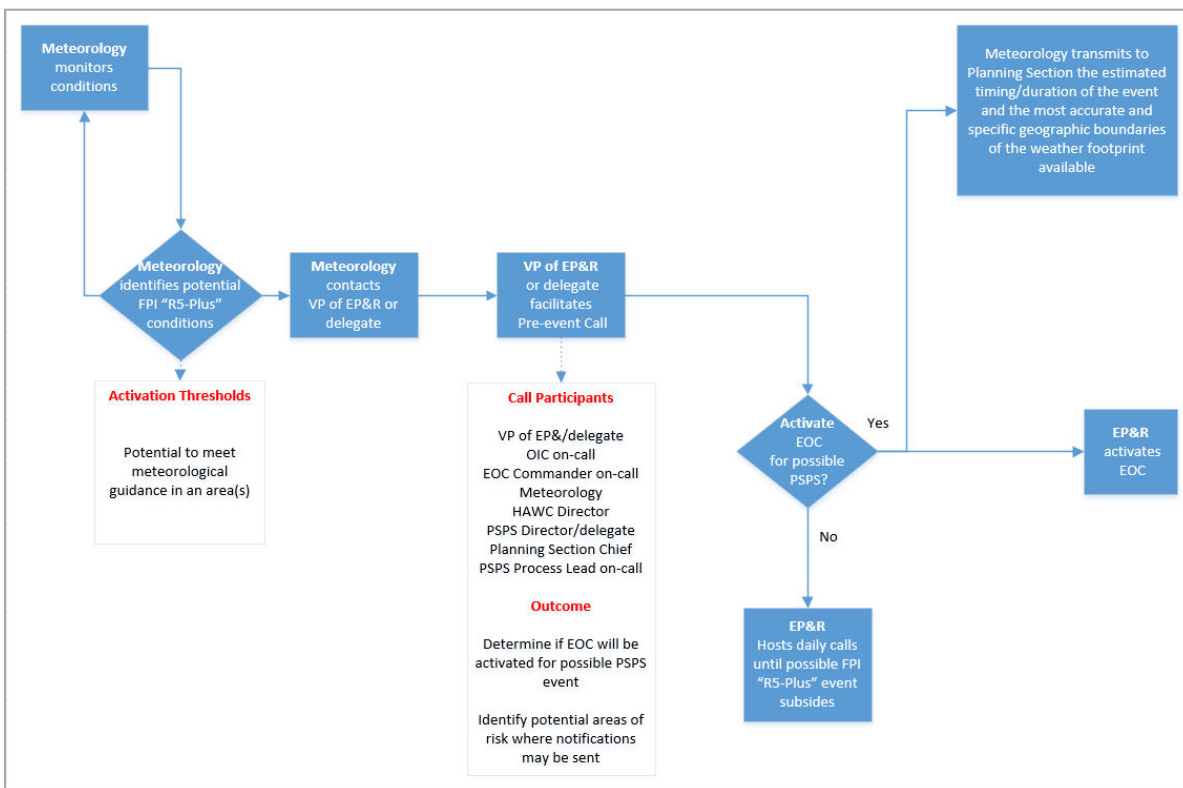
- Assessing situation to identify potential safety hazards and controls (ICS-215A).
- Creating and deliver safety messaging (ICS-208).
- Creating, providing, and maintaining medical plan (ICS-206).
- Supporting safe working practices through field observations.
- Assisting in development and execution of off-boarding plan.

3.6 Response - EOC Activation Process for Potential PSPS Event

PG&E's EOC has been established to coordinate overall response and support in an emergency. On an initial call established and facilitated by the Vice President of EP&R (or delegate) the OIC, with input from on-call EOC Commander and a representative from Meteorology, EOC Planning Section Chief, PSPS Process Lead, and representative from the HAWC, will decide if forecasted conditions indicate a credible threat to warrant activating the EOC and all EOC team personnel (OIC decision  see Section 3.8.1).

Once the decision is made, standard procedures outlined in the CERP are followed to activate the EOC. Figure 3-16 shows the PSPS EOC activation process. Due to the dynamic circumstances of a PSPS event, OIC Decision A may or may not happen as weather conditions may unfold quicker than planned or back-to-back PSPS events may result in the EOC staying activated between events.

Figure 3-16: PSPS EOC Activation Process



The EOC operates under an Incident Command System (ICS) approach which is directed by an EOC Commander.

Details about the ICS approach and EOC activation process and execution are outlined in PG&E's [CERP Section 8](#).

3.7 Notifications – Internal and External

3.7.1 Internal Notifications

When requested by on-call EOC Commander, VP of EP&R or Planning Section Chief instructs the EOC Communication Technical Specialist in coordination with the EOC Coordinator to send out EOC activation notifications to EOC personnel that the EOC is activating for a PSPS.

3.7.2 External Notifications – CPUC, Cal OES, and Public Safety Partners

In compliance with Standard Six of G.O. 166, within one hour of identification of a major outage or other newsworthy event, EP&R SE must notify the CPUC and the Warning Center at California Office of Emergency Services (Cal OES) of the location, possible cause and expected duration of the outage.

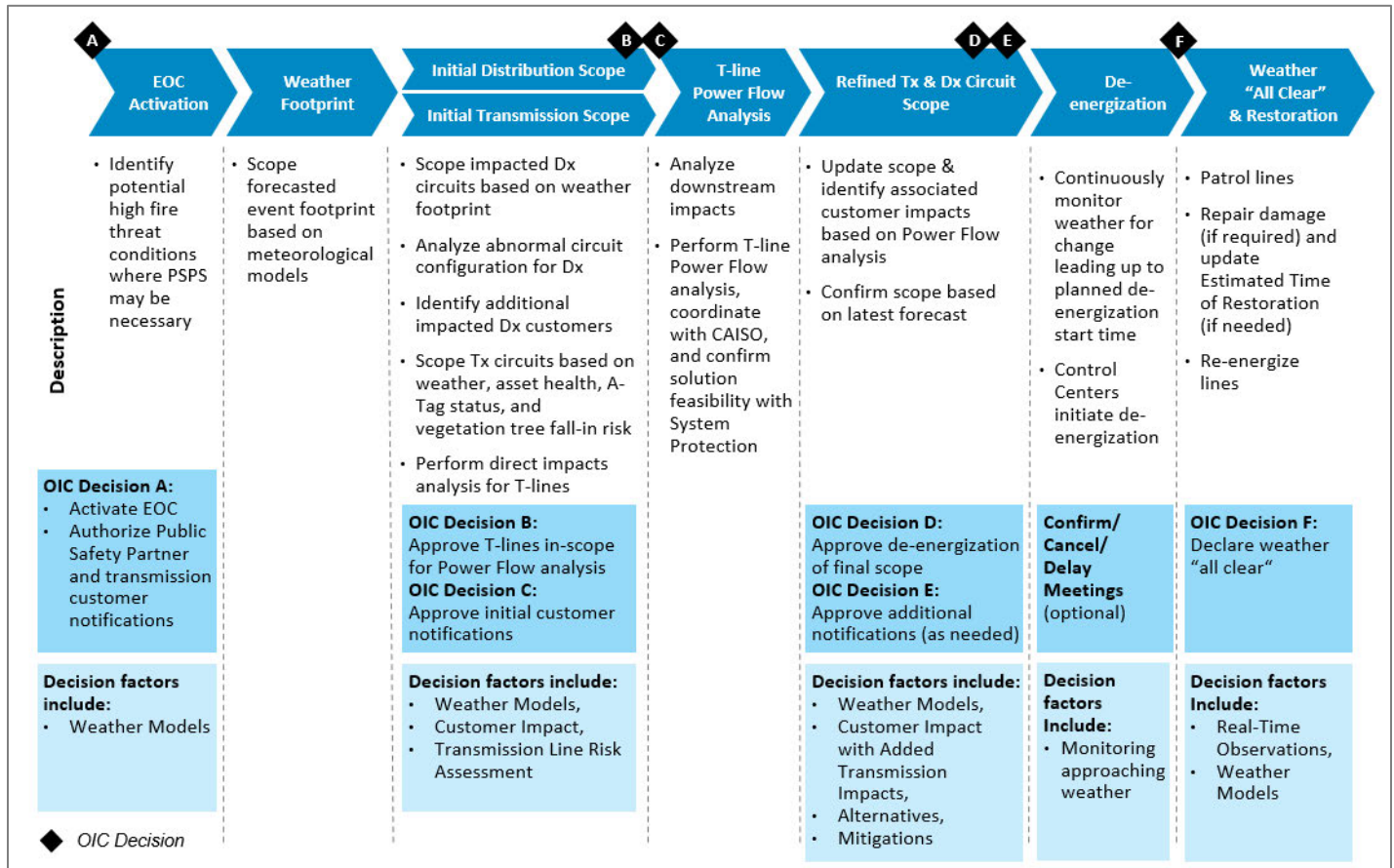
Per CPUC D.19-05-042, Liaison and Customer notify Public Safety Partners when the EOC is activated in anticipation of a de-energization event or whenever the determination is made that de-energization is likely, whichever occurs first. PG&E includes information as outlined in D.19-05-042.

3.8 PSPS Event

3.8.1 PSPS Event Overview

The overview in Figure 3-17 provides a high-level diagram of major PSPS phases, discussion points, deliverables, and decisions. It is a guide and not a prescription for PSPS events.

Figure 3-17: PSPS Event Overview with OIC Decisions



OIC Decisions:

- ◆ **A** Activate the EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
- ◆ **B** Approve event scope and initiate Transmission line power flow assessment.
- ◆ **C** Authorize customer notifications.
- ◆ **D** Approve final event scope & decision to de-energize.
- ◆ **E** Authorize additional customer notifications.
- ◆ **F** Declare weather "all clear" to begin patrol & restoration.

3.8.2 PSPS De-energization Playbook using PSPS Viewer, PSPS Situational Intelligence Platform, and Transmission List

The PSPS Viewer and (when applicable) a Transmission PSPS direct impact analysis output or total impacts study output are used to create and update an event specific PSPS de-energization Playbook with versions A-D. The initial PSPS Playbook A is generated from the initial event using PSPS Viewer and PSPS Situational Intelligence Platform (PSIP), then sent to the DCC for review. The finalized PSPS Playbook D incorporates distribution circuits and abnormal configurations, direct and indirect transmission lines, Substations, and customers, that are being considered for de-energization. This information can then be used to notify the scope of the event with outside entities and customers.

De-energization Playbooks

Playbook A – Initial distribution playbook.

Playbook B – Adds distribution abnormal circuits from direct impacts and confirmed temporary generation.

Playbook C – Adds direct transmission impacts and updated confirmed temporary Generation.

Playbook D – Adds total transmission impacts (direct & indirect) and updated confirmed temporary generation.

3.8.3 Electric Transmission Emergency Center for PSPS

Initiation of a PSPS event triggers activation of the Electric Transmission Emergency Center (ETEC) at the primary location, which is currently at the Vacaville GCC or Grid Support Center (GSC). ETEC will serve as a hub for all transmission assets as well as communication and coordination between internal entities such as the EOC, Electric Distribution Emergency Center (EDEC), Substation Transmission Operations Emergency Center (STOEC), and external agencies such as California Independent System Operator (CAISO), municipally-owned utilities etc. ETEC consists of the GCC Supervisor(s), Operations Engineers (OEs), System Protection, Transmission System Operations (TSO) Programs (as required), Emergency Management System (EMS) (as required), and Remedial Action Schemes (RAS) Operations (as required).

The GCC Supervisor sends a “PSPS Awareness” notification to CAISO by phone and e-mail. This notification will consist of potentially impacted transmission lines and an estimated timeline of the PSPS event. After further analysis, EOC Planning Section will provide a list of transmission lines to ETEC and Operations Section Chief. Once the line list is received, ETEC team will begin the process to determine direct transmission impact analysis with support from Operations Engineering, System Protection, and the CAISO.

ETEC responsibilities include:

- Identifying directly impacted transmission assets and facilities within the potentially-impacted geographic scope meeting transmission line selection criteria, which involves the creation of a PSPS Direct Impacts analysis (also called “Tx Playbook C”) output spreadsheet indicating impacted lines and outage cards via Transmission Operations Tracking & Logging System, then sharing with CAISO.
- ETEC Lead sends the PSPS Direct Impact Summary to Electric Transmission Branch Director and EOC Planning Section Chief.

Upon the Planning Section receiving the PSPS Direct Impact Summary, presenting the list of T-lines for OIC approval to commence the power flow studies (OIC Decision **B** see Section 3.3.4)

Upon approval of OIC decision **B**, ETEC team initiates PSPS Total Impact Analysis (initiates an in-depth scenario analysis in parallel with CAISO’s own impact study, which includes power flow studies and contingency analysis). These studies will help ETEC team and CAISO identify any necessary mitigation requirements to maintain the stability of the system when implementing PSPS.

The study results are then exchanged and validated with CAISO. When mitigation requirements are identified and agreed upon, ETEC team will provide all the operational requirements to System Protection, which will confirm overall protection coordination and adequacy of the grid through a complete Protection Dependability Study and Final Bus Fault Duty Analysis. CAISO, System Protection, and OEs will analyze the overall results and then agree upon the complete set of operational requirements for the implementation of PSPS (such as rotating outages, pro-rata load-sharing to minimize the impacts to other utilities, changes in relay settings, etc.).

ETEC team will then produce a PSPS Total Impact Summary and share with ETEC Lead, CAISO, EDEC, and STOEC. The ETEC Lead will provide to Electric Transmission Branch Director and EOC. The summary contains:

- Transmission lines impacted with voltage level information.
- Impacted substations and static estimated customer count.
- Transmission customers impacted (load, generators, municipally owned utilities, etc.).
- Estimated power generation impact in megawatt (MW).
- Estimated load impact (MW).
- Rotating outage plan projection (if needed) based on load forecast.

System Protection identifies transmission-level customers/entities that will remain energized but experience a fault duty change of greater than 15%, prompting the third party to perform a coordination study and potentially reset relays for the duration of the event. Notification of third-party transmission interconnection customers to be done as per established process through the Critical Infrastructure Lead (CIL).

ETEC team creates new outage cards or updates the existing cards with CAISO based on Total Impact Analysis results. Next, ETEC team identifies critical in-service lines for patrol prior to weather event, and then create a prioritized sequence for de-energization of transmission grid elements including load, generation, system protection settings, and other assets. ETEC Lead then shares the plan with STOEC, EDEC, CAISO, and EOC. Finally, based on all the information discussed above, ETEC team prepares PG&E's electric grid for the PSPS event. This involves coordination with CAISO, EDEC and STOEC.

3.8.4 Forecast Fire Potential Index of R5-Plus - Assessment Actions

The Fire Potential Index (FPI) forecast describes the potential for fires to ignite and spread rated on a scale from "R1" (lowest) to "R5" (highest) specific to each FPI Rating Area. "R5-Plus" indicates there is elevated fire potential plus the potential for wind-related outage activity from the IPW model, which may warrant a PSPS event. (see Section 5.1.1 for more information on Fire Potential Index)

When an R5-Plus weather event is forecasted, a pre-assessment review is conducted¹ that includes:

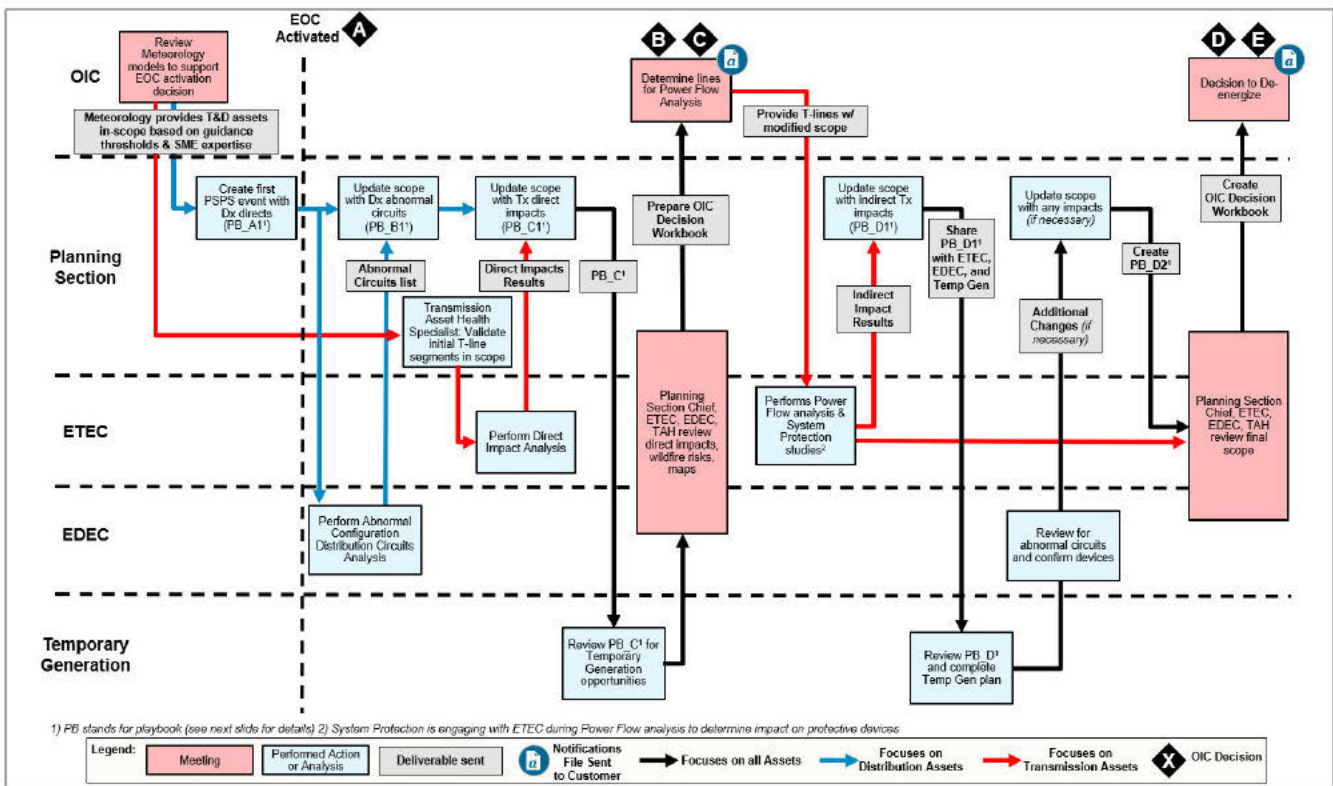
- Stopping specific types of work in areas where R5-Plus is forecasted according to according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#).
- Reviewing high-priority maintenance tags (A and B tags) along high-risk areas (using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits and accelerating work if possible or needed.
- Reviewing planned work (e.g., Vegetation Management) along high risk areas (determined using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits.
- Determining if Enhanced Vegetation Management work has occurred.
- Evaluating Red Flag warnings, temperature forecast, and other weather conditions to determine if high-risk work (e.g., temperature impact to loading) can be safely completed prior to PSPS event).
- Confirming work is complete prior to PSPS event.

Aerial patrols may be considered for a pre-event grid assessment and will depend on efficacy prior to a forecasted R5-Plus event. The HAWC, in coordination with Aviation Services and Electric Operations, will make the determination if aerial patrols are warranted.

Figure 3-18 shows a process flow for the Transmission and Distribution PSPS scoping process including OIC Decisions A-E and Playbooks A-D. The process flow is limited to PSPS scoping and for that reason does not show OIC Decision F or Restoration Playbook F.

¹ The pre-assessment review may not be completed depending on time and employee safety concerns.

Figure 3-18: Transmission and Distribution PSPS Scoping Process



Note: Not rendered in figure, possible “break-ins” or having to loop back to the beginning due changes in forecasted weather.

OIC Decisions:

- ◆ Activate EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
 - ◆ Approve event scope & initiate Transmission power flow assessment.
 - ◆ Authorize customer notifications.
 - ◆ Approve final event scope & decision to de-energize.
 - ◆ Authorize additional customer notifications.
- OIC Decision ◆ (weather “all clear”) not part of scoping process.

De-energization Playbooks

- Playbook A – Initial distribution playbook
- Playbook B – Adds distribution abnormal circuits from direct impacts and confirmed temp generation
- Playbook C – Adds direct transmission impacts and confirmed temp generation
- Playbook D – Adds total transmission impacts (direct/indirect) and confirmed temp generation
- Restoration Playbook F not part of scoping process.

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3.8.5 Resource Planning

The guiding principles for PSPS resource planning are listed below. Resource plans should:

- 1) Identify specific PSPS resource needs including resource requirements for patrolling circuits prior to restoration, field observation, and staging areas.
- 2) Strive for restoration of power to all customers affected by the PSPS event as quickly and safely as possible, after the weather “all clear”, while maintaining safety for customers and PG&E employees.
- 3) Have triggers for mutual assistance requests based on the size of the PSPS event.
- 4) Refine resource allocations as the event evolves and de-energization approaches.

For weather events, the weather forecast will initiate resource planning via the Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) model that Meteorology produces for system outage forecasts. The SOPP model will inform staffing for response to the weather event.

For PSPS events, the EOC allocates all QEW / crew resources based on FORCE tool outputs and REC crew requests, including availability of helicopters for Distribution line patrols. Extra resources above FORCE and/or SOPP allocated based on requests and availability of crews. The FORCE tool provides a reference point based on inputs, but actual staffing may exceed or be below FORCE staffing models. Commonly, when there are not enough resources to meet the FORCE model or up to the requested resources the Resource Unit will attempt to balance resources based on the FORCE and/or SOPP outputs using a ratio/percentage base. EOC reviews output with RECs before starting dispatch.

Elements that influence allocations of air assets include:

- Transmission lines are patrolled almost exclusively by helicopters.
- The remaining helicopters available are then assigned for Distribution patrols.
- Based on this allocation of helicopters and patrol speed assumptions, the FORCE model provides an estimate of the ground patrol units by Division that will be required to patrol the remaining de-energized Tier 2 and Tier 3 Distribution lines within a designated time frame.

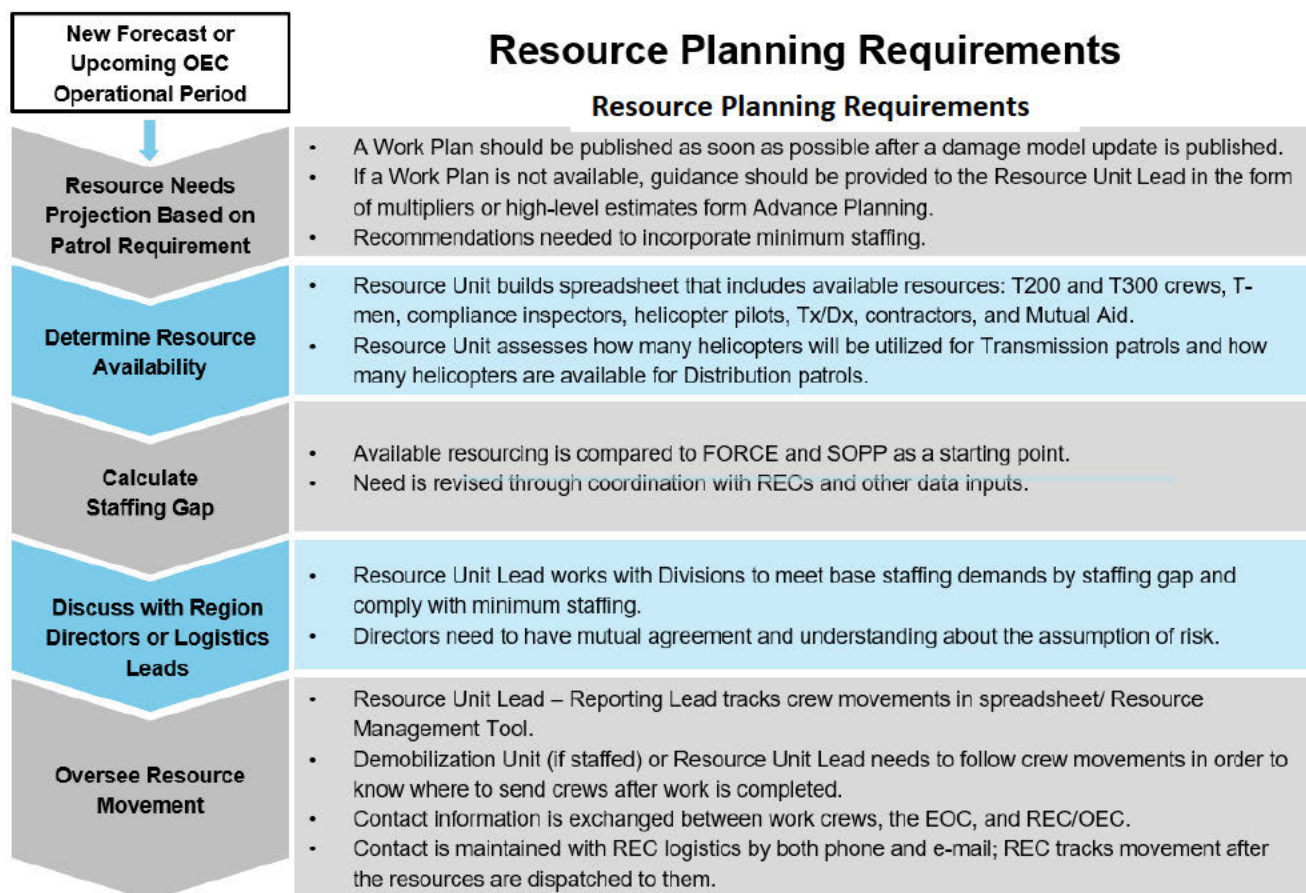
Elements that influence resource plans include:

- SOPP model and forecast system outages.
- Outage Management Tool (OMT) information on actual outage counts.
- Event timing (i.e., day of week, time of day).
- Circuits and customers impacted (i.e., circuit miles, amount and type of customers, circuit accessibility and/or visibility to aerial patrols).
- Resource availability and planned work.
- Availability of helicopters to conduct patrol.

- Grid awareness (i.e., abnormal switching, SCADA and protection capabilities).

The Operations Emergency Center (OEC) resource planning process is illustrated in Figure 3-19.

Figure 3-19: OEC Resource Planning Process



Each PSPS event is unique. Resource staging may vary but, in general, will be prepared in the following locations:

- Control Centers (various): Distribution and Transmission Control Centers: stage resources for system protection analysis and coordination of resources required for automatic switching and separately for manual switching.
- Service Centers, base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs), will vary based on the forecasted event. Field Observers, Vegetation Management crews, Restoration crews, Local Customer Representatives, and (potentially) Maintenance and Construction crews will await deployment from a local Service Center.
- Aviation Services consolidate operations to Vacaville and Winters. Vacaville will serve as the centralization of PG&E's aviation organization. Winters will be the main training center.

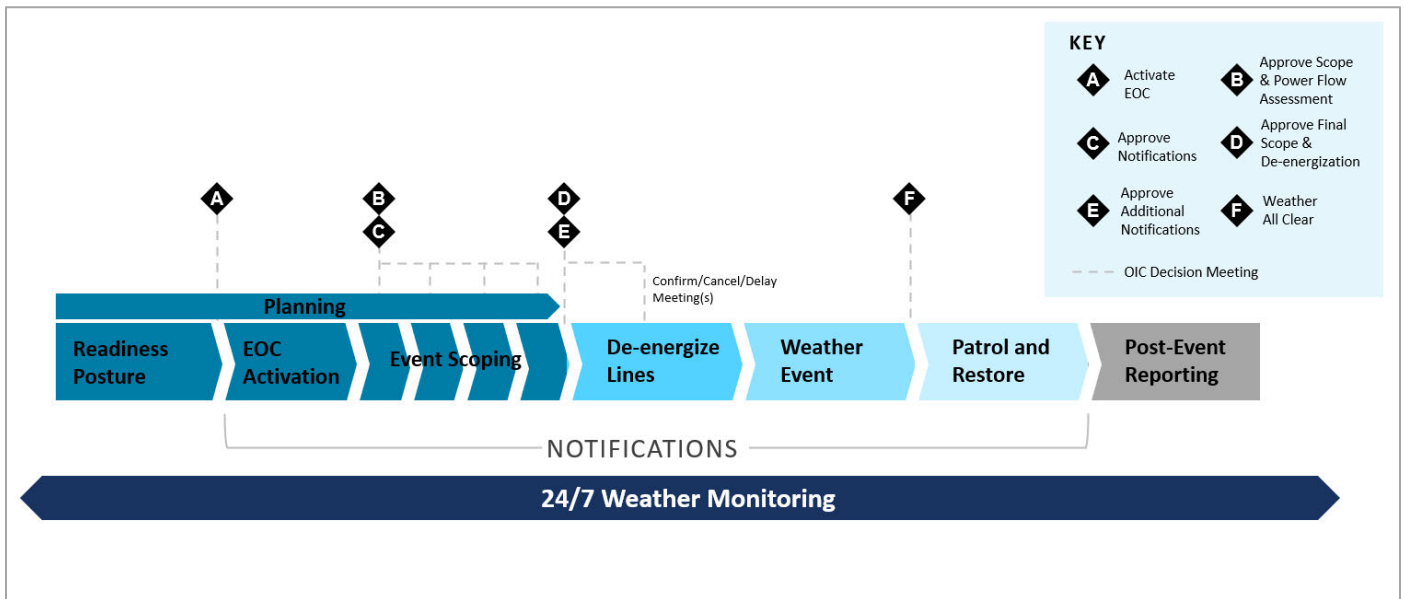
3.8.6 Field Observer Resourcing

Field observations are completed by members of Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

3.9 PSPS Event Scoping

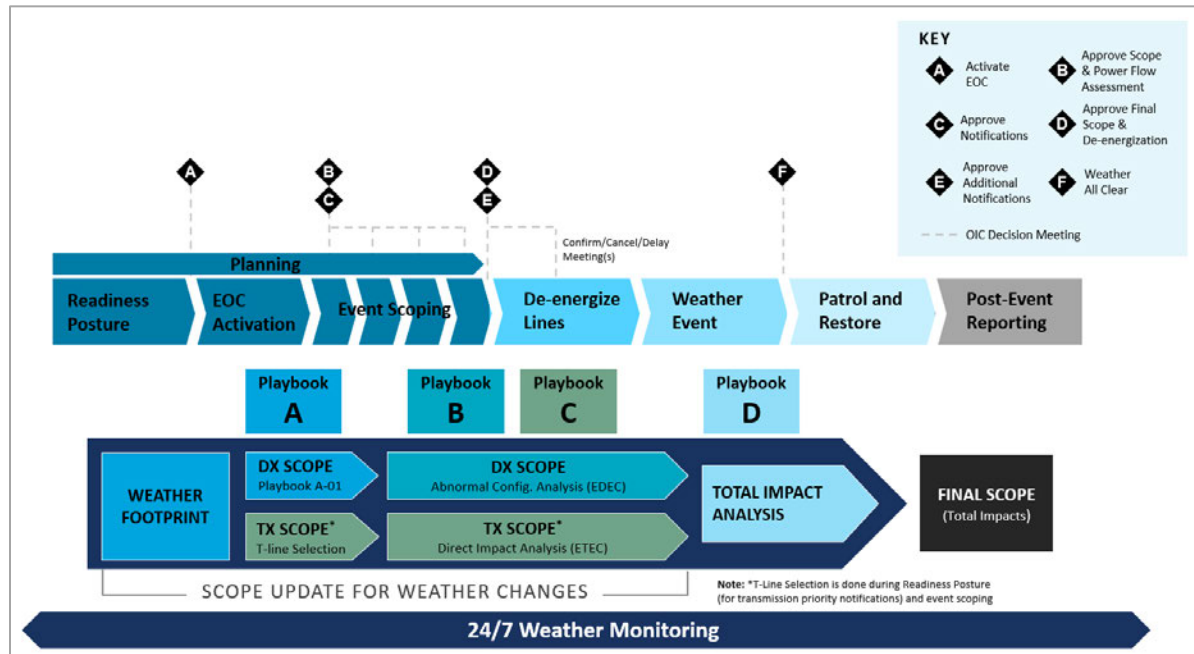
Scoping of a potential PSPS event can begin during Readiness Posture. If there is no Readiness Posture scoping begins after EOC activation. OIC Decisions **B** through **E** are made during the scoping phase. Figure 3-20 shows overview of PSPS sequence and event scoping.

Figure 3-20: PSPS Process with OIC Decisions



Scoping of a PSPS event includes information from meteorology, distribution, and transmission. Through an iterative process a series of Playbooks are created starting with Playbook A and leading towards Playbook D. Figure 3-21 shows components of the scoping process and Playbooks.

Figure 3-21: Scoping Components and Playbooks



3.10 Approval and De-Energization

3.10.1 OIC Approval to Shut off Power

The OIC will make the final decision to shut off power (OIC Decision **D**, see Section 3.3.4). This decision will be based on an assessment of the quantitative and qualitative factors listed in Section 3.3.1.

Upon confirming the decision to shut off power for safety, the OIC will hand off to the EOC Commander to execute the necessary steps to de-energize. The OIC can delegate the authority to the EOC Commander to adjust the scope of the event as necessary if there are emergent weather changes.

3.10.2 De-energization

The de-energization process consists primarily of the following actions:

- EOC team and OIC finalize scope to proactively de-energize based on evaluation of quantitative and qualitative information.
- OIC makes decision to proactively de-energize (OIC Decision **D**, see Section 3.3.4). If applicable in conjunction with OIC Decision **D**, OIC authorizes notifying any additional customers, OIC Decision **E**.
- Depending on the timing of OIC Decision D in relation to the time of de-energization, with permission from the OIC, the EOC Commander may elect to reaffirm Decision D closer to the start of the weather event in a subsequent de-energization Confirm/Cancel/Delay meetings to account for quickly changing weather conditions and allow for increased situational awareness closer to the time of de-energization.
- Preparations for notifications before de-energization include:
 - Planning Section confirms facilities for shutoff with Electric Operations via approved PSPS Playbook.
 - Planning Section uses the PSPS Viewer and Foundry tools to create updated customer lists, reports, event maps, and files reflecting de-energization plans created from the PSPS Viewer.
 - Planning Section prepares the initial Cal OES form.
 - The Digital Strategy team uploads content to the new PG&E alerts website including updated files for the affected area maps, updated files for the address lookup tool, and information that the decision to de-energize has been made.
 - The PSPS Portal Lead uploads content to the ArcGIS Online PSPS Portal including updated GIS layers for customer impacts and affected circuits, updated medical baseline and critical facility lists for agency users, and updated affected site lists for critical facility providers.
 - Liaison stages notifications to CPUC, cities, counties, Tribes, and other stakeholder groups informing them of imminent power shutoff (pointing users to the latest files on the web and Portal).
 - Prior to notifying transmission customers PG&E will engage Public Safety Partners as required by the CPUC. In order to ensure compliance with FERC Standards of Conduct, PG&E will communicate concurrently with the initial transmission PSPS scope for the given event (and subsequent modified transmission scopes) to Public Safety Partners who may also be electric wholesale market participants.
 - Planning Section / Digital strategy will post communications, including specifying the transmission PSPS scope, to PG&E's FERC Standards of Conduct website pge.com. PG&E has sought FERC guidance regarding these procedures and may modify these procedures based upon additional input from FERC.
 - Customer Team sends notifications to Public Safety Partners, Critical Customers, Critical Facilities and all other customers informing them of imminent power shut off.

- PIO posts on social media and issues press release communications.
- PG&E will make best effort attempts to provide affected customers, or their agents, with notice, but shall not be liable for interruption if notice cannot be provided in a timely manner, as required in [Electric Rule No. 14](#).
- If conditions exist that make it impossible to inform customers and other stakeholders of an imminent power shutoff, Customer Care and Liaison will send notifications to customer and stakeholders as soon as possible notifying them of the shutoff.
- Electric Transmission and Distribution Control Centers verify impacted circuits and devices.
- Electric Transmission and Distribution Control Centers coordinate opening and closing devices according to PSPS Playbook.
- Electric Transmission and Distribution Control Centers confirm that devices have been opened and that power is shut off.
- Once confirmed, the Transmission and Distribution Control Centers communicate to their respective EDEC/ETEC, who communicate to the respective Distribution and Transmission Branch Directors.
- Distribution Control Centers create outages in Distribution Management System (DMS) that appear in Outage Management Tool (OMT) for distribution to track PSPS devices proactively de-energized (including handing off to next shift).
- DCCs complete via SCADA or give switching instructions to OEC/TFL to complete circuit segmenting after de-energization is completed.
- EOC Commander ensures that Command Calls have appropriate timing to discuss re-energization and protocols (may be necessary in addition to standard schedule).
- DCC segments PSPS impacted distribution circuits following de-energization based on pre-identified locations per the approved Playbook and PSPS Circuit Segment Guides.

3.11 PSPS Recovery - Monitor, Patrol, and Restore

3.11.1 Re-energization Process

The re-energization process consists primarily of the following actions:

- Electric Transmission Grid and Distribution Control Centers (GCC, DCC), and Operations Emergency Centers (OECs) develop restoration plans and determine scope of restoration, including prioritization of circuits/lines and available resources (ground and aerial).
- The EOC provides an estimate of crews (ground and aerial) needed for patrols based on desired ETOR and amount of line miles in Tier 2 and Tier 3, terrain and accessibility of circuit.

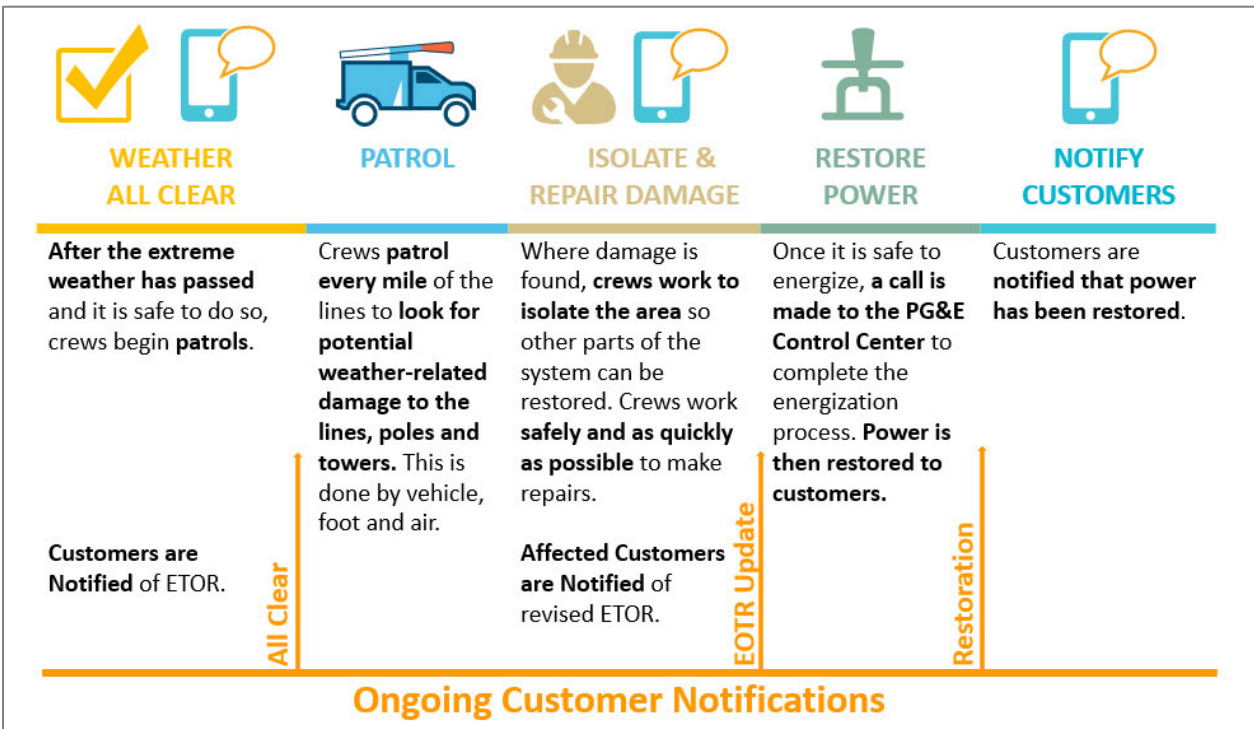
- Meteorology provides a forecast of weather “all clears” by circuit prior to the OIC Decision **F** meeting to the Planning Section, which creates a “forecast” restoration playbook and sends this to the EOC Operations Chief, who then cascades this forecast to field operations. This facilitates pre-staging of patrol resources.
- EOC Commander provides the OIC the recommendation to re-energize power (i.e., weather “all clear”) for All Clear Zones or globally for all areas previously de-energized for PSPS. If a recommendation is made only for a designated area/s, later recommendations will address remaining de-energized areas.
- The OIC gives approval to re-energize power (i.e., weather “all clear”, OIC Decision **F**) for designated All Clear Zones or globally for all PSPS de-energized areas . If a decision is made only for a designated area, later decisions will address remaining de-energized areas.
- Following each OIC Decision **F** meeting, the PSPS Recorder immediately inputs the approved All Clear Time and the corresponding approved “All Clear Zones” into a form in Foundry. The Recorder also sends a message to the PSPS Technical Unit Leader that this action is complete.
- Upon receipt of this information from the Recorder, the Planning Section updates Restoration Playbook F to reflect the approved weather “all clears” and sends the updated Restoration Playbook to the EOC Operations Chief, who further cascades the information to field operations. This process is repeated for every subsequent Decision **F** meeting.

GCC, DCC and Field resources follow procedures found in PSPS-1000P-01 to execute the restoration process.

For guidance on the PSPS re-energization process, see and PSPS-1000P-01, PSPS for Transmission and Distribution Lines.

The weather “all clear” sets a series of restoration steps in motion as shown in Figure 3-22.

Figure 3-22: Steps after Weather “All Clear”



PG&E intends to provide press releases and updates to pge.com for each of the phases above.

Note: In addition to the overview above, whenever there is new information about the process or through daily updates, PG&E notifies customers about any changes in ETOR and when power has been restored.

3.11.2 Monitor during De-energization

During de-energization the EOC will monitor the weather and impacts to the system (i.e., wind outages in non-high-fire threat areas that may still be impacted) as well as the presence of any emerging or existing fires.

The EOC will coordinate with the Safety Officer to confirm that all field personnel are following safety guidelines for high fire-threat risks, and that employees are not dispatched into potentially dangerous conditions.

Following complete de-energization of all lines in scope, the GCC continues to monitor grid integrity, and the ETEC initiates restoration sequence planning. This involves creation of a prioritized sequence for restoration of transmission assets and validation of the plan with the GCC and CAISO. This plan is discussed/developed with both the EOC and EDEC, finalized, and then provided to the EOC and EDEC to allow for coordinating the restoration efforts once the weather event has passed.

For distribution, once identified assets in the event scope have been de-energized, DCC(s) having jurisdiction over impacted distribution facilities “set up” the de-energized portions of those circuits by “segmenting” to provide for “step restoration” (details in 3.9.4.1) once the weather event has passed. This segmenting consists of opening pre-identified devices that delineate circuit segment boundaries that are provided both to DCC and field patrol personnel to ensure alignment of patrol efforts once the event has passed. The Customer Owned Line (COL-distribution) and Foreign Transmission Line (transmission- FTL) assets identified during the event scoping phases can typically be isolated during the segmenting phase if resources are available. If not, would need to be isolated during the restoration phase.

3.11.3 Re-Energization Decision Factors

To begin patrol and restoration, current weather conditions must be below meteorology PSPS guidance, weather stations must report that winds are decreasing in strength, and field observations must confirm decreasing fire-weather conditions including declining pressure gradients. Additionally, weather forecasts should also indicate that winds are forecast to continue decreasing in strength such that conditions will not exceed meteorology PSPS guidance in the immediate future.

3.11.4 Weather “All Clear” Decision Methodology

Weather “all clears” are called based on pre-defined areas that align with timing of weather conditions. This is known as the All Clear Zone methodology. Due to the large geographic span of some Fire Index Areas (FIA), the Meteorology Department has further divided FIAs into pre-defined boundaries to allow for varying geographic weather conditions. These All Clear Zones align with known meteorological phenomena, such as mountain tops and wind gaps which may experience longer periods of extreme weather. This methodology allows for further granularity in calling weather “all clears”, thereby helping areas less prone to wind gusts or adverse conditions to be cleared and then restored more quickly.

Based on this weather “all clear” decision methodology, the OIC provides the weather “all clears” to begin the re-energization process. The OIC can declare weather “all clears” for specific areas and also for complete FIAs.

3.11.5 Patrols and Restoration

Following the OIC’s decision to declare weather “all clear”, Electric Operations begins procedures for patrol and restoration.

Once the weather “all clear” is given, PG&E patrols PG&E owned lines to the point of service with Customer-owned lines equipment COL – (Distribution) and Foreign Transmission Lines (FTL - Transmission)².

² Customer-owned lines/Foreign Transmission Lines here refers to customers that own either distribution (COL) and/or transmission (FTL) facilities

Once the "All Clear" is given for COL or FTL assets in event scope, they would either have been isolated during the weather event or during the restoration phase of the event. At that point, PG&E continues to patrol to the point of service with the COL/FTL. In addition, the customer is notified of the "All Clear" and that they are required to confirm that their equipment is both safe and ready to be energized once PG&E is able to do so and to notify PG&E once customer has completed that confirmation. PG&E will not restore those COL/FTL assets until that customer confirmation has been received. See [PSPS-1000P-01](#) for additional details on the overall COL and FTL related process.

The Transmission Branch Director communicates transmission patrol results to the GCC Supervisor. GCC isolates all equipment with found trouble and reports the same to ETEC.

For Distribution facilities, circuit-based structured teams are typically formed and utilized to patrol the impacted "Event Specific Assets at Risk in HFRA" distribution grid assets for damage, and any damage is reported accordingly. The appropriate DCC and OEC will be notified of damage, and any repair work that will require the impacted asset to be cleared. If repairs are required, the Task Force Lead (TFL) notifies the DCC for further instructions. Assets requiring repair are analyzed and subsequent restoration plan adjustments are made when necessary, then communicated from the DCC to the TFL for alignment and execution.

If a privately-owned line (POL) is de-energized due to a PSPS event, PG&E will provide a courtesy patrol prior to re-energizing. If after the patrol, the line is deemed unsafe and repairs are needed by the POL owner, PG&E will not-re-energize until the corrections have been completed.

Field resources patrol lines according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#) and [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#). Crews do not have to patrol the entire line at once; rather, they can perform step restoration as they complete patrols.

3.11.6 Step Restoration

Crews patrol circuits in segments. When the patrol of an individual segment is completed, that segment can be re-energized. This strategy allows for earlier restoration of customers compared to having to patrol the entire line prior to re-energization.

- PSPS circuits have been analyzed to 'pre-sectionalize' them into smaller patrol zones called "segments".
- Segments have been prioritized with alphabetical order labels in order of criticality depending on source availability.
- There is not a 'one-size-fits-all' approach and strategy for every circuit. Patrol and restoration are based upon infrastructure/customer criticality and impacts, with additional considerations typically being length, configuration, patrol types required (i.e., air, vehicle, foot) and given resource availability.

- A 'guidance' based approach for maximizing restoration has been implemented:
 - Simultaneous segment patrols and restoration.
 - Air and ground patrols.
- Communication strategies between TFLs and control centers.
- TFLs are the single point of contact between the DCC and field operation restoration activities. For guidance on restoration, see [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#).

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4 PSPS Information, Notifications, and Coordination Strategies

4.1 General Information about PSPS Program

PG&E continues outreach and education to share our PSPS criteria and meteorological guidance. This includes but is not limited to briefing the California Public Utilities Commissions (CPUC), California Department of Forestry and Fire Protection (CAL FIRE), California Governor's Office of Emergency Services (Cal OES), and local and tribal governments throughout PG&E's electric service territory. PG&E has also shared its general meteorological guidance information broadly with the public through a series of open houses, webinars, meetings and presentations beginning in 2018. The general meteorological guidance and criteria are also posted on PG&E's external-facing website and included in PG&E's PSPS Policies and Procedures available on pge.com PSPS page listed under outages.

To provide greater transparency for interested stakeholders, PG&E has provided detailed weather and PSPS forecasting information on PG&E's public-facing website at pge.com under "Outages" / Public Safety Power Shutoff select "Weather Awareness". This includes information on what conditions may lead to a PSPS event, real-time information from PG&E's high-definition camera network and weather stations, as well as 7-day localized forecasts for a potential PSPS event.

Customers are also informed about the PSPS program and how to prepare for a PSPS through various types of customer communications such as letters, doorhangers and information on pge.com. See Appendix E for examples.

4.1.1 Community Resource Centers

To minimize PSPS outage impacts and serve our communities and vulnerable customers during a PSPS event, PG&E is required to open Community Resource Centers (CRCs) in impacted communities. CRCs provide customers and residents a safe location to meet their basic power needs, such as charging medical equipment and electronic devices, access to resources (water, snacks, restrooms, etc.), and up to date event information. PG&E works closely with impacted counties and Tribes to mobilize indoor and outdoor CRCs as soon as possible from the time of de-energization until the time electric service is fully restored. CRC standard operating hours are from 8:00 AM - 10:00 PM.

For additional details on: PG&E's coordination with counties, Tribes, and other key stakeholders in the selection of CRC sites and the formation of its CRC plan, details on site selection requirements and steps, resources available at CRCs, considerations for AFN and medical baseline customers, on-site and off-site support staff, and many other details related to the CRC program see the [CRC Plan expected July 2022 as part of the PG&E Pre-Season report](#).

4.1.2 Support for Access and Functional Needs Populations

PG&E recognizes that de-energization has a disproportionate impact on our most vulnerable populations, including Medical Baseline customers, as well as Access and Functional Needs (AFN) individuals as defined by the California Public Utilities Commission.³ It is critical to ensure these individuals are aware of a potential PSPS and are prepared with information and resources.

Before, during and after PSPS, PG&E collaborates with a number of Community Based Organizations (CBOs) as both information and resource partners to help broaden our message, provide resources and assist with emergency preparedness. Refer to PG&E's AFN plan for specific details. PG&E collaborates with the California Foundation for Independent Living Centers (CFILC) through the Disability Disaster Access and Resource (DDAR) program. The DDAR program provides assistances to those customers who require continuous power for medical sustainability or independent living needs with emergency planning and assistance charging medical devices during PSPS. This may include but not limited to those in the aging population and those who may have disabilities. The participating local Independent Living Centers (ILCs) implement the DDAR program with oversight by the CFILC.

PG&E is also partnered with the California Network of 211, a free-confidential calling and texting service to provide customers with support and resources during periods of critical needs. 211 provides PSPS education, outreach and emergency planning in advance of PSPS outages and connect those with AFN or other needs to critical resources. This includes transportation, food delivery, hotel accommodations, portable backup batteries, food replacement and other social services during and after PSPS.

To view additional resources, partnerships and detailed information, see [pge.com](https://www.pge.com/resources/for-accessibility-financial-language-and-aging-needs) "[Resources for accessibility, financial, language, and aging needs.](https://www.pge.com/resources/for-accessibility-financial-language-and-aging-needs)"

4.1.3 Microgrids for Community Power Continuity

Objectives

PG&E has two microgrid initiatives designed to support customers during PSPS, each of which is configured to address a different type of PSPS impact:

1. **Temporary Substation Microgrids** are focused on energizing customers when the substation serving them is impacted by an upstream transmission line de-energization but the distribution lines coming out of the substation still have safe-to-energize load (i.e., transmission-level only impacts).

³ CPUC PSPS Phase 1 D.19-05-042 (pp. A6-A7), AFN Populations consists of "individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant."

2. **Temporary Distribution Microgrids** are focused on energizing “main street corridors” with shared services and critical facilities when the distribution lines serving these areas are de-energized as a result of a PSPS event (i.e., distribution-level impacts or transmission-level impacts).

The microgrids are “temporary” in nature because they utilize mobile temporary generation.

The scale and scope of each temporary microgrid will vary. The common design elements among them are:

- A safe-to-energize polygon that can be isolated from the wider grid using sectionalizing devices. The scale and scope of the polygon, and whether sectionalizing devices are operated manually or remotely will vary by site.
- For Distribution Microgrid deployments, a pre-installed interconnection hub (PIH) made up of a pad-mounted transformer and recloser. The PIH is constructed to enable rapid mobile generation connection. The PIH design will be standardized across sites to speed up construction and simplify operating procedures.

Process

Step-by-step instructions including rental equipment needs, switching logs, and customer notification processes will be handled by the EOC and Distribution Control Centers for each temporary microgrid that is declared operationally ready.

4.1.4 Backup Power Support

As a general policy, PG&E does not offer backup generation to individual facilities. However, PG&E’s policy allows for granting exceptions for critical facilities when a prolonged outage could have a significant adverse impact to public health or safety (including illustrative examples):

- High risk to public safety (e.g., hospital with active trauma units; critical water or wastewater asset; city or county EOC).
- High risk of environmental hazard (e.g., chemical plant which risks toxic spill into local river).
- High risk to essential emergency response and support facilities (e.g., 911 call center; water pump availability compromises firefighting; critical telecommunications equipment or other support businesses that directly affect emergency services provision).

PG&E’s EOC manages incoming requests for backup power support during PSPS events. Requests will be routed through an approval process within the ICS, and, if approved, will be fulfilled by PG&E in partnership with generator contractors.

Temporary generation requests and prioritization are reviewed on a rolling basis during PSPS events in accordance with [Utility Bulletin PSPS-4999-B001, Mobile Generator use during Public Safety Power Shutoff.](#)

4.2 Identifying Impacted Customers

To effectively identify impacted customers and deliver notifications, Customer Section needs:

- Customer Impact and Customer Notification files
- Medical Baseline, Self-Identified Vulnerable, AFN characteristics, and Critical Facility customer data
- Transmission Customers
- Event maps

Figure 4-1 shows the groups to be identified among impacted customers.

Figure 4-1: Identifying Impacted Customers



4.3 Event Specific Information

Recognizing that de-energization for public safety does burden communities with risks and hardships, PG&E is committed to providing notice to customers and communities when severe weather, combined with heightened fire risk are forecasted. As part of this commitment, PG&E provides event information using a multi-channel notification approach through direct (i.e. phone calls, text and e-mails) and indirect (i.e., social media, local news, radio and the pge.com) outreach.

The EOC Planning Section is the central source for all event-specific data and maps. Public Information, Customer Care, Liaison and IT teams coordinate with the EOC Commander and Planning Section on required sequencing of notifications, consistent with CPUC guidelines.

Before notifications are sent out:

1. Planning Section, PIO, LNO, and CSO ensure all channels are ready to receive inbound traffic (e.g., pge.com, the PG&E emergency web site, PG&E's PSPS Portal and call center).

2. Planning Section ensures data files are transferred to Digital Strategy (Emergency Web), PSPS Portal and Customer and Liaison Sections (notifications).
3. Planning Section / Digital Strategy uploads FERC notification to FERC Standards of Conduct after OIC Decision **C** and again at OIC Decision **E**.

4.3.1 PSPS Portal - Event Specific Information for Public Safety Partners

During a PSPS event, maps and other event information are posted on the PSPS Portal concurrent with the initial notification to Public Safety Partners (PSAP). PG&E updates the maps and data files on the PSPS Portal as weather forecasts change and detailed customer impact assessments are performed. PG&E also validates that the information shared on the Portal is current twice daily at fixed times in the morning 0900 and afternoon 1500 regardless of a change in scope or customer impacts.

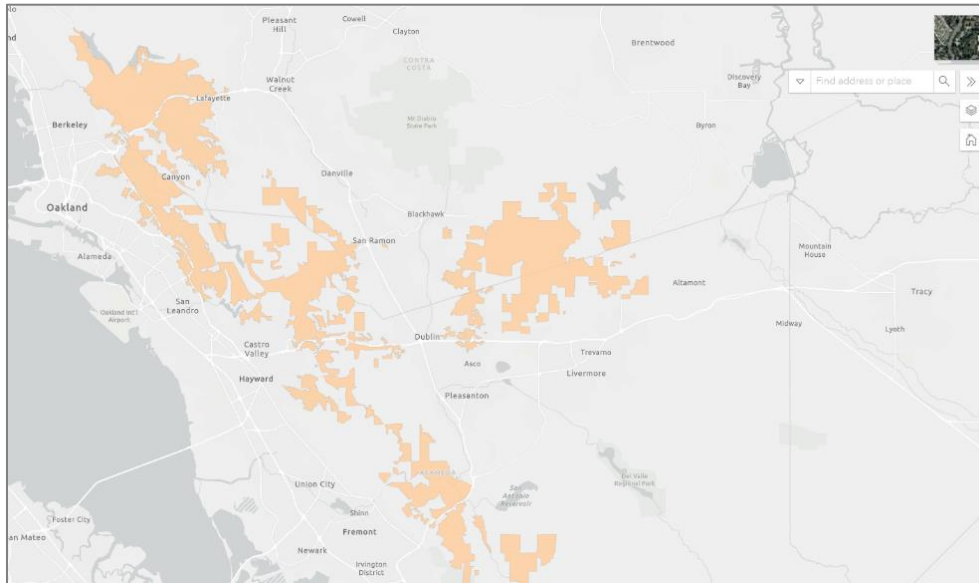
The PSPS Portal also has an interactive map that will allow the user to select various data sets for visualization. The map includes a search function to display customer and critical facility impacts within a geographic area, such as a particular city or county.

Users receive e-mail notifications when new files are available on the PSPS Portal as well as at the twice daily morning and afternoon update. PPS Portal users are also encouraged to check back every few hours as information will be updated in real-time. Agency representatives aim to keep cities, counties and Tribes informed during the event when changes to the Portal have been made.

Agency users must accept an online confidentiality agreement related to customer privacy and data handling requirements to receive enhanced data access. This enhanced access includes names and addresses of potentially impacted Medical Baseline customers, critical facilities and all impacted customers within a jurisdiction in advance of and during a PPS event.

Event map: Allows the user to view a map of the areas projected to be affected by the shutoff event. These maps are parcel based without buffered areas. An example is shown in **Figure 4-2**.

Figure 4-2: Example Parcel Based Map



Event files: Include County PDF maps, GIS layers, and an event-specific Customer Impact Summary Report. For agencies these files include lists of Medical Baseline customers, Critical Facilities, and All Impacted Customers within the forecasted scope of the event. Critical facility providers are provided a list of all sites within the forecasted scope of the event. This also includes files for ad hoc data requests from users.

Access: To get access to the PSPS Portal see Appendix D, PSPS Portal – Instructions to Request Access.

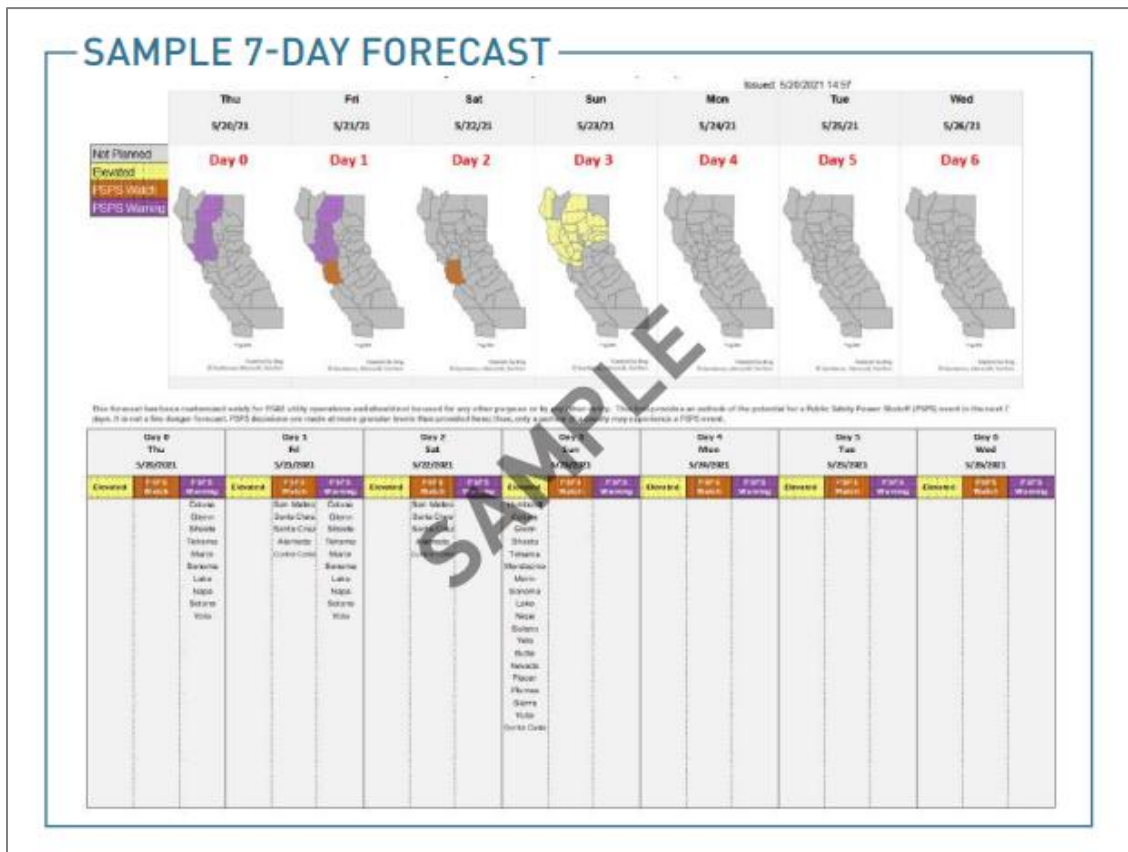
4.3.2 Event Specific Information on PGE.com

Event specific information is made available to the public on the PSPS page of the [PG&E Emergency Web](#) including PSPS updates, maps, and a way for customers to do an address lookup to see if an address will potentially be affected. Updates to the site are made when possibility of PSPS event is announced, when new information is available along the way to decision to de-energize, weather “all clear” to begin restoration, information on patrols, estimated times of restoration (ETORs) and restoration progress/restored.

4.3.3 7 Day Public Safety Power Shutoff Potential Forecast

A daily “7 Day Public Safety Power Shutoff (PSPS) Potential Forecast” is published on the [weather webpage](#) on [pge.com](#). This provides the public a view of risks PG&E Meteorologists are seeing over the next seven days. A forecast discussion is also provided that discussed the general weather pattern over the next seven days, the general state of fuel moistures and vegetation, and longer-range projections from federal agencies and climate outlooks. Figure 4-3 provides an example of the forecast.

Figure 4-3: Example of 7 Day Public Safety Power Shutoff Potential Forecast



PG&E PSPS Potential Key:

PSPS – If weather forecasts indicate an increased risk of wind-related damage to overhead electric lines combined with dry vegetation susceptible to fire ignition and spread, it may be necessary for PG&E to turn off the electricity serving that area. This is called a Public Safety Power Shutoff (PSPS).

Not Planned – Conditions that generally warrant a PSPS event are not expected at this time.

Elevated – An upcoming event (typically a period of adverse weather combined with dry fuels) is being monitored for an increased potential of a PSPS event.

PSPS Watch – The company Emergency Operations Center (EOC) is activated for a reasonable chance of executing PSPS to reduce public safety risk in a given geographic zone due to a combination of adverse weather and dry fuel conditions. A PSPS watch is typically only issued within 72 hours before the anticipated start of an event.

PSPS Warning – The company Emergency Operations Center (EOC) is activated and customers in areas being considered for PSPS have been or are being notified. This level indicates execution of PSPS is probable given the latest forecast of weather and fuels and/or observed conditions. PSPS is typically executed in smaller and more targeted areas than the PG&E Geographic Zones. This level does not guarantee a PSPS execution as conditions and forecasts may change.

Based on a detailed analysis of PG&E's high resolution 30-year climatology and historical weather patterns, conditions that may warrant PSPS are most likely to occur in September/October/November when fuels are typically at their driest levels and dry offshore winds occur before widespread rain. PSPS events are also possible at other times of year based on the lack of precipitation and droughts. For example, a persistently dry autumn or winter season may result in potential PSPS conditions extending later into the year.

4.3.4 Social Media Engagement

PG&E uses social media, including Facebook, Instagram, Twitter and NextDoor, to direct users to its website where they can access important emergency preparedness information, as well as PSPS event updates and resources (e.g., Customer Resource Center (CRC) locations).

4.4 Customer Notifications

PG&E is committed to adhering to state directives for disseminating information during a PSPS event.

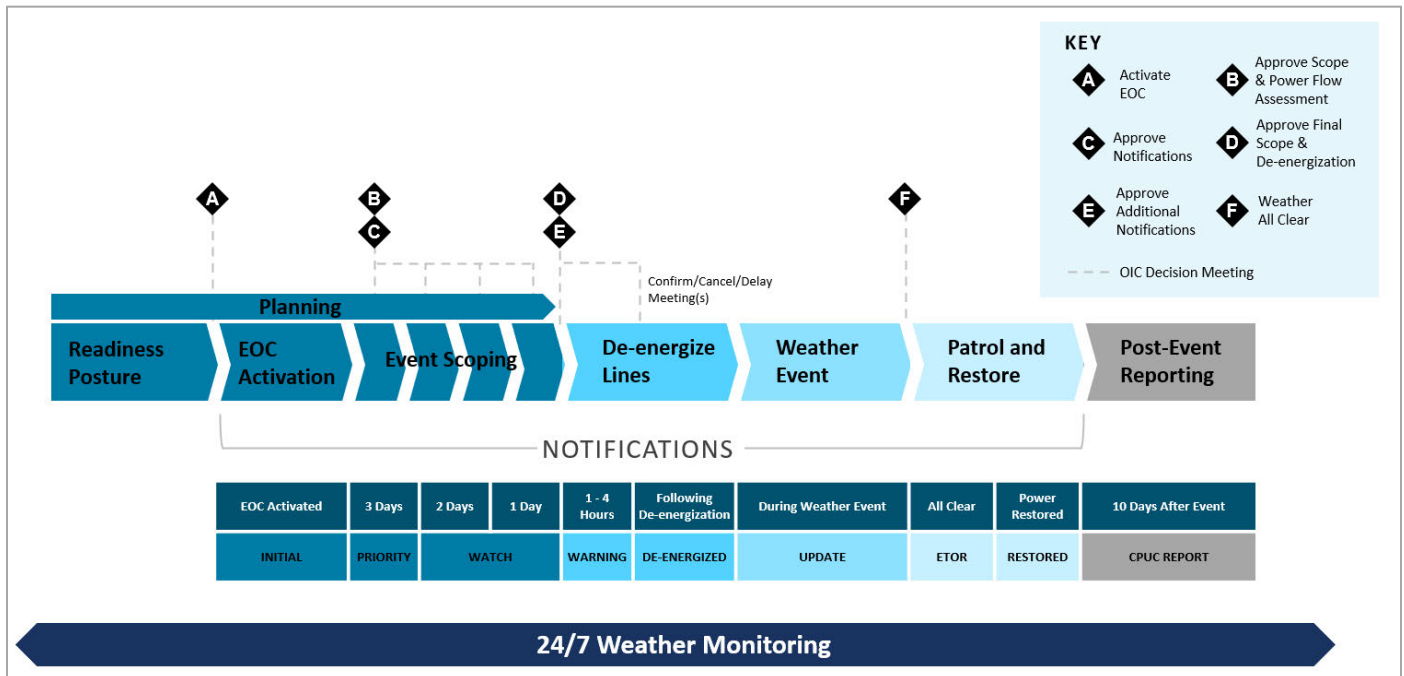
The OIC will make the decision to notify agencies and customers of PG&E's scope for de-energization (OIC decisions **C** [initial] and **E** [approve additional customer notifications (if scope has changed)]), see Section 3.8.1.

PG&E notifies Cal OES via the Cal OES PSPS State Notification Form and the CPUC via email prior to making a decision to de-energize unless the threat to public safety would increase by taking time to first notify these agencies. PG&E will also notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications. For the transcripts of notifications see Appendix C.

Communications and external outreach to the public via website updates, press releases and social media updates, along with direct notification to potentially impacted customers will be made after agencies are notified of the decision to de-energize based on the strategy outlined in the section above.

PG&E will provide as much notice as possible when a decision has been made to shut off power. Figure 4-4 shows the timeline for PSPS notifications.

Figure 4-4: PSPS Notification Timeline



4.4.1 Initial Notification Sequence

Priority Notice is sent out in a pre-specified sequence approximately 48-72 hours prior to de-energization:

1. Cal OES, CPUC, County OES, Public Safety Partners, Tribes, and California Independent System Operators (CAISO).
2. City, County, Community Choice Aggregates (CCAs), Publicly Owned Utilities (POUs).
3. Level 1 Critical Customers (CC1s) including telecom, emergency hospital services, water agencies
4. Transmission-level customers.

The OIC makes decision **C** is to send the first wave of customer notifications.

Customer notifications are sent out in a prescribed sequence starting at “Watch” within 24-48 hours:

1. Public safety partners.
2. Other critical facilities, Medical Baseline, Residential and Commercial Customers.
3. News release (depending on cycle).
4. Medical Baseline Doorbell Rings.

The next CPUC prescribed notification after 24-48 hours is 1-4 hrs before de-energization.

The following describes PG&E's notification process for PSPS events, when possible, and depending upon conditions. When issuing Priority Notice for a potential PSPS event, PG&E will complete the following tasks:

- Publish all web content for PSPS Portal and Emergency Web: Priority Public Safety Partners page.
- Submit Public Safety Power Shutoff State Notification Form to Cal OES.
- Contact CPUC Safety and Enforcement Division (SED) Director.
- Conduct live calls to County Office of Emergency Services (OES), County and Local Public Safety Answering Points (PSAPs) and Tribal governments potentially impacted by the PSPS event.
- Conduct coordination with CAISO through ETEC.
- Execute automated calls, emails and texts to counties, cities, Tribes and Community Choice Aggregators (CCAs), wholesaler, transmission and municipal utilities customers potentially impacted by the PSPS event, which includes a link to PG&E's PSPS Portal and PG&E's Priority Partner page where event-specific information and maps can be found.
- Execute automated calls, e-mails and texts to critical facilities, Transmission-level customers, and other Public Safety Partners that are PG&E's customers and a critical facility (referred to as a "Critical Service Provider"). Notifications to the critical service providers will include a link to PG&E's Priority Public Safety Partners page where event-specific information and maps can be found.
- If Transmission lines are in scope, generating the FERC posting.


Starting approximately two days (or within 24-48 hours) prior to de-energization, once the above notifications have been completed, PG&E will send the first notification to potentially impacted critical facilities and all other customers (including Medical Baseline), wholesaler, transmission and municipal utilities customers. Customers with active temporary generation efforts in their area will receive information specific to their area.

PG&E will take additional steps to notify customers who are enrolled in the PG&E Medical Baseline program. Event notifications to these customers are made through automated calls, texts, and emails in advance of de-energization and PG&E will ask these customers to confirm they have received the message.

For Medical Baseline customers and Self-Identified Vulnerable customers with whom PG&E is unable to make successful contact, PG&E representatives will also conduct doorbell rings to ensure they have received pre-energization notification to activate their emergency plan. PG&E will prioritize doorbell rings with those customers who rely on electricity for critical life-sustaining equipment.

PG&E works to notify stakeholders on this timeline and to provide multiple notifications whenever possible:

- **Priority Notice** (48-72 hours) prior to anticipated de-energization: notification to Public Safety Partners/Transmission Customers/Critical Public-Safety, CCAs and POU related facilities.
- **Watch** (~ 2 Days) prior to anticipated de-energization: notification to all potentially impacted customers and stakeholders/populations.
- **Watch** (~ 1 Days) prior to anticipated de-energization: notification of all potentially impacted customers and stakeholders/populations.
- **Warning** (1-4 hours before de-energization) notification of all potentially- impacted customers and stakeholders/populations.
- **De-energization** notification of all potentially-impacted customers and stakeholders/populations.
- **Update** notification (if PSPS event / de-energization is extended/delayed/cancelled): notification of all potentially impacted customers and stakeholders/populations.

After the OIC and EOC Commander indicate a weather “all clear”, OIC Decision , PG&E communicates the post-weather event update to impacted customers via phone call, e-mail, and text (based on customer/account contact information populated in their PG&E profile). PG&E will notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications.

As ETOR is updated by Operations, ETOR Update notifications will be sent to customers and public safety partners impacted by the PSPS event.

Upon restoration, impacted customers and public safety partners will receive a Power Restored notification.

For the transcripts of notifications, see Appendix C.

Affected customers will receive the following notifications during the restoration process.

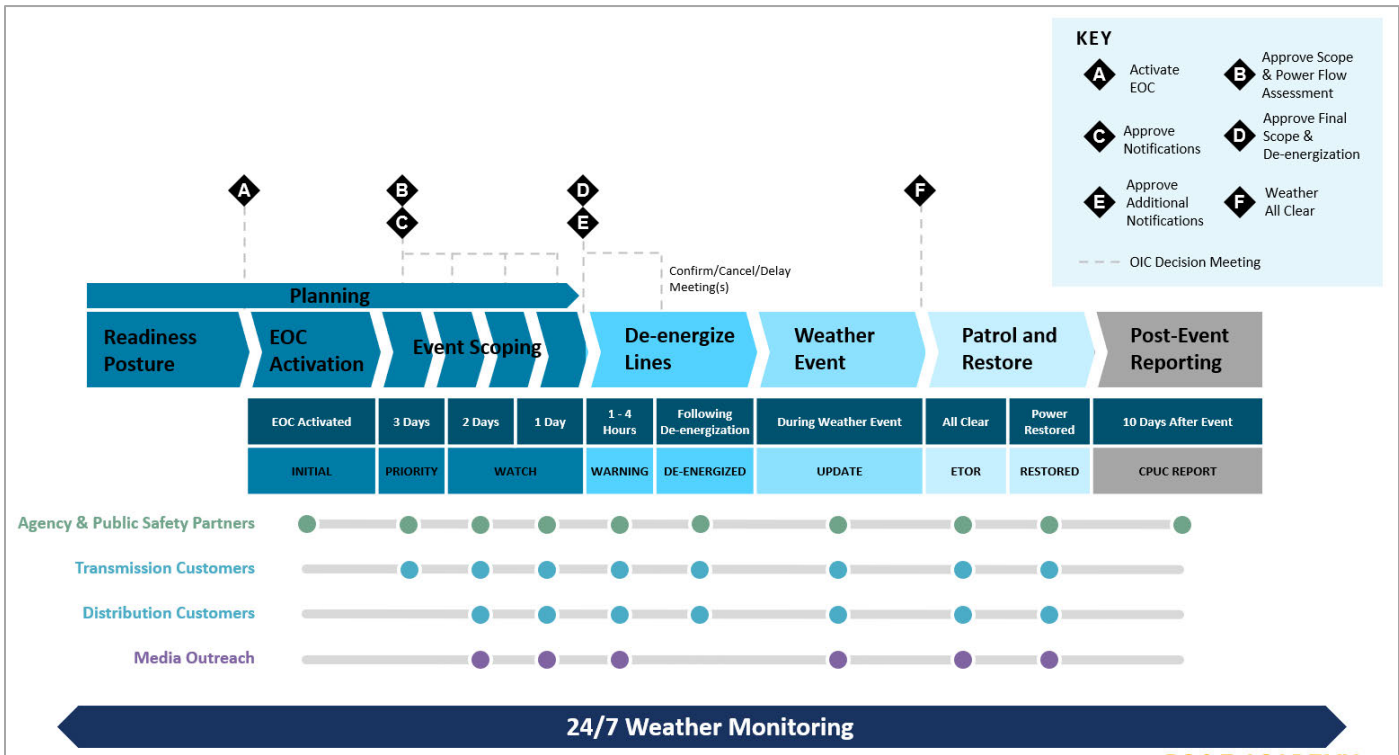
- **Weather All Clear** (patrols begin): notification of all other potentially- impacted customers and stakeholders/populations and Public Safety Partners.
- **Estimated Time of Restoration (ETOR) Update** (available when OMT is updated with ETORs): notification of all other potentially- impacted customers and stakeholders/populations and Public Safety Partners with ETOR information. The ETOR provided at this time supersedes the global ETOR provided in advance of de-energization.

- **Power Restored** (re-energization is complete): notification to all impacted customers/populations with date and time their power was restored and notification to agencies with the information that their jurisdiction has been restored.

NOTE: Actual timing of notifications will be driven by the timing of weather, forecasting, and expected impacts.

Figure 4-5 shows a timeline for PSPS Notifications.

Figure 4-5: PSPS Notifications Timeline



4.5 De-energization Customer Cancellation Notification

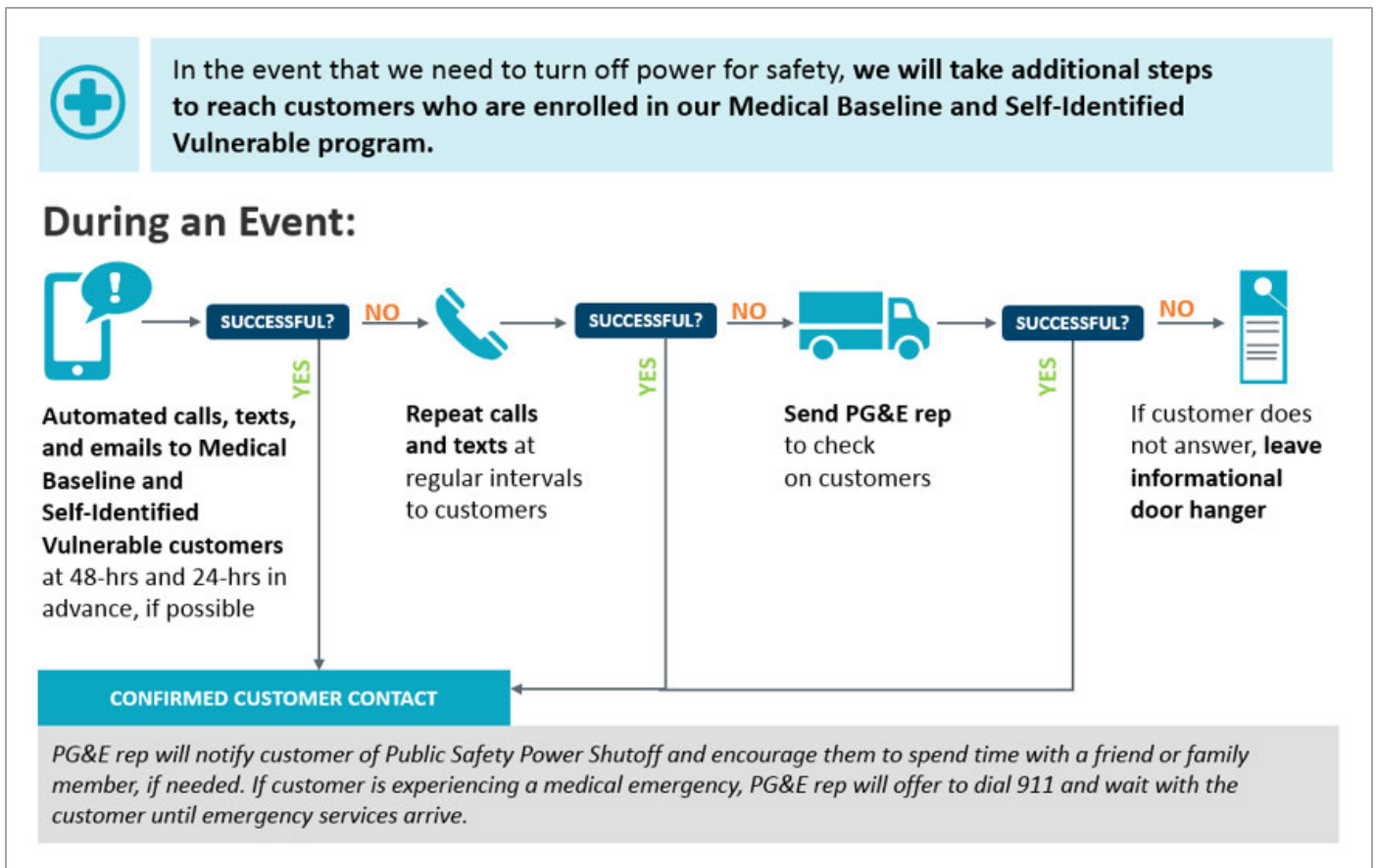
PG&E will also send a cancellation notice if the decision is made not to de-energize, when and where possible within 2 hours of the decision. For an example of a cancellation notice transcript see Appendix C.

4.6 Doorbell Ring Process

Successfully notifying and confirming acknowledgment of notifications to Medical Baseline and Self-Identified Vulnerable customers is critical and of the highest priority to ensure they are aware of the potential de-energization and can execute their emergency plan accordingly.

If automated phone calls, e-mails, and text messages are not acknowledged by these customers, and repeated calls are also not successful, PG&E will send representatives to the Medical Baseline or Self-Identified Vulnerable customer’s address to ring the doorbell to ensure the resident has been notified of the potential PSPS. Figure 4-6 gives an overview of the Doorbell Ring process.

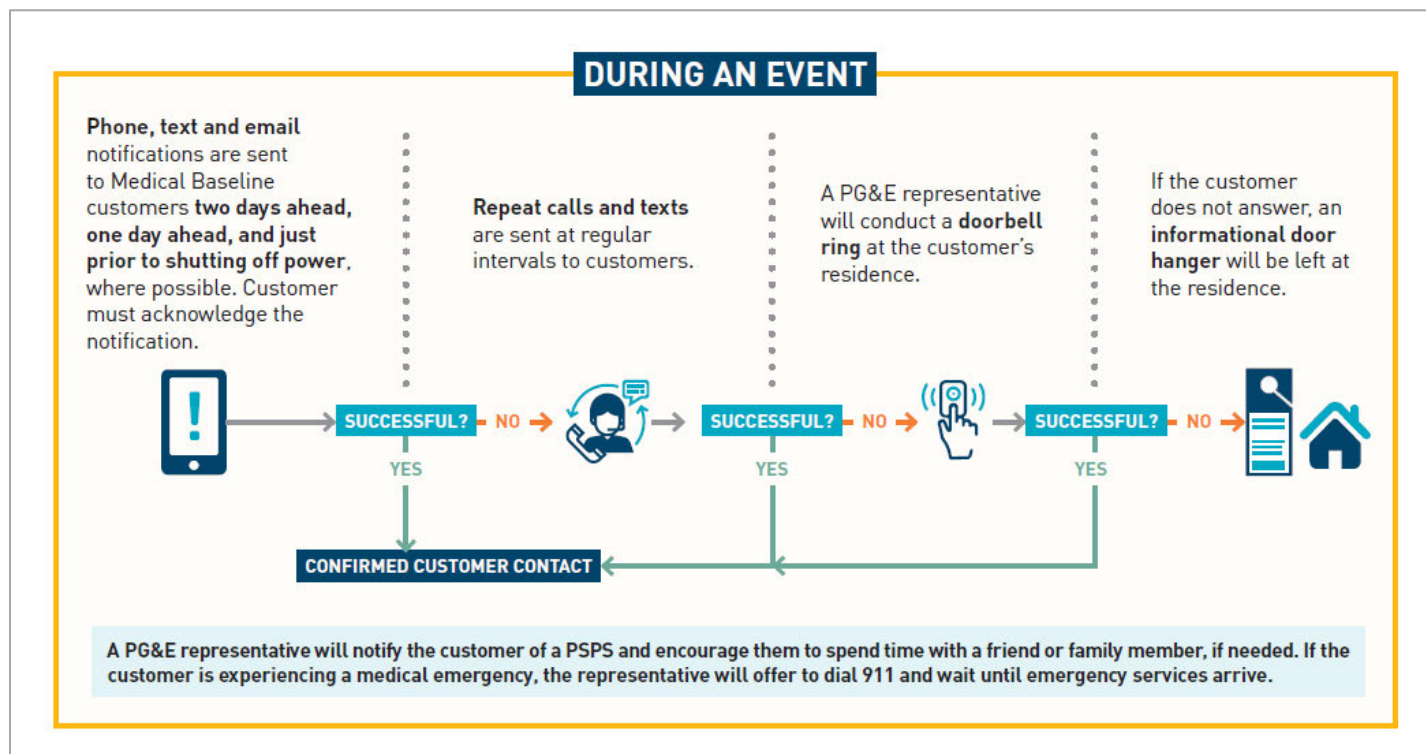
Figure 4-6: Doorbell Ring Process



Medical Baseline Contact Success Reporting to EOC

Figure 4-7 shows the process towards Medical Baseline Success Reporting to the EOC.

Figure 4-7: Medical Baseline Success Reporting to the EOC



4.7 Master Meter Customer Notification

Master Meter customers are those that have a single account that covers multiple residences or business. Examples include apartment buildings and property management companies.

Since tenants and businesses in locations that have a Master Meter receive electric service from PG&E, but they are not customers, PG&E has no contact information to reach out before or during events. PG&E continues to conduct outreach to the Master Meter account holder and provides resources and information for each account holder to provide to their tenants.

4.7.1 Pre-event Outreach

PG&E continues to drive awareness of the PSPS program to customers that are tenants of master-metered accounts. This includes sending a tenant education kit to master-metered owners via direct mail and email (if an email address is available). This kit contains a letter to remind master-metered owners to maintain contact information for their tenants and distribute PSPS notification details to their tenants in the event of a PSPS event, as well as provide PSPS overview flyers that can be posted in communal areas.

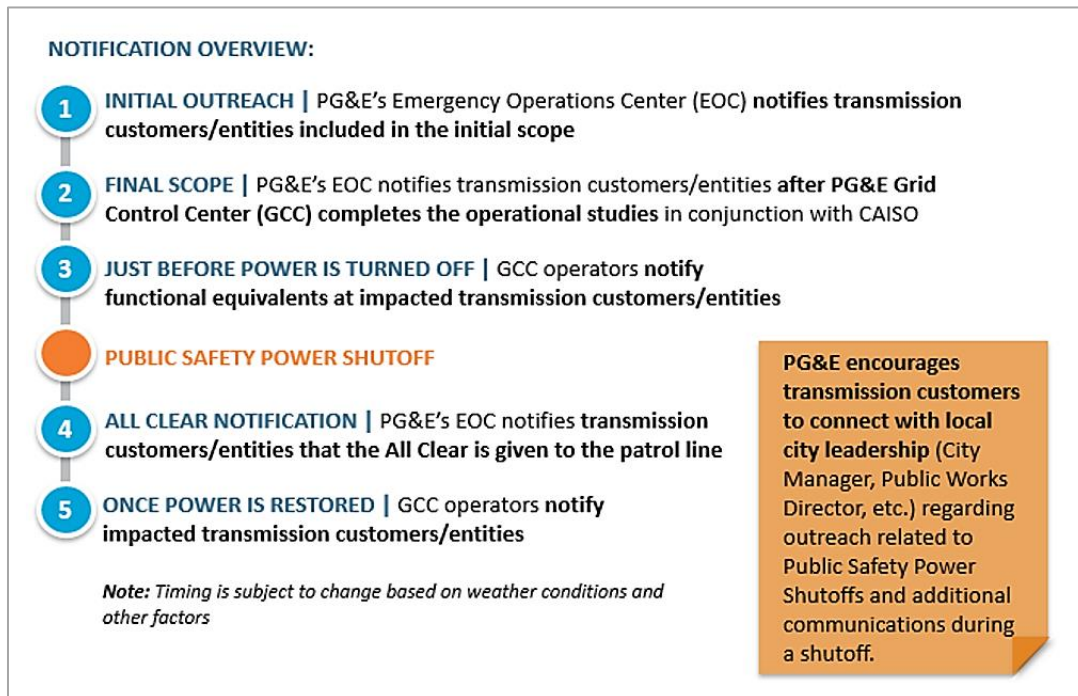
4.7.2 Address Level Alerts

PG&E continues to drive awareness of Address Level Alerts to master metered owners. This tool can be utilized by tenants to receive PSPS notifications for a specific address. Notifications can be received via Interactive Voice Recording (IVR) or SMS and in-language (English + 15 languages).

4.8 PSPS Notifications for Transmission Customers

Figure 4-8 shows a sequence for notifications of Transmission Customers.

Figure 4-8: Notifications for Transmission Customers



4.9 Agency Event Notifications and Coordination

4.9.1 What Agencies can expect before, during, and after a PSPS Event

4.9.1.1 Information Resources in advance of a PSPS event

The following information resources are available in advance of a PSPS event:

- Access to the PSPS Portal, which includes:
 - Planning maps.
 - Summary Customer Impact tabular files.
 - Lists of Medical Baseline program participants (customers and master metered tenants) in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.
 - Critical facilities in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.

- The [PSPS Policy and Procedures document](#) that includes information such as PSPS criteria, event notifications and customer resources.
- Access to an assigned Agency Representative who can help provide additional materials or information regarding emergency planning and PSPS.
- A phone call to affected Office of Emergency Services (OES) from their dedicated PG&E representative when an upcoming event is being monitored.

4.9.1.2 Information Resources during a PSPS Event

The following information resources are available when the PG&E EOC has been activated for a PSPS event:

- An assigned Agency Representative who will assist with resolving local issues in real-time.
- A phone call to all Public Safety Answering Points (PSAP) in potentially affected areas.
- A phone call and e-mail to potentially affected county/tribal OES's with information regarding estimated event timing, availability of preliminary event maps and customer lists, and an offer to embed a PG&E representative in their local EOC. Additionally, a phone call is made to neighboring counties to County OES impacted by a potential PSPS event.
- Automated calls, texts and e-mails at least once a day with event timing (i.e., de-energization, weather "all clear," updates, restoration and/or cancellation) for their jurisdiction.
- Tribal and Operational Area Cooperator calls hosted by Tribal and Agency Representatives to review event-specific information changes and resolve local issues (Tribal and Agency Representative and county to determine need and frequency).
- Daily Systemwide Cooperator's Call hosted by PG&E's EOC providing the latest high-level PG&E systemwide event updates.
- E-mail notifications to all PSPS Portal users when any updates are made.
- Resources uploaded to the PSPS Portal, including:
 - Situation Reports (posted twice daily).
 - Maps (interactive, PDFs and GIS layers) at a parcel-level and updated as decisions affecting shut off scope are made.
 - Summary reports with customer impact totals by jurisdiction.
 - Lists of potentially affected Medical Baseline program participants (customers and master meter tenants) and critical customer lists with names and addresses (for Public Safety Partner agencies that accepted the online agreement).
- Local governments are welcome to embed a representative in PG&E's EOC for any PSPS event. Once PG&E's EOC is activated, a request should be made to the Agency Representative, who can provide additional logistical details and notify PG&E's EP&R department.

4.9.1.3 Information Resources after a PSPS Event

The following information resources are available after a PSPS event:

- PG&E submits an event report to the California Public Utilities Commission (CPUC).
- A copy of the event report is provided to impacted cities, counties and Tribes.
- The report is posted on PG&E's website.

4.9.1.4 Emergency Operations Center Coordination

PG&E offers the following resources to support local Emergency Operations Centers (EOCs) during a PSPS event:

- **Agency Representative** will be assigned to each county and tribe to act as a single point of contact during an event. The Agency Representative can also staff a county or tribe's local EOC upon request.
- **Third-Party Representative** such as Tribes, cities, counties, water agencies and telecommunication providers may request to send/virtually embed a representative to the PG&E EOC during a PSPS event.
- **Account Managers and Local Customer Strategy Officers** engage with critical customers locally.

NOTE: To further reduce the risk of Covid-19 transmission, PG&E provides remote support when able.

4.9.1.5 Notifications Process for Adjacent Agencies

The PSS will call County OES of neighboring counties adjacent to potentially affected jurisdictions to notify them of a potential PSPS event. They will also be invited to a once daily Systemwide Cooperators Call. The call-in information will be provided via email once PG&E's EOC is activated. All local and tribal governments will have access to event information through the PSPS Portal, regardless of whether they are expected to be impacted or not. Email notifications will also be sent via the PSPS Portal to all users when any event information has been posted.

4.9.1.6 PSPS Daily Calls

Figure 4-9 shows a schedule for PSPS daily calls.

Figure 4-9: PSPS Daily Calls

| SCHEDULE | |
|----------|---|
| 0800 | Operational Areas Cooperators Comms, as requested |
| 0900 | |
| 0930 | Tribal Cooperators Call |
| 1100 | |
| 1200 | Systemwide Cooperators Call Resource Partner Coordination Call |
| 1300 | |
| 1400 | |
| 1500 | Operational Areas Cooperators Comms, as requested State Executive Briefing |
| 1600 | Tribal Cooperators Call |
| 1700 | |

4.9.1.7 Systemwide Cooperators Call

At noon each day, PG&E's EOC will host a Systemwide Cooperators Call (Figure 4-10) to provide an update on the PSPS event. The call will be open to tribal, city, county governments, water agencies, telecom providers, emergency hospitals, community-based organizations and community choice aggregators within PG&E's service area, not just those within the PSPS scope.

Figure 4-10: Agenda for Systemwide Cooperators Call

| AGENDA | | | | |
|-------------------------|---------------------------------------|---|---------------------|--------|
| Meeting | PG&E PSPS Systemwide Cooperators Call | | | |
| Call Time | 1200-1230 | Leader | Liaison Officer | |
| Meeting Location | <i>Vendor to provide info</i> | Facilitator | Liaison Officer | |
| Call-In Info | <i>Vendor to provide info</i> | Recorder | Liaison Coordinator | |
| Item | Topic | Description | Lead | Time |
| 1 | Introductions | <ul style="list-style-type: none"> Welcome Meeting purpose Safety | Liaison Officer | 3 Mins |
| 2 | Weather | <ul style="list-style-type: none"> Weather updates | Meteorologist | 5 Mins |
| 3 | Operations | <ul style="list-style-type: none"> Key operational activities Counties currently in scope Timing of de-energization and restoration | Liaison Officer | 5 Mins |
| 4 | Agency Outreach | <ul style="list-style-type: none"> State agency outreach Agency notifications last completed/next anticipated Agency Representative outreach to counties/tribes | Liaison Officer | 5 Mins |
| 5 | Customer Outreach | <ul style="list-style-type: none"> Customers impacted Call Center wait time status Customer notification last completed/next anticipated Medical Baseline Program customer outreach status Community Resource Centers status Community Based Organizations update | Assistant CSO | 5 Mins |
| 6 | Public Information | <ul style="list-style-type: none"> Website stability status News release last completed/next anticipated PSPS Public Briefing timing | PIO | 5 Mins |
| 7 | Closing | <ul style="list-style-type: none"> Reminder to coordinate with PG&E contact for any questions Date and time of next call | Liaison Officer | 2 Mins |

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5 PSPS Data Sources

The decision factors for considering PSPS are both quantitative and qualitative:

Quantitative measures include but are not limited to current conditions of wind speed, humidity, temperature, asset health, and live and dead vegetation moisture content.

Qualitative measures include real-time outage tracking, observations in the field, and third-party hazardous condition reporting (which will help validate forecasted weather conditions). PG&E Field Observers conduct field observations to verify that nothing is happening weather-wise earlier than expected, and to act as eyes on the ground to confirm that there is no need to execute earlier than expected based on weather forecasts.

All data created during a PSPS event are to be stored in Foundry or on the [EOC SharePoint](#) in the respective EOC team folder. The Planning Section creates an event specific file structure during Readiness posture or at the beginning of the event and circulates the link to all teams so that the information can be centralized and stored according to Enterprise Records Information policies.

5.1 Weather Forecasting / Large Fire Probability Model – Quantitative Factors

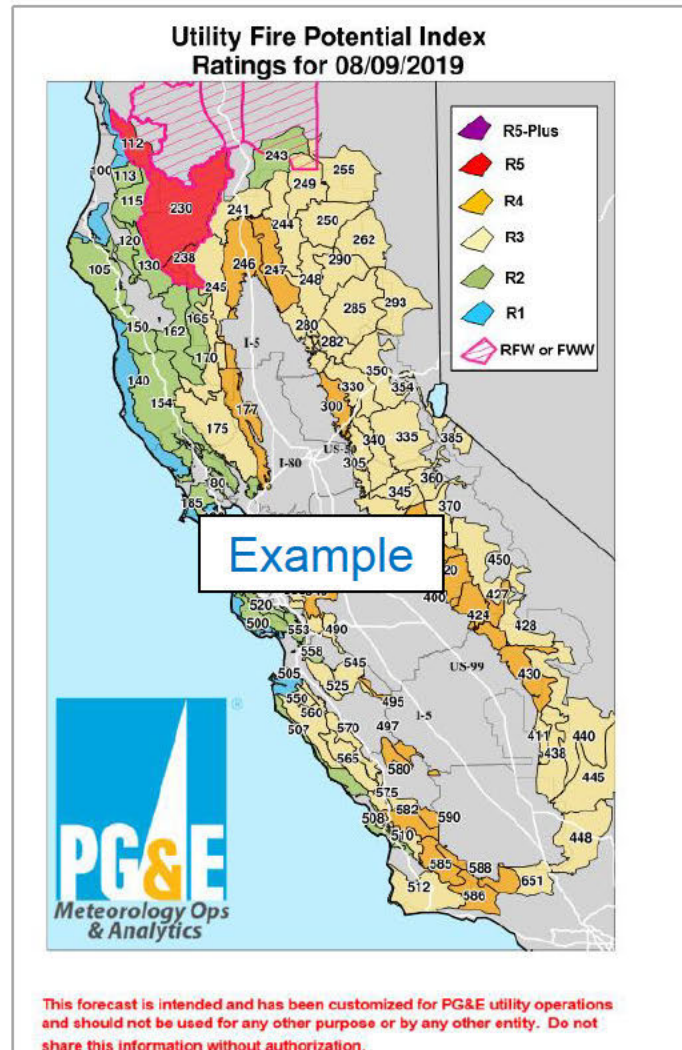
5.1.1 Fire Danger Rating Scale and Utility Fire Potential Index

Modeled fire weather and fuel conditions are combined in a Utility Fire Potential Index (FPI) to forecast daily fire danger ratings by FIA. The fire danger rating scale (shown below) and related thresholds are based on historical incidence of large fires across PG&E's territory, and the potential for increasingly severe and uncontrollable fires as the scale moves up from R1 to R5 as shown in Figure 5-1. An example map with utility fire potential index ratings is shown in Figure 5-2.

Figure 5-1: PG&E Utility Fire Potential Index Scale



Figure 5-2: Example Map with Utility Fire Potential Index Ratings



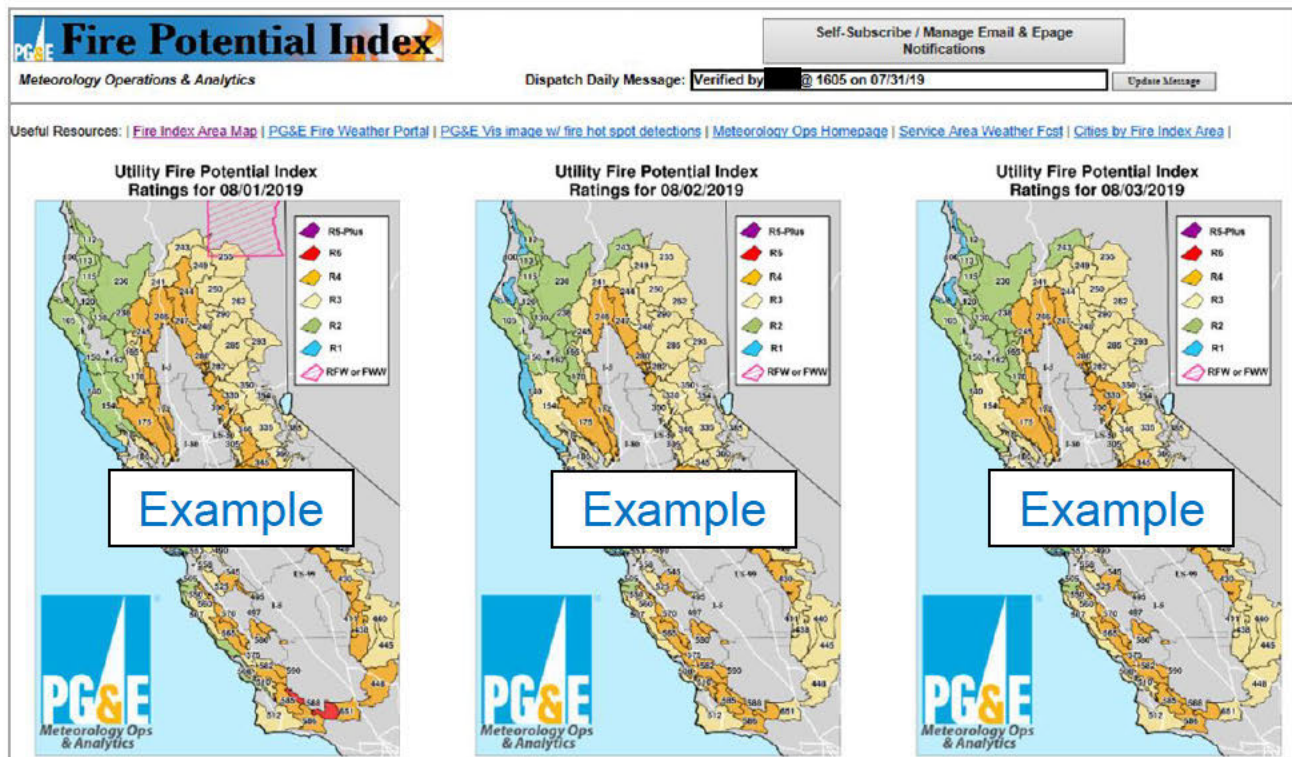
The FPI forecast describes the potential for fires to ignite and spread rated on a scale from “R1” (lowest) to “R5” (highest) specific to each FPI Rating Area. “R5-Plus” indicates there is elevated fire potential plus the potential for wind-related outage activity from the IPW model, which may warrant a PSPS event. The FPI model was calibrated using a high-resolution dataset of historical weather, fuel conditions, geographic-features and fires.

Utility Fire Potential Index (Utility FPI)

The Utility FPI is PG&E’s main operational fire danger rating system. It provides hourly output 4 days out.

Figure 5-3 shows an example of Fire Potential Index with ratings shown for three days.

Figure 5-3: Example Fire Potential Index



PG&E's Meteorology and Fire Science team developed and calibrated the Utility FPI using a robust 30-year meteorological dataset, combined with a fire occurrence dataset in the PG&E territory. The Utility FPI combines several factors including a fire weather index (wind, temperature, turbulence, and vapor pressure deficit) with fuel moisture data (10-hour, 100-hour and 1000-hour dead fuel moisture, woody and herbaceous live fuel moistures), topography (terrain ruggedness, slope, and wind-terrain alignment) and landcover type (grass, shrub, timber or urban).

The Utility FPI is a balanced random forest classification model. The Utility FPI outputs ratings from R1 (lowest) to R5 (highest) in defined geographic areas that drive operational mitigating actions to reduce the risk of starting a fire. These include altering reclosing operations as well as work activities in the field.

5.1.2 Ignition Probability Weather Model

PG&E's Meteorology and Fire Science team also developed the IPW forecast model for 2021. IPW is a location-specific model and related to the historic frequency of outages in an area based on the wind speed and other factors.

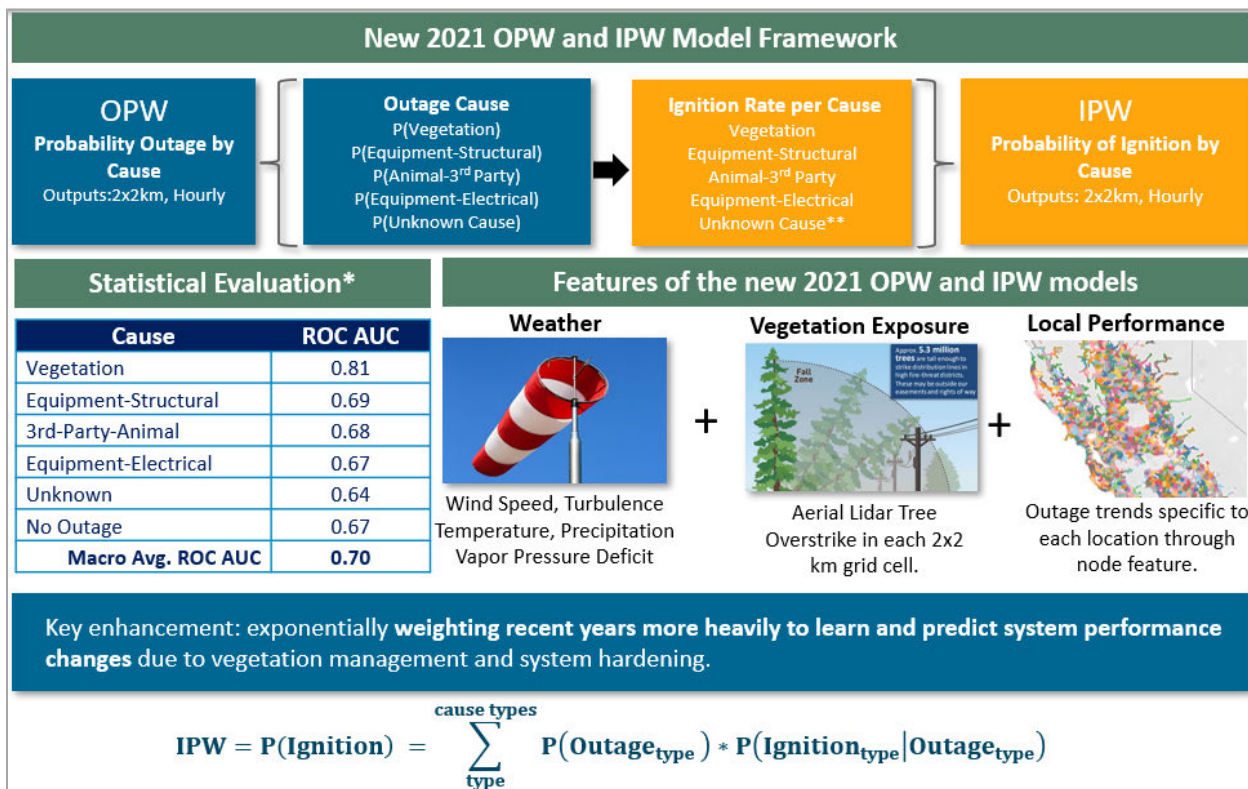
The 2021 OPW and Ignition Probability Weather (IPW) model version represents the next generation of distribution outage and ignition models building on the 2020 OPW 2.0 model. The core model is a new OPW model, that now can forecast outage probability by specific causes. The OPW output is transformed to an ignition probability (IPW) using known outage to ignition ratios for each outage cause.

The 2021 OPW model is trained on windspeeds from the 31 year down-scaled climatology at 2 x 2km resolution and approximately 500,000 sustained and momentary outages occurring on the distribution grid from 2008 to end of 2020. Excluded from these outages were underground outages and non-weather driven major event days, such as fires and earthquakes from the training dataset. PSPS event damages and hazards were also included in the training set.

The operational application of IPW is forecast four times per day producing hourly outage and ignition probabilities. The model has a forecast horizon of 129 hours ahead at the same 2 x 2 km resolution as the PG&E Operational Mesoscale Modelling System (POMMS), a configuration of Weather Research and Forecasting (WRF) model.

Figure 5-4 shows the framework for OPW/IPW.

Figure 5-4: OPW/IPW Framework



The CFP, the combination of IPW and Utility FPI, is forecast across PG&E’s territory four times daily at 2KM spatial resolution using PG&E’s Operational Mesoscale Model System (POMMS). The output of both models is evaluated daily by members of PG&E’s Meteorology and Fire Science team to determine if there is concurrence of a heightened outage risk from a wind event and the potential for large fires to occur. The IPW and Utility FPI models are also used with other factors and external forecasts as well as subject matter expertise to reach risk-informed decisions about PSPS.

For more information about PSPS decision criteria see Section 3.3.1.

5.2 Real-time Field Conditions

5.2.1 Field Observations

Real-time field observations are made to provide information about weather conditions on circuits forecasted to be in a PSPS event. The observers are to be in position prior to the forecasted PSPS de-energization timing and prior to the timing of the weather “all-clear”. They provide information on the presence of R5-Plus conditions. With input from Meteorology, the HAWC makes decisions related to resourcing and location of Field Observers. Plans for use of Field Observers are reviewed by the EOC Commander.

Field observations are completed by members of the Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

Field Observers are sent to specific locations within or as close as possible to the expected weather footprint.

The number of Field Observers will vary depending on the scope of the event, surrounding terrain, facility attributes, and radio / cellular coverage.

On-the-ground, real-time field observations are conducted to provide qualitative as well as quantitative information (for example, flying debris, trees/branches down, conductor movement, ground level wind speed, relative humidity (RH), and temperature) about the presence of R5-Plus conditions and the possible need to trigger a PSPS event sooner than expected. Field observations are conducted by SIPT crews that have completed appropriate training.

When possible, Field Observers provide inputs to the HAWC from a designated area and observations will generally occur prior to the predicted weather event. It is expected that observers may report differing observations based on their specific location.

Field Observers will also be mobilized near the end of the wind event to aid in making a weather “all clear” decision. This acts as a second source in addition to real-time weather station observations to ensure that winds have subsided.

5.2.2 Field Observer Locations

Field Observers initially go to locations specified by the HAWC. When selecting sites for Field Observer locations, the HAWC will consider:

- Cellular phone and radio communications coverage.
- Road access.
- Altitude.
- Open exposure.
- Visibility to circuits.
- Safety factors as reported by the Field Observers.
- Field observation locations have been pre-identified for every Fire Index Area (FIA) within PG&E’s service territory

5.2.3 Conditions to Observe and/or Validate

Field Observers note hazards related to wind conditions, which may lead to outages. They update conditions using the SIPT Viewer. If no mobile connection is available, Field Observers radio in observations to the HAWC, who manually input the data into the dashboard.

Field Observers must record observations including date/time and location specifics about the following conditions:

- Trees / branch movement
- Flying debris
- Conductor movement
- Local real-time wind speed data

The HAWC Lead and Technical Specialist review incoming observations and determine if conditions warrant additional field observation and submission of real-time condition videos. In certain circumstances, the information may warrant immediate consideration for PSPS initiation sooner than expected. This information is communicated to the Planning Section Chief, Meteorology and the EOC Commander.

5.2.4 Reporting Guidelines

Observations are classified as follows and depicted in Table 5-1.

- **No Movement:** No leading indicators of outages and little to no high winds in the area.
- **Slight Movement:** Some observations indicating R5-Plus conditions in the area.
- **Substantial Movement:** Many observations indicating R5-Plus conditions in the area.

Table 5-1: Reporting Guidelines for Field Observers

| Factors | Not Applicable | No Movement | Slight Movement | Substantial Movement |
|------------------|---|--|--|---|
| Tree Observation | No trees in the area of assigned field observation | Leaves and small twigs in motion, small branches and bushes sway, slender branches and twigs move gently | Pole sized trees in the open sway noticeably, large branches in the open toss, tops of trees in dense stands sway (Wind extends small flag) | Large trees in motion, tree damage increases with occasional breaking of exposed branches and tops (Effort needed to walk against the wind) |
| Wire Movement | No visible assets in the area of assigned field observation | No visible impact of wind on assets | Overhead conductors occasionally in motion, not sustained. Gusts have visible impact on assets (Umbrella use becomes difficult, empty garbage cans move in wind) | Assets visibly impacted due to weather, overhead conductors in sustained motion & whistling heard (Cars veer, damage to large tents, observable wind impacts) |
| Debris Movement | No debris in the area of assigned field observation | Loose paper and leaves begin to move (wind flutters small flag) | Debris movement observed during gusts, gentle movement during sustained winds | Visible debris (trash, dead leaves, bins, etc.) violently blowing around in constant motion |

5.3 Materials used to inform Officer-in-Charge

Materials used to inform the OIC include:

1. **Meteorology Reports** – Various models and reports showing useful weather information that will help EC or OIC in their decision-making process include:
 - Pressure gradients.
 - Forecasted humidity.
 - High resolution POMMS Weather Model, FPI and IPW.
 - Red Flag Warnings.
 - North/South Ops Predictive Services forecasts.
 - Asset risk/consequence information directly as well as in ArcGIS.
 - Other external reports as necessary.

2. **Maps** – Maps showing assets in scope and outage area impacts (source – GIS Technical Specialist, PSPS Viewer, Google Earth):
 - Asset locations.
 - Impacted customers' locations.
 - Weather footprints.
3. **Internal Situation Report – event-based summary displaying impacts of de-energization from planning to restoration** (source – Situation Unit, Foundry Tool):
 - User-enabled plan selection with options to select and focus on specific time-places.
 - Customer counts by time-places, PG&E divisions, counties, cities, zip codes, circuits, for possible de-energization.
 - High level customer notification metrics for critical facility, medical baseline, life support, and general customers with optional notification drilldown information.
 - Automated restoration progress view.
4. **HAWC Report** – Report from the Hazard and Awareness Center outlining any current:
 - Ongoing fires in the areas in consideration.
 - Additional hazards.
 - Real time field observations.
5. **Transmission PSPS Scoping Analysis** - Presentation materials detailing transmission lines or sections of transmission lines within the geographic region of the PSPS event which are recommended to be in scope due to exceeding guidance of at least one of the Transmission Line scoping criteria or other known conditions (source – PSPS Transmission Asset Health Specialist) including the following:
 - Summary of recommendation showing the number of lines by voltage proposed to be in scope.
 - Number of Transmission Customers and Municipalities affected.
 - Summary of Generation impacted.
 - Waterfall Chart detailing the number of lines that are in scope due to each transmission scoping criterion.
 - Detailed list of recommended Transmission lines for PSPS scope with the associated rationale for inclusion in PSPS Scope.

- 6. PSPS Tags Report** – Presentation materials detailing information related to open PSPS-qualified tags impacting scope (source – PSPS Distribution Asset Health Specialist, Foundry tool)
- Number of P1, P2 tags and Electric Compliance (EC) Priority A, B, and E tags in scope.
 - Incremental circuits in scope.
 - Incremental customers in scope.

For information on documentation of OIC decision process see 8.1.1.

5.3.1.1 Transmission Scoping Process

On an event-by-event basis, PG&E considers the health of each transmission structure, vegetation risk near each structure, the local area wind speed and Utility FPI forecasts. Given the specific forecast and factors listed above, PG&E determines which structures exceed a risk guidance value outputting a preliminary scope of transmission lines to be deenergized.

The primary drivers for determining which structures and lines should be considered for PSPS is the Transmission Large Catastrophic Probability model (CFP_T), which is the combination of the FPI and Operability Assessment (OA) model. The model produces output for every transmission structure on an hour-by-basis. A Vegetation Risk Index (VRI) is also considered. The VRI takes advantage of LiDAR information about trees surrounding transmission lines and is used to prioritize those lines that have higher risk of vegetation impacts.

Ultimately, there is no single factor or threshold that will automatically trigger de-energization of any particular transmission line. Based on the relative wildfire risk calculated for each transmission line in the footprint, PG&E will exercise expert judgment to identify which transmission lines, if any, should be considered for de-energization. The transmission lines identified during this evaluation process drive the initial transmission PSPS scope.

PG&E then conducts a total impact analysis in coordination with the California Independent System Operator (CAISO) to ensure that the initial transmission PSPS scope is feasible and will not compromise reliable bulk power system operations.

This step is critical to support compliance with Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC) Reliability Standards, and to ensure that de-energizations will not negatively impact bulk power system integrity. This assessment process identifies the total count of customers who are likely to be impacted by a transmission PSPS event, including any publicly owned utilities/electric cooperatives, adjacent jurisdictions, and small/multi-jurisdictional utilities, as well as other facilities interconnected at the transmission level.

This step may also result in the identification of additional downstream PG&E distribution customers that would be impacted by transmission de-energization. Due to networked configuration of the transmission system, customers and entities impacted by a transmission PSPS event may not be directly located within the weather event footprint itself or in a high-fire threat area.

If a potential transmission PSPS scope is feasible from a grid operations standpoint while maintaining compliance with regulatory standards, then the benefits of de-energization of the potential transmission lines will be weighed against the public safety risks of de-energization. If it is determined that the benefits of de-energization outweigh the risks of de-energization of those transmission lines, PG&E will de-energize the identified transmission lines in coordination with the CAISO, after the decision has been approved by PG&E's Officer-in-Charge (OIC).

5.3.1.2 Transmission Scoping Assessment and Scoping Dashboard


The Transmission PSPS Scoping Dashboard (example in Figure 5-5) is used to identify directly impacted transmission lines for inclusion in a PSPS event. This dashboard gathers and displays information related to Black Swan conditions, Large Catastrophic Probability transmission (CFP_T), FPI, asset health (Operability Assessment probability of failure), vegetation risk, and the presence of A-tags for any structure, segmentable section of line or entire line that exceeds minimum FPI guidance. This information is utilized to generate a list of directly impacted lines to be sent to ETEC for study. The results of this study are summarized in a presentation slide for the OIC at Decision .

Figure 5-5: Example Tx PSPS Scoping Dashboard

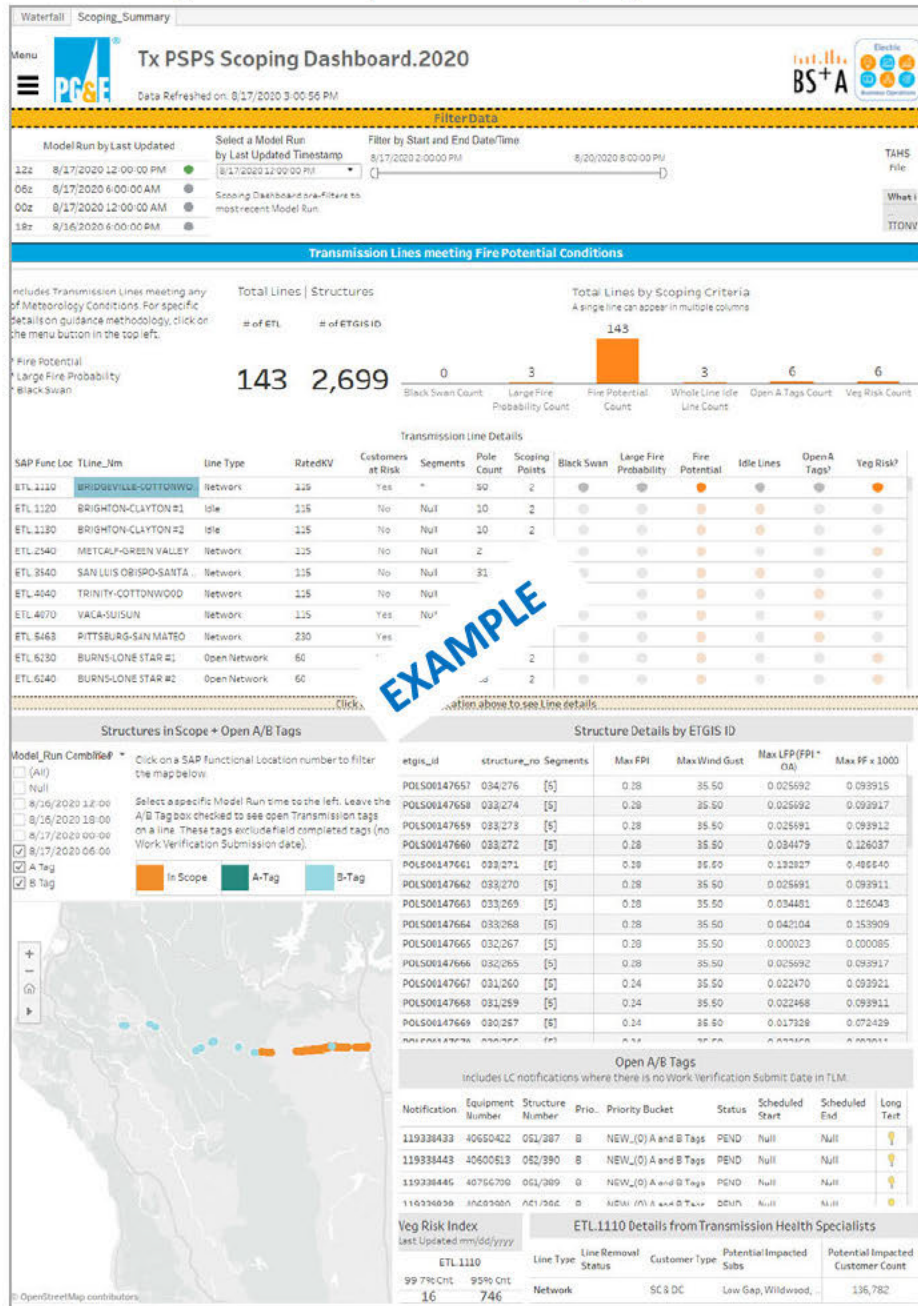
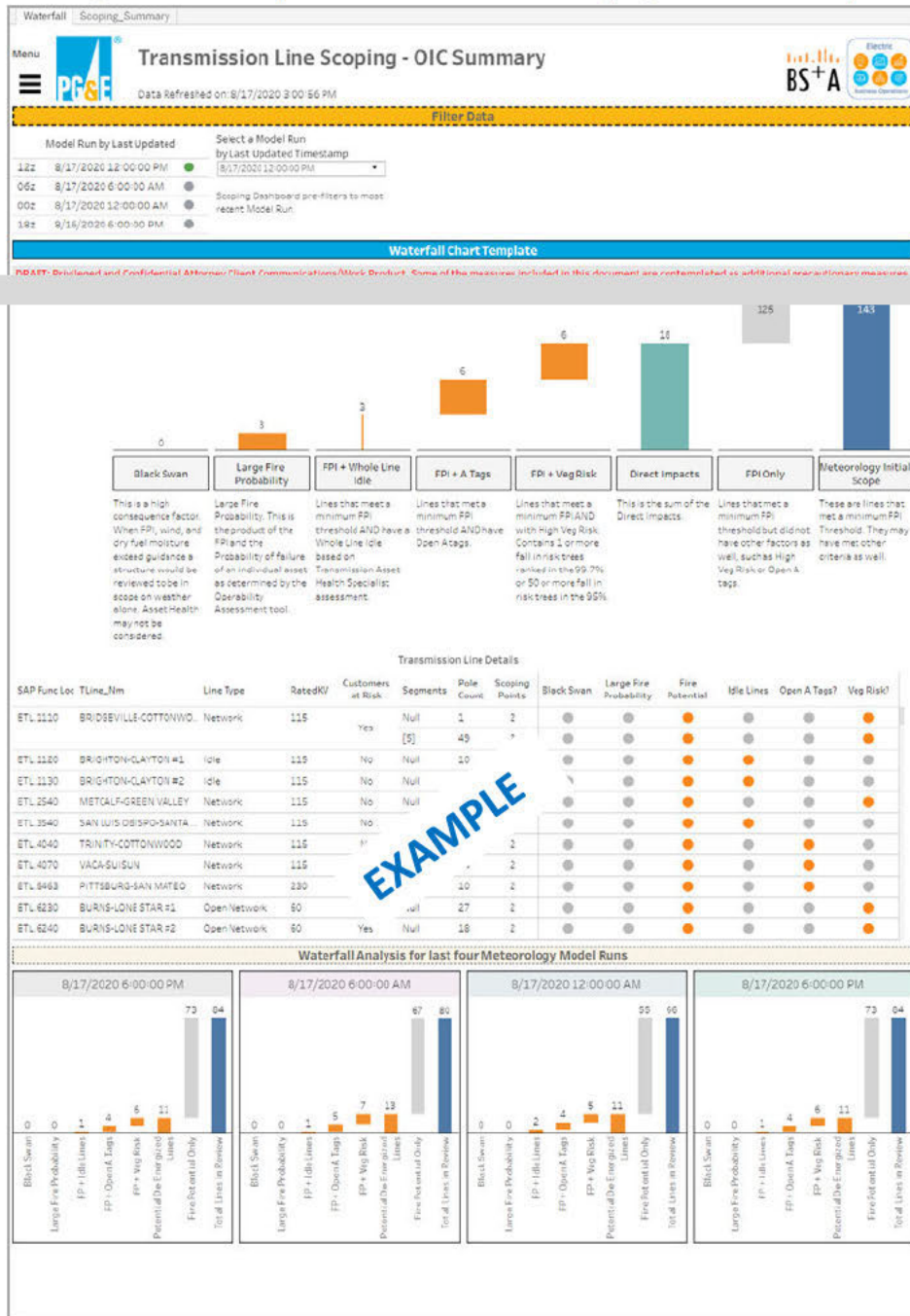


Figure 5-6 shows an example of the Transmission Line Scoping – OIC Summary.

Figure 5-6: Example Transmission Line Scoping – OIC Summary



EXAMPLE

Transmission Lines Operated at Distribution Voltage

For transmission idle lines or segments that are designed, constructed and maintained to transmission line standards, but are currently operated at distribution voltage serving distribution customer load (e.g., ETL.4317 METCALF-HICKS 1 & 2 115KV operating as a portion of the Hicks 2101 21 kV), the Transmission Asset Health Specialist (TAHS) will perform the Operability Assessment and provide a recommendation, based on applicable transmission PSPS thresholds, to the OIC for inclusion or exclusion in the overall scope of the PSPS event.

5.4 PSPS Viewer

The OIC, HAWC, Meteorology, the Operations Section, Planning Section, CSO, the PIO, and LNO use GIS systems information to inform the potential impacts of a PSPS event. The PSPS Viewer displays the circuits, premises, and facilities potentially - impacted by a PSPS event. The PSPS Viewer and PSPS Situational Intelligence Platform (Section 0) incorporate this information to support customer and stakeholder outreach and notifications.

The PSPS viewer is a tool used to translate meteorological scope to distribution circuit sections and to identify appropriate isolation devices to safely de-energize the distribution overhead electrical infrastructure in the area identified by meteorological team. This data is then integrated into PSIP to display and share the list of customers who will be affected when PSPS is executed for a specific area.

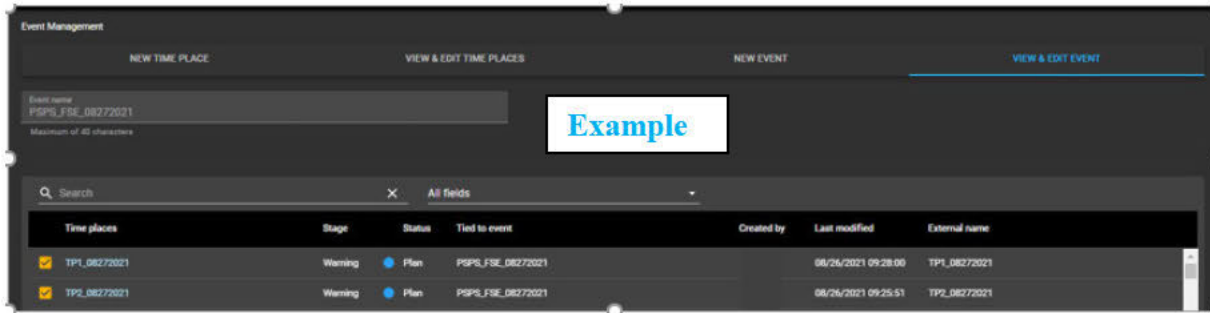
The PSPS Viewer identifies distribution customers and is based on the tracing and connectivity model in the Electric Distribution Geographic Information System (EDGIS). The PSPS Viewer can model abnormal configuration and temporary outages that are planned as a result of PSPS. The abnormal configuration includes the application of mid-feeder microgrids and substation temporary generation.

The PSPS Viewer:

- Is used for creating the scope of de-energization. This information is shared with PSIP to generate the De-energization Playbook and Restoration Playbook.
- Provides information about impacted distribution overhead circuit miles used towards restoration planning and estimating resource needs.
- Is utilized to reflect the distribution feeders and associated customer impacts due to any Transmission PSPS action.

The PSPS Technical Lead and PSPS Technical Specialist are the primary users of the PSPS Viewer. Figure 5-7 shows an example of a PSPS Viewer screen.

Figure 5-7: Example View of PSPS Viewer



5.5 PSPS Situational Intelligence Platform

The PSPS Situational Intelligence Platform (PSIP) is built on PG&E's implementation of the Palantir Foundry system, which is currently connected to 50+ source systems that contain billions of records relevant to asset health analytics such as GIS, SAP, and CC&B.

The data platform does not replace the underlying source data systems of record, but rather provides a central platform to enable data integration/virtualization and access, support for data management and advanced analytics. PSIP is the central platform to inform PSPS decision-making, reporting, and communications. The features include PG&E's Situation Report, Customer Notification Management, Distribution and Restoration Playbook Management, Regulatory Reporting and more. The platform is also used to generate information shared with external parties such as CAL FIRE and local emergency management agencies.

In 2021, PG&E used this platform to develop and manage situational intelligence for all PSPS events. The Situation Report is an event-based summary displaying impacts of de-energization from planning to restoration. See example screen shot in Figure 5-8.

Figure 5-8: Example Situation Report

PSPS SITUATION REPORT | PSPS_10142021
Need Help
Data Freshness Data Refreshed: 10/13/2021, 10:23:40 AM
Print Summary

PLAN SELECTION

| | | | | |
|---|---|--|--|--|
| PLAN_C-04 Tx Playbook Created: Wed, Oct 13 12:36 DIC Approved: TPs: 10 | PLAN_D-04 Tx Playbook: PSPS Even... Created: Wed, Oct 13 16:22 DIC Approved: Wed, Oct 13 17:47 TPs: 10 | PLAN_D-04_REV1 Tx Playbook: PSPS Even... Created: Wed, Oct 13 20:48 DIC Approved: Wed, Oct 13 17:47 TPs: 10 | PLAN_D-04_REV2 Tx Playbook: Created: Thu, Oct 14 08:32 DIC Approved: Wed, Oct 13 17:47 TPs: 1 | PLAN_D-04_REV3 Tx Playbook: Created: Thu, Oct 14 16:14 DIC Approved: Wed, Oct 13 17:47 TPs: 1 |
|---|---|--|--|--|

PLAN SUMMARY | PLAN_D-04_REV3

| | | | | |
|--|--|---|---|---|
| TOTAL SCOPE Time Places: 1 Outages: 1 Counties: 1 Time: 8 | ASSETS Tx: No attached Tx Playbook DC Circuits: 0 | CUSTOMERS Affected Customers: 666 Total: 0 Medical: 34 Critical Facilities: 36 | NOTIFICATIONS Customers not notified: 0 MFL not attempted: 0 MFL not delivered: 0 MFL not confirmed: 0 | TEMPORARY GENERATION Temporary microgrids (TMG): 0 Substations (SUB): 0 Customers supported by TMG & SUB: 0 ICU Hospitals & PWR: 0 Ad-hoc backup power support: 0 |
|--|--|---|---|---|

GENERAL EVENT SUMMARY

Summary: The PG&E Emergency Operations Center remains activated in support of the current PSPP event along the Tehachapi foothills. The forecast continues to show Kern County in PSPP warning through tomorrow as periods of locally gusty south winds are expected through the early afternoon. Please stay tuned to future updates and read on for more details.

Discussion: Breezy winds associated with a Santa Ana wind event have developed over the Tehachapi and are being observed through favorable passes. Winds could briefly decrease during the day before strengthening this evening and overnight then continuing through early tomorrow afternoon. Spikes are expected to reach 10-20 mph with gusts generally in the 20-30 mph range, although wind prone areas could see localized gusts reach 40 mph. Apart from the winds, dry and milder weather will continue through Saturday followed by cool and unsettled weather Sunday into early next week as a weather system moves across the north. Breezy south to southwest winds and rain showers will likely develop across the north with the passage of the system, while dry conditions continue farther south. Fair and dry weather will continue across the southern territory through the midweek while the north could potentially experience another chance of rain with a weak frontal passage Wednesday. A chance for more unsettled weather is anticipated late next week as long-range models suggest a series of weather systems could move through the territory. Dead fuel moisture has increased in some areas due to recent precipitation, but overall values are still below normal across most of the territory for this time of year and the moisture content is brush and chaparral remains at or below critical levels.

EVENT TIME PLACES

note: map displays a sample of simplified outage areas

PLAN DRILLDOWN

Select [] for a filtered summary

PLAYBOOKS (Tx / DC) CUSTOMERS / NOTIFIED CRITICAL FACILITIES

AFFECTED CUSTOMER SUMMARY

| | | | | |
|--|---|--|--|--|
| AFFECTED CUSTOMERS 666 95.1% Delivered Attempted Contactable | CRITICAL FACILITIES 36 100.0% Delivered Attempted Contactable | MEDICAL BASELINE 34 94.1% Received Attempted Total | LIFE SUPPORT 26 91.2% Received Attempted Total | SELF-IDENTIFIED VULNERABLE 0 Received Attempted Total |
|--|---|--|--|--|

Note: Affected Customers are notified if there is valid information. Attempted, delivered and received status are determined based on CPSC guidelines for MFL Customers. Life Support only includes residential premise types.

Affected Customer Segments Report **MFL No Contact Report** **ALFNC Report** Analyze in Context: Event

| COUNTY | TOTAL NOT ATTEMPTED | CONTACTABLE | TOTAL ATTEMPTED | CRITICAL FACILITIES NOT ATTEMPTED | CRITICAL FACILITIES DELIVERED | MFL NOT ATTEMPTED | MFL RECEIVED |
|--------|---------------------|-------------|-----------------|-----------------------------------|-------------------------------|-------------------|--------------|
| KERN | 0 | 663 | 100% (663) | 0 | 100% (26) | 0 | 94% (32) |
| OTHER | 0 | 2 | 100% (2) | 0 | N/A (0) | 0 | N/A (0) |

Showing 1 to 2 of 2 entries Previous Next

RESTORATION STATUS

De-energization Outage Date range: 2021-10-11 01:00 → 2021-10-16 18:30

Exclude outages shorter than: Seconds

Show restoration data from OMT Show ETORs from OMT Include only PSPP outages

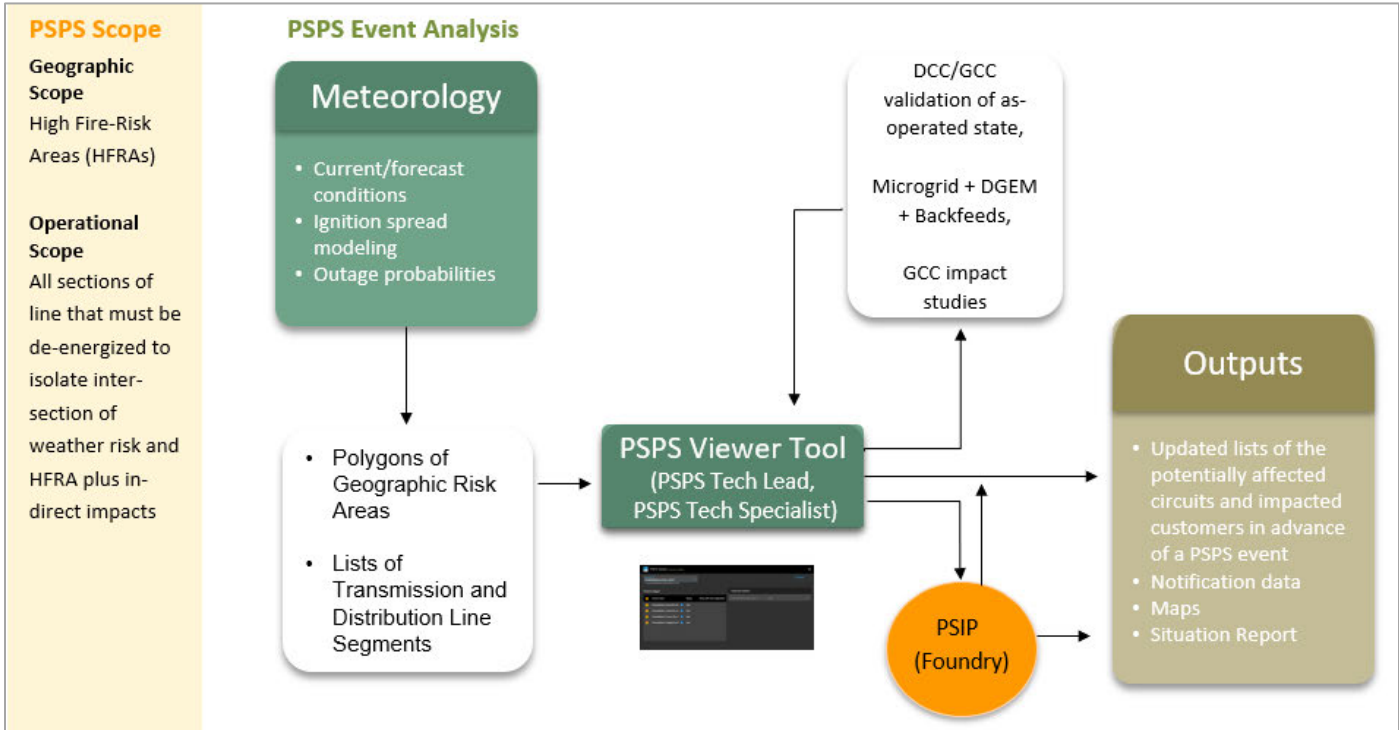
| COUNTY | ESTIMATED DE-ENERGIZATION | ESTIMATED RESTORATION | ESTIMATED CUSTOMERS IMPACTED | ESTIMATED CRITICAL FACILITIES IMPACTED | ESTIMATED MEDICAL BASELINE IMPACTED | % TOTAL RESTORED | % CRITICAL FACILITIES RESTORED | % MEDICAL BASELINE RESTORED |
|--------|---------------------------|-----------------------|------------------------------|--|-------------------------------------|------------------|--------------------------------|-----------------------------|
| KERN | 10/15 0100 | 10/16 2200 | 664 | 36 | 34 | - | - | - |
| OTHER | 10/15 0100 | 10/16 2200 | 2 | 0 | 0 | - | - | - |

EXAMPLE

5.6 Data Sources and Flow of Information

The sequence in Figure 5-9 occurs as necessary in the EOC to enable the OIC and EOC Commander to make informed decisions during a PSPS event.

Figure 5-9: Data Sources and Flow of Information for Distribution Lines



6 Performance Indicators

Performance Indicators for PSPS are under development as a means of monitoring select metrics and being able to show how the program progresses and improves. PG&E metrics for PSPS in 2022 will include, at a minimum:

6.1 Customers Restored within 24 Hours

Purpose: Measure PG&E's progress towards improving restoration times and customer experience in a way that incentivizes improvements, while reducing variation from factors beyond PG&E's control. This provides leadership a clear view of both our progress and our opportunities for improvement.

Description: The percentage of customers who are restored within 24 hours after weather "all clear" is declared.

- This calculation excludes customers whose restoration was delayed because of fire damage to assets, access restrictions by emergency services, or by other factors that PG&E cannot control or meaningfully mitigate.
- A customer is "all clear" if weather conditions permit safe patrol and restoration of both the customer's distribution line and upstream transmission lines.

6.2 ETOR Accuracy

Purpose: Measure PG&E's progress towards improving the accuracy of Estimated Time of Restoration (ETOR) notifications.

Description: Percentage of customers whose restoration time meets criteria* divided by the number of customers who received an ETOR estimate**.

**Restoration criteria for customers restored must be within the following bounds: less than 2 hours before notification, or 15 minutes after the ETOR; no more than 2 updates following All Clear notification; and ETOR update sent before previous ETOR expiration.*

***ETOR estimates considered can be communicated during Warning, Power-Off, All Clear or ETOR update notifications*

6.3 Customers Notified Prior to Shutoff

Purpose: To improve accuracy of the notifications PG&E sends to PSPS affected customers in advance of their outage.

Description: The percentage of PG&E distribution electric customers (account holders) affected by PSPS who receive notifications in advance of PSPS outages. This excludes customers with no contact information and cancellation notifications.

6.4 Substation Temporary Generation Readiness Metric

Purpose: Keep safe-to-energize customers impacted by upstream transmission level PSPS outages energized.

Description: In 2022, based on the 10 year lookback data and the established scope criteria analysis, no substations meet the criteria that would warrant temporary generation reservation and pre-staging. If a substation(s) were to come into scope an early “no regrets” decision would be required to deploy “on demand” temporary generators and resources.

6.5 Automated Distribution Sectionalization Metric

Purpose: Reduce the number of customers impacted during future PSPS events affecting the distribution system.

Description: The number of new, automated distribution sectionalizing devices installed and SCADA commissioned by the start of peak PSPS season on 9/1/2022. The target for 2022 is 100 new devices.

6.6 Temporary Distribution Microgrids Metric

Purpose: Increase quantity of temporary distribution microgrids with pre-installed interconnection hubs available to energize “main street” corridors with critical and shared community services during PSPS events relative to 2022.

Description: The total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2022 minus the total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2021. This is an end-of-the-year metric.

6.7 Transmission Line Switches Metric

Purpose: PSPS events can cause significant disruption to communities and customers. PG&E plans to continue implementing our transmission segmentation strategy to minimize the number of customers impacted during future PSPS events by narrowing down the segments of a circuit to de-energize.

Description: Prioritization of new or upgraded transmission sectionalizing devices is based on circuit HFTD location, likelihood of potential de-energization during future PSPS events (based on a study of ten years of weather data), and potential customer impact. Switch upgrades are typically identified at line junctions and substations, where operational flexibility may be most beneficial.

Execution of switch installations is dependent on constraints in addition to the overall program priority. Access challenges, permitting issues, clearance restrictions, etc. are key drivers of the order switches may be installed. Approximately, 200 additional switches are planned to be installed in the next three to five years.

6.8 Emergency Backup Generation at PG&E Facilities Metric

Purpose: Provide PG&E facilities with emergency backup power to support the entire campus for the purpose of longer duration PSPS events.

Description: Three phase project with a commitment to have the selected 52 highest priority facilities completed by 12/31/2022. Through 12/31/2021, 37 facilities have been completed, with the remaining 15 facilities targeted for completion by 12/31/2022. Completed facilities include emergency generation system capable of backing up the campus in its entirety. To achieve this, existing emergency generators, automatic transfer switches, and in most cases, main switchboards, are either being replaced or reconfigured to attain emergency generation back up for the entire site.

For information on further metrics related to wildfire mitigation and PSPS see [2022 Wildfire Mitigation Plan](#).

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7 Training and Exercises

7.1 Training Program

PG&E supports and conducts various training platforms throughout the year relating to and supporting PSPS response activity. This includes emergency preparedness, response principles, the CERP, and activity unique to a PSPS response.

PG&E's emergency preparedness and response efforts function on Incident Command System (ICS) principles. ICS and Standardized Emergency Management System (SEMS) training courses are assigned to all emergency and coordination center personnel. Each role in the EOC requires a specific set of SEMS/ICS training.

7.1.1 PSPS Specific Training Program

The PSPS Specific Training Program is designed to prepare personnel to respond to PSPS events. This training program delivers general PSPS specific content to all personnel who would respond to a PSPS event. Additionally, this training program includes tailored curriculum paths designed for specific roles in EOC which are only activated during a PSPS event.

Supplemental role specific training is designed and developed to address PSPS specific responsibilities all-hazards roles assume during a PSPS event. All PSPS specific trainings include activities and exercises to facilitate learning, performance support tools to support the learning inside and outside the learning environment, and knowledge and skill checks to ensure competence and instill confidence.

The training content is updated each year to reflect the improvements to PG&E's PSPS program. The delivery of PSPS specific trainings aligns with the start of the PSPS season and evaluated for effectiveness at the end of each PSPS season.

7.2 Exercise Program

PG&E's Emergency Preparedness & Response Strategy & Execution Exercise Team plans, coordinates, and conducts the exercises for PSPS and other hazards.

All exercises are designed and executed in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology and in alignment with the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E EP&R S&E Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises also fulfills a key component of compliance with CPUC GO 166, specifically Standard 3, parts *a* and *b*.

In support of PSPS readiness, PG&E is required to conduct both a table-top exercise (TTX) and a functional exercise annually prior to July 1st.

Training for the PSPS program is updated and administered annually. For more information see [CERP Section 3.7 Training and Exercises Program](#).

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8 Documenting PSPS Event

8.1 Internal PG&E

8.1.1 OIC Decision Records

The PSPS Recorder documents the OIC's decision to de-energize, update scope or re-energize using templates for OIC decision-making records. The Recorder is also responsible for taking notes during other meetings involving the OIC, as needed.

8.1.2 After Action Report

The After-Action Report (AAR) summarizes key information related to activation response and recovery activities. In accordance with *CERP* Section 3.7.3, PG&E conducts an After-Action Review with responding incident leadership to identify strengths and opportunities for improvement. The responsible emergency management organization solicits and analyzes feedback from key leaders who supported the activation and then prepares a draft AAR.

The AAR includes an Improvement Plan with recommended corrective actions, which may be used to enhance existing procedures and planning future emergency response exercises.

Corrective Actions deemed significant (or which remain pending) may be submitted into the Corrective Action Program (CAP). CAP entries are assigned ownership from the responsible line of business that are actively tracked and evaluated to ensure completion.

8.2 External

In addition to data provided to external partners during an event, PG&E is required to file two forms/reports that document the PSPS event: Cal OES PSPS State Notification Form updates and CPUC De-energization Report.

8.2.1 Cal OES PSPS State Notification Form

The Cal OES PSPS Notification Form is the official notification of PSPS updates from a utility to the Governor's Office of Emergency Services. The form provides critical information on PSPS event timing and scope and is intended to provide a general summary overview of potential/current impacts in a timely manner.

The Situation Unit in the Planning Section is responsible for filling out the Notification Form and seeking review and approval from the Planning Chief and EOC Commander. Once documented and saved onto the EOC SharePoint, the Situation Unit will submit the form and notify the PSPS Deputy Planning Section Chief and PSPS Communications Coordinator. Either the PSPS Deputy Planning Section Chief or the Situation Unit will also call the Warning Center at CalOES to confirm form submission and receipt.

The Cal OES Form should be submitted a minimum of twice a day (0700 and 1500), or in the event of a stage change or significant change in scope. A significant change in scope is an impact of +/- 10,000 customers or +/- a county.

- **Activating PSPS Protocols / Potential to De-energize** – IOU is considering a PSPS event due to incoming weather.
- **Decision to De-energize** – IOU has determined it will shut off power to some or all areas considered in the PSPS event.
- **De-energization Initiated** – IOU has begun process of shutting off power to areas determined in prior notifications/stages.
- **Re-energization Initiated** – IOU has determined that the weather event has subsided and has begun to assess power lines for re-energization.
- **Event Concluded** – IOU has re-energized all lines shut off due to PSPS event or no lines were shut off and the period of concern has passed.

Figure 8-1 shows example of Web Form and Figure 8-2 shows example form to be used as back-up for tech-down situations.

Figure 8-1: Example Cal OES PPS State Notification Form (web form)

Public Safety Power Shutoff (PSPS) State Notification Form
This form should be filled out in accordance with the guidelines in the PSPS Standard Operation Guide. Please contact the California S...

IOU PSPS Notification Form to Cal OES

Utility Name:
Please Select

ICU Representative Contact Information:
Should be formatted as (Phone), XXX-XXX-XXXX, (Email), for example, John Hancock, 555-555-5555, jhancock@normal.com

Event Name:
Event should be named (Utility) (PSPS Event) (Date) (Time/Duration) for example, SCE PSPS Event 07/02/20 0700 hours

Initial Notification:
Please Select

Phase:
Phase should indicate the geographic or timeframe of the event. If there are multiple, if there are no options please leave this field blank.

Weather Event Window:
Please indicate the timeframe of the weather event. Example: 07/02/20 at 0600 hours to 07/02/20 at 1200 hours

Total Customers Potentially Impacted:

Total Medical Baseline Customers Potentially Impacted:

Potentially Impacted Counties:
Select all that apply

Total Number of Customers Currently De-energized:


Total Number of Medical Baseline Customers Currently De-energized:

Counties Currently Impacted by De-energization:
Select all that apply

Current PSPS Stages:
Select the current stage

Submit

Figure 8-2: Example Cal OES PSPS State Notification Form (tech-down back-up form)



Public Safety Power Shutoff (PSPS) State Notification Form

Please complete this form per instructions provided and send to the California State Warning Center at warning.center@oes.ca.gov. Upon submission of form, call the CSWC at (916) 845-8911 to confirm receipt. Please call with any questions.

PSPS NOTIFICATION FORM

Please enter IOU representative contact information below. Please format per the example.

Click or tap here to enter text. Example: Name, Phone Number, Email
 Example: John Hancock, 555-555-5555,j.hancock@email.com

Additional contact information:
 Click or tap here to enter text.

GIS information:
 In addition to completion of the PSPS State Notification Form, the utility is responsible for including the following data points in their GIS environment:

| | | |
|--|---|--|
| <ul style="list-style-type: none"> • County • Circuit Name | <ul style="list-style-type: none"> • Energization Status <ul style="list-style-type: none"> ○ Monitoring ○ De-energized ○ Patrolling ○ Re-energized ○ Phase and timing | <ul style="list-style-type: none"> • Critical Care and /or medical baseline customer count • Critical infrastructure/essential customers • Total customer |
|--|---|--|

Please provide public GIS links to de-energization information.
 [Public GIS Link]

Cal OES to remove this page before distribution.

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8.2.2 CPUC De-Energization Report

In accordance with CPUC [Resolution ESRB-8, Decision \(D.\) 20-05-051](#) all Investor Owned Utilities (IOUs) are required to file a report with the director of the Commission's Safety and Enforcement Division (SED) no later than 10 business days following an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization but no de-energization occurred.

The PG&E PSPS De-energization Report to the CPUC (also called the 10-Day Report), is broken into 12 sections, each of which is assigned to a PSPS workgroup. Each section has a respective job aid, which the teams are required to fill out during the event and finalize shortly after restoration.

At the start of EOC activation, the PSPS PMO 10 day report lead will notify responsible individual(s) to maintain information necessary for the CPUC report. The sections of the report and responsible business owners are outlined in Table 8-1.

Table 8-1: PG&E PSPS Report to the CPUC – Sections

| Section | Section Name | Responsible Individuals |
|---------|--|--|
| 1 | Executive summary | <ul style="list-style-type: none"> • PSPS PMO 10 day report Lead |
| 2 | Decision-Making Process | <ul style="list-style-type: none"> • PSPS PMO 10 day report Lead • Meteorology and Fire Science • PSPS PMO • Risk vs Benefit Team |
| 3 | De-energized Time, Place, Duration and Customers | <ul style="list-style-type: none"> • PSPS PMO 10 day report Lead • PSPS Ops Data Engineer |
| 4 | Damage and Hazards to Overhead Facilities | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 5 | Notifications | <ul style="list-style-type: none"> • CC Regulatory Strategy • CC WFM Business Analysis • LROE (Liaison & Regulatory Operations & Engagement) |
| 6 | Local and State Public Safety Partner Engagement | <ul style="list-style-type: none"> • LROE (Liaison & Regulatory Operations & Engagement) • LCE Planning and Operations • Substation Construction Mgmt & Temp Generation • PSPS Product Management (Portal) |
| 7 | Complaints & Claims | <ul style="list-style-type: none"> • CC Regulatory Strategy • LROE (Liaison & Regulatory Operations & Engagement) |
| 8 | Power Restoration | <ul style="list-style-type: none"> • Emergency Field Operations • PSPS PMO |
| 9 | Community Resource Centers | <ul style="list-style-type: none"> • Community Resource Center Strategy Group |
| 10 | Mitigations to Reduce Impact | <ul style="list-style-type: none"> • PSPS Scoping and Process Team • Substation Construction Mgmt & Temp Generation • LCE Planning and Operations |
| 11 | Lessons Learned from this Event | <ul style="list-style-type: none"> • PSPS PMO • Emergency Preparedness & Response • Meteorology and Fire Science |
| 12 | Other Relevant Information (PG&E addition, not required by CPUC) | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| | Officer Verification | <ul style="list-style-type: none"> • Regulatory Relations - CPUC Communications |
| | Appendix | <ul style="list-style-type: none"> • PSPS PMO • Meteorology and Fire Science • CC Regulatory Strategy |

NOTE: The format of the CPUC De-energization Report is subject to change depending on regulatory requirements.

Prior reports can be accessed at [external PG&E website](#).

8.2.2.1 R. 18-12-005 Phase 1 (D. 19-05-042) Requirements

In addition to the reporting requirements in Resolution ESRB-8, CPUC decision R. 18-12-005 Phase 1 (D. 19-05-042) requires the electric IOUs to provide further information in the 10-Day Report including:

- Decision criteria leading to de-energization, including 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.
- A copy of all notifications, the timing of notifications, the methods of notifications and who made the notifications (the utility or local public safety partners).
- If the utility fails to provide advanced notification or notification according to the minimum timelines set forth in these Guidelines, an explanation of the circumstances that resulted in such failure.
- A description and evaluation of engagement with local and state public safety partners in providing advanced education and outreach and notification during the de-energization event.
- For those customers where positive or affirmative notification was attempted, an accounting of the customers (which tariff and/or AFN population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved.
- A description of how sectionalization, i.e., separating loads within a circuit, was considered and implemented and the extent to which it impacted the size and scope of the de-energization event.
- An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks.
- The timeline for power restoration (re-energization) in addition to the steps taken to restore power as required in Resolution ESRB-8.
- Lessons learned from the de-energization event.
- Any recommended updates to the guidelines adopted in Resolution ESRB-8 and this decision (19-05-042).

8.2.2.2 R. 18-12-005 Phase 2 (D. 20-05-051) Requirements

CPUC decision R. 18-12-005 Phase 2 (20-05-051) adds further requirements to the 10-Day including:

- Each electric investor-owned utility shall report on all potential or active de-energization events in its post event reports. These reports shall include a thorough and detailed description of the quantitative and qualitative factors it considered in calling, sustaining, or curtailing each de-energization event (including information regarding why the de-energization event was a last resort option) and a specification of the factors that led to the conclusion of the de-energization event.

- The electric IOUs should explain any false communications in the post event reports by citing the sources of changing data, and lessons learned should be incorporated in ongoing de-energization communications and notifications to increase their accuracy and effectiveness.
- For any circuits that require more than 24 hours to restore, the utility should explain why it was unable to restore each circuit within this timeframe in its post event report.

8.2.2.3 R. 18-12-005 Phase 3 (D. 21-06-034) Requirements

CPUC Decision 8.2.2.3 R. 18-12-005 Phase 3 (21-06-034) adds further requirements to the 10-Day including:

- In its post-event reports, each electric investor-owned utility must provide the number of customers notified in comparison to the number of customers de-energized

For more information about reporting requirements in Phase 3, see [Phase 3 Decision](#), Appendix A, Section K.

8.2.2.4 I. 19-11-013 PSPS Order Instituting Investigation (D. 21-06-014) Requirements

CPUC decision I. 19-11-013 PSPS Order Instituting Investigation (OII) (D. 21-06-014) adds further requirements to the 10-Day Report including:

- Quantification of public risk and harms and how they were weighed in decision making.
- Separate sections on PSPS as a last resort, alternatives considered, mitigation measures employed.
- Best Practices discussed in Joint-IOU Working Group Meetings.

For more information about reporting requirements in PSPS OII see [CPUC Decision 21-06-014](#).

8.2.3 Pre-Season Report

The Pre-Season Report is a requirement by the CPUC for all IOUs to file annually by July 1st. In general, the purpose of the Pre-Season Reports should be to describe all the actions the IOUs have taken, or are taking, in preparation for potential PSPS events during the upcoming wildfire season; as part of such description, the IOUs should specify lessons learned from past events, and how they are applying those lessons to their current preparations.

For more information on requirements for the Pre-season Report see [Phase 3 Decision](#) Section 6.11 and Appendix A, Section K.

Details expected to be confirmed by the CPUC at a future date.

NOTE: First expected Pre-season report to be submitted in 2022.

8.2.4 Post-Season Report

The Post-Season Report (POSTSR) is a requirement by the CPUC for all IOUs to file annually by March 1st. In general, the purpose of the post-season reports is to describe all the actions the IOUs took with respect to calling PSPS events, including specific notifications and measures taken to mitigate the impacts of PSPS events on different customer segments and communities.

For more information on requirements for the Post-season Report see [Phase 3 Decision](#) Section 6.11 and Appendix A, Section K.

POSTSR is divided into four deliverables: POSTSR 1 – Narrative, POSTSR 2A (Geospatial GDB) & 2B (Non Geospatial Excel File) – Census Tract (Tabular and Non-Tabular), POSTSR 3 – Education and Outreach Cost Tracking, and POSTSR 4 – Complaint tracking.

Table 8-2 shows section name and responsible individuals.

Table 8-2: PG&E PSPS Report to the CPUC – POSTSR 1

| Section | Section Name | Responsible Individuals |
|---------|--|--|
| 1 | Overarching Requirements (No action required) | N/A |
| 2 | Amendments to Post-Event Reports | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 3 | Decision Specified Requirements | <ul style="list-style-type: none"> • Substation Construction Mgmt & Temp Generation • PSPS Scoping and Process Team • CC Regulatory Strategy • LCE Planning and Operations |
| 4 | SED Specified Requirements | <ul style="list-style-type: none"> • Meteorology and Fire Science • Risk vs Benefit Team • Emergency Preparedness & Response • LROE (Liaison & Regulatory Operations & Engagement) • CC Regulatory Strategy |

POSTSR 2A is the geospatial data (shapefile / GDB) that has 15 statistics requested per tract per event. POSTSR 2B is the tabular data (non- spatial) request at census tract level in excel format with 8 metrics requested per census tract.

POSTSR 3 consists of 6 fields of information for each education and outreach program.

POSTSR 4 consists of 9 fields of information per complaint received.

8.2.5 Post-Season Data Report

The Post-Season Data Report (PSDR) is a data request from the Safety and Enforcement Division (SED). It is assumed that this will be an annual data request due by April 1st. In general, the purpose of the post-season data report is to aggregate all data points within the post-event reports, as well as additional data points requested from SED. This data report consists of 344 data points in 14 different tabs for each de-energization event in the calendar year prior (January – December).

Table 8-3 shows section name and responsible roles.

Table 8-3: PG&E PSPS Report to the CPUC – PSDR

| Tab | Section Name | Responsible Roles/Departments |
|-----|------------------------|---|
| 1 | Dashboard | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead • Various |
| 2 | Decision Factors | <ul style="list-style-type: none"> • Meteorology and Fire Science • Risk vs Benefit Team |
| 3 | Distribution | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 4 | Transmission | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead • PSPS Scoping and Process |
| 5 | Counties | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 6 | Tribes | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 7 | CONF – CFCI | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 8 | Backup Power Resources | <ul style="list-style-type: none"> • Substation Construction Mgmt & Temp Gen |
| 9 | Mitigation | <ul style="list-style-type: none"> • PSPS Ops Data Engineer • PSPS Scoping and Process |
| 10 | CRCs | <ul style="list-style-type: none"> • Community Resource Center Strategy Group |
| 11 | Damages | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 12 | Hazards | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 13 | Claims | <ul style="list-style-type: none"> • Claims Investigator Team • PSPS PMO 10 day report lead • CC Regulatory Strategy |
| 14 | EM & EM exercises | <ul style="list-style-type: none"> • Emergency Preparedness & Response |

9 Appendices

Appendix A, Acronyms and Glossary

Appendix B, Supporting Documents and Links

Appendix C, Catalog of Notification Scripts

Appendix D, PSPS Portal – Instructions to Request Access

Appendix E, Example Customer Communication Materials for PSPS

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Appendix A. Acronyms and Glossary

A.1 Acronym List

| Acronym | Long form |
|----------|--|
| AAR | After Action Report |
| ADA | American with Disabilities Act |
| AFN | Access and Functional Needs |
| BC(P) | Business Continuity (Plan) |
| BES | Business Energy Solutions |
| CAISO | California Independent System Operator |
| CAL FIRE | Department of Forestry and Fire Protection |
| Cal OES | Governor's Office of Emergency Services |
| CAP | Corrective Action Program |
| CCAs | Community Choice Aggregators |
| CCECC | Customer Contact Emergency Coordination Center |
| CERP | Company Emergency Response Plan |
| CEUA | California Emergency Utilities Association |
| CFILC | California Foundation for Independent Living Centers |
| CIMC | Corporate Incident Management Council |
| CRC | Community Resource Center |
| CRESS | Corporate Real Estate |
| CSO | Customer Strategy Officer (EOC) |
| CWSP | Community Wildfire Safety Program |
| DCC | Distribution Control Center |
| DMS | Distribution Management System |
| DSO | Distribution System Operation |
| Dx | Distribution |
| EDEC | Electric Distribution Emergency Center |
| EDGIS | Electric Distribution Geospatial Information System |
| EOC | Emergency Operations Center |
| EP&R SE | Emergency Preparedness and Response Strategy and Execution |
| ETEC | Electric Transmission Emergency Center |
| ETOR | Estimated Time of Restoration |
| FERC | Federal Energy Regulatory Commission |
| FIA | Fire Index Area |
| FORCE | Field Operations Resource Calculator ETOR |
| FPI | Fire Potential Index |
| FSS | Field Safety Specialist |
| GCC | Transmission Grid Control Center |
| GEC | Gas Emergency Center |
| GIS | Geographic Information System |
| HAWC | Hazard Awareness and Warning Center |
| HFRA | High Fire Risk Areas |
| HFTD | High Fire Threat District |

| Acronym | Long form |
|---------|---|
| I&I | Intelligence and Investigations |
| ICS | Incident Command Structure |
| ILC | Independent Living Center |
| IOU | Investor Owned Utility |
| IPW | Ignition Probability Weather |
| IOU | Investor Owned Utility |
| ITCC | Information Technology Coordination Center |
| LCE | Local Customer Experience |
| LNO | Liaison Officer (EOC) |
| MBL | Medical Baseline |
| MIC | Meteorologist-in-Charge |
| MW | Megawatt |
| NERC | North American Electric Reliability Corporation |
| NOAA | National Oceanic and Atmospheric Administration |
| OAFN | OES' Office of Access and Functional Needs |
| OE | Operations Engineer/Operations Engineering |
| OEC | Operations Emergency Center |
| OIC | Officer-in-Charge (EOC) |
| OMT | Outage Management Tool |
| OPW | Outage Producing Winds Index |
| OWF | Other Wildfire Areas |
| PIH | Pre-installed interconnection hub |
| PIO | Public Information Officer (EOC) |
| POL | Privately Owned Line |
| POMMS | PG&E's Operational Mesoscale Model System |
| PSIP | PSPS Situational Intelligence Platform |
| REC | Regional Emergency Center |
| RH | Relative Humidity |
| SBFW | Santa Barbara Wildfire Area |
| SCADA | Supervisory Control and Data Acquisition |
| SCE | Southern California Edison |
| SDG&E | San Diego Gas & Electric |
| SED | CPUC Safety and Enforcement Division |
| SIPT | Safety and Infrastructure Protection Teams |
| SIV | Self-identified Vulnerable |
| SOC | State Operations Center |
| STOEC | Substation Transmission Operations Emergency Center |
| T&D | Transmission and Distribution |
| T-Line | Transmission Line |
| Tx | Transmission |
| WIV | Wildfire Incident Viewer |

A.2 Glossary

Access and Functional Needs (AFN) populations: Individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant.

After-Action Report (AAR): A structured review or de-brief process of an event, focused on performance standards, that enables participants to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. After action reviews, informal or formal, follow the same general format, involve the exchange of ideas and observations, and focus on improving performance. (from NWCG)

CPUC De-Energization Report: In accordance with Resolution ESRB-8, all IOUs are required to file a report with the director of the Commission's Safety and Enforcement Division no later than 10 business days after an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization though no de-energization occurred.

Critical Facilities (Critical Infrastructure Customers) "Critical Facilities" and "Critical Infrastructure" refer to facilities and infrastructure that are essential to the public safety and that require additional assistance and advance planning to ensure resiliency during de-energization events.

The CPUC adopted the following interim list of Critical Facilities and Critical Infrastructure, as aligned with Department of Homeland Security's Critical Infrastructure Sectors:

- Emergency Services Sector: Police Stations, Fire Stations, Emergency Operations Centers.
- Government Facilities Sector: Schools, Jails and prisons.
- Healthcare and Public Health Sector: Public Health Departments, Medical facilities, including:
 - hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers and hospice facilities.
- Energy Sector: Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly owned utilities and electric cooperatives.
- Water and Wastewater Systems Sector: Facilities associated with the provision of drinking water or processing of wastewater including facilities used to pump, divert, transport, store, treat and deliver water or wastewater.
- Communications Sector: Communication carrier infrastructure including selective routers, central offices, head ends, cellular switches, remote terminals and cellular sites.
- Chemical Sector: Facilities associated with the provision of manufacturing, maintaining, or distributing hazardous materials and chemicals.

NOTE: Some customers meet the criteria of being both a Public Safety Partner & Critical Facility, which include Emergency services sector, water and wastewater providers, communication service providers and emergency hospitals.

CSV file: Comma-separated values. A CSV file is a simple file format used to store tabular data, such as a spreadsheet.

De-energization / De-energize: The process of shutting off power.

Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Model:

The DSO SOPP is a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Electric Compliance (EC) Tag/Notifications: The SAP record that holds the data identifying a compelling abnormal or regulatory condition.

Emergency Preparedness and Response Strategy and Execution (EP&R S&E): An overarching organization that leads initiatives focused on enhancing company-wide emergency preparedness and response.

Emergency Operations Center (EOC): A central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency and ensuring the continuity of operation of a company.

Fire Ignition Utility Threat Index: a CPUC index that provides information about where utility caused fires of high consequence are probable based on topography, fuel types, and proximity to utility assets (similar basis of analysis for determining Tier 2 and 3 HFTDs).

Fire Index Area (FIA): Boundaries originally designated by the California Department of Forestry and Fire Protection and United States Forest Service for the purpose of establishing a fire-danger rating for that area based on local conditions. There are 109 rating areas in the Company service territory. A map of the FIAs can be viewed at http://www.w2/Weather/EO/FireIndex/fireindex_2011.pdf.

Fire Index Rating: A rating used by fire agencies to determine the risk of fire and its likely behavior. Its calculation considers fuel moisture, humidity, wind speed, air temperature, and historical fire occurrence. These ratings are as follows:

- **R1** – Very little or no fire danger
- **R2** – Moderate fire danger.
- **R3** – When fire danger is so high that care must be taken using fire-starting equipment. Local conditions may limit the use of machinery and equipment to certain hours of the day.
- **R4** – Fire danger is critical. The use of equipment and open flames are limited to specific areas and times.

- **R5** – Fire danger is so critical that the use of equipment and open flames are not allowed at any time.
- **R5-Plus** – Fire danger is at R5 "plus" high risk weather trigger of strong wind.

Fire Potential Index (FPI): see Utility Fire Potential Index.

First/Emergency Responders: Individuals who, in the early stages of an incident, are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers. The term “emergency response providers” includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

Geographic Information System (GIS): A system that integrates many types of data that are designed to capture, manage, analyze, and present geographic and spatial information.

Hazard Awareness and Center (HAWC): The physical operations center that monitors for wildfires. The HAWC leadership communicates and informs other PG&E Business Units and Executive Leadership about potential wildfire impacts.

High Fire Risk Area (HFRA): The HFRA Map considers catastrophic fire risk factors and utility infrastructure and was developed by considering incremental changes to the HFTD map boundaries to add areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

High Fire Threat Districts (HFTDs): Per D.17-01-009, areas of the State designated by the CPUC and CAL FIRE to have elevated wildfire risk, indicating where utilities must take additional action (per GO 95, GO 165, and GO 166) to mitigate wildfire risk.

The districts have three levels:

- **Zone 1:** High Hazard Zones on the U.S. Forest Service-California Department of Forestry and Fire Protection (CAL FIRE) joint map of Tree Mortality High Hazard Zones.
- **Tier 2:** Elevated risk for utility-associated wildfires.
- **Tier 3:** Extreme risk for utility associated wildfires.

High Impact Critical Customers: Non-residential customers that may present a significant community impact in the event they experience a sustained outage but do not meet the CPUC criteria for a Critical Facility Customer.

High Priority Vegetation Tag: “Priority 1” and “Priority 2” vegetation tags which are created when trained vegetation inspectors identify trees or limbs that currently present elevated risk and must be worked on an expedited basis. Inspectors use Priority 1 tags for vegetation (i) in contact or showing signs of previous contact with a primary conductor; (ii) actively failing or at immediate risk of failing and which could strike PG&E’s facilities; or (iii) presenting an immediate risk to PG&E’s facilities. Inspectors use Priority 2 tags for vegetation that does not rise to the level of Priority 1 but has encroached within the PG&E minimum clearance requirements or has an identifiable potential safety issue requiring expedited work.

KMZ file: KMZ stands for Keyhole Markup language Zipped. KMZ is a file extension for a placemark file used by Google Earth Pro. It is a compressed version of a KML (Keyhole Markup Language) file. KMZ files are zipped .KML files, which make them easier to distribute with multiple users.

Large Fire Probability Model for Distribution (LFPD): The Large Fire Probability Model for distribution is the product of the probability of an outage (OPW Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Large Fire Probability Model for Transmission (LFP_T): The Large Fire Probability Model for transmission is the product of the probability of an outage (OA Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Life Support Equipment: A medical device to sustain life as defined by PG&E at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/life-support-equipment.page

Medical Baseline: A PG&E financial assistance program for residential customers who have special energy needs due to certain qualifying medical conditions.

Notification: A communication intended to inform recipients of an unscheduled event for which contingency plans are in place.

Officer-in-Charge (OIC): PG&E maintains an Officer-in-Charge on-call list during wildfire season (typically June through October). Prior to a PSPS event, the on-call list will be used to identify the Officer-in-Charge for PSPS decision-making. The power shutoff decision will be made by the designated (OIC) with the support from Emergency Operations Center (EOC) leads.

Outage Areas: Shared via ESRI compliant GIS files per the Joint Letter issued by CPUC, Cal OES, CAL FIRE. OAs are provided as generalized polygons that display potential or actual circuit areas for de-energization in a PSPS event. Outage Areas are subject to change during the course of an event.

Patrol Inspection: In accordance with GO 165, a simple visual inspection of applicable utility equipment and structures that is designed to identify obvious structural problems and hazards. Patrol inspections may be carried out in the course of other company business.

PG&E Operational Mesoscale Modeling System (POMMS): PG&E Operational Mesoscale Modeling System (POMMS) that provides a high-resolution numerical weather prediction system. Technosylva Suite of wildfire simulation software applications whose propagation and consequence outcomes are based on available fuels, topography, and weather; as well as building and population locational data. Technosylva simulation outputs are used as the source of spatially resolved fire severity data that is the primary input into the spatial consequence calculations.

Playbooks (PSPS):

- **De-energization Playbook:** The list of transmission lines and distribution circuits planned to be de-energized as part of the PSPS event. The De-energization Playbook has 4 main versions A, B, C, D, each playbook updates the previous. Version A is initial distribution impacts. Version B is distribution impacts including abnormal conditions and confirmed mitigations. Version C is distribution abnormal and transmission direct impacts, also including downstream impacted transmission lines. Version D is distribution abnormal and transmission direct and indirect impacts including System Protection. The letter “E” is not used for playbooks.
- **Restoration Playbook F:** The Restoration Playbook contains a list of all circuits by Division, impacted by the PSPS Event, along with the associated All Clear Zones for each circuit and the segment/patrol guides. Prior to the first OIC Decision F meeting, Meteorology provides a forecast of Distribution all clear times for each All Clear Zone in the Playbook, which are then input in the Playbook. At this stage, the Restoration Playbook is named “Restoration Playbook F01_Forecast”.

When the first Decision F meeting occurs, the approved all clear times for each approved All Clear Zone are input in the Restoration Playbook, and the corresponding forecast times are grayed out. After the first OIC Decision F meeting, the Restoration Playbook F01_Forecast is then renamed “Restoration Playbook F01_Approved”. This playbook thus notes which areas have been approved for weather “all clears” and which areas will have to be approved in subsequent OIC Decision F meetings.

Polygon (meteorology): When GIS software is an enclosed area, the resulting shape is known as a polygon. For PSPS, PG&E is providing potential outage areas through buffering protection zone portions of circuits as polygons in both shapefiles and KMZ files.

Priority 1 (P1)Condition:

A Priority 1 condition is a hazard that meets any of the following scenarios:

- The vegetation is in contact or showing signs of previous contact with a primary conductor.
- The vegetation is actively failing or at immediate risk of failing and could strike the facilities.
- The vegetation presents an immediate risk to the facilities.

A PG&E Vegetation Management Priority 1 classification aligns with CPUC General Order (G.O.) 95, "Reporting and Resolution of Safety Hazards Discovered by Utilities," Rule 18, Priority Level 1 definition as stated: An immediate safety and/or reliability risk with high probability for significant impact. Take action immediately, either by fully repairing the condition or by temporarily repairing and reclassifying the condition to a lower priority.

Priority 2 (P2) Condition:

A Priority 2 condition is a hazard that meets at least one of the following scenarios:

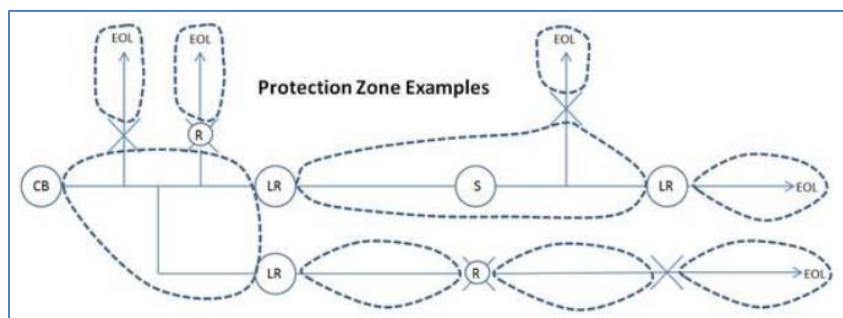
- A Priority 2 condition meets at least one of the following scenarios
- The vegetation has encroached within the PG&E minimum clearance requirements and is not in contact with a conductor

The vegetation has an identifiable integrity issue that does not classify as a Priority 1 condition, is likely to strike facilities, and may manifest into a risk before the next scheduled inspection.

A PG&E Vegetation Management Priority 2 classification aligns with and often exceeds the CPUC General Order (G.O.) 95, "Reporting and Resolution of Safety Hazards Discovered by Utilities," Rule 18, Priority Level 2 definition as stated: A variable (non-immediate high to low) safety and/or reliability risk. Take action to correct within specified time period (fully repair, or by temporarily repairing and reclassifying the condition to a lower priority). Time period for correction to be determined at the point of identification by a qualified company representative (overhead: 0-59 months).

Protection Zone: The area between two protective devices (i.e., starts at the device that relayed and/or locked out or blown) such as a Circuit Breaker (CB), Line Recloser (LR), Switch (S), Fuse (X), Interrupter (I), TripSaver, and End of Line (EOL), and continues downstream until all of the next protective devices are reached which could include multiple branches of the circuit. See **Figure 9-1**.

Figure 9-1: Protection Zones



Public Safety Partner: First/emergency responders at the local, state and federal level, water, wastewater and communication service providers, affected community choice aggregators, publicly-owned utilities/electrical cooperatives, the CPUC, the California Governor's Office of Emergency Services and the California Department of Forestry and Fire Protection.

The term "emergency response providers" includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

PSPS Event: The time period from the first public safety partner notified of a planned public safety de-energization to the final customer re-energized.

PSPS Patrol: After the severe weather has passed, a PSPS patrol consists of a visual assessment of assets to identify any condition that would prevent a circuit or portion thereof from being safely energized.

Public Safety Partner: First responders at the local, state, and federal level; water, wastewater, and communication providers; Community Choice Aggregators; affected Publicly Owned Utilities/electric cooperatives; CPUC; Cal OES; and CAL FIRE.

Public Safety Power Shutoff Program (PSPS): A Program to proactively de-energize distribution and transmission lines that traverse the high fire-risk area under severe weather.

Re-energization / Re-Energize: The process of turning the power back on.

Red Flag Warning: A warning issued by the National Weather Service to alert fire officials and firefighters of potentially dangerous and imminent fire weather conditions.

Safety and Infrastructure Protection Team (SIPT): in-house team that can be used for pre-treatment, standby, and asset protection. These teams will engage at the operational level with internal and external. They provide inspection, assessment, and medical standby services for day-to-day high-risk work being performed in the system. They also provide field observations for PSPS events.

Sectionalizing: The process of creating segmented power lines by separating loads within a circuit.

Section of Segments: The portion of power line that has been bounded by sectionalizing devices or the end of the distribution line.

Self-Identified Vulnerable: a category for residential (AFN) to supplement Medical Base Line that is made up of customers that have self-identified vulnerable program.

Shapefile: a simple, non-topological format for storing the geometric location and attribute information of geographic features. Geographic features in a shapefile can be represented by points, lines, or polygons (areas).

SOPP Model (The Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Modeling System): a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Standardized Emergency Management System: The system required by Government Code §8607 (a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS provides for a multiple level emergency response organization and is intended to structure and facilitate the flow of emergency information and resources within and between the organizational levels.

Step Restoration: When a substation is re-energized, and circuits are subsequently safely energized in segments as patrols continue to confirm areas are free of damage or hazards.

Sustained Wind: The average observed wind speed value over a two-minute period.

System Hardening: Contiguous sections of overhead facilities built to the wildfire rebuild design guidance (TD-9001B-009 rev 2) where the most prominent feature is the covered conductor and minimized exposed energized components.

Transmission Impacts:

- **Direct Impact (D):** Lines considered to have an unacceptable level of ignition risk, wildfire consequence or combination thereof and thus scoped for de-energization on a particular PSPS event.
- **Direct Impact Plus (D+):** Lines and substations identified using TARA to have lost connectivity to the grid given the set of direct impacts.
- **Indirect Impact (I):** Lines and substations that will be de-energized due to operational setups identified through Power Flow and Fault Duty studies to ensure safety, security or stability of our system given the set of Direct Impact and Direct Impact Plus lines and substations.

Wildland Fire: A fire in an area of combustible vegetation occurring in rural areas.

Wind gust: a rapid fluctuation of wind speed with variations of 10 knots or more between peaks and lulls, typically, determined by averaging observed values over a three-second period.

Utility Fire Potential Index (FPI): The Fire Potential Index Model, also referred to as the FPI Model or the Utility FPI Model, combines several factors including a fire weather index (wind, temperature, and humidity) with fuel moisture data (10-hour dead fuel moisture and live fuel moistures), and landcover type (grass, shrub/brush, or forest). The FPI Model outputs the probability of a small fire becoming a large fire. The FPI forecast describes the potential for fires to spread rated on a scale from “R1” (lowest) to “R5” (highest). The FPI Model is run at 2 x 2 km resolution and provides hourly forecasts out 4 days.

Vulnerable Populations: Individuals who have physical, developmental, intellectual disabilities; chronic conditions or injuries, are limited English proficient or non-English speaking; older adults, children, people living in institutionalized settings, low-income, homeless and/or transportation-disadvantaged (i.e., dependent on public transit) and pregnant women.

Weather “all-clear”: The Officer-in Charge gives approval to start restoration and can be issued for all impacted areas at once or for specific areas.

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Appendix B. Supporting Documents and Links

B.1 Supporting Documents

The following documentation and procedures are supplemental to this Guidance Document and should be referenced as necessary for PSPS preparation and execution.

| Document Name | Owner |
|--|-----------------------------------|
| EMER 3001M Company Emergency Response Plan (CERP) | EP&R S&E |
| PSPS-1000S, Public Safety Power Shutoff (PSPS) | PSPS Organization |
| PSPS-1000P-01 Public Safety Power Shutoff for Distribution and Transmission | PSPS Organization |
| EMER-3105M Fire Annex | EP&R S&E |
| PSPS-4999-B001, Mobile generator use during Public Safety Power Shutoff (PSPS) | Temp Gen |
| TD-1464S Preventing and Mitigating Fires While Performing PG&E Work | Electric Ops/HAWC |
| Customer Notifications | Customer Care |
| Wildfire Mitigation Plan (WMP) | Community Wildfire Safety Program |

B.2 Links related to PSPS

| Topic/ SharePoint/ Webpage | Link |
|--|---|
| EOC SharePoint for Data Collection | [REDACTED] |
| EOC Incidents SharePoint | [REDACTED] |
| PSPS Training and Guidance Documents | EOC Training (sharepoint.com) |
| PG&E Utility Fire Potential Index (FPI) Forecast | To self-subscribe or unsubscribe to these notifications, navigate to the Subscribe/Unsubscribe page. |
| PSPS Landing Page | pge.com/psps |
| PSPS Event Updates Page | pge.com/pspsupdates |
| Wildfire Safety Landing Page | pge.com/wildfiresafety |
| MBL Program | pge.com/medicalbaseline |
| PSPS Updates and Alerts | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-updates-andalerts.page |
| PG&E Disability and Aging (AFN) Page | pge.com/disabilityandaging |
| PSPS Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-support.page |
| Prepare for PSPS | pge.com/en_US/residential/outages/publicsafety-power-shutoff/prepare/prepare-forpsps.page |
| Why PSPS Events Occur | https://www.pge.com/en_US/residential/outages/public-safety-power-shutoff/why-psps-events-occur.page |
| Minimizing PSPS Events | pge.com/en_US/residential/outages/publicsafety-power-shutoff/minimizing-pspsevents.page |

| Topic/SharePoint / Webpage | Link |
|-------------------------------|---|
| Wildfire Recovery and Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/pssp-support.page |
| PSPS Event Reports | pge.com/pssp-reports |
| Wildfire Mitigation Plan | https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page?WT.mc_id=Vanity_wildfiremitigationplan |

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Appendix C. Catalog of Notification Scripts

Catalog of Notifications Scripts

1. T-66 – ADVANCED PRIORITY PARTNER NOTIFICATION
2. T-24-48 HOURS – WATCH
3. T-4-0 HOURS – WARNING
4. CANCELATION
5. DE-ENERGIZATION
6. UPDATE
7. INSPECTING
8. RESTORED

For current scripts see [link to notifications. \(see folder “2021 PSPS Annex – Customer Notifications” until new 2022 folder available\).](#)

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Appendix D. PSPS Portal – Instructions to Request Access

Internal PSPS Portal Access Job Aid:



PSPS Portal Job Aid

PORTAL ENTERPRISE ACCOUNT—PGEISPORTAL

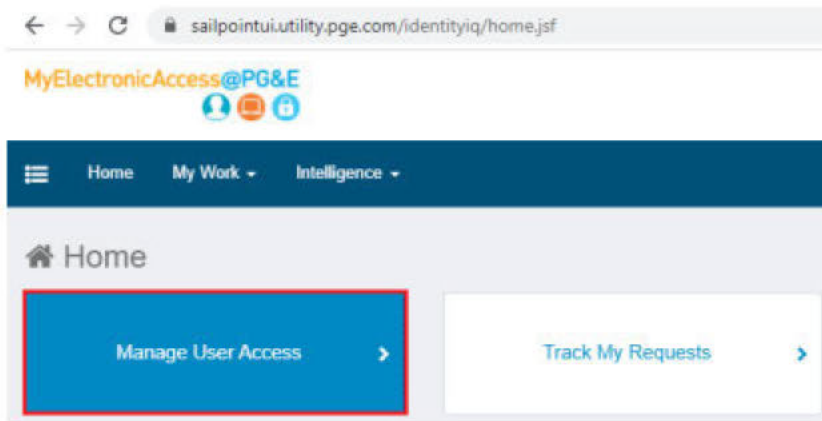
July 2021

Purpose: Provides step-by-step instructions to create PSPS Portal Enterprise Account and complete access set-up

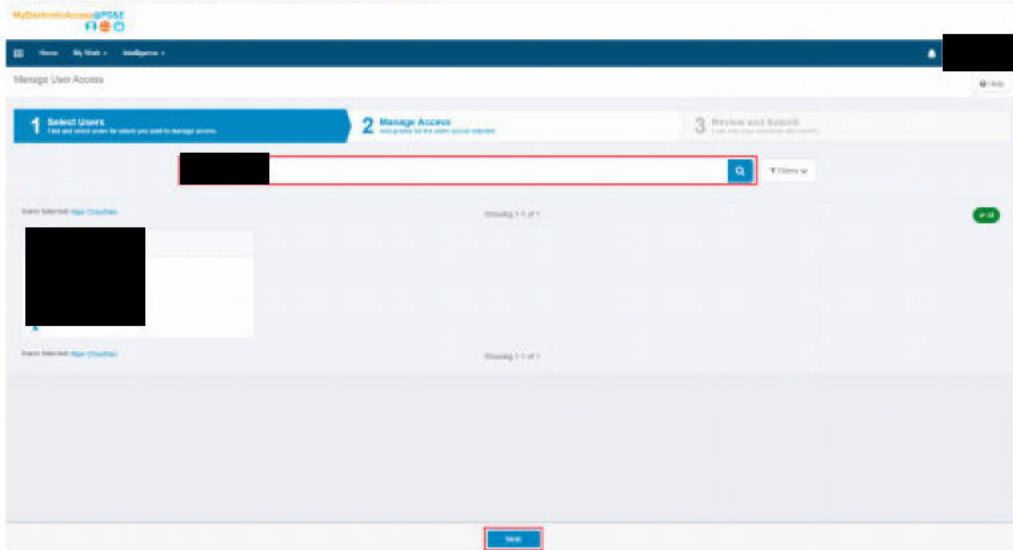
PORTAL ENTERPRISE ACCESS REQUEST INSTRUCTIONS

1. To request for Portal Enterprise access, on your web browser, go to [SailPoint](#) site (also known as MyElectronicAccess)

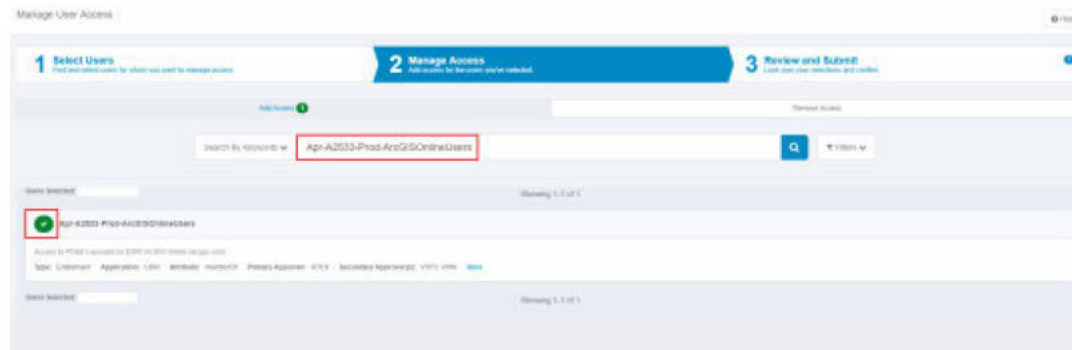
*Click Manage User Access



2. Select Users (Search for them if you're requesting access on someone else's behalf). The user's name should be on the top left corner. Click the check mark next to your name to turn the circle Green. A Blue 'Next' button will appear in the bottom of the browser window. Click 'Next' at the bottom of the screen

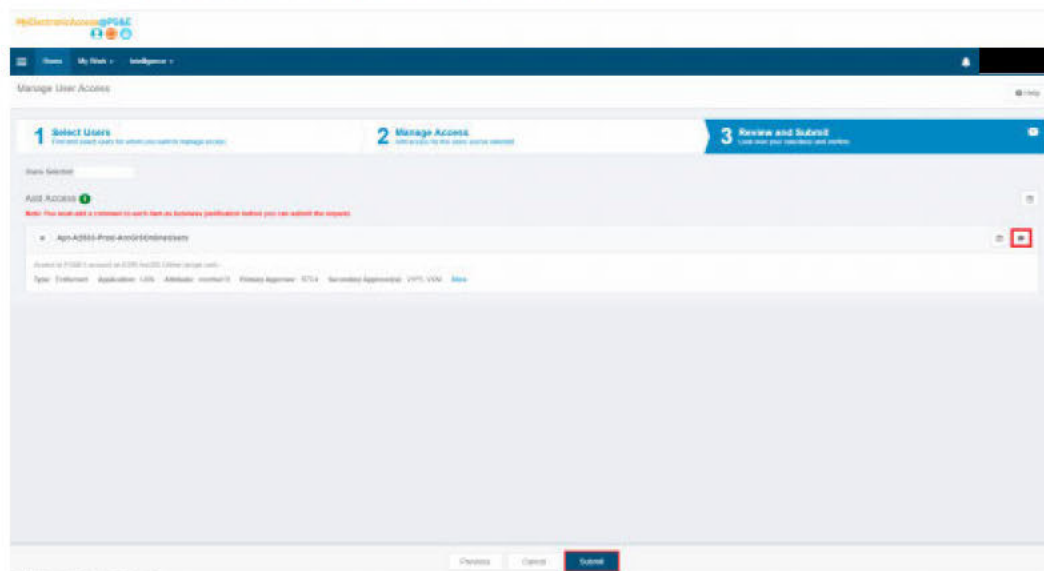


3. In the search box type keyword **“GeoHub-PROD-Creator”** and click search icon



Click the Check mark icon next to the **“GeoHub-PROD-Creator”** so that the circle turns Green, just like when you were selecting your name. This will also bring up the ‘Next’ button at the bottom of your browser. Please click the ‘Next’ button

4. Type in a Justification: to do this Click on the Comment Icon to the right of the **“GeoHub-PROD-Creator”** selection rectangle. Don’t forget to **Save** the Comment.



Example Comment: “I need to be able to view the PSPS Impacted Area Maps, and Impacted Customer Lists in pgegisportal in order to provide support to Public Safety Partners, in an effort to assist the customers in a PSPS event.”

5. Indicate the **Start Date** and **End Dates** for the access requested by clicking on the calendar icon next to the Comments button



You can track your request's progress through the MEA link at the top of the page under 'Track my Requests' (directly to the Right of 'Manage User Access').

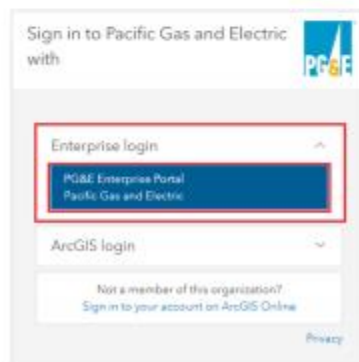
Note: Your request will be routed to your supervisor first and then to site owners of pgegisportal within the IT GISCOE. For follow-up questions for the IT GISCOE, please contact [GeoMart OnM Support](#)

NEXT STEPS (once you get access to Enterprise Login)

1. Try logging into <https://pgegisportal.maps.arcgis.com> using the "Sign In" button on the top right corner of the web page



2. Once you click on sign in, you'll be directed to the Sign In options window from which pick up the "Enterprise Login" option



3. Clicking on the blue PG&E Enterprise Portal button may present the following two (or just one) windows in which you'll need to enter your 4 character LAN ID and network password to finally be able to login into the pgegisportal site.

Note: In case of any issues while logging into the pgegisportal site using your LAN ID and password and Enterprise login option, reach out to the GeoMart O&M support team by raising a ticket at the [GeoMart Ops front door web page](#) and choose Application as **AGOL - ArcGIS Online** and Request types as **"Other"** as shown in the screenshot given:

Application: *

AGOL - ArcGIS Online ▾

Request Type: *

Other ▾

ACTION ITEMS ON YOU:

Since **'Public Safety Power Shutoff Portal Members'** group does not exist in PGEISPORTAL, we are unable to add you in that group but your Enterprise account in pgegisportal is invited to join the group, you are also made a member of new group **'PSPS Portal Members'** in PGEISPORTAL.

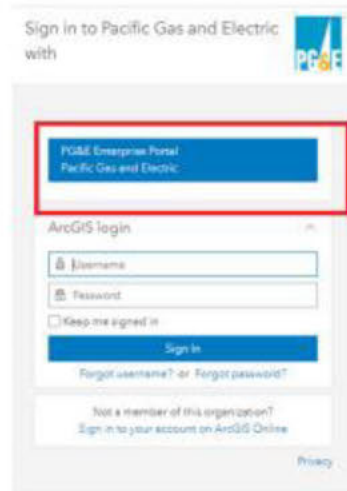
Your PGEISPORTAL Enterprise user ID role is changed to **'PSPS Portal Users'** if your current role was **'Viewer'**, else it remains unchanged.

1. Login to <https://pgegisportal.maps.arcgis.com/> with your Enterprise Account.

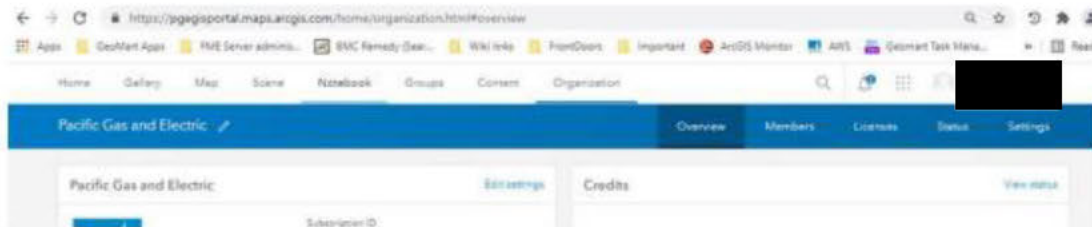
2. It should take you to this page, where you have to click Sign In option.



- 3. After clicking, you should get this window, where you have to click this blue button to login on "Enterprise"



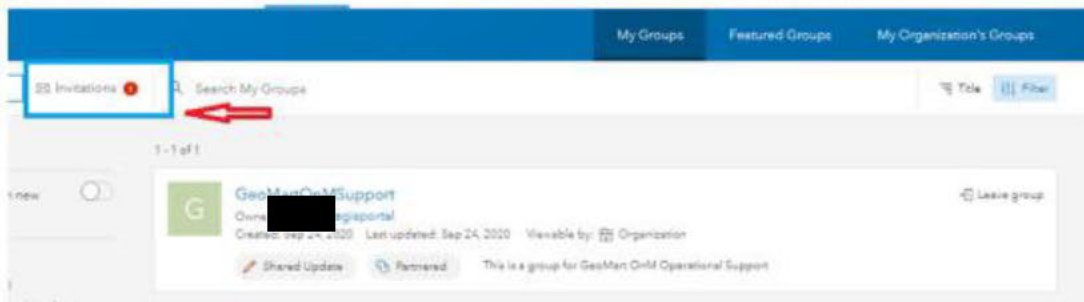
- 4. After clicking on this, you should land on the following page:



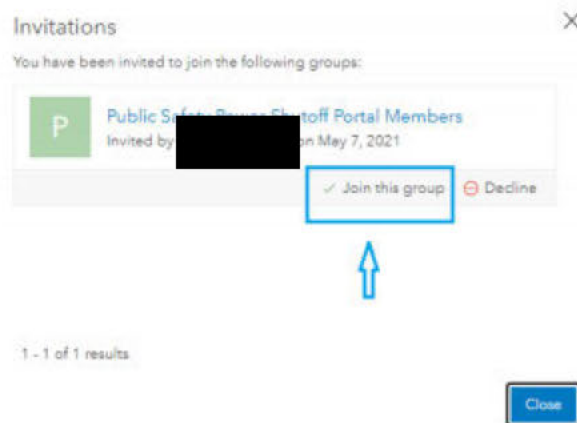
- 5. Go to "Groups" tab.



- 6. Inside My Groups, on the top left corner, You should see invitations, click on that.



7. After clicking "Invitations" following pop-up window should appear, click on join the group.



Note: Please also verify if your **role** was "Viewer", it should have been **updated to "PSPS Portal Users"**

Your new enterprise account in PGEGISPORTAL should be member of all groups where your current PSPS portal account is member of (except those which does not exist in PGEGISPORTAL and groups out of PGEGISPORTAL, which means groups maintained by other organizations/ vendors).

8. Validate your group membership and if you think your group membership in PGEGISPORTAL is missing when compared to your respective PSPS portal, or in case of any issues kindly reach out to the GeoMart O&M Support team by raising a ticket at the [GeoMart Ops front door web page](#)

~ End of Instructions ~

External PSPS Portal Job Aid:



Public Safety Power Shutoff Portal Registration Guide

Last Revised: November 2020

STEP 1: Go to pge.com/pspsportal to Request Access*Welcome screen on pge.com/pspsportal*

Once on pge.com/pspsportal, select **Request Access**.

STEP 2: Complete Request Access Form

After selecting Request Access, complete the application form.

This form requests the following information: first and last name, email, phone number, title, organization name and organization type. Each line item on the form is required in order to process the request. A list of the organization types that are eligible for access is provided on the following page.

Request access

NOTE: Requests may take up to 8 business days to be reviewed and processed. We'll send you an email once processing is complete. If approved, the email will include your username and password.

*Required field

FIRST NAME*

LAST NAME*

WORK EMAIL ADDRESS*

WORK PHONE NUMBER*

ORGANIZATION NAME*

YOUR TITLE*

ORGANIZATION TYPE*

-Please Select-

Submit

View of the Request Access Form

| Organization Types | Example |
|---|--|
| Federal Agency* | FEMA, US Coast Guard |
| State Agency* | Cal OES |
| County Agency* | Marin County |
| City Agency* | City of Santa Rosa |
| Tribal Agency* | Hoopa Valley Tribe |
| Community Choice Aggregator | East Bay Community Energy |
| Regional | Regional Transportation Planning Authority |
| Critical Facility <ul style="list-style-type: none"> ■ Emergency Hospital ■ Publicly-Owned Utility ■ Telecommunications Provider ■ Water/Wastewater Agency ■ Transportation Agencies | Community Regional Medical Center |
| | Alameda Municipal Power |
| | AT&T, Comcast |
| | East Bay Municipal Utility District |
| | BART, Amtrak |

*Eligible to receive confidential customer information

STEP 3: Agencies to Determine Level of Access Required

For agencies and tribes to complete the registration process, users must select the level of access required during PSPS events. Those that require confidential customer information, such as names and addresses, to support emergency management efforts will need to review and accept the online agreement. Accepting the online agreement assumes reasonable safeguards will be implemented to protect the information. If confidential customer information is not needed, users will still be able to view aggregated summary-level information and will not be required to accept the online agreement.

Choose your level of access*

I need access to customer names and addresses, as well as customer and facility impact totals, to support emergency management efforts.

I need access to customer and facility impact totals only.

Level of Access Selection Screen from PSPS Registration Process

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. CCC-1120-2971.

Below is an overview of the information provided for the two levels of access:

1 Detailed Customer and Critical Facility Information

- Affected customer details, including names and addresses
- Medical Baseline customer details, including names and addresses
- Critical Facility customer details, including names and addresses

2 Customer and Critical Facility Summary Totals

- Aggregated customer counts by jurisdiction and customer type

Note: Critical facility customers and community choice aggregators (CCAs) will be provided with a list of their site locations and aggregate summary-level information.

For those that only require aggregated customer and critical facility impact totals, hit **SUBMIT** at the bottom of the screen and proceed to Step 5. This will complete the access request process. For those that require customer names and addresses, please continue to Step 4.

STEP 4: Online Agreement

For agencies that require customer names and addresses to support emergency management efforts, users will be required to read, agree to and electronically sign the online agreement. Once complete, hit **SUBMIT** at the bottom of the screen to finish the access request process.

STEP 5: Confirmation Page

Upon submitting a request, you will be directed to a confirmation page, indicating your request was received. If your request is approved, you will receive an email from ArcGIS Notifications (notifications@arcgis.com) containing your username and a link to create your account password. Please use those credentials to log in to your account and access the PSPS Portal.

We received your request

You will receive an email within the next 5 business days regarding your request for access. If your request has been approved, the email will include your username and password.

Questions? Please email PSPSPortal@pge.com.

View of Confirmation Page



For access questions or technical assistance, please email PSPSPortal@pae.com.

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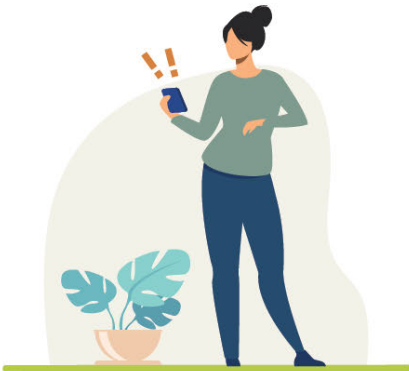
Appendix E. Example Customer Communication Materials for PSPS

E.1 Example CWSP PSPS Customer Postcard

IMPORTANT SAFETY MESSAGE FROM PG&E

Your contact information is out of date.

We know losing power disrupts lives. Consider updating your contact information today to stay informed and prepared for power outages.



PG&E Update today by visiting pge.com/mywildfirealerts or by calling **1-866-743-6589**.

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2020 Pacific Gas and Electric Company. All rights reserved. CCC-0321-3205. 3/12/2021

Update your contact information today in three easy steps.

- 1** Log in to your account at pge.com/mywildfirealerts
- OR -
Call us at **1-866-743-6589**

- 2** Provide your phone number(s) and email address(es) and/or an alternate contact who can reach you before an outage

- 3** Select your language preference for PG&E notifications

 For translated support in over 250 additional languages, contact PG&E at: [1-866-743-6589](tel:1-866-743-6589).



Pacific Gas and Electric Company
P.O. Box 997320
Sacramento, CA 95899

E.2 Example CWSP PSPS Medical Baseline Customer Door Hanger



DATE:



⚠ IMPORTANT NOTICE:
Your power may be shut off for safety

Your safety is our most important priority. Electricity at your address may be impacted today or tomorrow.
(see date above)

Severe weather is forecast. For public safety, we may need to turn off power to prevent wildfires. This is called a Public Safety Power Shutoff (PSPS).

ACTION REQUIRED:
We have been unable to reach you

- Update your contact information and set your language preference for PSPS notifications at pge.com/mywildfirealerts or by calling **1-866-743-6589**.
- Watch for notifications from **1-800-743-5002**, PGECustomerService@notifications.pge.com or **976-33**. Answer the phone or reply "1" to let us know you have received our notifications.

 **Tip:** Save PG&E's number as a contact.

 **Note:** If notifications go unanswered, we will continue to try to make contact.

We know how important power is for your medical and independent living needs.
Take these steps to prepare:

-  **Plan for medical needs** like medications that require refrigeration or devices that need power.
-  Call 911 immediately if you or a family member are experiencing a medical emergency.
-  **Build or restock your emergency kit** with flashlights, batteries, first aid supplies, food, water and cash.
-  **Keep your devices charged** and **identify backup power methods.** pge.com/backuppower
-  **Find your local Community Resource Center** to charge devices and get basic supplies. pge.com/crc
-  **Discover additional resources** such as portable batteries and information on financial assistance. pge.com/disabilityandaging
-  Visit the **Disability Disaster Access and Resources website** for additional support during a power shutoff. disabilitydisasteraccess.org

Find resources that can help you stay safe during an outage. pge.com/pspsupport

FOLLOW US FOR UPDATES AT:

 @PGE4Me   @pacificgasandelectric

 For translated support in over 250 additional languages, please contact PG&E at **1-866-743-6589**.

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2021 Pacific Gas and Electric Company. All rights reserved. OCC-0321-3317, 03/30/2021.

For current PSPS information, visit: pge.com/pspsupdates

See reverse for steps you can take to prepare →

E.3 Example CWSP PSPS Bill Insert

AN IMPORTANT SAFETY MESSAGE

How will you be notified of a Public Safety Power Shutoff?



At Pacific Gas and Electric Company (PG&E), our most important responsibility is the safety of the customers and communities we are proud to serve. That is why we may need to turn off power to prevent wildfires during severe weather. This is known as a **Public Safety Power Shutoff (PSPS)**.



We know how disruptive it is to be without power.

We are listening to our customers and finding ways to reduce the impact of PSPS events, without compromising safety. To learn more, visit pge.com/pspsupport.

Keep your contact information up to date so you are informed about PSPS events before and during outages.

Visit pge.com/mywildfirealerts or call **1-866-743-6589** to update your information and select your preferred language for PSPS notifications. Notifications will be made through automated calls, texts and emails.



As a PG&E account holder, you will automatically receive notifications for your home and/or business. **If you would like to know about potential PSPS events** at other important addresses, such as work, school or family members' homes, consider signing up for Address Alerts at pge.com/addressalerts.

For translated support in over 200 additional languages, contact PG&E at 1-866-743-6589.



Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2021 Pacific Gas and Electric Company. All rights reserved. 5.21 CCC-0521-3228

E.4 Example CWSP PSPS Preparedness Brochure – General Version

PUBLIC SAFETY POWER SHUTOFF

How can you prepare?

- Is your contact information and language preference updated?**
Update your information for notifications at pge.com/mywildfirealerts or call 1-866-743-6589.
- Do you have an emergency plan?**
Create a personalized plan and review safety tips at safetyactioncenter.com.
- Do you rely on power for medical or mobility needs?**
Enroll in our Medical Baseline Program at pge.com/medicalbaseline.
- Are you a solar customer considering battery storage?**
Learn about assistance to cover up to 15% of the cost and make your home more resilient at pge.com/batteryncentive.
- Do you need additional resources?**
Access food replacements and find information on financial assistance at pge.com/disabilityandaging.

Follow us on:

PUBLIC SAFETY POWER SHUTOFFS

IMPORTANT SAFETY INFORMATION FOR YOU

What is a Public Safety Power Shutoff (PSPS)?

With wildfire risk in our state continuing to grow, we are working year-round and nonstop to make our system safer. High winds can cause trees and debris to contact energized lines, damage our equipment and cause a wildfire. That is why, during severe weather, we may need to turn off power to help prevent wildfires.

We carefully review a combination of factors when deciding if power must be turned off. These include, but are not limited to:

- Low humidity levels, generally 30% and below
- Forecasted high winds above 20 mph and gusts above 30-40 mph
- Condition of dry material on the ground and vegetation near lines
- Red Flag Warning declared by the National Weather Service
- Real-time observations on the ground

Power lines travel long distances.
A line that serves your community may need to be shut off if severe weather affects even a portion of that line farther up the road. That is why your power may be shut off even if it is not windy at your home or business.

Pacific Gas and Electric Company
P.O. Box 997320
Sacramento, CA 95899

PREPARE NOW FOR WILDFIRE SEASON

For translated support in over 250 additional languages, please contact PG&E at 1-866-743-6589.

Available for download in Spanish, Chinese (Mandarin and Cantonese), Vietnamese, Korean, Tagalog, Russian, Arabic, Farsi, Punjabi, Japanese, Khmer, Hindi, Thai, and Portuguese at pge.com/psps.

Some of the resources included in this document are provided as identified. PG&E makes no representation or warranty for the accuracy, completeness, or timeliness of the information provided. PG&E reserves the right to change the information provided at any time without notice.

How is PG&E reducing the impact of PSPS events this year?

We know losing power disrupts lives. That is why we are doing even more this year to help customers and communities before, during and after PSPS events. We are:

- **Partnering with community-based organizations** to provide food replacements, portable batteries and hotel stays to qualifying customers and those with medical needs
- **Providing better information** about when power will be turned off and back on, available in 16 languages
- **Offering more options for backup power**, including portable batteries and generator rebates for qualifying customers
- **Preparing additional Community Resource Center sites** to support customers

To learn more about PSPS events, visit pge.com/psps.

SUPPORTING YOU

BEFORE, DURING AND AFTER

More resources than ever before are available to support customers

BEFORE

- **OUTAGE NOTIFICATIONS**
Update your language preference at pge.com/mywildfirealerts.
- **LOCAL SUPPORT**
Find support and resources from local organizations for access and functional needs at disabilitydisasteraccess.org.
- **TRANSPORTATION AND HOTEL ACCOMMODATIONS**
Access support provided through local Disability Disaster Access and Resource Centers for those who are power-dependent on medical or assistive technology devices at disabilitydisasteraccess.org.

DURING

- **REAL-TIME INFORMATION**
Stay informed about the event at pge.com/pspsupdates.
- **COMMUNITY RESOURCE CENTERS**
Find safe locations to go to charge your devices and get basic supplies at pge.com/crc.
- **MEAL REPLACEMENTS**
Find food for you and your family through local food banks at pge.com/pspsresources.

AFTER

- **RESTORATION UPDATES**
Find out when to expect the power back on at pge.com/pspsupdates.
- **POST-EVENT FOOD SUPPORT**
Find local food banks to access meal replacements up to three days after power is restored at pge.com/pspsresources.
- **STAY PREPARED**
Restock your supply kit and update your emergency plan at safetyactioncenter.com.

NEW FOR 2021

Self-certify for Vulnerable Customer status | You can now sign up to receive additional PSPS notifications, including an in-person visit if needed, if anyone in your home has a condition that could become life threatening if power is disconnected.

Apply at: pge.com/vcstatus

Address Alerts | Receive notifications about PSPS events for any additional addresses you care about, such as:

- The home of a friend or loved one
- Your child's school or day care
- Your work or business

Enroll at: pge.com/addressalerts

How will you know about a PSPS?

We will share what we know as soon as we can, keeping in mind that weather can be uncertain and change quickly.

You will be notified in advance through automated calls, texts and emails.

Two days
before

One day
before

Just
before

Daily
until power
is restored

We will also use pge.com, social media, local news and radio outlets to keep you informed and updated.

Make sure your contact information is up to date.
Visit pge.com/mywildfirealerts.

Watch for notifications about potential PSPS events from:

| | |
|---|------------------------|
| CALLS 1-800-743-5002 | TEXTS 976-33 |
| EMAILS PGCustomerService@notifications.pge.com | |

Save PG&E's number (1-800-743-5002) as a contact in your phone, so you know when we are trying to reach you.



*Pacific Gas and
Electric Company*[®]

Public Safety Power Shutoff Annex

to the
Company Emergency Response Plan

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Pacific Gas and Electric Company
All Rights Reserved



Tel: (415) 973-7000
<http://www.pge.com>

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Document Control

PSPS Team maintains this Annex. This section records the revisions made to the PSPS Annex: the responsible persons for its preparation, maintenance, review, and updates; and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 1.3 Annex Relation to CERP | [REDACTED] A. Gibson | Revision: Added Customer Strategy Officer to Command Staff and removed Legal Officer | 07/19/2022 |
| | | Revision: "Functional Business Unit" replaces "Lines of Business" here and throughout document. | 07/29/2022 |
| | | Revision: Text relationship Annex to CERP, NIMS and ICS. | 08/05/2022 |
| 2.2 EOC Staffing for PSPS Event | A. Gibson | Revision: Clarification on Standard Roles per ICS. | 07/29/2022 |
| 2.3 Officer-in-Charge | A. Gibson | Revision: "General Staff" specific meaning to use capitals in this sections and throughout document. Removal: "Deputy OIC" as possible delegate. | 07/29/2022 |
| 2.4 EOC Commander | A. Gibson | Revision: EOC Incident Commander responsible for the overall command of the incident/event. | 07/29/2022 |
| 2.6 Customer Strategy Officer and Supporting Roles | [REDACTED] | Addition: Medical baseline customers as receiving notifications before de-energization. | 06/30/2022 |
| 2.6.2 Community Resource Center Lead | [REDACTED] | Revision: Title to Community Resource Center Lead | 07/05/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|-----------------------------------|--|--|
| 2.6.3 Agency and Communications Lead | ██████ | Revision: Title to Agency and Communications Lead - adding Agency. | 07/22/2022 |
| 2.7 Liaison Officer and Supporting Roles | ██████████ A. Gibson ██████ | Addition: "federal" to listing of types of government. Addition: "planning meetings" to listing of meetings. Removal: CalOES state notification form process. Addition: Supporting requests and serving as single point of contact from third-party representatives to embed in PG&E's EOC. Removal: "Receiving and reviewing Cal OES State Notifications Forms from Planning Section and sending to Cal OES Warning Center." Removal: "In both a Single or Unified Command Structure , representatives from assisting or cooperating agencies and organizations coordinate through the LNO . " | 07/14/2022 07/29/2022 08/01/2022 |
| 2.7.1 Assigned City/County Agency Representatives | ██████████ ██████ | Revision: Branch Lead to replace Branch Manager Addition: Liaison Branch Lead ask for escalations/feedback. | 07/29/2022 07/19/2022 |
| 2.7.2 PG&E State Operations Center Agency Representatives | ██████████ | Revision: Changed title to "PG&E Sate Operations Center Agency Representatives" from formerly listed as "PG&E State Operations Center Liaison Agency Representatives". | 07/22/2022 |
| 2.10 Legal Advisor | ██████████ | Revised: Description of "Legal" Advisor role formerly listed as a Note and now has section number. | 07/19/2022 |
| 2.11.1 Human Resources Branch | ██████████ | Revision: Minor revisions throughout text. Revision: Title to "Team Scheduler." Revision: Title to "Geoscience Information System Technical Specialist." Addition: Coordinating with Customer Strategy Officer and Liaison Officer. Addition: Bullet about "Impacted personnel." Addition: "PG&E coworkers...receive their primary messaging...through PSPS customer messaging." | 07/12/2022 07/13/2022 |
| 2.13 Logistics Section Chief and Supporting Roles | ██████████ A. Gibson | Revision: Minor verbiage revisions. Addition: Working with Finance and Administration Section on purchase orders, approved vendors, and Sarbanes Oxley regulations. | 07/11/2022 07/29/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 2.14 Operations Section Chief and Supporting Roles | ██████████ | Removal: For purposes of consistency removal of former Fig 2-4, Operations Section org chart. | 07/22/2022 |
| 2.14.3 Electric Transmission Operations Branch Director | ██████████ | Revision: Title to "Electric Transmission Branch Director" from formerly "Electric Transmission Operations Branch Director." | 07/20/2022 |
| 2.14.7 Temporary Generation Branch Director and Supporting Roles | ██████████ | Addition: Utilize Deputy Branch Director for support Addition: Descriptions of actions taken by Primary and Secondary Voltage Leads. | 07/20/2022 |
| 2.14.7.1 Primary Voltage Lead | ██████████ | Revision: Minor revisions to text. Additions: Added further responsibilities. | 07/20/2022 |
| 2.14.7.1 Secondary Voltage Lead | ██████████ | Revision: Moved content to section 2.14.7 | 07/20/2022 |
| 2.15 Planning Section Chief and Supporting Roles | ██████████ | Addition: "responsible for direction of Planning Section staff and development of their respective documentation." | 07/22/2022 |
| | ██████████ | Addition: EOC Commander has final approval over all materials produces by Planning Section. | 07/22/2022 |
| | A. Gibson | Revision: Text on responsibilities of two Deputies per ICS. | 07/29/2022 |
| 2.15.2 Deputy Planning Section PSPS Chief | ██████████ | Removal: Note on working with Deputy Planning Section Chief Revision: In Figure 2-4 Planning Section with PSPS Specific Roles revised text in guide for "All" for grey boxes to ""Activates for all incidents." | 07/22/2022 |
| | ██████████ | Revision: Data is exported to the EOC event folder. | 07/11/2022 |
| 2.15.3.1 PSPS Communications Coordinator | ██████████ | Revision: Corrected role title to "PSPS Comms Coordinator" from formerly listed as "External Comms Coordinator". Revision: Minor revisions including "sequences" replacing "plans". | 07/12/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|--|--------------------------|
| 2.15.3.2 PSPS Distribution Asset Health Specialist | [REDACTED] | Addition: Responsibility "Creating Asset and Vegetation Tags Situational Summary deck for OIC Decisions B+C and D+E." | 07/19/2022 |
| 2.15.3.3 PSPS Portal Unit Leader | [REDACTED] | Revision: Corrected role title to Portal Unit Lead from formerly "Portal Unit Lead". Addition: Event data is refreshed twice daily. | 07/12/2022 |
| 2.15.3.4 PSPS Portal Unit Support | [REDACTED] | Revision: Corrected role title in text to "PSPS Portal Unit Support" from former listing of "Portal User Support." Addition: "PSPS Portal Unit Lead" to last bullet. | 07/12/2022 |
| 2.15.3.5 PSPS Process Unit Leader | [REDACTED] [REDACTED] | Addition: "Coordinating ETOR revisions with Operations Chief before and immediately after de-energization" to responsibilities. | 07/08/2022 07/11/2022 |
| 2.15.3.6 PSPS Recorder | [REDACTED] [REDACTED] | Addition: Confirm/Cancel/Delay meetings. Removal: "Assisting with management of PSPS overall event timeline and assisting the PSPS Process Lead." Addition: "Collecting data from Meteorology" added to responsibilities. | 07/11/2022 07/08/2022 |
| 2.15.3.7 PSPS Risk Analyst | [REDACTED] | Revision: Supporting presentation to OIC meetings from formerly Presenting to EOC decision making meetings. | 07/11/2022 |
| 2.15.3.8 PSPS Technical Lead | [REDACTED] | Revision: Interface with HAWC Lead. | 07/12/2022 |
| 2.15.4.1 Documentation Unit | [REDACTED] | Revision: To "Incident Briefing (201) from formerly "Incident Action Plan (IAP)". | 07/22/2022 |
| 2.15.4.3.1 HAWC Lead | [REDACTED] | Revision: Field observation schedules to field observation to support All-Clear decisions. | 07/12/2022 |
| 2.15.4.3.3 Safety Infrastructure Protection Team | [REDACTED] | Addition: Responsibilities "may" include. | 08/03/2022 |
| 2.15.4.9 Situation Unit | [REDACTED] | Revision: Is an "All-Hazard Unit". | 07/22/2022 |
| 2.15.4.9.1 Situation Unit Leader | [REDACTED] [REDACTED] | Addition: "Developing situational information to support external briefings and development of a common operating picture." Addition: Example for scoping abnormalities. | 07/22/2022 08/02/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 3.2.1 Geographic Scope | ██████████ | Revision: Figure 3-1 title text updated from December 2021 to April 2022. | 07/11/2022 |
| 3.2.3 Time Places | ██████████ | Revision: Clarification on TP's de-scoped in Figures 3-2 and 3-3. | 07/07/2022 |
| 3.3.1 Ignition Probability Weather Index (IPW) | ██████████ | Revision: To "Ignition Probability Weather Index (IPW) model" from former listing of "Outage Producing Winds (OPW) model." | 08/02/2022 |
| 3.3.3 PSPS Event Activity Timeline | ██████████ ██████████ | Revision: Updated Activity Timeline Figures 3-10, 3-11, 3-12, 3-13 to fill gaps. Formerly on three pages to now four pages. | 07/25/2022 |
| 3.3.4 Decisions made by the OIC | ██████████ ██████████ | <p>Revision: Named HAWC and Operations as other EOC sections.</p> <p>Revision: Added language on how factors OIC considers are not limited to the listing.</p> <p>Addition: HAWC and Operations Section added to listing of groups that OIC receives situational awareness from.</p> <p>Revision: Figure 3-15 - text to "Patrol, Make safe, and Restore power" from former listing of "Safely Restore Power."</p> <p>Addition: OIC will consider "various factors including but not limited to ..."</p> <p>Revision: To "areas" from former listing of "Time Places (TPs)."</p> | 07/11/2022 |
| 3.5.3 Call-out Procedures | ██████████ | Removal: As redundant to Section 3.6.1 | 08/03/2022 |
| 3.5.5 Readiness Posture - Sections and Focus Areas | ██████████ | Revision: Liaison Officer responsibility to confirm internal presenters and schedule SEBs. | 07/19/2022 |
| 3.7.5 Resource Planning | ██████████ | <p>Revision: Minor revisions to text including on simultaneous wind events.</p> <p>Removal: "Extra resources above FORCE and/or SOPP are allocated based on requests and availability of crews".</p> <p>Revision: Minor updates to Figure 3-20 REC/OEC Resource Planning Process to include "REC".</p> | 07/14/2022 |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|---|--------------------------|
| 3.7.6 Field Observer Resourcing | ██████ | Addition: When requested by Meteorology..." | 08/03/2022 |
| 3.8.1 PSPS Event Overview | ██████████ | Addition: "repair" to patrol, repair and restoration. | 07/22/2022 |
| 3.9 PSPS Event Scoping | ██████████ | Addition: In Figure 3-20 PSPS Process with OIC Decisions added "(optional)" after Confirm/Cancel/Delay Meetings. | 08/02/2022 |
| 3.9.2 De-energization | ██████████ | Revision: Minor edits including Cal OES Form to notify when first de-energization begins. | 07/22/2022 |
| 3.10.1 Re-Energization Process | ██████████ ██████████ | Addition: Met forecast of weather "all clears" by "All Clear Zones" including circuits. Weather "all clears also possible by entire Time Place. Revision: Fig 3-23 Steps after Weather "All Clear" - "patrol of all "event specific assets at risk"" to replace "patrol of every mile of lines." | 07/08/2022 07/08/2022 |
| 3.11.3 Re-energization Decision Factors | ██████████ | Revision: Declining pressure gradients must be below meteorology PSPS guidance. | 07/08/2022 |
| 3.10.4 Weather "All Clear" Decision Methodology | ██████████ ██████████ | Revision: Details on "all clear" granularity. Revision: Add TPs to list for which OIC can declare "all clears". | 07/18/2022 07/08/2022 |
| 3.10.5 Patrols and Restoration | ██████████ | Revision: Added that unsafe POLs will be isolated. | 07/18/2022 |
| 3.10.6 Step Restoration | ██████████ | Addition: When the patrol of an individual segment is completed "(and providing a source is available)". Addition: prioritization of segments with alphabetical order labels for criticality "(i.e., critical infrastructure when applicable, customer impacts, etc.)". | 07/18/2022 |
| 4.1.1 Community Resource Centers | ██████████ | Revision: CRC Plan is now in 2022 Pre-season report. | 07/05/2022 |
| 4.1.2 Support for Access and Functional Needs | ██████████ | Revision: Local Independent Living Centers (ILCs) participating in the DDAR program with link. | 06/30/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|--|------------|
| 4.3.1 | ████████ | Revision: "refreshed" twice daily replaces "updated". | 07/15/2022 |
| PSPS Portal - Event Specific Information for Public Safety Partners | ████████ | Addition: Info on External User access. Addition: Self-Identified Vulnerable customers. | 07/22/2022 |
| 4.4 | ████████ | Revision: Fig 4-4 to include "optional" after Confirm/Cancel/Delay Meetings and asterisk(*) text for Readiness Posture about NON- regulatory requirement. | 07/25/2022 |
| 4.4.1 | ████████ | Removal: Reference to Priority Notice page. | 07/21/2022 |
| Initial Notification Sequence | ██████ | Removal: "potentially" from impacted customers for de-energization, weather "all clear", and ETOR update. | 08/05/2022 |
| 4.5 | ████████ | Revision: Fig 4-5 to include "optional" after Confirm/Cancel/Delay Meetings and asterisk(*) text for Readiness Posture about NON- regulatory requirement. | 07/25/2022 |
| De-energization Cancellation Customer Notifications | | | |
| 4.6 | ████████ | Addition: to listing self-identified vulnerable and self-identified Electricity Dependent. Revision: To "Contact Success Reporting to EOC" from formerly "Medical Baseline Contact..." Revision: In Figures 4-6 "Doorbell Ring Process" and 4-7 "Success Reporting to EOC" text listing self-identified vulnerable and self-identified Electricity Dependent. | 07/18/2022 |
| Doorbell Ring Process | | | |
| 4.7 | ████████ | Addition: Tenants and business in locations that have Master Meter receive electric service from PG&E, but they "are not the account holder". Addition: Exception if master meter customer is enrolled in Medical Baseline. | 06/30/2022 |
| Master Meter Customer Notification | | | |
| 4.8 | ████████ | Revision: Fig 4-8, updates to be automated in step 1, revision of step 5 to "Just before Power is Restored", new addition step 6. | 07/15/2022 |
| Notifications for Transmission Customers | | | |
| 5 | ██████ | Revision: To "EOC SharePoint" to replace "Foundry" to store PSPS event data. | 07/17/2022 |
| PSPS Data Sources | | | |
| 5.2.1 | ████████ | Addition: "When requested by Meteorology..." | 08/03/2022 |
| Field Observations | | | |

| Section | Person Responsible for Revision | Change | Date |
|--|---------------------------------|--|--------------------------|
| 5.3 Materials used to inform OIC | [REDACTED] | Revision: Source for Internal Sit Report PSPS Deputy replaces formerly listed Sit Unit. | 07/19/2022 |
| | | Addition: Bullet on tags report: "Number of prioritized P1, P2 tags and EC tags to be closed out by Operations and Vegetation. Management and removed from scope." | 07/19/2022 |
| 5.3.1.2 Transmission Scoping Assessment and Scoping Dashboard | [REDACTED] | Revision: Information available on Dashboard. Revision: Updated screenshots for Figure 5-5 "Example of Tx PSPS Scoping Dashboard" and Figure 5-6 "Example Transmission Line Scoping - OIC Summary". | 07/25/2022 |
| 5.4 PSPS Viewer | [REDACTED] | Addition: PSPS Viewer is also used to incorporate potential impact to scope | 07/19/2022 |
| 5.5 PSPS Situational Intelligence Platform (PSIP) | [REDACTED] | Revision: "major features" of PSIP revised with additions | 07/17/2022 07/19/2022 |
| 5.6 Data Sources and Flow of Information | [REDACTED] | Revision: Fig 5-9 to include P1/P2 Tree Tags and EC Tags and clear double direction arrow between PSPS Viewer and PSIP. | 07/20/2022 |
| 6.3 Customer Notification Metric | [REDACTED] | Addition: Specified transmission to add to distribution customers. | 07/26/2022 |
| 8.2.1 Cal OES PSPS State Notification Form | [REDACTED] | Addition: Documents located on the Cal OES PSPS Hub. Revision: Delegation of authority for Cal OES form submission. Addition: "Deputy Planning Section Chief" to text. Revision: Call Warning Center for only the first Cal OES form submission. Addition: Fig 8-3, dashboard example. Revision: Updated example of "Cal OES PSPS Dashboard - PSPS IOU Notification Forms." | 07/17/2022 |
| 8.2.2 CPUC De-energization Report | [REDACTED] | Addition: Responsible individuals to Notifications, Complaints and Claims, Other Relevant Information and Appendix sections Revision: Updates to "Responsible Individuals" in Table 8-1 "PG&E PSPS Report to the CPUC – Sections | 07/20/2022 |

| Section | Person Responsible for Revision | Change | Date |
|---|---------------------------------|---|------------|
| 8.2.3 Pre-Season Report | [REDACTED] | Removal: Sentence about lessons learned in action descriptions | 07/20/2022 |
| | [REDACTED] | Addition: New Table 8-2 "PG&E PSPS Report to CPUC - PSDR" with PSDR Sections and Responsible Lines of Business. Removal: Sentence about details being confirmed at a future date. | 07/19/2022 |
| 8.2.4 Post-Season Report | [REDACTED] | Revision: In Table 8-3 "PG&E PSPS Report to the CPUC - POSTR 1" under Responsible Individuals "CC PSPS Program Team" replaces "CC Regulatory Strategy." | 07/20/2022 |
| 8.2.5 Post-Season Data Report | [REDACTED] | Revision: Due date is March 1st replaces former listing of April 1. Addition: CC PSPS Program team to Decision Specified Requirements and SED Specified Requirements sections. Removal: CC Regulatory strategy from Decision Specified Requirements and SED Specified Requirements sections. | 07/20/2022 |
| Appendix F: PSPS Business Continuity | [REDACTED] | Addition: New Section added with link to Business Continuity Plans. | 07/14/2022 |

Revision Log

| Document Number | Title |
|-----------------|-------|
| NA | NA |

Reference Documents

| Document Number | Title |
|-----------------|---|
| EMER-2001S | <i>Company Emergency Operations Plans Standard</i> |
| EMER-3001M | <i>Company Emergency Response Plan (CERP) (v7)</i> |
| EMER-3005M | <i>Logistics Annex</i> |
| EMER-3006M | <i>Human Resources Annex</i> |
| EMER-3105M | <i>Wildfire Annex</i> |
| PSPS-1000P-01 | <i>PSPS for Electric Transmission and Distribution Lines</i> |
| PSPS-4999-B001 | <i>Mobile Generator Use During Public Safety Power Shutoff (PSPS)</i> |
| TD-1464S | <i>Preventing and Mitigation Fires While Performing PG&E Work</i> |

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| [REDACTED] | Principal, HR Emergency Management Specialist |
| [REDACTED] | Principal, Communications Representative |
| [REDACTED] | Expert, Electric Emergency Management Specialist |
| [REDACTED] | Business Analyst |
| [REDACTED] | Director, Dispatch and Scheduling |
| [REDACTED] | Manager, Emergency Management |
| [REDACTED] | Principal, Electrical Engineer |
| [REDACTED] | Principal, Integration and Bundling |
| [REDACTED] | Senior Manager, Infrastructure & Cloud |
| [REDACTED] | Manager, Forecasting and Operations |
| [REDACTED] | Principal, Public Safety Specialist |

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|------|---|
| | |
| | Senior, Government Relations Representative |
| | Interim Director, Public Safety Power Shutoff |
| | Expert, PSPS Customer Outreach Strategist |
| | Senior Counsel |
| | Principal, Risk Analyst |
| | Manager, Principal, Electric Program |
| | Principal, Business Finance Analyst, Principal |
| | Expert, Grid Innovation Engineer |
| | Supervisor, Planning, Standards, Training, Reporting |
| | Senior, Transmission Planning Engineer |
| | Senior, Business Analyst |
| | Principal, Wildfire Risk Analyst |
| | Supervisor, Hazard Awareness Warning Center |
| | Director, Engagement, Strategy and Programs |
| | Director, Agency Outreach, |
| | Expert, Electric Emergency Management Specialist |
| | Senior Manager, Division Leader Local Cust Experience |
| | Principal, Business Analyst |
| | Senior Manager, Emergency Management |
| | Principal, Electric Program Manager |
| | Expert, Electric Program Manager |
| | Director, Work and Readiness |
| | Principal, Regulatory Rel Advocacy |
| | Principal Electric Program Manager |
| | Senior Director, Major Program/Project Delivery |
| | Expert, Electric Program Manager |
| | Manager, T&S Technical Programs |

| Name | Position |
|------|--|
| | Expert, Emergency Management Specialist |
| | Principal, Emergency Response |
| | Manager, Hazard Awareness Warning Center |
| | Senior, Program Manager |
| | Principal, Supply Chain Emergency Mgmt Specialist |
| | Electric Standards and Strategy Engineer, Senior Consult |
| | Expert, Gas Program Manage |
| | Principal, Emergency Preparedness Specialist |
| | Principal, Product Manager |
| | Manager, Emergency Management & Public Safety |
| | Manager, Communications |
| | Senior Manager, Electric Program Management |
| | Expert, IT Solutions Engineer |
| | Manager, Enterprise Safety Programs |
| | Principal, Electric Program Manager |
| | Manager, Emergency Management & Public Safety |
| | Principal, Supply Chain Emergency Management Specialist |
| | Principal Product Manager |
| | Senior, Product Manager |
| | Manager, Emergency Management & Public Safety |
| | Expert, Process Manager |
| | Manager, Emergency Preparedness |
| | Principal, Emergency Preparedness Specialist |
| | Principal, Program Manager |
| | Director, Portfolio Planning and Deliver |
| | Expert, Product Manager |

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| | | [REDACTED] | Approved on 8/15/2022 7:10:59 AM |
| | | Quinlan, Mark | Approved on 8/15/2022 7:12:20 AM |

Change Request Form

To request changes, corrections, or additions to this *Annex*, the [Company Emergency Response Plan \(CERP\), \(EMER-3001M\)](#), or other associated annexes, submit a request through the [online change request here](#).

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the *CERP* or *Annex*. Minor changes will be saved and addressed during the next document update.

Once the Bulletin is communicated, a copy will be placed under the respective annex located in the [Guidance Document Library \(GDL\)](#) and be included as content in the next *Public Safety Power Shutoff Annex* update.

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1 Introduction

1.1 Purpose

The purpose of the *PSPS Annex* is to provide a high-level overview of Pacific Gas and Electric, Company's (PG&E) actions and strategies regarding Public Safety Power Shutoff (PSPS).

PG&E's goal is to provide safe, reliable, affordable, and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions and develop processes to ensure the safe, prompt, and efficient restoration of services.

In support of that goal, PG&E has developed a [Company Emergency Response Plan \(CERP\), \(EMER-3001M\)](#), to provide staff with a safe, efficient and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the *CERP*.

1.2 Scope

The scope of this Annex covers actions and strategies to prepare for, respond to and recover from risk of wildfire ignition related to PG&E assets leading to de-energization for public safety during dry severe weather conditions. This Annex depicts PG&E's coordination and communication, both internal and external, that provide an organized and comprehensive approach to managing PSPS. This Annex references other technical and operational plans that demonstrate how certain actions and strategies are implemented; it is not a replacement or substitute for those documents.

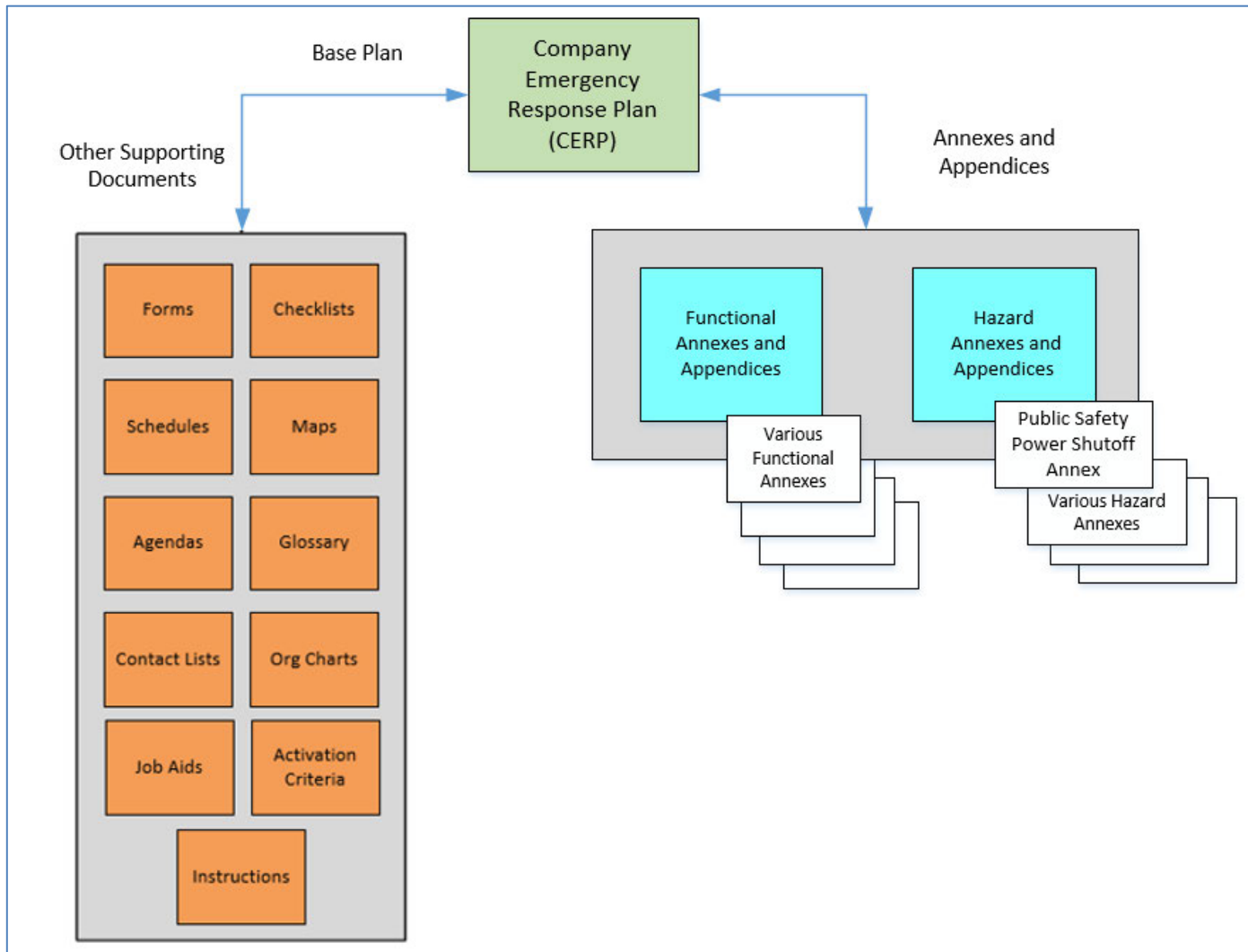
This Annex:

- Provides a broad overview of PG&E's emergency organization for PSPS.
- Creates an inter-departmental outline of PSPS actions and strategies.
- Identifies roles and responsibilities pertaining to PSPS.

1.3 PSPS Annex Relation to CERP and Supporting Documents

The PSPS Annex is a hazard-specific annex to the [Company Emergency Response Plan \(CERP\), \(EMER_3001M\)](#). Figure 1-1 below illustrates the relation between this Annex, the *CERP*, other annexes, and supporting documents. The representation in Figure 1-1 is not an all-inclusive list.

Figure 1-1: Company Emergency Response Plan Structure and Annexes



The *CERP* presents an emergency response structure with defined emergency roles and responsibilities in support of the Gas, Electric and other PG&E functional business units and externally among agencies and organizations including:

- Government (local, state, tribal and federal)
- Media
- Other gas and electric utilities including mutual aid
- Essential community services
- Vendors
- Public agencies
- Emergency First responders
- Contractors

A key element of the *CERP* is the alignment of PG&E's functional business units to the frameworks provided by the National Incident Management System (NIMS), California Standardized Emergency Management system (SEMS) and the NIMS/SEMS component Incident Command System (ICS). Adoption of these frameworks align PG&E with our public partners to execute a coordinate response that supports safe restoration of service and whole community recovery.

Under the NIMS, SEMS and ICS organizational structures, there are Command and General Staff positions. General Staff consists of five primary peer sections: Operations, Intelligence and Investigations, Planning, Logistics and Finance and Administration.

The PG&E emergency response model is organized, and the Emergency Operations Center (EOC) is staffed, using principles from NIMS, SEMS and ICS, including but not limited to:

- Following a unified approach (i.e., a single chain of command, adaptable to meet situational needs).
- Managing by a unified set of objectives, when possible, for single and dual commodity incidents.
- Managing equipment, facilities, personnel, procedures, and communications effectively.
- Standardizing operational structures and terminology to enable disparate groups to work and communicate together in a predictable, coordinated manner.
- The Command Staff includes the Public Information Officer, Safety Officer, Customer Strategy Officer, and Liaison Officer. These individuals report directly to the Incident Commander during emergency or event activations.

1.4 Regulations and Authorities

This Annex, as part of the *CERP*, complies with the regulations and authorities listed below.

1.4.1 CPUC Decisions 19-05-042: Decision in Phase 1 of the De-Energization Rulemaking Proceeding (R.18-12-005)

On June 4, 2019, the Commission issued Decision (D.) 19-05-042, adopting additional guidelines for the utilities in developing, implementing and executing the PSPS programs beyond those previously established by Resolution ESRB-8.

D.19-05-042 provided for additional PSPS guidelines, including but not limited to:

- The development of a statewide public education and outreach campaign in coordination with the other utilities, Cal OES and CAL FIRE.

- The identification and notification of Public Safety Partners, Critical Facilities and Critical Infrastructure, Access and Functional Needs populations and all other affected customers leading up to and during a potential PSPS event, including upon completion of re-energization.
- Providing GIS maps with affected circuits and customers to Public Safety Partners during a PSPS event.
- Coordinating with local jurisdictions during an event including embedding a liaison officer at local EOCs or reserving seats in PG&E's EOC for local representatives.
- A post de-energization event report to be filed with the CPUC Safety and Enforcement Division (SED) for an evaluation of the reasonableness of the PSPS event.

The guidelines from the Phase 1 Decision built on existing requirements from previous decisions. Further information is available on [CPUC website PSPS page](#) including [Joint letter sent to utilities October 26, 2018](#), [Decision 12-04-024](#), [ESRB-8](#) and two letters that Resolution L-598 approved: [October 8, 2019 Letter to Utilities re: Providing Information to First Responders for Medical Baseline](#) and [October 23, 2019 CPUC letter to Utilities re: Providing Information to Counties and Tribal Governments](#).

1.4.2 CPUC Decision 20-05-051: Decision in Phase 2 of the De-Energization Proceeding (R.18-12-005)

On June 5, 2020, the CPUC issued D.20-05-051 adopting Phase 2 updated and additional utility PSPS guidelines. The Phase 2 Guidelines include new requirements including, but not limited to:

- Working Groups and Advisory Boards including how often to convene, who should be included and on what they should provide input.
- De-energization exercises.
- De-energization notifications.
- Community Resource Centers including hours of operation and services to be made available.
- Restoration of service including timing of notifications related to service restoration and how long it should take to fully restore power.
- Transportation resilience including details of pilot programs.

1.4.3 CPUC Decision 21-06-034: Decision in Phase 3 of the De-Energization Proceeding (R.18-12-005)

On June 29, 2021 the CPUC issued [D.21-06-034 adopting Phase 3](#) revised and additional PSPS guidelines. The Phase 3 Guidelines include new requirements, including but not limited to:

- Guidelines to Improve Planning, Preparation and Access to Resources During PSPS events.
- Guidelines to Enhance Notification of and Mitigate Impacts on Access and Functional Needs and Vulnerable Populations.

1.4.4 CPUC Decision 21-06-014 in the Order Instituting Investigation (OII) into Late 2019 PSPS Events

- The Decision contains new requirements, including but not limited to:
- Forgo collection of revenues from customers that are associated with electricity not sold during future PSPS events until it can be demonstrated that utilities have made improvements in identifying, evaluating, weighing and reporting public harm when determining whether to initiate a PSPS event.
- Improve communications with customers dependent on electricity for medical reasons, especially life support, before, during and after a PSPS event.
- Share best practices and lessons learned for initiating, communicating, reporting and improving all aspects of PSPS events by regularly holding utility working group meetings.
- Provide Standard Emergency Management System (SEMS) training for all personnel and contractors involved in PSPS planning.
- File annual reports describing progress and status on improving compliance with PSPS guidelines.
- Support the CPUC's Safety and Enforcement Division's development of a standardized 10-day post-event reporting template.

1.5 Annex Maintenance

PG&E's Emergency Preparedness and Response (EP&R) department is responsible for developing, updating, and maintaining the *CERP* and its Annexes in collaboration with the subject matter experts from the responsible functional business units. Please refer to section 1.6 (Plan Maintenance) of the [\(Company Emergency Response Plan \(CERP\), EMER-3001M\)](#) for information regarding document approval, revision, and periodic maintenance. After approval, the *CERP* and its Annexes are published in PG&E's Guidance Document Library (GDL). You can access the site here:

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The PSPS Annex will be reviewed and updated in accordance with [Utility Standard EMER-2001S, Company Emergency Operations Plans Standard](#) and submitted to EP&R SE on an annual basis.

This Annex is produced and will be maintained by the Public Safety Power Shutoff organization in conjunction with the EP&R SE Planning Division. The PSPS staff works closely with affected organizations and individuals to include alignment with the *CERP* and other Annexes, updated information, new processes and advances in execution strategy for PSPS.

The PSPS Annex may be modified because of:

- Lessons learned from exercises and actual PSPS events.
- Key changes to processes, structure, responsibilities, new technologies, assessment procedures, restoration strategies, etc.
- Feedback generated by PG&E subject matter experts, the planning team, internal and external stakeholders, and users of the annex.
- Changes to laws or regulations pertaining to PSPS.

Each revision of the annex will be approved by the Vice President of Electric System Operations and the Vice President of Emergency Preparedness and Response. Records of revisions to the PSPS Annex will be maintained in the change register at the beginning of this document.

Those departments having assigned responsibilities under this annex are obligated to inform the PSPS organization when organizational or operational changes affecting this plan occur or are imminent.

1.6 PSPS Annex Organizational Structure

To ensure the information is comprehensive and user-friendly, this Annex has been organized by the following format:

Section 1 – Introduction – provides background information necessary to understand: the need for Annex; the subject matter; the governing regulations and the challenges PG&E faces regarding the topic.

Section 2 – PSPS – Emergency Organization and Responsibilities – provides information on EOC staffing, information on roles, which roles are part of Readiness Posture, which additional roles are part of EOC activation, calls out EOC roles that are specific to PSPS and describes PSPS specific responsibilities for affected EOC roles.

Section 3 – Concept of Operations

- **Purpose** – provides goals of PSPS program.
- **Scope** – provides information on general scope for PSPS.
- **Decision Making** – provides information on PSPS related decisions.

- **Preparedness** – provides information on how PG&E prepares to execute PSPS including general preparation, training, exercises and the Readiness Posture stood up in advance of EOC activation when possible.
- **Response** – provides information on steps to activate EOC and preparations for possible de-energization to reduce risk of catastrophic wildfire.
- **Restoration** – provides information on steps to restore power to customers.

Section 4 – PSPS Information, Notification, and Coordination Strategies – provides information on how customers are informed about PSPS in general and in advance, during and after an event and how PG&E coordinates with agencies and partners.

Section 5 – Data Sources – provides information on how and what data meteorology uses to determine projected weather footprints and describes tools used to produce customer lists for notifications and maps.

Section 6 – Performance Indicators – provides listing of selection of PSPS related metrics with purpose and brief description.

Section 7 – Training and Exercises – outlines training and exercises for PSPS.

Section 8 – Documenting Event – provides information on requirements and timelines for event documentation.

Section 9 – Appendices – provides a listing of abbreviations, a glossary of terms, information on supporting documents and PSPS related links, information on notification scripts and examples of customer communication materials.

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2 Emergency Organization and Responsibilities

2.1 Emergency Roles and Responsibilities

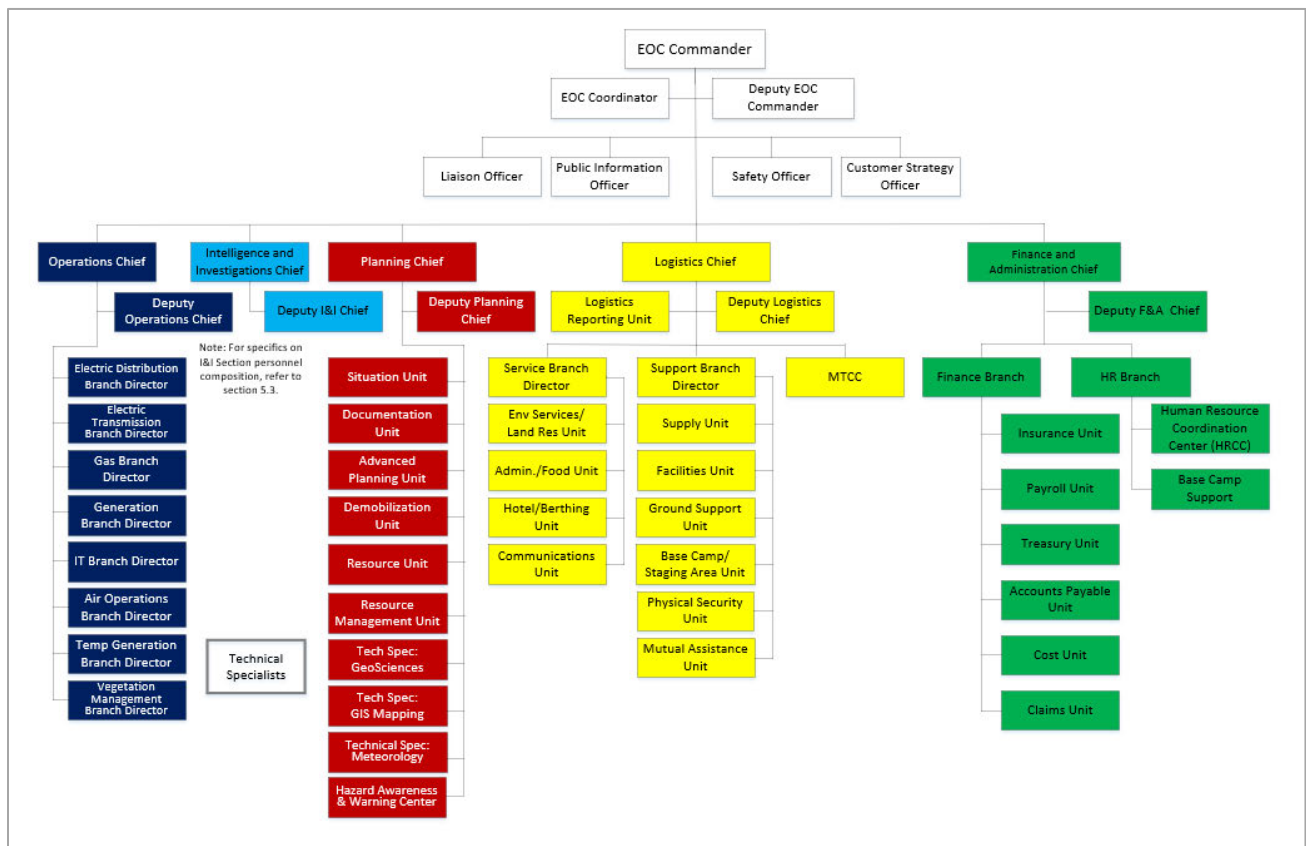
PG&E’s Emergency Preparedness and Response Strategy and Execution (EP&R SE) organization facilitates the pre-event conference call to determine if the Emergency Operations Center (EOC) should be activated for a potential PSPS event (see EOC Activation Process in section 3.6.) After the decision is made to activate the EOC, EP&R SE notifies appropriate staff of EOC Activation, opens the EOC and provides management of center services to assist sections and command staff in developing emergency response strategies and procedures for the event.

The activation sequence is outlined in the [Company Emergency Response Plan \(CERP\)](#). For general information on EOC roles see Incident Command System (ICS) checklists and position guides within folders for various groups/sections under [Roles and Responsibilities on the EOC intranet site](#).

For information about Covid-19 and the use of a Virtual EOC platform, see [CERP section 2.9.1](#).

The organizational chart in Figure 2-1 shows the standard structure for EOC operations. Additional roles specific to PSPS not shown in this chart are described in section 2.14, Planning Section.

Figure 2-1: Emergency Operations Center Organizational Chart (CERP Section 5)



2.2 EOC Staffing for PSPS Event

This section lists standard EOC roles with specific responsibilities during PSPS and also roles specific to PSPS.

Standard Roles

For a PSPS event, the EOC staff consists of the standard ICS Command and General Staff positions as outlined in the *CERP* and includes the use of the Intelligence and Investigation Section which is established within the General Staff organization. Along with the standard ICS roles, PG&E's PSPS processes include the use of several PSPS specific EOC functional roles listed below.

PSPS Specific Roles

In addition to the standard EOC roles, there are PSPS specific EOC roles such as:

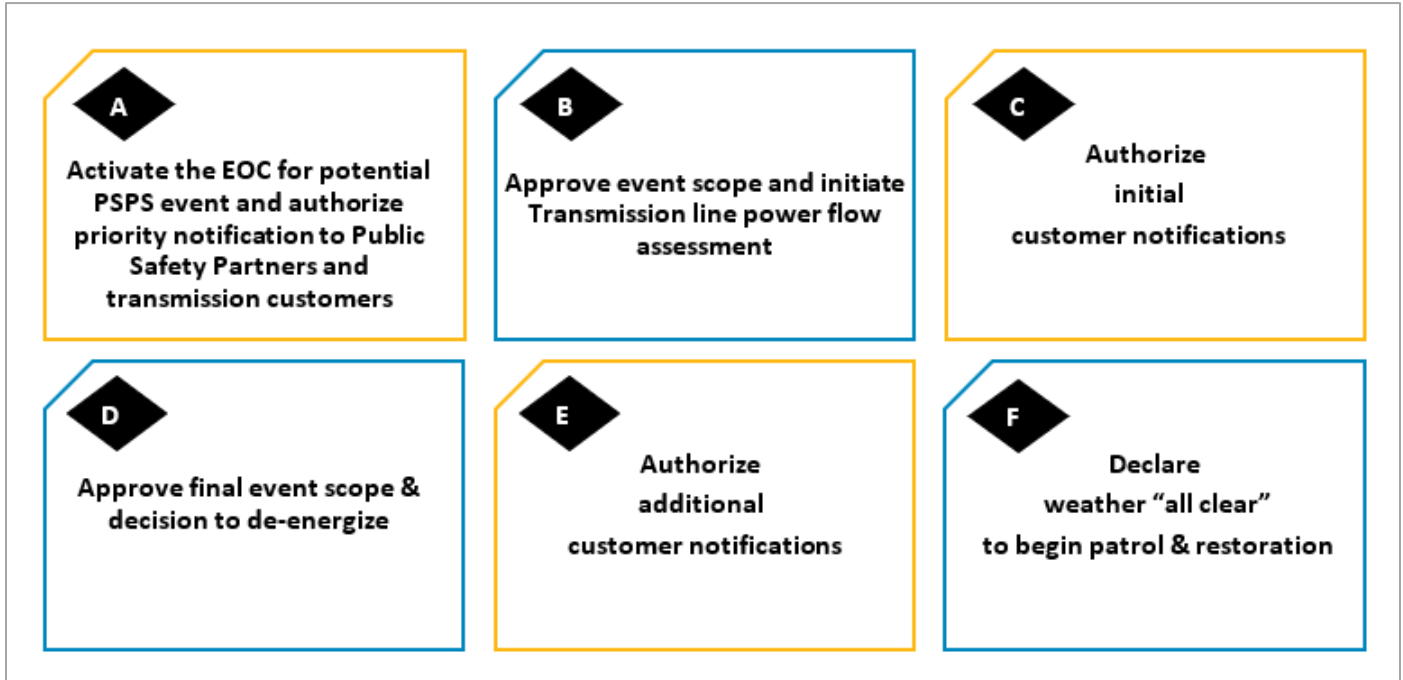
- Officer-in-Charge (OIC)
- Deputy Planning Section PPS Chief
- PPS Technical Unit Leader
- PPS Technical Specialist
- PPS Distribution Asset Health Specialist (DAHS)
- PPS Transmission Asset Health Specialist (TAHS)
- PPS Portal Unit Leader
- PPS Portal Unit Support
- PPS Process Unit Leader
- PPS Recorder
- PPS Communications Coordinator
- PPS Risk Analyst
- Digital Strategy Lead
- Digital Strategy Publisher
- Digital Strategy Assistant
- Primary Voltage Generation Division Lead
- Secondary Voltage Generation Division Lead

2.3 Officer-in-Charge

The Officer-in-Charge (OIC) is a role specific to PPS events and was created to engage higher-level management accountability of the decision given the magnitude and impact of PPS, while also enabling rapid decision-making during a real-time PPS event. The OIC receives situational awareness from the Command Staff and General Staff of PG&E's EOC, including from the Meteorology, Planning, and Customer Sections.

There are six important PSPS decisions, called OIC decisions, of which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 2-2

Figure 2-2: OIC Decisions A - F



While the OIC is given the Authority to Act and owns the key decisions outlined above, the EOC Commander (EC) is responsible for executing on those decisions and owns the response executed by the Emergency Operations Center (EOC). The OIC approves all PSPS Decision Records and associated documentation following a PSPS event.

Additionally, the OIC may elect to delegate the authority of an OIC decision to the EOC Commander through a written confirmation outlining the parameters and timing of that delegation. However, the OIC retains full accountability for the OIC decisions made under the delegation of authority.

2.4 EOC Commander

The EOC Incident Commander is responsible for the overall command of the incident/event. This includes ensuring the safety of all employees involved, initiating, and approving the Incident Action Plan (IAP), and acting as a liaison with agency executives, governing boards and other organizations.

In addition, during PSPS the on-call EOC Commander (EC) is responsible for:

- Working with EP&R (as indicated in section 2.1) to identify representatives from select sections and officers (determined by need and incident complexity) to meet for Readiness Posture, when warranted and time permitting, to track developing conditions and perform certain tasks (Note: Readiness Posture is not a requirement to precede OIC Decision A to activate EOC for PSPS.).

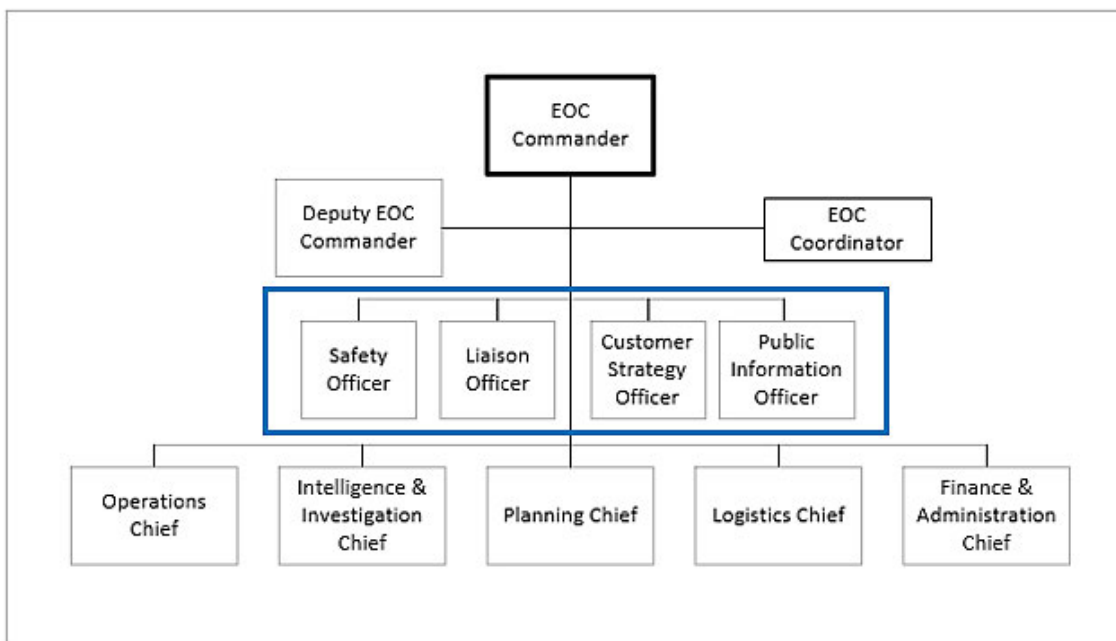
- Coordinating readiness of activities related to Readiness Posture.
- Advising OIC on decisions.
- Reviewing OIC decision records and documentation.
- Executing on decisions made by OIC.

For more information on role of EOC Commander see [CERP section 5.1.1](#).

2.5 EOC Command Staff

The organizational chart in Figure 2-3 displays the EOC Command Staff top-level structure. The Officer group is framed.

Figure 2-3: EOC Command System (*CERP* Section 5)



Note: Command Staff officers and related roles are listed in alphabetical order in this section. Role descriptions focus on PSPS specific responsibilities. In particular cases related roles are also described for their role specific to PSPS.

2.6 Customer Strategy Officer

The Customer Strategy Officer (CSO) is responsible for customer communications and outreach during a PSPS event. The CSO coordinates notifications and interactions with customers before, during and after a PSPS. Additional Customer Care emergency response roles will support the CSO as needed based on event size and scope.

In addition, the CSO's responsibilities during a PSPS event include:

- Verifying number of impacted customers including customer segmentation (i.e., critical public safety-related facilities such as police and fire stations, telecommunications providers, water agencies, utilities, healthcare facilities, schools and Access and Functional Needs (AFN) community which includes Medical Baseline customers).
- Sending customer notifications before, at de-energization, during and after an event to all customers - initially prioritizing notifications to critical public safety-related facilities and transmission customers, followed by notifications to Medical Baseline customers and to general customers in the PSPS scope.
- Identifying and opening Community Resource Centers (CRCs) to support impacted customers. Coordinating with CRC leads to gather real-time local intelligence for CSO/Logistics to respond accordingly; managing customer escalations; aggregating daily reports from each CRC for timely reporting.
- Coordinating with local Independent Living Centers (ILC) and Community Based Organizations (CBO's) to support AFN customers in attendance as appropriate.
- Facilitating doorbell rings to notify Medical Baseline^[1] customers and Self-Identified Vulnerable customers that were not successfully contacted through initial automated notifications (i.e., e-mails, phone calls, and text messages).
- Coordinating with Community Choice Aggregators (CCA) relations teams to engage with potentially impacted CCAs during event.
- Managing customer escalations including commercial critical customers and those within the AFN population (i.e., MBL, Life Support, Self-Identified Vulnerable).
- Coordinating with the Customer Contact Emergency Coordination Center (CCECC) to provide event intelligence for staffing and communication needs.
- Working with OECs to gather real-time local intelligence to fully inform IC and identifying escalations, challenges, and events that could impact the scope of the PSPS event.
- Communicating with critical public safety-related customers, addressing customer escalations, and providing intelligence to the OIC for consideration when determining de-energization scope and prioritizing restoration.
- Coordinating with the Temporary Generation Branch team on prioritization of customer requests for temporary back-up power during an event.
- Coordinating with Billing Operations and Credit, Demand Response teams and additional internal partners regarding customer impacts.
- Coordinating with Electric Operations on Estimated Time of Restoration (ETOR) notifications and restoration priorities.

^[1] Medical Baseline Customers are enrolled in PG&E's medical baseline program who rely on electric service for mobility or life sustaining medical reasons.

- Understanding Customer Service Office impacts and working with this team to mitigate customer impacts.

For more information on role of Customer Strategy Officer see [CERP section 5.1.6](#).

2.6.1 Notification Hawk

During a PSPS event the Notification Hawk is responsible for:

- Executing on notification strategy approved by CSO to ensure timely and appropriate communications.
- Overseeing PG&E customer communications performance, especially that of critical commercial customers and residential Medical Baseline (MBL) customers.

2.6.2 Community Resource Center Lead

During a PSPS event the Customer Strategy Community Resource (CRC) Lead is responsible for:

- Overseeing the Customer Strategy activities during EOC readiness posture.
- Coordinating the activation, daily execution, and closure of Community Resource Centers in partnership with Logistics and Liaison teams.

2.6.3 Agency and Communications Lead

During a PSPS event the Agency and Communications Lead is responsible for:

- Representing the Customer Strategy team on agency calls with a focus on CRCs and Medical Base Line (MBL) updates, as well as any scope changes impacting customers and communities.
- Coordinating internal communications and updates within Customer Care.

2.6.4 Critical Infrastructure Lead

During a PSPS event the Critical Infrastructure (CIL) Lead is responsible for:

- Maintaining situational awareness for critical telecommunications infrastructure and transmission customers.
- Ensuring critical telecommunications infrastructure partners are receiving actionable data to assist in the mobilization of their internal resources to minimize community impacts.

2.6.5 Backup Generation Lead

During a PSPS event the Backup Generation (BUG) Lead is responsible for:

- Managing and maintaining overall documentation and tracking for all temporary generation requests.
- Providing temporary generation installation recommendations to the CSO, in partnership with Liaison team, for final approval.

2.6.6 Access and Functional Needs Lead

During a PSPS event the Access and Functional Needs (AFN) Lead is responsible for:

- Managing Community Based Organization partnerships and customer support strategies.
- Overseeing the response to MBL customer escalations received in the field, at CRCs and through the contact centers.
- Managing Customer Care senior leadership inquiries and requests.

2.7 Liaison Officer and Supporting Roles

The Liaison Officer (LNO) is responsible for leading the team that serves as the primary contact for representatives of local, tribal, state, and federal governments. The LNO participates in weather briefings, planning meetings, command and general staff meetings, and OIC decision meetings. They inform the LNO team when key decisions are made or are expected. The LNO makes real-time decisions on behalf of the LNO Team.

In most PSPS events, the LNO will be supported by representatives from some or all of the following PG&E departments:

- Community Relations
- State Government Relations
- Federal Affairs
- Tribal Relations
- State Agency Relations
- Local Government Affairs (LGA)
- Regulatory Relations
- Public Safety Specialists
- State Operations Center (SOC) Liaison

The LNO oversees PSPS event notifications and interactions with external partners such as tribes, cities, counties, state, and federal agencies. Additional responsibilities include:

- Coordinating with Tribes, cities, counties, and other agencies to help ensure PG&E has the latest contact information for each agency.

- Working with tribal, city, county, and state contacts during PSPS events to coordinate and align operations and response.
- Sending notifications (before, during, and after a PSPS event) to Cal OES, the CPUC, Tribes, cities, counties, first responders, and other external stakeholders.
- Responding to and tracking inquiries from external stakeholders.
- Facilitating and managing a once-daily State Executive Briefing and a once-daily Cooperator call for county, city, utility, and emergency management partners for external situational awareness.
- Supporting requests and serving as single point of contact from third-party representatives to embed in PG&E's EOC.

For more information on role of Liaison Officer see [CERP section 5.1.7](#).

2.7.1 Assigned City/County Agency Representatives

During an emergency incident, the primary role of the Public Safety Specialists (PSS) is to serve as the PG&E assigned City/County Agency Representative who coordinates and integrates PG&E's response with their assigned City/County Office of Emergency Services. For larger events, Local Public Affairs may also act as a PG&E assigned City/County Agency Representative. Cultural Resource Specialists will be Tribal Agency Representatives and will be assigned to regions as needed.

The Agency Representatives directly report to the Liaison Branch Lead or Group Supervisor depending on the scale of the event. The Liaison Branch Lead typically holds twice-daily conference calls to coordinate with the Agency Representatives, provide the current event information and ask for escalations/feedback received by Agency representatives. The Agency Representatives then meet with their respective jurisdiction to relay the information and answer questions.

The initial priority of the PSS team members, absent their required response to an existing emergency (e.g., fire, gas release), will be to respond to any regional (local/county) EOC location(s) if activated. The PSS team members serve as a liaison to their assigned City/County Office of Emergency Services (OES). Other PSS members may be requested to support the needs of surrounding regions that may be potentially affected by a PSPS.

2.7.2 PG&E State Operations Center Agency Representatives

The role of the PG&E State Operations Center (SOC) Agency Representative (AREP) is to function as an ICS Agency Representative position to California's State Emergency Operations Center in Mather, California. During SOC activation, the SOC Liaison provides real-time coordination of PG&E information to the SOC Situation Unit (part of the Planning Section).

2.8 Public Information Officer

Each level of PG&E's emergency response may have a Public Information Officer (PIO) and/or public information function. However, when staffing the EOC, the PIO's role is to provide strategic communications counsel to the EOC Commander.

The PIO's responsibilities during a PSPS event include:

- Developing main narrative for talking points.
- Developing and implementing communications strategy to ensure "one voice" communications.
- Coordinating with Customer team, Liaison, and any other LOB stakeholders on communication materials.
- Coordinating emergency communication activities with other agencies, media, customers and others through verbal replies, on-camera interviews, written statements, press releases and social media.
- Providing early warning of a potential PSPS event when possible, using a combination of direct communication, traditional and social media.
- Informing employees through internal communications about the PSPS event.
- Responding to real-time media requests for information, interviews and status reports.
- Conducting press conferences and managing press questions and queries.

For more information on role of Public Information Officer see [CERP section 5.1.5](#).

2.8.1 Digital Strategy Lead

The Digital Strategy Lead functions as the overall PSPS digital program (PSPS maps, address lookup, data tables, website user interface, etc.) subject matter expert, with knowledge of both the tools and how they function as well as the static content. The Lead is versed in the sequencing of tasks, who to turn to for help or to get technical questions answered.

Responsibilities include:

- Having situational awareness for the event and how the web should be updated in response to changing operations conditions.
- Coordinating with the various teams that support the web during events, including the Digital Strategy assistant, the GIS team, the Customer Care Emergency Contact Center (CCECC) team and the various branches represented in the huddle board (Planning, Liaison, Customer and PIO). For example: the huddle board execution is a set of steps that are followed in sequence and according to various protocols that must be followed in order to execute in a timely manner). The Lead is expected to understand upstream and downstream dependencies, the timing required for each step in the digital process, and the correct sequencing of events for accurate, timely web and customer notifications.

- Reviewing customer feedback and making on the fly optimizations to the customer experience when possible.

2.8.2 Digital Strategy Assistant

The Digital Strategy Assistant takes direction from the Digital Strategy Lead and works with the digital strategy publisher to ensure that all content posted is correct.

Responsibilities include:

- Having a strong understanding of what content should be on the site at various stages of a PSPS event.
- Proofreading the content put up by the publisher before it goes live to the public (including all 16 of the languages).
- Managing new translation requests that come in on the fly during events.
- Ensuring all new translations become part of the translations-library and that both translations and the subsequent draft web pages are reviewed and approved by in-country reviewers before going live to the public.
- Monitoring various chats for possible issues that need addressing, alerting the Digital Strategy lead when needed.

Coordinating with the PIO branch on items such as publishing press releases.

2.9 Safety Officer

The Safety Officer's responsibilities during a PSPS event include:

- Preparing safety messaging on potential hazards for line/office personnel, substation personnel, Field Observers, and contractors as well as disseminating safety messages to "EO EOC out" mailbox.
- Confirming Safety staff availability for EOC field support and availability of protective equipment and supplies as appropriate.
- Finalizing Field Safety Specialist (FSS) deployment plans based on Operational needs, operations crew deployment plans (e.g., one FSS for every XX line-personnel deployed).
- Accompanying Field Observers, crews, and patrols to support safe working and driving conditions as well as safe restoration activities as appropriate. Incorporating field observations into safety messaging.

For more information on role of Safety Officer see [CERP section 5.1.4](#).

2.10 Legal Advisor

While not a standing EOC position, an attorney will be on call to serve as a “Legal Advisor” to an incident or event Command Staff to provide legal advice on an ad hoc basis, including as required:

- Counsel on PSPS legal matters
- Media release and public information review
- Regulatory reporting compliance monitoring and guidance
- Document retention plan review
- Incident investigation assistance

For PG&E legal advice in the absence of an appointed EOC Legal Advisor, please call the Law EOC hotline at [REDACTED] or send an email to [REDACTED]

In the following section the group of Section Chiefs is listed in alphabetical order.

2.11 Finance and Administration Section Chief and Supporting Roles

The Finance and Administration Chief represents both the Human Resources Branch and Finance Branch.

For more information on role of Finance and Administration Chief see [CERP section 5.6](#).

2.11.1 Human Resources Branch

The Human Resources Branch is within the EOC Finance & Administration Section. One of the Human Resources Emergency Response Team’s (HR ER TM) three EOC activation response capabilities is specific to PSPS. HR’s PSPS response is unique from the other response capabilities with its limited HR emergency roles activation and core capabilities requirements.

During PSPS responses, the HR ER TM consists of its HR EOC main floor emergency roles including the Finance & Administration Section (F&A Section) Chief, Deputy Chief and HR Branch Director roles. The HR Coordination Center (HRCC) Data emergency role is initially activated in a standby role response posture and may be further activated to remote/virtual response posture to conduct impacted personnel and impacted facility assigned personnel analysis only when required. The HRCC Team Scheduler emergency role may be activated in remote/virtual response posture to support HR ER TM follow-on staffing and team transition requirements. The HR Base Camp support is not usually required for PSPS events. Other HR ER TM emergency roles response capability may be activated to support an incident complex escalation requiring HR full operational capability response when required (as seen with simultaneous wildfire response requiring HRCC emergency roles activation). F&A Section representation is not included in the PSPS

Readiness Posture phase. When the EOC is activated, the F&A Section capability is available.

The HR Branch Director oversees HR's PSPS event response core capabilities including the following:

- Supervising the HRCC Data emergency role which is initially activated in a standby role response posture. The HRCC Team Scheduler may be activated to support HR ER TM staffing and team transition requirements. When activated, both emergency roles are in the span of control of the HR Branch Director (the HRCC Unit Leader is not activated).
- Managing HR emergency response essential functions, submitting EOC reports, and developing and distributing the HR Common Operating Picture/HR Leadership message.
- Conducting impacted facility assigned personnel analysis when requested by the EOC Facilities Unit Leader. This capability requires the HRCC Data emergency role activation and impacted facility information provided by the EOC Facilities Unit Leader. Refer to the HR Annex, Appendix F All-Hazard Impacted Personnel and Emergency Message Support process.
- Supporting the EOC Facilities Unit Leader with leadership guidance to ensure leaders are informed and support supervised impacted personnel effectively. Impacted facility managers support leaders with activating their emergency communications plans.
- Conducting impacted personnel residential/home analysis when requested by the EOC Commander or other leaders. This capability requires the HRCC Data emergency role activation and impacted area zip code analysis provided by the EOC Geoscience Information System (GIS) Technical Specialist. Refer to the HR Annex, Appendix F All-Hazard Impacted Personnel and Emergency Message Support process.
- Coordinating with the Planning Section Chief, HAWC, Facilities Unit Leader, Physical Security Unit Leader, Safety Officer, Customer Strategy Officer, Liaison Officer, and/or Operations Section Chief to support coworker safety and security related requirements.
- Facilitating responses to coworker and leadership questions/issues that arise as part of the PSPS activation. The HR Help Line may be requested to support when required.

HR PSPS Event Guiding Principles. The PSPS event is a PG&E human safety-initiated incident and has unique differences from cybersecurity and natural hazard HR emergency response capabilities. The HR PSPS response guiding principles are as follows:

- A PSPS response is not an impacted personnel disaster support event – support aid such as time off, lodging, and financial assistance is not expected to be available/appropriate during this type of incident.
- PSEA emergency assistance grants are not expected to be available/appropriate for PSPS events.

- HR policies, collective bargaining agreement (CBA) rules, and processes remain in effect.
- Business Unit leadership are responsible for managing, tracking, directing, and supporting their coworkers as they would during normal business operations.
- Daily Human Resources services remain active and available via normal communication and processes. Business Unit leadership requests support from their assigned HR Business Partner.

PG&E coworkers residing within the PSPS impacted areas receive their primary communications from the Customer Care organization through PSPS customer messaging. HR leverages or redirects PG&E personnel inquiries to these communications as appropriate.

- Coworkers working in facilities within the PSPS impacted areas receive their primary communications from the Corporate Real Estate (CRESS) organization – which provides information about facilities availability during the PSPS event. HR leverages or redirects PG&E personnel inquiries to these communications as appropriate.
- Impacted personnel home and facility/work assignment analysis may be conducted only upon EOC Commander request and requires the HRCC Data emergency role to be activated.

For further information on Human Resources see [CERP section 5.6](#) and EMER-3006M, *Human Resources Annex*, section 4.2.3.

2.11.2 Finance Branch

The Finance Branch is part of the Finance and Administration Section. The Finance Branch's key functions for PSPS events include ensuring proper charging to event, creating event forecast, and maintaining key support functions such as cost unit, payroll, and accounts payable.

For more information on Finance Branch see [CERP section 5.6.2](#).

2.12 Intelligence and Investigation Section Chief and Supporting Roles

The Intelligence and Investigation (I&I) Section Chief, in conjunction with the PSPS I&I Section Process Manager ensures compliance with the regulatory requirements that PG&E reports on any wind-related damage or hazards sustained by PG&E facilities during a PSPS event including Resolution ESRB-8, Ordering Paragraph 1 of California Public Utilities Commission (CPUC) Decision (D.) 19-05-042 (Phase 1), and Ordering Paragraph 1 of Decision (D.) 20-05-051 (Phase 2) in addition to investigation of any other incidents arising out of the PSPS event (e.g., Fire/ignition). The I&I Unit's responsibilities during a PSPS event include:

- Maintaining the PSPS Damage Hazard Form via Inspect App and/or paper form to record damages and hazards observed in the post de-energization patrol.
- Receiving and aggregating the reports of damages and hazards (including photos) into a master table.
- Quality-controlling the damages and hazards documentation to verify they are PSPS qualified and reportable.
- Managing a PSPS Damage/Hazard dashboard to provide situational awareness to the damages/hazards identified during patrol, ensuring the dashboard is actionable by stakeholders.
- Drafting the language for the damage documentation section of the CPUC De-Energization Post-Event Report.
- Provide validated and structured damage and hazard data to satisfy data requests from external and internal stakeholders.

For more information on role of Intelligence and Investigations for PSPS see [CERP section 5.3.1](#).

2.13 Logistics Section Chief

The Logistics Section Chief is responsible for securing resources, supplies, material, food, lodging, vehicles and equipment rentals, fuel, security, and medical services, as well as maintaining equipment for incident personnel.

For a PSPS event, the Logistics Section's responsibilities include:

- Working with the Electric Operations and Customer Strategy teams to determine the need for emergency sites (base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs)). See section 4.1.1 Community Resource Centers.
- Working with Land Acquisition and Environmental to identify locations needed for emergency sites and confirming their availability.
- Working with the Finance and Administration Section to ensure appropriate purchase orders are created and approved vendors used in accordance PG&E Finance guidance documents and Sarbanes Oxley regulations.
- Staffing and supporting emergency sites. This includes securing resources needed such as: supplies, food, temporary lodging, vehicle and equipment rentals, flagging support, security services, IT support, fueling, and other needed resources.

For more information on role of Logistics see [CERP section 5.5](#) and the [Logistics Annex \(EMER-3005M\)](#).

2.14 Operations Section Chief and Supporting Roles

The Operations Section Chief implements the de-energization and restoration strategy for PSPS events and achieves the incident objectives set by EOC Commander and

communicated in the Incident Action Plans (IAPs). The Operations Section Chief ensures coordination with other EOC sections and emergency centers (such as Region Emergency Centers (RECs) and Operations Emergency Centers (OECs)).

The Operations Section, led by the Operations Section Chief / Coordinator, consists of the following eight (8) branches:

- Air
- Gas
- Electric Distribution
- Electric Transmission
- Vegetation
- Generation
- Information Technology
- Temporary Generation

Base descriptions of the eight branches of Operations Section are located in [CERP section 5.2](#). Descriptions in this chapter specify additional responsibilities for a PSPS event.

Note: The Operations Branch Directors are listed in alphabetical order.

2.14.1 Air Operation Branch Director

Aviation Services interfaces with the Operations Section Chief and directly manages aviation asset requests from the EOC and assesses the current situation to potentially provide aerial support that could include patrolling lines.

Additional responsibilities include:

- Determining PSPS patrol aircraft deployment plan (for example, number of patrol aircrafts needed, number and location of aircrafts available, pilot resources available, timing of patrols).
- Coordinating with Cal Fire during PSPS on communications and access to airspace where they have Temporary Flight Restrictions (TFR).

For more information on role of Air Operation Branch Leader see [CERP section 5.2.1](#).

2.14.2 Electric Distribution Branch Director

The Electric Distribution Branch Director coordinates with the Electric Distribution Emergency Center (EDEC), RECs, and OECs for the de-energization, and recovery and restoration of PG&E's electric distribution system. The branch also provides information on customer outages and field operational challenges to the EOC.

Electric Distribution Operations responsibilities during a PSPS event include:

- Providing “grid awareness” when a PSPS event is forecasted, which can include any work in progress (planned and unplanned), Critical Operating Equipment impacts to plan, Supervisory Control and Data Acquisition (SCADA) health, abnormal switching, load-at-risk, and protection studies.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, patrols, and restoration.
- Dispatching Medical Baseline door-knock resources to ensure successful notification when required.
- Reporting patrol progress, damage assessments, and repair progress.

For more information on role of Electric Distribution Operations Branch Director see [CERP section 5.2.3](#).

2.14.3 Electric Transmission Branch Director

The Electric Transmission Branch Director coordinates with the Electric Transmission Emergency Center (ETEC) and Substation Transmission Operations Emergency Center (STOEC) to manage the restoration of the electric transmission system.

Electric Transmission Operations responsibilities during a PSPS event include:

- Defining and proposing risk and consequence targets for event.
- Performing and supporting an array of PSPS activities such as initial transmission line scoping, Direct and Total Transmission Impact Studies, system protection studies, rotating outages management, developing de-energization and restoration strategies, wildfire assistance, communicating and coordinating with the California Independent System Operator (CAISO), and ensuring that the grid is operated in a safe, reliable, compliant and event free manner.
- Developing and executing the resource plans for pre-PSPS assessment staging/repair work, field observations, de-energizing, and patrols and restoration.
- Working with EDEC to ensure collaboration with ETEC and STOEC (e.g., outages, restoration times, etc.).
- Determining current status of transmission line and Substation damage assessments, patrolling efforts and workforce status.

For more information on role of Electric Transmission Operations Branch see [CERP section 5.2.4](#).

2.14.4 Gas Operations Branch Director

The EOC’s Gas Operations Branch supports and coordinates the response, repair, and restoration of PG&E’s gas distribution and transmission systems. Execution of gas service restoration and repair will be coordinated from the Gas Emergency Center (GEC) and local OEC or OECs.

Gas Operations responsibilities during a PSPS event include:

- Providing Planning Section and Operations team with an assessment of facilities that may be impacted during a PSPS event.
- Ensuring Gas resources as needed for a forecasted PSPS event.
- Determining potential need to shut-in terminals and/or implement business continuity plans (BCP) based on de-energized facilities.

For more information on role of Gas Operations Branch Director see [CERP section 5.2.2](#).

2.14.5 Generation Branch Director

The EOC's Generation Branch supports and coordinates the response, repair, and restoration of PG&E's power generation systems and associated facilities. The responsibilities of the Generation Branch Director for a PSPS event include:

- Providing situational intelligence to generation leadership to determine potential impacts and coordinate responses. This includes Power Generation leadership teams and the On Call Duty Team Station Director at Diablo Canyon Power Plant (DCPP).
- Providing EOC leads with a list of PG&E generation systems and facilities (including hydro, fossil, renewables, battery storage and nuclear) that may be impacted during the PSPS event.
- Providing EOC leads with action/business continuity plans for each of the potentially impacted systems and facilities.
- Staging and mobilizing response resources as necessary.
- Working with Electric Transmission, Electric Distribution and Grid Ops to coordinate power plant islanding, when applicable.

For more information on role of Generation Branch Director see [CERP section 5.2.6](#).

2.14.6 Information Technology Branch Director

The EOC's Information Technology (IT) Branch Director coordinates the response of PG&E's IT resources and systems in support of all stages of PSPS. Responsibilities include:

- Providing the EOC with coordinated communication as to the readiness and any limitations of IT systems and support.
- Ensuring availability of IT capabilities to support the PSPS event (from applications including [PGE.com](#) and the PG&E Alert websites, to infrastructure, and facilities). This may include cancelling or postponing planned maintenance, deployments, and/or field activities.
- Determining / managing potential needs for IT logistical support in the field (radios, base camps, CRCs, etc.).

- Managing the impact of a PSPS outage on IT resources (e.g., radio support, SCADA / network communication devices, etc.).
- Responding to needs of the EOC and coordinating any needed changes to IT support, Information Technology Coordination Center (ITCC), Enterprise Network Operations Center (ENOC), field support, etc.

For more information on role of Information Technology Branch Director see [CERP section 5.2.8](#).

2.14.7 Temporary Generation Branch Director and Supporting Roles

The Temporary Generation Branch Director is the main point of contact for temporary generation and develops the temporary generation strategy for potential PSPS events. Responsibilities of the Director include:

- Developing temporary generation strategy that maps to anticipated scope of event.
- Coordinating temporary generation strategy with Temp Gen Field Operations.
- Determining number of branch resources needed by function for event.
- Utilizing the Deputy Branch Director to support any of the assigned branch roles and responsibilities.
- Utilizing auto scoping report issued by the Planning Section to develop temporary generation strategy as event scope evolves in coordination with Temp Gen Field Leads across both Primary and Secondary in-scope locations:

Primary:

- Informing temporary generation deployment decisions for a given event by identifying which pre-planned sites (i.e., temporary microgrids and facilities to be supported with temp gen) are in-scope for that event and ready to operate.
 - Confirming existing temporary generators and microgrid field setup (i.e., where generators are staged, what microgrids are operationally ready, etc.)
 - Analyzing PSPS Playbooks to determine temp gen scope.
- Coordinating microgrid deployments with Temp Gen Field Operations and EDEC.
- Managing primary ad hoc requests from EOC groups; delegate and prioritize relevant requests.
- Coordinating microgrid demobilization following weather “all clear.”
- Coordinating primary voltage backup gen demobilization following weather “all clear.”

Secondary:

- Communicating to Temp Gen Field Operations which indoor Community Resource Centers require fueling support throughout the event.

- Coordinating with Customer Backup Generation (BUG) Lead to route ad hoc backup power support requests through evaluation and approval process.
- If a request is approved, ensure execution of temp gen support to fulfill that request.
- Coordinating with Temp Gen Field Operations and vendor to dispatch generators for approved ad-hoc backup power support requests.
- After restoration, coordinating generator retrieval strategy with Customer BUG Lead.

2.14.7.1 Primary Voltage Lead

Process improvements regarding auto-scoping by the Planning Section will allow the Primary Voltage Lead position will be staffed on an “as-needed” bases as determined by the Temporary Generation Branch Director based on event size and initial identified scope. If critical non-pre-staged primary locations are identified as in-scope for an event the Director may call for a Primary Strike Team to support the event for specific limited functions. A Primary Strike Team includes eight experienced temporary generation engineers.

The Primary Strike Team’s responsibilities may include:

- Assessing grid solution alternatives for backup power support requests routed through Customer.
 - If grid solution exists, coordinating execution of grid solution.
 - If no grid solution exists, assessing feasibility of serving request with temporary generator fleet.
- For primary voltage requests, if backup power support is feasible and approved by Operations Section Chief, coordinating execution with EDCC and Temp Gen Field Operations.

For more information on role of Temporary Generation Branch see [CERP section 5.2.9](#).

2.14.8 Vegetation Management Branch Director

The Vegetation Management Branch Director’s responsibilities during PSPS include:

- Developing strategies and tactics to manage vegetation response in the field.
- Ensuring Vegetation Branch Support team members and Vegetation Management Operations Emergency Center (OEC) leads understand the EOC Operational Period objectives and have adequate resources.
- Establishing a cadence of receiving and reporting progress on field operations from Vegetation OEC leads.
- Planning vegetation patrols in areas impacted by an emergency to identify abatement and clearing/fuel reduction opportunities.

- Planning vegetation clearing/fuel reduction to reduce the fuel in and around the power poles and utility right-of-way using a variety of vegetation clearing/fuel reduction methods.
- Prioritizing the resource and equipment needs.
- Taking information from Planning Section to develop mitigation plan including identifying high-risk trees and trees with identified high priority tags.
- Reporting back to Planning Section on mitigation plan and execution of plan.

For more information on role of Vegetation Management Branch Director see [CERP section 5.2.5](#).

2.15 Planning Section Chief and Supporting Roles

The Planning Section (a.k.a. “Plans”) is responsible for collecting, evaluating, and displaying event intelligence and information, and is the source of all event impact data. Updates are communicated broadly through the EOC.

Additional responsibilities include:

- Preparing and maintaining event documentation including the Situation Report, Cal OES Notification Form, and event Playbooks.
- Documenting circuits potentially in de-energization scope, customers potentially in de-energization scope, and customers proactively de-energized by PSPS event.
- Developing PSPS event impact maps in various formats to be used by Public Safety Partners and critical public safety-related customers.
- Developing long-range resource, contingency, and demobilization plans.

As per the [CERP section 5.4](#), the Planning Section is led by the Planning Section Chief who is assisted by the Deputy Planning Section Chief. For PSPS a second deputy is active, the PSPS Deputy Planning Section Chief.

The Planning Section Chief is responsible for direction of Planning Section staff and development of their respective documentation. They also focus on leading/participating in meetings, representing the Planning Section perspective in OIC Decision meetings, and reviewing all Planning-developed external materials. For PSPS, the Planning Section Chief has two deputies: a Deputy Planning Section Chief and a PSPS Deputy Planning Section Chief. These deputies work with staff to confirm activities are being performed according to procedures. They work together closely, dividing leadership responsibilities in alignment with ICS.

The Deputy Planning Chief leads the standard ICS Units (Documentation Unit, Situation Unit, Resource Unit, Resource Management Unit and Demobilization Unit). The PSPS Deputy Planning Chief leads the group of specific PSPS units established within the Planning Section (PSPS Technical Unit Leader, PSPS Distribution Asset Health Specialist (DAHS), PSPS Transmission Asset Health Specialist (TAHS), PSPS Portal Unit Leader, PSPS Process Unit Leader, and the PSPS Risk Analyst).

The EOC Commander has final approval over all materials produced by the Planning Section, and they can delegate approval to the Planning Section Chief, who in turn can delegate approval to their Deputies, when and if necessary.

2.15.1 Deputy Planning Section Chief

The Deputy Planning Chief primarily focuses on general EOC activities such as the development of the Incident Action Plan (IAP), and resource and demobilization plans.

Responsibilities include:

- Coordinating the completion of Internal and External Situation Reports.
- Coordinating the completion of the State Executive Briefing report.
- Assisting with the completion of the Cal OES PSPS notification form.

2.15.2 PSPS Deputy Planning Section Chief

The PSPS Deputy Planning Section Chief primarily focuses on PSPS-specific activities such as playbook development, scoping process, etc.

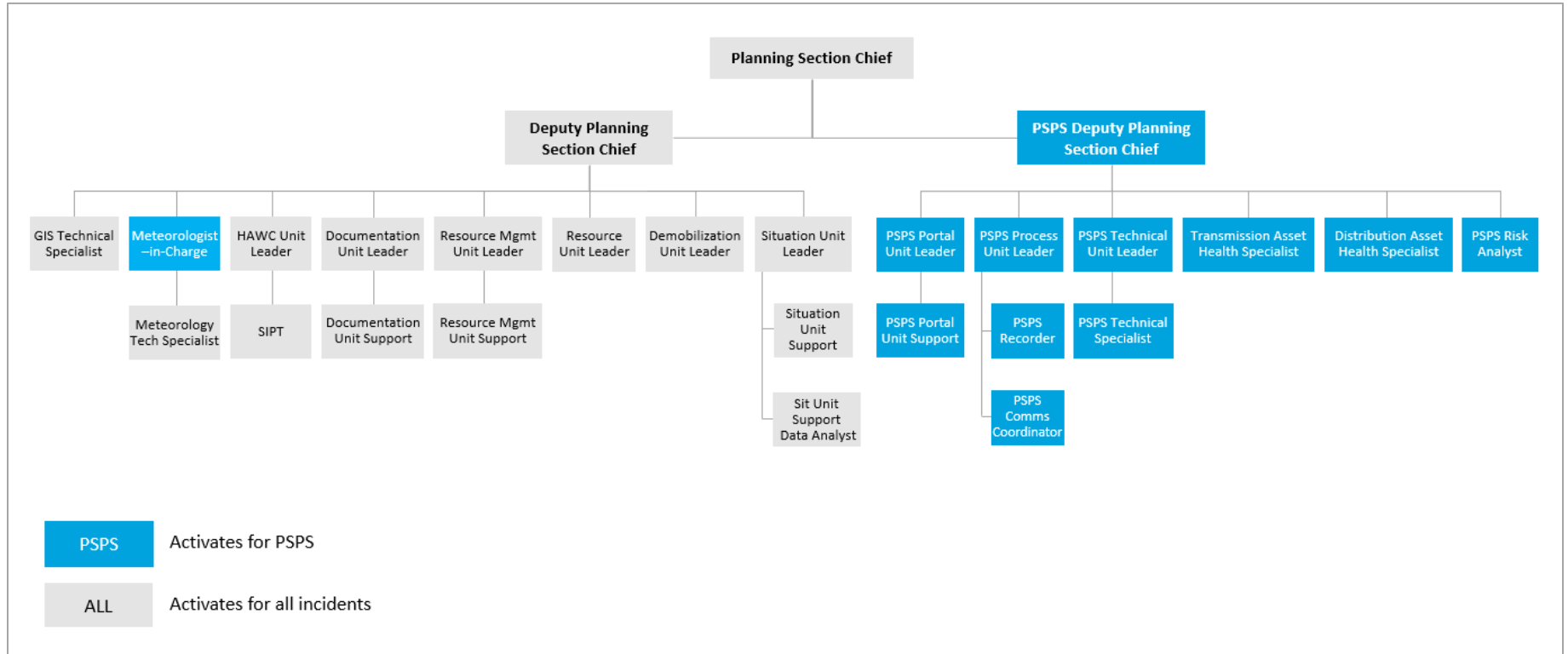
Responsibilities include:

- Coordinating the PSPS activities for the Planning Section, including Playbook development and external communications.
- Coordinating with PSPS Portal Unit Leader and the External Communications team on posting of information to be shared with external entities.
- Overseeing, verifying, and approving the export of outage, customer impact and notification data to the EOC event folder and the PSPS Portal.
- Overseeing and verifying various internal and external PSPS deliverables, including Cal OES PSPS notification form, internal and external Situation reports, and State Executive Briefing report.

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Figure 2-4 gives an overview of the Planning Section with alignment of units, groups, and roles under the Deputy Planning Section Chief and the Deputy Planning Section PSPS Chief.

Figure 2-4: Planning Section with PSPS Specific Roles



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In addition to standard responsibilities outlined in the *CERP*, the following groups in the Planning Section have specific functions for a PSPS Event: Meteorology, Hazard Awareness Warning Center (HAWC), PSPS Technical roles, Situation Unit, and Resource Unit.

Note: Listing of roles is by alignment to either PSPS Deputy Planning Section Chief or Deputy Planning Section Chief and each list is in alphabetical order.

2.15.3 Roles aligning to PSPS Deputy Planning Section Chief

2.15.3.1 PSPS Communications Coordinator

The PSPS Communications Coordinator supports the communication alignment throughout all stages of a PSPS event.

Responsibilities include:

- Coordinating External Communications (Comms) Huddle Board.
 - Maintaining an active bridge line for the Communications (Comms) Huddle.
 - Ensuring accuracy of Communications Huddle Dashboard.
 - Ensuring all members of the Comms Huddle understand how the Comms Huddle functions and the expectations they will be held to.
 - Ensuring all members of the Comms Huddle are aware of the goal(s) and understand the path to accomplish the goal(s) for each comms sequence.
 - Taking notes of what occurred during each comms sequence – hurdles, root cause(s) of issues, decisions made, areas of for improvement, etc.
 - Conducting a +/- for each comms sequence and document the details in the notes section.
- Guiding the Comms Huddle members through the staging process and execution of the communications sequences.
- Providing guidance on communication requirements which guide each communication sequence.
- Problem-solving issues as they arise to ensure communications are sent in timely manner while abiding to the spirit of the regulations.
 - Identifying issues quickly and bring together members of the Communications Huddle who can mitigate the issue in a timely manner.

2.15.3.2 PSPS Distribution Asset Health Specialist

Responsibilities include:

- Identifying potential changes to scope due to P1/ P2 tree tags and Electric Compliance (EC) tags.
- Identifying and prioritizing vegetation tags and EC tags to work with Operations and Vegetation Management to complete in advance of de-energization. Open tags not addressed before de-energization may impact scope of PSPS event.

- Communicating with Operations and Vegetation Management on tag status as it relates to scope of PSPS event.
- Communicating with PSPS Technical lead and specialist on scope changes.
- Interfacing with Meteorology to determine time-places associated with incremental tags.
- Creating Asset and Vegetation Tags Situational Summary deck for OIC Decisions B+C and D+E.

2.15.3.3 PPS Portal Unit Leader

The PPS Portal Unit Lead manages the publication of PPS event information from the PPS Viewer and PPS Situational Intelligence Platform (PSIP) into the PPS Portal for authorized external and internal users.

Responsibilities include:

- Coordinating with the PPS Situation Unit Leader and External Communications Process Coordinator to stage and publish event information to the PPS Portal.
- Completing PPS Event data refreshes twice daily, regardless of scope change, at 0900 and 1500.
- Assisting internal and external users with complex technical and data issues.
- Performing general PPS Portal data quality control (checking interactive map layers and file locations).
- When feasible, supporting PPS User Support to process user access requests.

2.15.3.4 PPS Portal Unit Support

The PPS Portal Unit Support is the primary point of contact for PPS Portal internal and external user management.

Responsibilities include:

- Processing internal and external user access requests, including routine continuous monitoring of the user request dashboard, user authentication, and account creation.
- Responding to requests for user support related to Portal account issues, and data availability/timing.
- Triaging complex technical issues for referral to PPS Portal Unit Lead, IT or GIS specialists, if applicable.

2.15.3.5 PPS Process Unit Leader

The PPS Process Leader manages the PPS overall event timeline and required execution points.

Responsibilities include:

- Building and sharing of the PPS event timelines.

- Coordinating OIC Decision meetings and de-energization confirm/cancel meetings.
- Coordinating ETOR revisions with Operations Chief before and immediately after de-energization.
- Serving as a process and regulatory compliance expert and advisor.
- Aiding with executive and external communications.
- Creating folder structure based off official event nomenclature.

2.15.3.6 PSPS Recorder

The PSPS Recorder supports the PSPS Process Lead.

Responsibilities include:

- Documenting OIC Decision and Confirm/Cancel/Delay meetings.
- Ensuring documentation is uploaded to EOC event Sharepoint site in appropriate folders.
- Maintaining notes of other meetings involving the OIC, as needed.
- Collecting data from Meteorology pertaining to the forecast weather start time for each TP for the Event, and collecting from the EOC Operations Chief the corresponding actual de-energization time for each TP.
- Completing a form in PSPS Situational Information Platform (PSIP) immediately after each Decision F meeting to input the exact time of approval for each “All Clear Zone”.
- Preparing EDRS routing of all decision documents.

2.15.3.7 PSPS Risk Analyst

Responsibilities include:

- Managing and applying consequence data based on meteorology forecasts and PSPS scoping data to evaluate the risk and benefits in calling a PSPS event to our customers.
- Leveraging PG&E developed Risk-Benefit tool to quantify risks and interpret results.
- Supporting the presentation of results at OIC decision-making meetings to inform decision to de-energize.

2.15.3.8 PSPS Technical Unit Leader

The PSPS Technical Lead oversees and verifies the use of the PSPS Viewer and PSPS Situational Intelligence Platform (PSIP).

Responsibilities include:

- Supporting Planning Section Chief and PSPS Planning Section Deputy Chief for updates as necessary.
- Directing and supporting PSPS Technical Specialists.
- Inputting ETOR per time-place and per event into PSPS Viewer.
- Coordinating with the HAWC Lead on updates.
- Verifying updates to PSPS Viewer.
- Overseeing and verifying updates to the PSPS Playbooks (De-energization and Restoration) and alignment to the PSPS Viewer and PSIP.
- Interfacing with ETEC and EDEC to understand abnormal configuration related to impacts.
- Overseeing and verifying the updating of the PSPS Viewer and PSIP to align with OIC decisions on scope of the event.
- Coordinating and verifying the alignment of the PSPS Viewer and PSIP.
- Interfacing with Transmission Asset Health Specialist (TAHS) and Distribution Asset Health Specialist (DAHS) and incorporating changes to scope in PSPS Viewer and PSIP.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.

2.15.3.9 PSPS Technical Specialist

The PSPS Technical Specialist verifies the use of the PSPS Viewer and alignment to the PSPS decision reports.

Responsibilities include:

- Supporting PSPS Technical Unit Leader.
- Updating PSPS Viewer and PSIP to align with OIC decisions on scope of the event.
- Using PSPS Viewer and PSIP to create/update PSPS playbooks.
- Using PSIP to generate customer outage notifications and reports.
- Supporting completion of any required forms, reports, and other documentation to be archived within the EOC as appropriate.

2.15.3.10 PSPS Transmission Asset Health Specialist

The Transmission Asset Health Specialist (TAHS) validates transmission line segments to be included in scope and coordinates with ETEC (or GCC) on sections to be studied. The Transmission Asset Health Specialist further validates lines and transmission customers impacts of study and coordinates with PSPS Technical Unit Leader and Critical Infrastructure Lead (CIL)(CSO) as needed. Responsibilities include:

- Using the “Transmission Scoping Dashboard” interacts with several parties to determine which T-lines should be in scope for de-energization for OIC Decision B: Set Transmission Power Flow scope. The dashboard ties together many different sources of information such as meteorology data, vegetation data, A tags, and structure-specific data.
- Identifying subset of lines in scope for de-energization that will require grounding mitigation due to induction.
- Sending the list of In Scope T-lines to ETEC for Direct Impact analysis. ETEC then produces the Direct Impact summary for the tab in Playbook C.
- Identifying the transmission customers in scope for 72-48 hours in advance of the forecasted start time of the PSPS event.
- Developing OIC Decision B deck after ETEC sends out Playbook C summarizing transmission recommendations using the “OIC Decision B template”.
- Populating the standard FERC template with the list of transmission lines to be de-energized prior to each OIC B/C and the OIC D/E meetings, and sending it to the Digital Strategy Lead, who immediately posts them on the FERC website. This process is repeated for each OIC Decision B/C or OIC Decision D/E scope revision approval.
- Creating OIC Decision D materials after ETEC sends out Playbook D (incorporating transmission indirects from studies), using “OIC Decision D Waterfall Excel” and “OIC Decision D” templates.
- Supporting the “all clear” process for transmission lines by using the Tx All Clear Report to calculate “all clears” by t-line, update Playbook F as changes occur, and relay information to CIL.
- Supporting the Customer Critical Infrastructure Lead (CIL) by providing timely communication of completed playbooks C, D, F and OIC Decisions C and D, reviewing the customer list for accuracy, and answering any questions from the CIL.
- QA/QC-ing the final list of lines in scope and confirm times of de-energization/re-energization per line for the CPUC-De-energization Report (“10-Day Report”).

2.15.4 Roles aligning to Deputy Planning Section Chief

2.15.4.1 Documentation Unit

During a PSPS event, the Documentation Unit's responsibilities include:

- Creating the draft Incident Briefing (201) during Readiness Posture.

For more information on role of Documentation Unit see [CERP section 5.4.2](#).

2.15.4.2 GIS Technical Specialist

The GIS Technical Specialist's responsibilities include:

- Serving as Primary Liaison for the GIS Team in the EOC and Initial Point of Contact for PSS Team seeking GIS Support.
- Providing technical information to PSS Team from GIS Analysts: special request maps and map data layers, as appropriate, to support operations, planning, and other functions.
- Directing EOC map requests to members of the GIS team, as needed (Note PSPS Viewer should be first point of contact).
- Activating during PSPS event for both AM hours (6a – 6p) and PM hours (6p-6a).

2.15.4.3 Hazard Awareness & Warning Center

Before activation of the EOC, the HAWC is responsible for identifying any ongoing incidents within the scope of the potential PSPS event.

During a PSPS event the HAWC is represented in the EOC by the HAWC Lead and the HAWC Technical Specialist. The HAWC uses the weather forecast and information within the Foundry based Situational Report to define the initial locations of Field Observations for the Safety & Infrastructure Protection Teams (SIPT).

For more information on role of HAWC Lead (formerly WSOC) see [CERP section 3.1.1](#).

2.15.4.3.1 HAWC Lead

Hazard Awareness & Warning Center (HAWC) Lead is an advisor on the pre-assessment call where the OIC makes the decision to activate the EOC for a possible PSPS event.

The HAWC Lead reports on fire conditions and behavior as well as the Field Observations. The Lead's responsibilities include:

- Coordinating information between the EOC Command and General Staff, HAWC, PSS Team (serving as PG&E Assigned County/Agency Representatives), and SIPT.
- Setting up and updating field observation to support All-Clear decisions.

- Presenting observer intelligence during OIC briefing and decision-making meetings.
- Communicating with EOC staff as needed regarding fire situation, ignitions, and updates.

2.15.4.3.2 HAWC Technical Specialist

The HAWC Technical Specialist supports the HAWC Lead. The Technical Specialist's responsibilities include:

- Working with HAWC, Meteorology and SIPT Leadership to determine Field Observation locations.
- Entering the Field Observation locations into the Wildfire Incident Viewer (WIV), active incident dashboard, and SIPT Viewer.
- Ensuring that the Field Observation locations are accurate based on any scope changes.
- Summarizing active fires and field observation data to aid in PSPS decision-making.
- Interfacing with the HAWC to provide status updated and clarify information needs.

2.15.4.3.3 Safety Infrastructure Protection Team

When Safety Infrastructure Protection Teams (SIPT) are utilized during a PSPS event, their responsibilities may include:

- Conducting field weather observations.
- Documenting field fuel conditions.
- Providing standby fire protection and medical response.
- Supporting generators and other energized assets as requested by the EOC Operations Section.
- Supporting fire prevention treatment efforts.

For more information on role of HAWC Lead (formerly WSOC) see [CERP section 6.2.7](#).

2.15.4.4 Meteorology

PG&E has a dedicated Meteorology team that, in collaboration with key external partners, gathers, analyzes, and models weather and fire potential data. Preceding and during a PSPS event responsibilities include:

- Notifying the Vice President of EP&R when there is an increased potential of outages combined with heightened fire potential, which will initiate PSPS pre-assessment "Readiness Posture" (see section 3.4.5).
- Defining the meteorological footprint of weather impacts that may warrant PSPS, including estimated event start and end times, for event scoping.
- Providing situational awareness and updates regarding current weather conditions and forecast models to the OIC, EOC Commander and EOC Command Staff.

- Publishing Utility Fire Potential Index (FPI) forecasts.
- Communicating Ignition Probability Weather (IPW) forecasts.
- Evaluating public and proprietary weather models.
- Evaluating fire spread consequence outputs from Technosylva.
- Evaluating Red Flag Warnings or Fire Weather Watches declared by the National Oceanic and Atmospheric Administration (NOAA) National Weather Service.
- Evaluating “High Risk” forecast triggers from the Northern and Southern California Geographic Area Coordination Centers Predictive Services.
- Advising HAWC on positioning of Field Observers as needed.
- Advising the OIC on when it is appropriate to declare weather “all-clear” conditions subsequent to de-energization.

2.15.4.5 Meteorologist-in-Charge

The Meteorologist-In-Charge (MIC) is the lead meteorologist in the EOC and consults with the OIC directly and frequently during PSPS events. The MIC is responsible for providing Meteorology reports and models that help define PSPS event scope and support OIC decisions. Additionally, the MIC assigns tasks to the Technical Weather Specialists and other supporting members of the meteorology team during an event.

2.15.4.6 Meteorology Technical Specialist

The Technical Weather Specialist (TWS) supports the Planning Section and other sections, such as Operations, during a PSPS event. The TWS consults with the MIC on the scope, timing, and duration of the event. The TWS handles most ad-hoc weather-related requests in the EOC.

2.15.4.7 Resource Unit Leader

During a PSPS event the Resource Unit Lead’s responsibilities include:

- Tracking and analysis of resources assigned to the operation Version 7.0 *Company Emergency Response Plan (CERP)* (EMER-3001M), EOC Staffing, page 5-21
- Development and maintenance of the Incident Organization Assignment List (ICS 203) and Organization Chart(s) (ICS 207).
- Establishing Check in/Out functions at the incident locations (RECs, OECs, Base Camps) and working to achieve total accountability and tracking of incident resources.
- Preparing and submitting the ICS-204 Resource Tracking form if required (total resource counts in the event).

2.15.4.8 Resource Management Unit Leader

During a PSPS event the Resource Management Unit Leader's responsibilities include:

- Setting strategy for staffing the event based on data and analytics provided by the Resource Unit Lead.
- Working with REC Leaders and Operation leaders providing staffing recommendations as part of the overall strategy for the event.
- Preparing the field operations resource calculation using the FORCE tool which provides estimated restoration patrol resources needed for Resource Management Unit Leader to provide staffing recommendation to meet CPUC restoration regulatory requirements.
- Tracking crew movements between regions.

For more information on role of Resource Unit see [CERP section 5.4.5](#).

2.15.4.9 Situation Unit

The Situation Unit is an All-Hazard Unit and consists of three positions – Situation Unit Leader, Situation Unit Support, and Situation Unit Support Data Analyst. Each role is trained to be able to perform all common Situation Unit tasks. Tasks related to PSPS listed under each role may be shared or delegated to one of the other roles. The Unit operates in close communication with the PSPS Deputy Planning Section Chief and PSPS Technical Unit.

2.15.4.9.1 Situation Unit Leader

The Situation Unit Leader is responsible for leading, coordinating, and delegating the tasks to be fulfilled by the Sit Unit. During PSPS Situation Unit Leader responsibilities include:

- Updating the Plan Administration Tab in PSPS Situational Intelligence Platform.
- Using PSIP to configure and quality check the Internal and External Situation Report.
- Downloading the “All Affected Customer Report”.
- Developing situational information to support external briefings and development of a common operating picture.
- Communicating with PSPS Deputy Planning Section Chief and PSPS Technical Unit for status of key event stages and scoping abnormalities (example: when a new Plan is completed and ready to be published in the internal Sit Report and abnormalities are identified, such as an incorrect County being listed due to data issues that needs to be updated in Sit Report and for managing data quality dashboard.).

2.15.4.9.2 Situation Unit Support

Responsibilities include:

- Providing Emergency Web files to PSPS Portal Unit to be used for the public-facing website.
- Producing the State Executive Briefing deck to be distributed ahead of 1530 call with state agencies.
- Completing the Cal OES PSPS State Notification Form (Cal OES Form) with the latest and most accurate information at the specified submission points.

2.15.4.9.3 Situation Unit Support Data Analyst

Responsibilities include:

- Entering global Estimated Times of Outage Restored (ETORs) in Outage Management Tool (OMT).
- Tracking, documenting, and triaging issues via the Issues Tracker.
- Resolving technical problems in Foundry and Tableau dashboards.
- Resolving data anomalies encountered in the Situation Report.
- Addressing gaps in reporting and ad-hoc data requests, using tools such as “Planned All Affected Customers” and “Actual All Affected Customer tables” in PSIP.

For more information on the Situation Unit see [CERP section 5.4.1](#).

3 Concept of Operations

3.1 Purpose of Public Safety Power Shutoff

The purpose of PSPS is to mitigate the risk of utility infrastructure contributing to catastrophic wildfire risk by proactively de-energizing PG&E facilities in the event of severe weather. The PSPS program is based on four guiding principles:

1. **Prevent catastrophic wildfires:** Prevent catastrophic wildfires associated with electric equipment located in high fire-risk areas while **minimizing potential public safety impact**.
2. **Execute de-energization events with no safety incidents.**
3. **Restore power quickly and safely:** Ensure power to all customers affected by the PSPS event is restored quickly and safely after the weather “all clear”.
4. **Communicate potential impact with internal and external stakeholders:** Provide timely and accurate notifications to customers, California Public Utilities Commission (CPUC), California Department of Forestry & Fire Protection (CAL FIRE, Governor’s Office of Emergency Services (Cal OES), Public Safety Partners and employees.

PG&E may proactively de-energize its facilities for other purposes that do not fall within the scope of a PSPS event, such as when requested by public first responders, CAISO or state agencies (for example, CAL FIRE), during an emergency, or to protect PG&E assets from the spread of an existing fire. Such proactive de-energizations are not PSPS events.

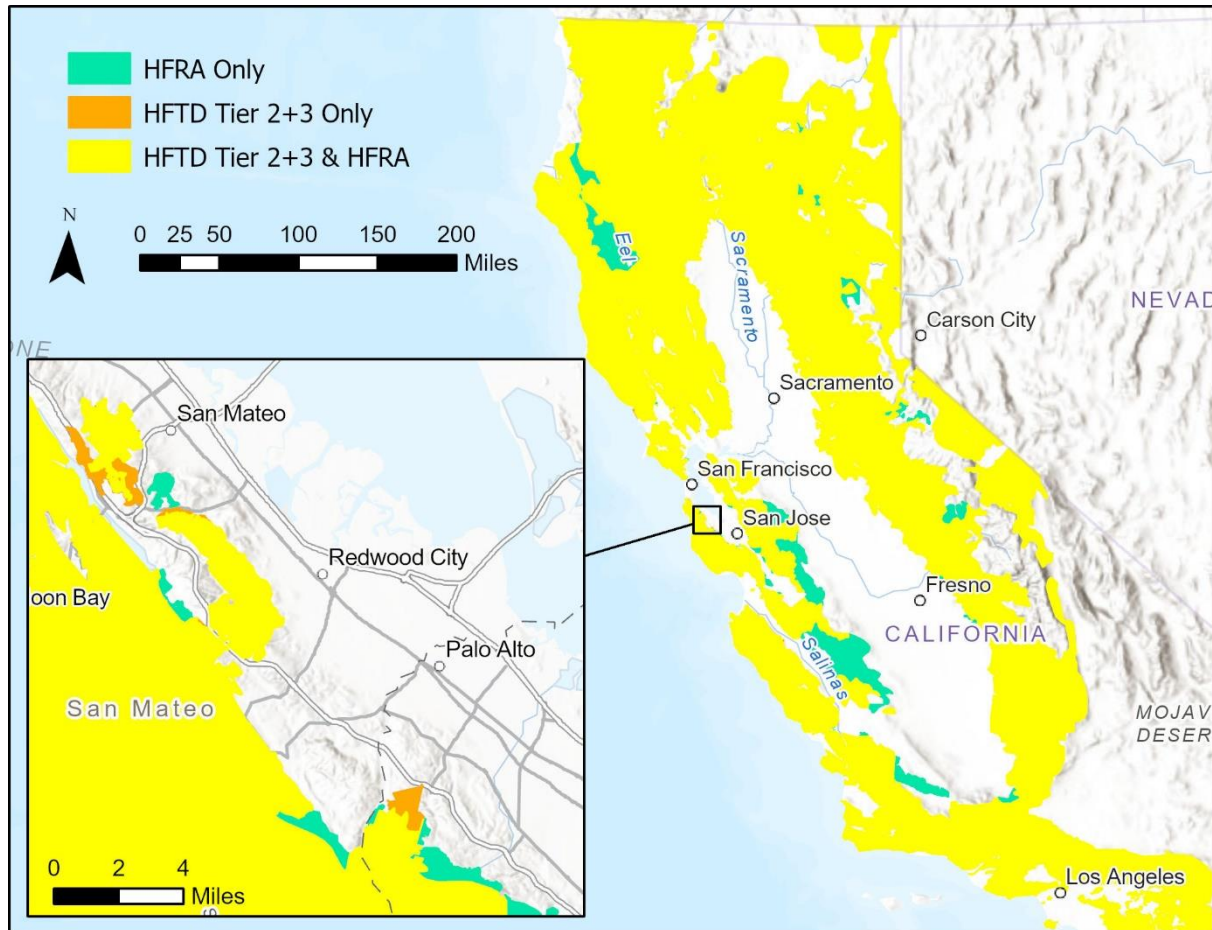
3.2 General Scope for PSPS

3.2.1 Geographic Scope

To inform the geographic scope of PSPS events, PG&E performs a fire threat assessment of its service territory focused on identifying areas where an ignition during an offshore wind event could lead to a catastrophic wildfire. These areas are collectively referred to as PG&E’s High Fire Risk Area (HFRA). All electric distribution and transmission infrastructure within the HFRA is potentially subject to PSPS. In contrast, electric distribution and transmission infrastructure outside the HFRA is potentially subject to PSPS only where its de-energization may be necessary to implement PSPS for infrastructure inside the HFRA. In scoping for a PSPS event, the HFRA serves as an initial geospatial filter, upon which event-specific geospatial data concerning weather and fuel conditions is overlaid and analyzed to arrive at a final PSPS scope.

PG&E began development of the HFRA in 2020, using the Tier 2 and Tier 3 portions of the CPUC’s High Fire Threat District (HFTD) as a starting point, adding areas where there is potential for an ignition, during an offshore wind event, to lead to a catastrophic wildfire, and removing areas where such potential is absent. Figure 3-1 shows the spatial relationship between the HFTD and the HFRA, as of April 2022.

Figure 3-1: CPUC's High Fire Threat District and PG&E's High Fire Risk Area as of April 2022



3.2.2 Operational Scope

PG&E's PSPS program includes all electric lines that pass through HFRA — both Distribution and Transmission. The most likely electric lines to be considered for shutting off for safety will be those that pass through HFRA. Often lines that traverse HFRA also feed customers in non-HFRA. These customers could be impacted by risk associated with lines that could be many miles away.

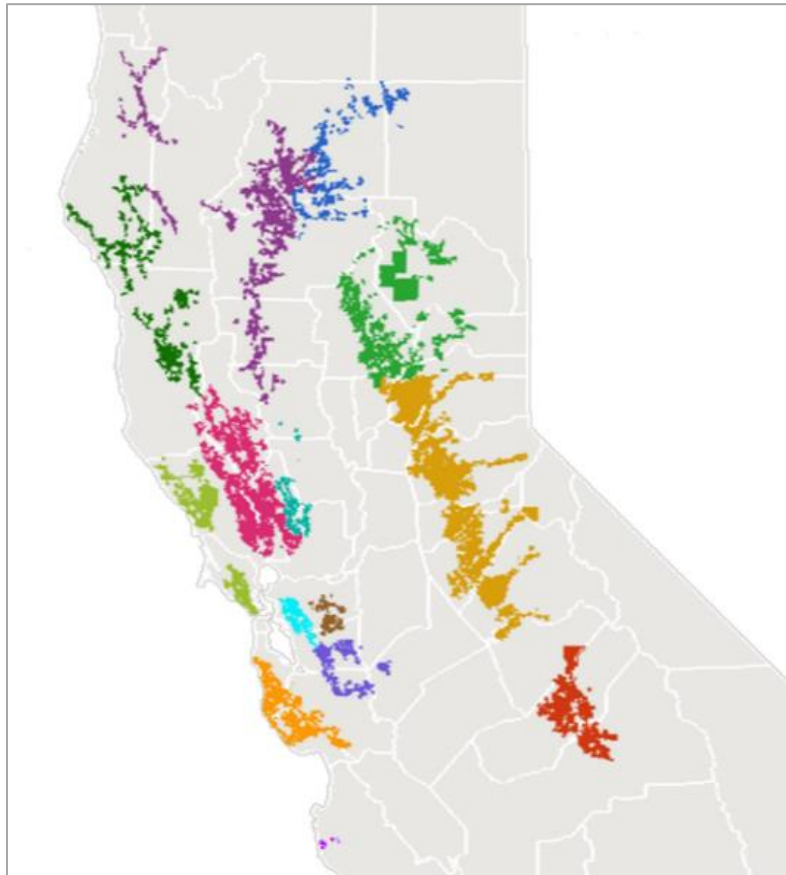
In an effort to minimize the impacts of PSPS, PG&E may operate selected sectionalizing devices closest to the identified risk area/s on a per event basis.

3.2.3 Time Places

Extreme weather may reach different areas at different times. A Time-Place (TP) is a portion of the PG&E grid where the impacted electric lines and geographical locations are aligned and is forecast to experience consistent timing for potential PSPS. Time-Places are identified for each PSPS event and receive consistent treatment for notifications and de-energization. Once actual weather conditions occur, weather “all clear” and service restoration times may vary due to actual weather conditions within a TP.

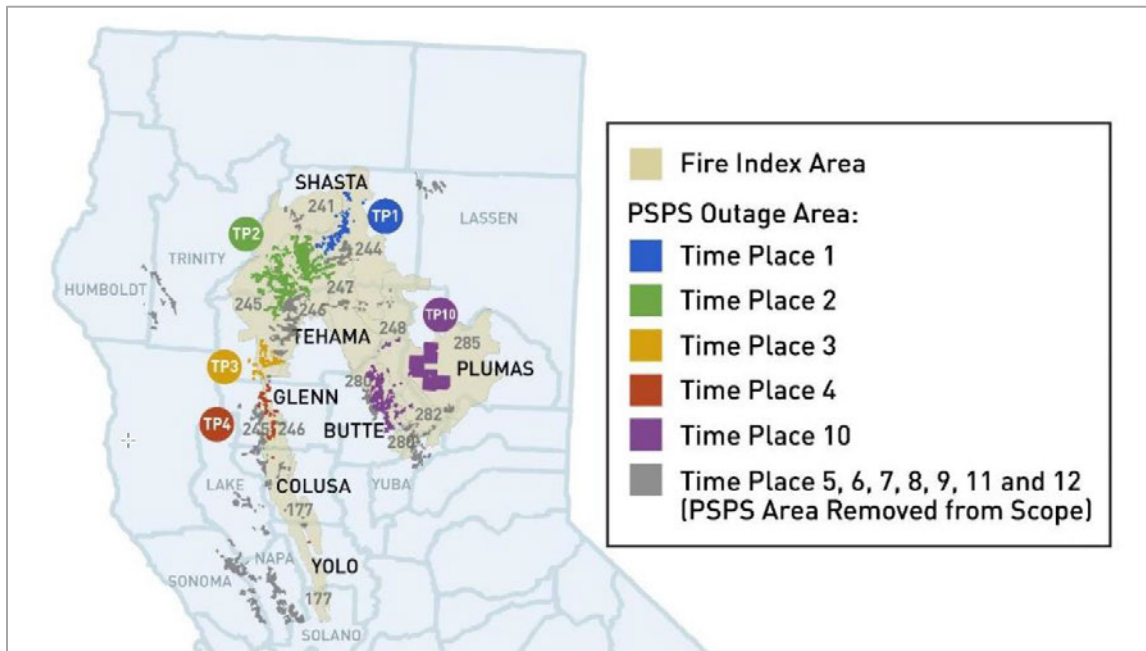
When there are multiple Time Places, each TP receives a number and is assigned a unique color for easy identification on a map as in Figure 3-2.

Figure 3-2: Example Map with colored Time Places



Each PSPS event is unique. Prediction models of severity of weather may change enough over time so that originally forecasted TPs can be removed from event scope. In Figure 3-3 initial TPs 5, 6, 7, 8, 9, 11, and 12 that were included in Figure 3-2 have been de-scoped.

Figure 3-3: Example Map with In-scope and De-scoped Time Places



3.3 Decision Making for PSPS

3.3.1 Public Safety Power Shutoff Criteria

PG&E monitors conditions across its service territory and evaluates whether to proactively de-energize electric lines in the interest of safety. PG&E must reasonably believe there is an imminent and significant risk that strong winds will topple its power lines onto tinder dry fuels or will cause major vegetation-related impacts on its facilities during periods of extreme fire hazard.

In order to ensure this risk exists, PG&E first applies a filter known as minimum fire potential conditions to all hours and locations of the forecast. These minimum fire potential conditions must all be met for a location to be considered for PSPS. This applies for both Distribution and Transmission. These minimum fire potential conditions consist of required values of:

- Sustained Wind Speeds
- Dead Fuel Moisture (10/100/1000-hour variants)
- Relative Humidity
- Live Fuel Moisture (herbaceous and shrub variants)
- PG&E Fire Potential Index

Meeting these minimum fire potential conditions does not mean automatic inclusion in PSPS scope. For distribution, once a location meets minimum fire potential conditions it must then hit a second set of guidance in order to be included in scope.

These criteria are:

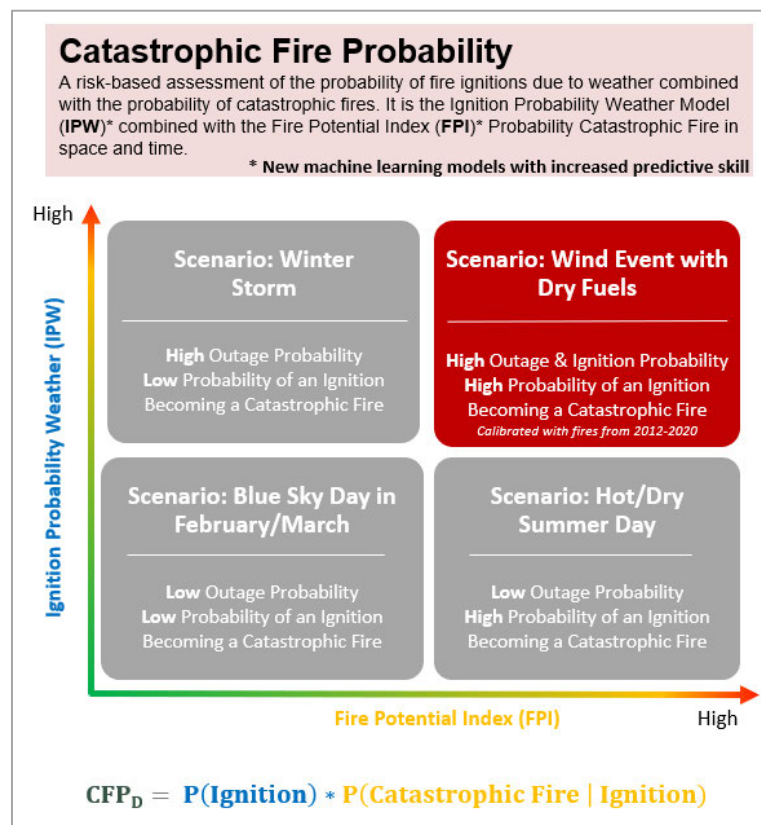
- Catastrophic Fire Probability (CFP_D)
- Catastrophic Fire Behavior (CFB)
- Vegetation and Asset Hazard Consideration

Also, the total number of POMMS (PG&E Operational Mesoscale Modeling System) cells that must meet minimum fire potential conditions and one of the above criteria should total to at least 25 grid cells (2 x 2 km).

CFP is calculated as the product of the PG&E Ignition Probability Weather (IPW) and the PG&E Fire Potential Index (FPI). The IPW model predicts the likelihood of an outage and resulting ignition, while the FPI model predicts the likelihood that an ignition would become a catastrophic fire.

Figure 3-4 shows a matrix for IPW and FPI.

Figure 3-4: IPW/FPI Matrix



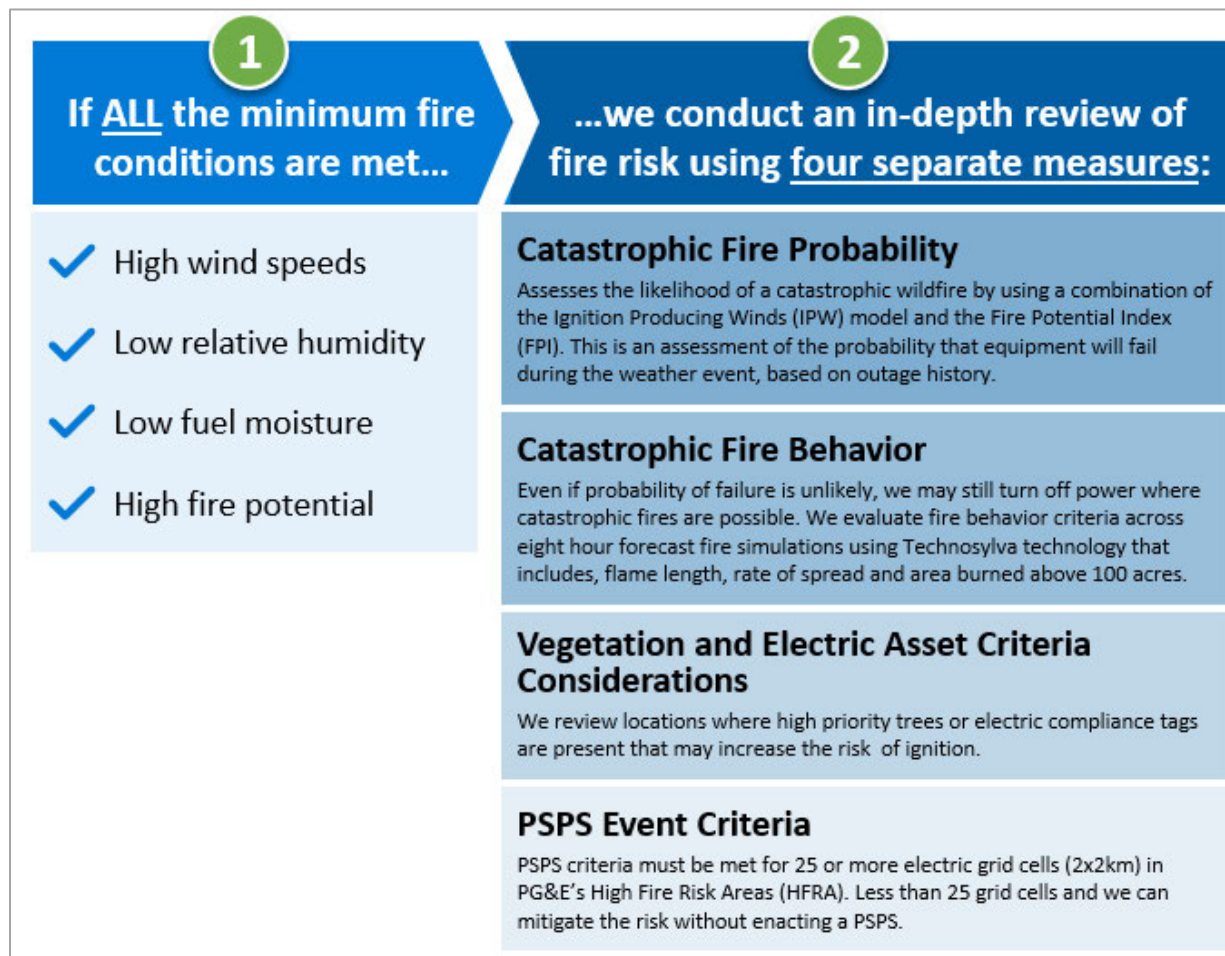
CFB is calculated using the outputs from the Technosylva Wildfire Analyst Enterprise (WFA) system. Technosylva ingests PG&E weather data, and then runs over 100 million fire spread simulations at 3-hour time intervals for the territory out multiple days, creating a dataset of potential consequence of new ignitions. In order to meet CFB guidance, an ignition must meet a set Flame Length, Rate of Spread, and 8 hour burned acreage.

The use of CFB helps PG&E identify areas where the potential consequence from an ignition is very high, but where the IPW score may be low due to high circuit resiliency.

Vegetation and Asset Hazard Consideration is the last criteria, which is met by the presence of certain distribution asset tags or tree designations. Grid cells that meet minimum Fire Potential Conditions that also contain certain trees (“P1” or “P2” trees) or certain distribution asset tags, which cannot be mitigated, are also recommended for inclusion in PSPS scope.

Figure 3-5 shows the Distribution PSPS framework.

Figure 3-5: Distribution PSPS Framework



The criteria for Transmission Scoping for PSPS also begins with the minimum Fire Potential Conditions. Meeting these minimum fire potential conditions does not mean automatic inclusion in PSPS scope. For transmission, once a structure meets minimum fire potential conditions it must then hit a second set of guidance criteria in order for the transmission line or segment to be included in scope. These criteria are:

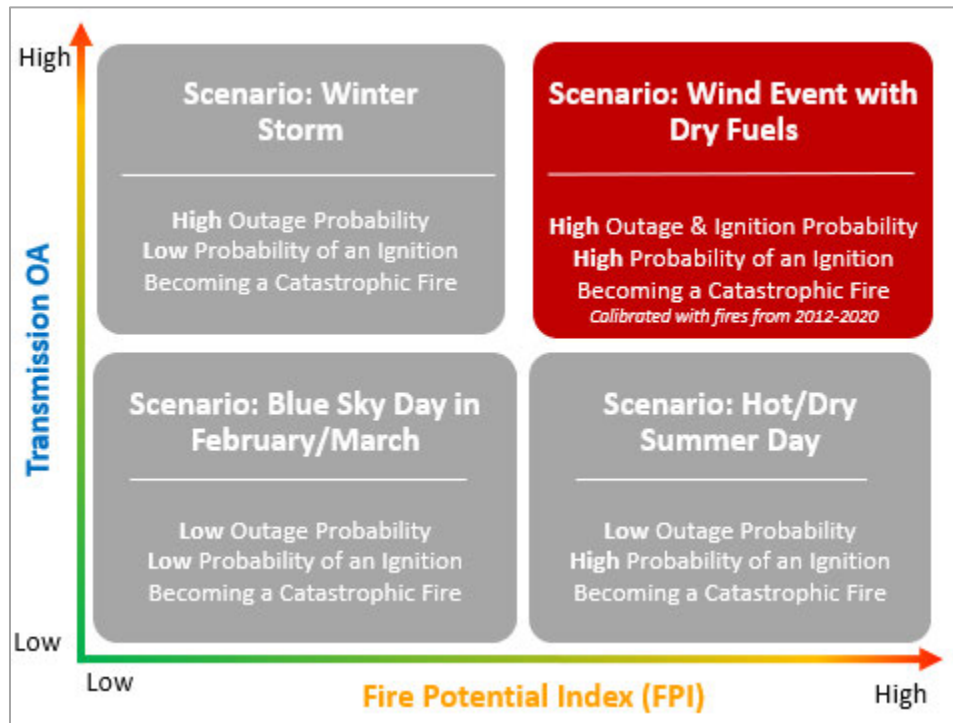
- Catastrophic Fire Probability -Asset (CFP_D-Asset)
 - Catastrophic Fire Probability - Induction (CFP_T-Induction)
- Catastrophic Fire Probability -Veg (CFP_T-veg)
- Catastrophic Fire Behavior (CFB_T)
- Vegetation and Asset Hazard Consideration

- Low Impact

CFP_T-Asset is calculated very similar to the distribution model; however, the Ignition Probability Weather Index (IPW) model is replaced with the Transmission Operability Assessment (OA) model, which provides fragility curves based on wind speeds for each transmission structure. For Transmission PSPS Decision Making these models are combined in both space and time.

Figure 3-6 shows a matrix for OA and FPI.

Figure 3-6: Matrix for Operability Assessment and Fire Potential Index

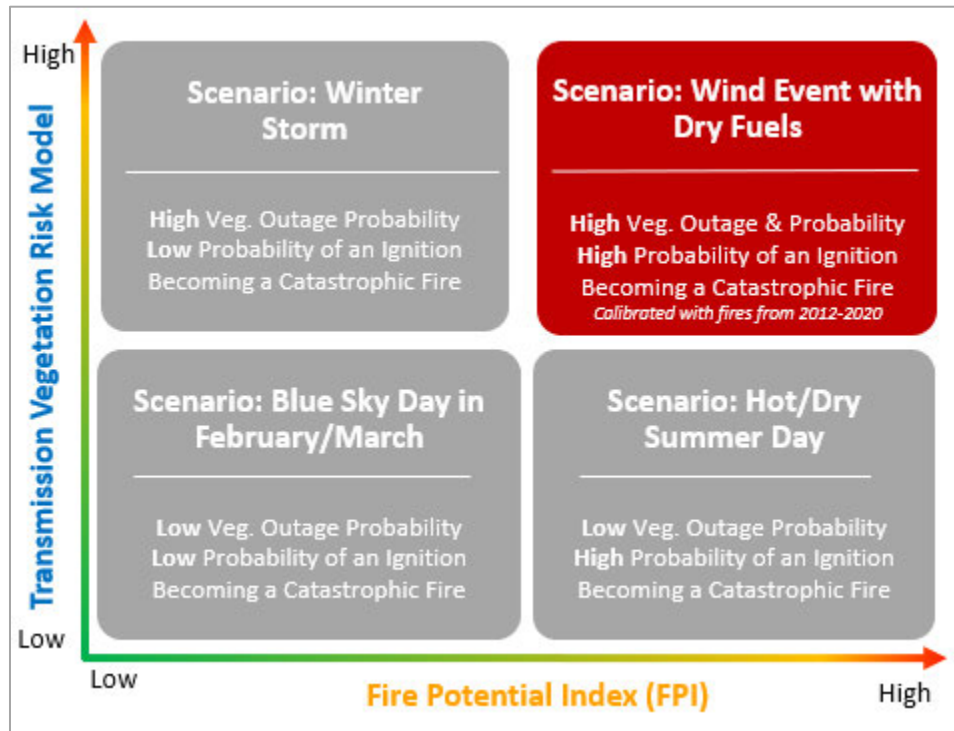


CFP_T-Induction is a subset of the lines that are in scope for CFP_T-Asset which also have indicators that show a higher risk for induction related ignitions even while the line or segment is deenergized. Additional mitigations are considered for these lines.

CFP_T-Veg is a combination of the tree strike model in space and time for each tree with PG&E's Fire Potential Index model. The Tree Strike Model provides a relative exposure ranking for trees which could strike a transmission line if the tree fails. Each tree has a unique tree ID and tree risk score.

Figure 3-7 shows a matrix for the transmission Vegetation Risk model and Fire Potential Index (FPI).

Figure 3-7: Matrix Transmission Vegetation Risk Model and Fire Potential Index



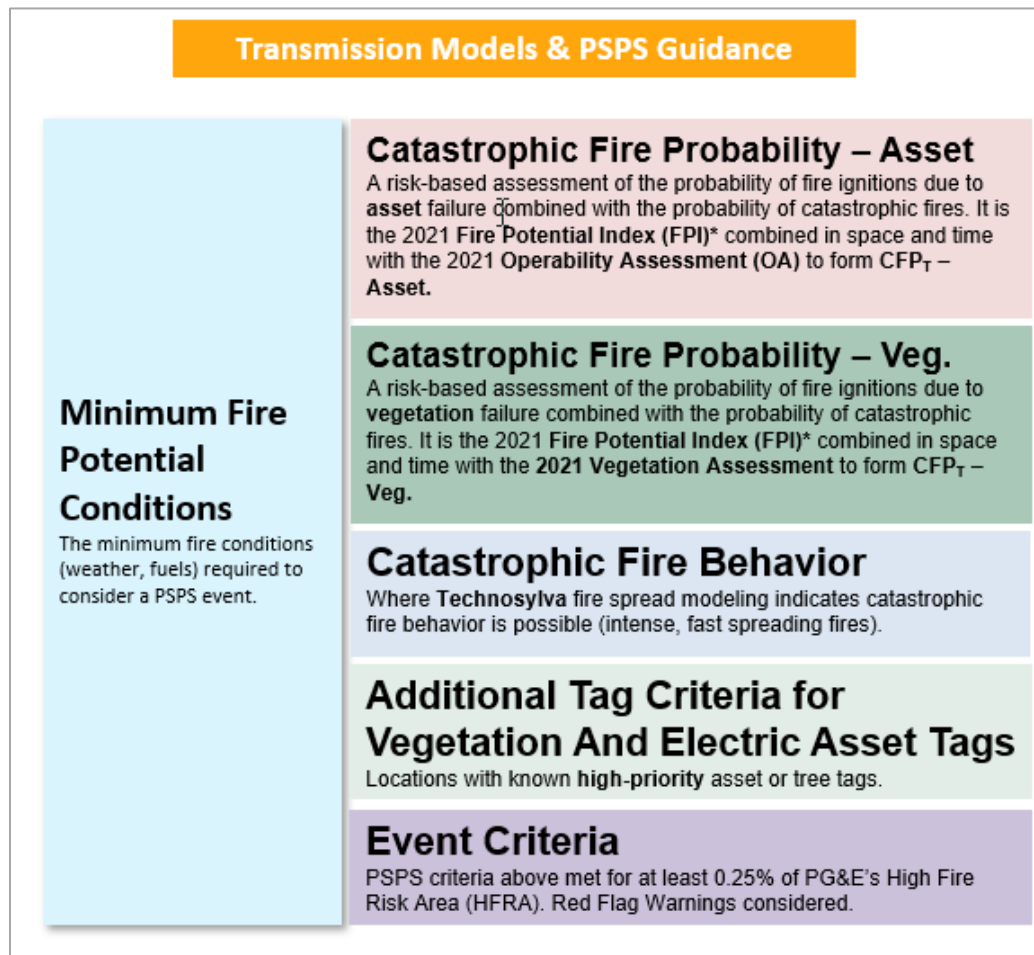
CFB_T is calculated the same as it is in the distribution model. Many of PG&E's high voltage transmission lines exhibit very high reliability, which is reflected in the Operability Assessment model. Transmission lines are only de-energized for Catastrophic Fire Behavior where Operability Assessment fragility is also above a minimum guidance level.

Vegetation and Asset Hazard Consideration is the last scoping criteria, which is met by the presence of certain transmission asset tags or tree tag designations. Transmission structures that meet minimum Fire Potential Conditions that also contain trees with high priority tags ("HNI" or "HNU") or certain transmission asset tags, which cannot be mitigated in the time before the weather start, are also recommended for inclusion in PSPS scope.

Low Impact lines are also considered in transmission. The Transmission Asset Health Specialist (TAHS) reviews the system to identify if there are lines that didn't meet any of the above scoping criteria but can be deenergized without impacting customers or causing other adverse effects to the grid.

Figure 3-8 shows the Transmission PSPS framework.

Figure 3-8: Transmission PSPS Framework



Although PG&E's models are the main drivers of PSPS decision making, no single factor drives PSPS, as each situation is dynamic and unique. PG&E carefully reviews a combination of many criteria when determining if power should be turned off for safety.

PG&E evaluates multiple forecasts from external weather agencies about the potential for fires that include Red Flag Warnings from the National Weather Service, High Risk forecasts of Significant Fire Potential from the Geographic Area Coordination Center (GACC) and fire weather outlooks from the Storm Prediction Center (SPC), which is part of the National Weather Service (NWS), within the National Oceanic and Atmospheric Administration (NOAA). This review ensures federal agencies also recognize a high potential for significant large fires.

During high-risk periods PG&E meteorologists also take part in daily interagency conference calls that usually include multiple NWS local offices, the NWS western region headquarters, and representatives from the GACC. This call is hosted by the Northern California or Southern CA GACC offices. Agreements with Cal Fire and United States Forest Service (USFS) leadership allow PG&E to participate on these calls while not influencing any forecasts issued by these independent agencies. During these calls the agencies present their views on the upcoming period of risk, discuss timing, wind speed

and fuel moisture levels and align on when certain federal forecast products may be issued. PG&E greatly appreciates participation on these conference calls as it allows further PG&E coordination with external and independent forecast agencies on upcoming risk periods.

External forecasting models and services, such as the European Center for Medium-Range Weather Forecasts (ECMWF) and Global Forecast System (GFS), are also closely monitored.

PG&E meteorologists look for consensus and agreement among internal model forecasts and external forecasts. Agreement amongst the model forecasts supports higher confidence and accuracy in the forecasted conditions, while lack of agreement would indicate more variability in potential weather outcomes. For this reason, the review of external weather intelligence is a valuable and standard part of PSPS decision making.

In addition to this information, PG&E carefully reviews and considers the location of existing fires and where new fires are detected using the Satellite Fire Detection & Alerting System (FDAS), which uses data from five NOAA/NASA satellites to detect fires.

Sources of information besides internal forecast information that are considered for PSPS are listed below:

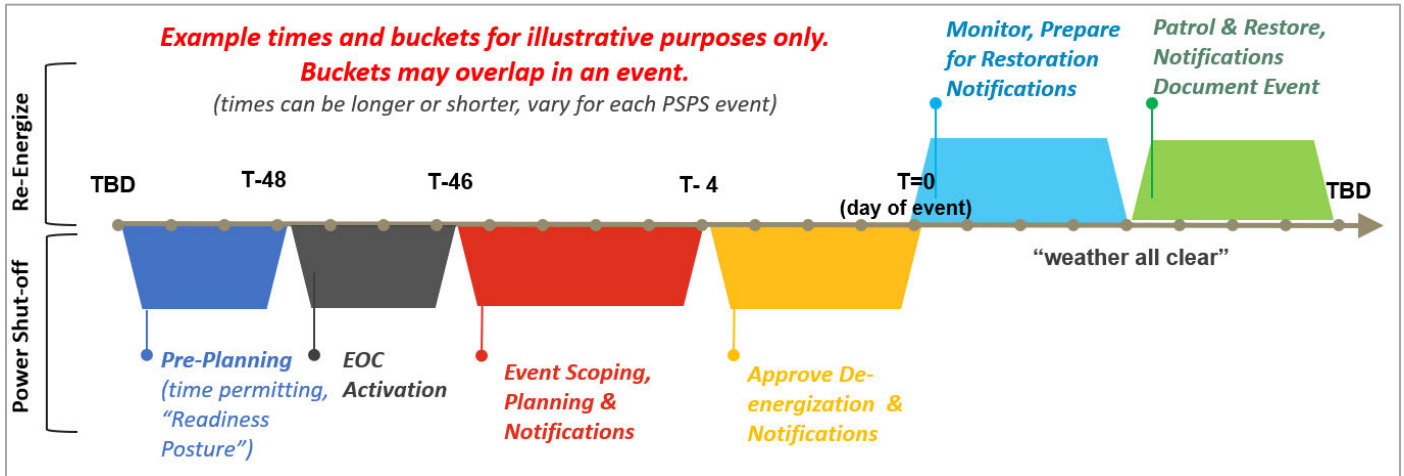
- Fire Weather Watches and Red Flag Warnings (Federal).
- High Risk of Significant Fire Potential (Geographic Area Coordination Center (GACC), Federal).
- Storm Prediction Center fire weather outlooks (National Oceanic and Atmospheric Administration (NOAA), Federal).
- Information received from agencies on Interagency Conference Calls during high-risk periods.
- External forecasting services, including the European Center for Medium-Range Weather Forecasts (ECMWF), Global Forecast System (GFS).
- Field Observer information.
- Data from weather stations.
- Locations of existing fires.
- New fires detected – Satellite Fire Detection & Alerting System (FDAS).

PG&E is currently evaluating new technologies including fire-spread modelling to incorporate into PSPS decision-making. In the future, PSPS guidance may include and incorporate new scientific methods and models.

3.3.2 Example Sequence of a PSPS Event

Forecasts are subject to change quickly and preparation timelines adjust to forecasts for each PSPS event. Figure 3-9 shows a general example sequence for a PSPS event.

Figure 3-9: Example Timeline of PSPS Event



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3.3.3 PSPS Event Activity Timeline

Figure 3-10, Figure 3-11, Figure 3-12 and Figure 3-12 show an overview timeline for PSPS event activity from ~T-96 hours to T + 10 business days.

Figure 3-10: PSPS Event Activity Timeline (1 of 4)

| | PRE-EOC ACTIVATION [~T-96 HOURS] | EOC ACTIVATION [~T-72 HOURS] (ASSUMES AN 0600 ACTIVATION) | |
|--|--|---|--|
| | | AM | PM |
| METEOROLOGY | <ul style="list-style-type: none"> Meteorology identifies potential PSPS conditions <p>Continuous weather modeling</p> | <ul style="list-style-type: none"> Weather model translated to weather polygons 0800: Participate in interagency call with NWS & GACC <p>Develop PSPS scope based on weather polygons</p> | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope |
| PLANNING/ OPERATIONS | <ul style="list-style-type: none"> EOC Readiness Posture <p>Develop utility crew resource plan, including air and ground resources</p> | <ul style="list-style-type: none"> Officer-in-charge (OIC) decision to activate EOC for potential PSPS Receive approval from OIC to send priority notifications, which include transmission customer notifications and Public Safety Partner notifications <p>Develop restoration plan, including prioritization of critical facilities</p> | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Review potential scope against temporary generation resource/infrastructure locations | Refine deployment approach as PSPS scope evolves | |
| PORTAL | | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities and Medical Baseline/Self-Certified as Vulnerable customer lists to agency users that accepted the online agreement Share impacted site lists to critical facilities | Share maps and reports, if scope changes |
| STATE AGENCIES | <ul style="list-style-type: none"> Call Cal OES re: change to "elevated" on weather website | <ul style="list-style-type: none"> Submit Cal OES form notifying of EOC Activation Update CPUC (SED) <p>Update CPUC and CAISO as event scope changes</p> | <ul style="list-style-type: none"> Submit 1500 Cal OES form Send State Executive Briefing deck 1530: State Executive Briefing |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> Call County OES/Tribal Contacts re: change to "elevated" on weather website | <ul style="list-style-type: none"> Call Public Safety Answering Points Call and email County OES/Tribal Contacts re: scope, call info, CRCs and Agency Rep contact Call neighboring counties re: scope Email Systemwide Cooperators Call info Automated messages** <p>Agency Rep Coordination with County OES/Tribal Contacts</p> | <ul style="list-style-type: none"> 1500: Agency Rep available for Operational Areas Cooperators Comms |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Update weather website to "Elevated" | | |
| CUSTOMER OUTREACH / NOTIFICATIONS | | <ul style="list-style-type: none"> Attempt to notify within 48-72 hours, but Transmission identification is based on scoping (Playbook C)** | |
| CUSTOMER SUPPORT | | <ul style="list-style-type: none"> Coordinate regarding Community Resource Center (CRC) locations Notify customer resource partners of potential event | |
| LOCAL OES PROMPT | | <ul style="list-style-type: none"> Request Agency Rep in PG&E EOC, if needed Determine timing of Operational Areas Cooperator Comms Review and provide feedback on CRC locations Hold on sending customer notifications | |

LEGEND (end user):

- PG&E
- Public Safety Partners/ State Agencies
- Customers
- Local OES Prompt

* **Public Safety Partners** include: federal, tribal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities) and related personnel, agencies and authorities.

** **Automated Messages** includes: calls, email and text.

RESOURCES
pge.com/pspsportal, pge.com/weather,
 and pge.com/pspsupdates.




Figure 3-11: PSPS Event Activity Timeline (2 of 4)




| | -T-48 HOURS | | -T-24 HOURS |
|---|---|---|---|
| | AM | PM | AM |
| METEOROLOGY | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope | <ul style="list-style-type: none"> New weather model translated to weather polygons and overlaid with circuits to create updated scope 0800: Participate in interagency call with NWS & GACC |
| | Continuous weather modeling | | |
| | Develop PSPS scope based on weather polygons | | |
| PLANNING/ OPERATIONS | <ul style="list-style-type: none"> DIC approves event scope and initiates Transmission power flow assessment Open local Operational Emergency Centers (OEC) | | |
| | Develop utility crew resource plan, including air and ground resources | | Begin mobilizing resources into position for restoration, depending on expected event duration |
| | Develop restoration plan, including prioritization of critical facilities | | |
| TEMPORARY GENERATION | <ul style="list-style-type: none"> Begin to assess ad hoc requests for backup power support, as applicable Coordinate with local agencies and stakeholders re: temporary generation usage | | <ul style="list-style-type: none"> Finalize initial list and prepare temporary generators/personnel for energization at distribution microgrids and ad hoc backup generation sites (including critical facilities and hospitals) |
| | Refine deployment approach as PSPS scope evolves | | |
| PORTAL | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities |
| | Share maps and reports, if scope changes | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Submit 0700 Cal OES form | <ul style="list-style-type: none"> Submit 1500 Cal OES form Send State Executive Briefing deck 1530: State Executive Briefing | <ul style="list-style-type: none"> Submit 0700 Cal OES form |
| | Update CPUC and CAISO as event scope changes | | |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages** |
| | Agency Rep Coordination with County OES/Tribal Contacts | | |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Update weather website to "Watch" Upload maps to website Issue news release/talking points Share event information on multiple social media platforms | | <ul style="list-style-type: none"> Upload new maps to website (if needed) Issue news release/talking points Share event information on multiple social media platforms |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/Self-Certified as Vulnerable customers, critical facilities, residential and business customers** Automated messages to customers in substation and temporary microgrid scope, if possible** | Hourly automated messages ** and doorbell rings to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact | |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> Confirm CRC locations and mobilize backup generation, as needed Send PSPS Toolkit and news release (as appropriate) to customer resource and informational partners | | <ul style="list-style-type: none"> Stand up CRCs Send news release to customer resource and informational partners, as appropriate |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing temp gen plans Begin notifications to customers, as needed (after PG&E's customer notification are sent) | | <ul style="list-style-type: none"> Coordinate with Agency Rep on any vulnerabilities with existing critical facilities resiliency and temporary generation plans, as needed Assist with publicizing CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) |
| <p>LEGEND (end user):</p> <p>PG&E Public Safety Partners/ State Agencies Customers Local OES Prompt</p> <p>* Public Safety Partners include: federal, tribal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities) and related personnel, agencies and authorities.</p> <p>** Automated Messages includes: calls, email and text.</p> | | | |
| <p>RESOURCES</p> <p>pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates</p> <p>  </p> | | | |

Figure 3-12: PSPS Event Activity Timeline (3 of 4)

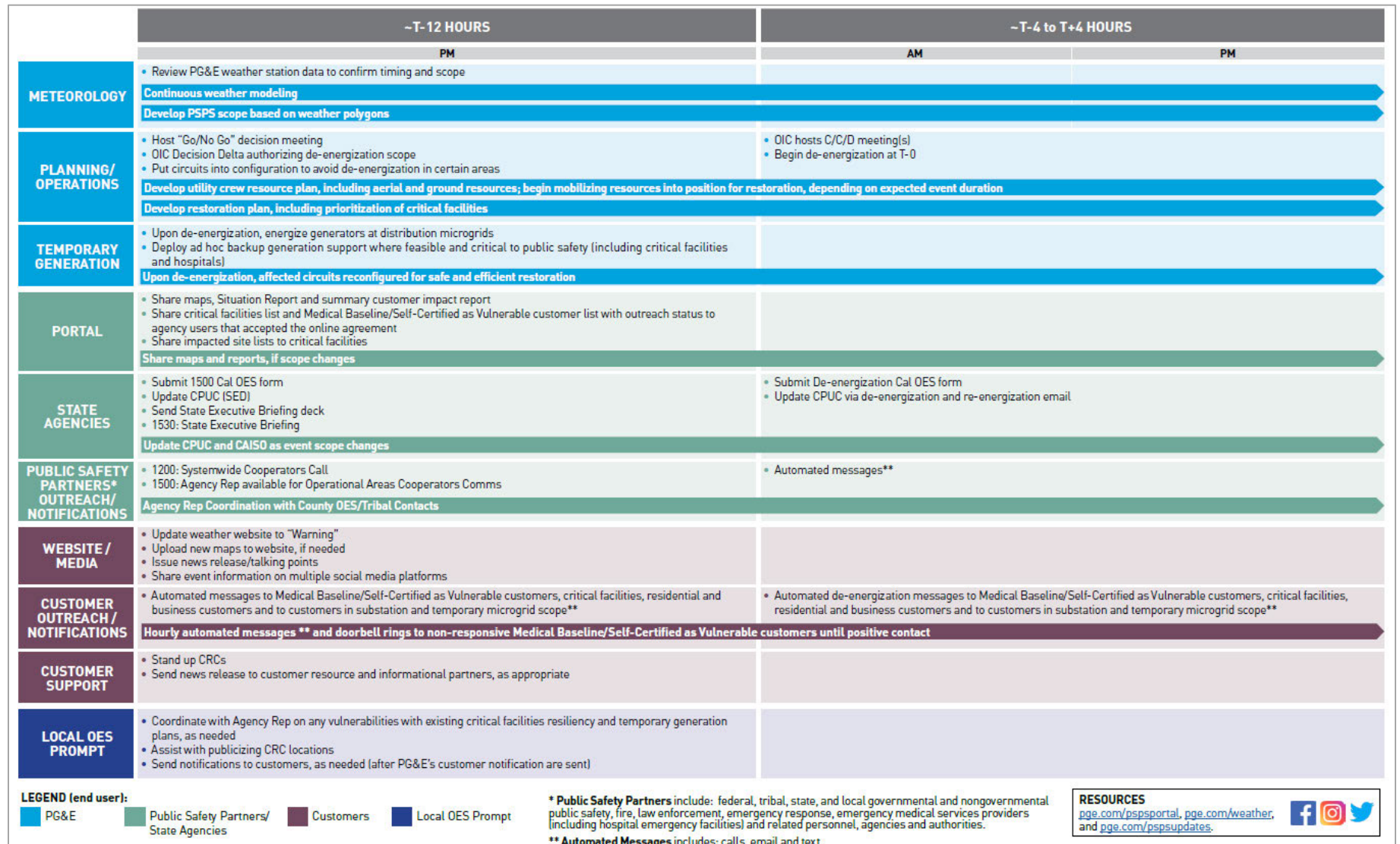


Figure 3-13: PSPS Event Activity Timeline (4 of 4)

| | WEATHER PASS / PATROLS, REPAIRS AND RESTORATION BEGIN | | POWER RESTORATION (GOAL: RESTORE WITHIN 24 HOURS) | | T+10 BUSINESS DAYS |
|--|---|---|---|---|--|
| | AM | PM | AM | PM | |
| METEOROLOGY | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC Monitor PG&E weather stations to confirm conditions are safe to energize Recommend "weather all-clears" to Operations | | <ul style="list-style-type: none"> 0800: Participate in interagency call with NWS & GACC | | |
| PLANNING/ OPERATIONS | <ul style="list-style-type: none"> OIC declares "weather all-clear" to begin patrols Begin aerial and ground patrols and inspections If damage is identified, repair | | <ul style="list-style-type: none"> Prioritize restoration of critical facilities, as is feasible | | |
| TEMPORARY GENERATION | Patrol, Repair and Restore | | | | |
| | <ul style="list-style-type: none"> Develop restoration plan Assess any new ad hoc requests for backup power support; deploy temporary generators where feasible and critical to public safety (including critical facilities and hospitals) | | <ul style="list-style-type: none"> Shut off temporary generators and return customers to grid source Remove generators from sites where they were deployed as ad hoc backup power support if they are not stored seasonally on site | | |
| PORTAL | <ul style="list-style-type: none"> Share maps, Situation Report and summary customer impact report Share critical facilities list and Medical Baseline/Self-Certified as Vulnerable customer list with outreach status to agency users that accepted the online agreement Share impacted site lists to critical facilities | | <ul style="list-style-type: none"> Share Situation Report | | |
| STATE AGENCIES | <ul style="list-style-type: none"> Submit Restoration Phase Cal OES form Update CPUC (SED) | <ul style="list-style-type: none"> Submit 1500 Cal OES form Send State Executive Briefing deck 1530: State Executive Briefing | <ul style="list-style-type: none"> Submit 0700 Cal OES form Update CPUC (SED) | <ul style="list-style-type: none"> Submit 1500 Cal OES form Send State Executive Briefing deck, as needed 1530: State Executive Briefing, as needed | <ul style="list-style-type: none"> File de-energization event report to CPUC (SED) |
| | Update CPUC and CAISO as event scope changes | | | | |
| PUBLIC SAFETY PARTNERS* OUTREACH/ NOTIFICATIONS | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms Automated messages re: restoration timing** | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call 1500: Agency Rep available for Operational Areas Cooperators Comms | <ul style="list-style-type: none"> 0800: Agency Rep available for Operational Areas Cooperators Comms, as needed Automated messages** re: restoration Coordinate with County OES/Tribal Contacts re: CRC demobilization | <ul style="list-style-type: none"> 1200: Systemwide Cooperators Call, as needed 1500: Agency Rep available for Operational Areas Cooperators Comms, as needed | <ul style="list-style-type: none"> Email de-energization event report and survey for feedback |
| | Agency Rep Coordination with County OES/Tribal Contacts | | | | |
| WEBSITE / MEDIA | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Issue news release/talking points Share event information on multiple social media platforms Address lookup map updated automatically, as event status changes | | <ul style="list-style-type: none"> Post de-energization event report to website |
| CUSTOMER OUTREACH / NOTIFICATIONS | <ul style="list-style-type: none"> Automated messages to Medical Baseline/ Self-Certified as Vulnerable customers, critical facilities, residential and business customers re: restoration timing** | | <ul style="list-style-type: none"> Automated messages to Medical Baseline/ Self-Certified as Vulnerable customers, critical facilities, residential and business customers that restoration is complete** | | |
| | Live calls to non-responsive Medical Baseline/Self-Certified as Vulnerable customers until positive contact | | | | |
| CUSTOMER SUPPORT | <ul style="list-style-type: none"> CRCs Open Send news release to customer resource and informational partners, as appropriate | | <ul style="list-style-type: none"> Demobilize CRCs when entire county has been restored Send news release to customer resource and informational partners, as appropriate | | |
| LOCAL OES PROMPT | <ul style="list-style-type: none"> Send notifications to customers, as needed (after PG&E's customer notification are sent) | | <ul style="list-style-type: none"> Report any outage areas, as needed Provide feedback on closures of CRC locations Send notifications to customers, as needed (after PG&E's customer notification are sent) | | <ul style="list-style-type: none"> Provide feedback/comments to de-energization event report |

LEGEND (end user):


- PG&E
- Public Safety Partners/ State Agencies
- Customers
- Local OES Prompt

* **Public Safety Partners** include: federal, tribal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities) and related personnel, agencies and authorities.

** **Automated Messages** includes: calls, email and text.

RESOURCES

pge.com/pspsportal, pge.com/weather, and pge.com/pspsupdates.

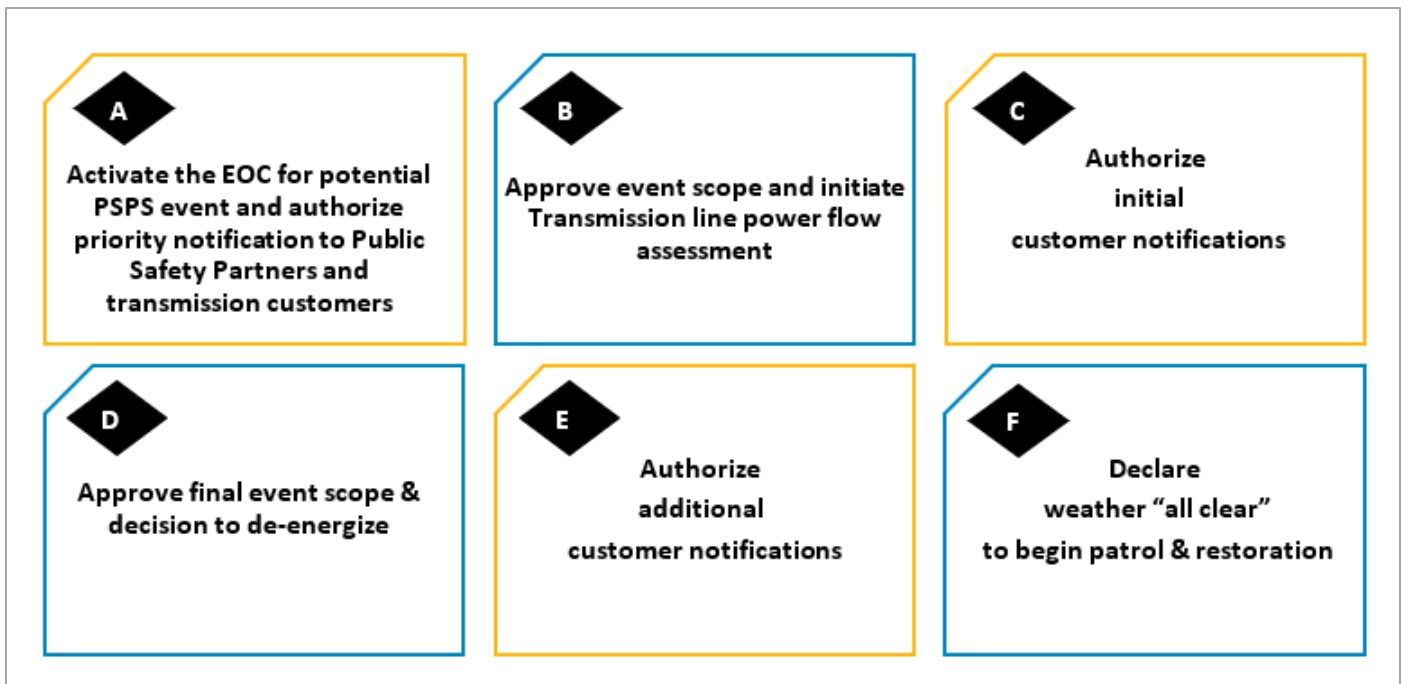


3.3.4 Decisions made by Officer-in-Charge

A designated Officer-in-Charge (OIC) makes several key decisions throughout a PSPS event, including the ultimate decision to shut off power and to issue a weather “all-clear” to begin the process of patrols and restoration after high-risk weather conditions subside. In making these decisions, the OIC receives situational awareness from the Command Staff and General Staff of PG&E’s EOC, including from the Meteorology, Planning Section, Customer Strategy, and other EOC sections such as the HAWC and Operations Section.

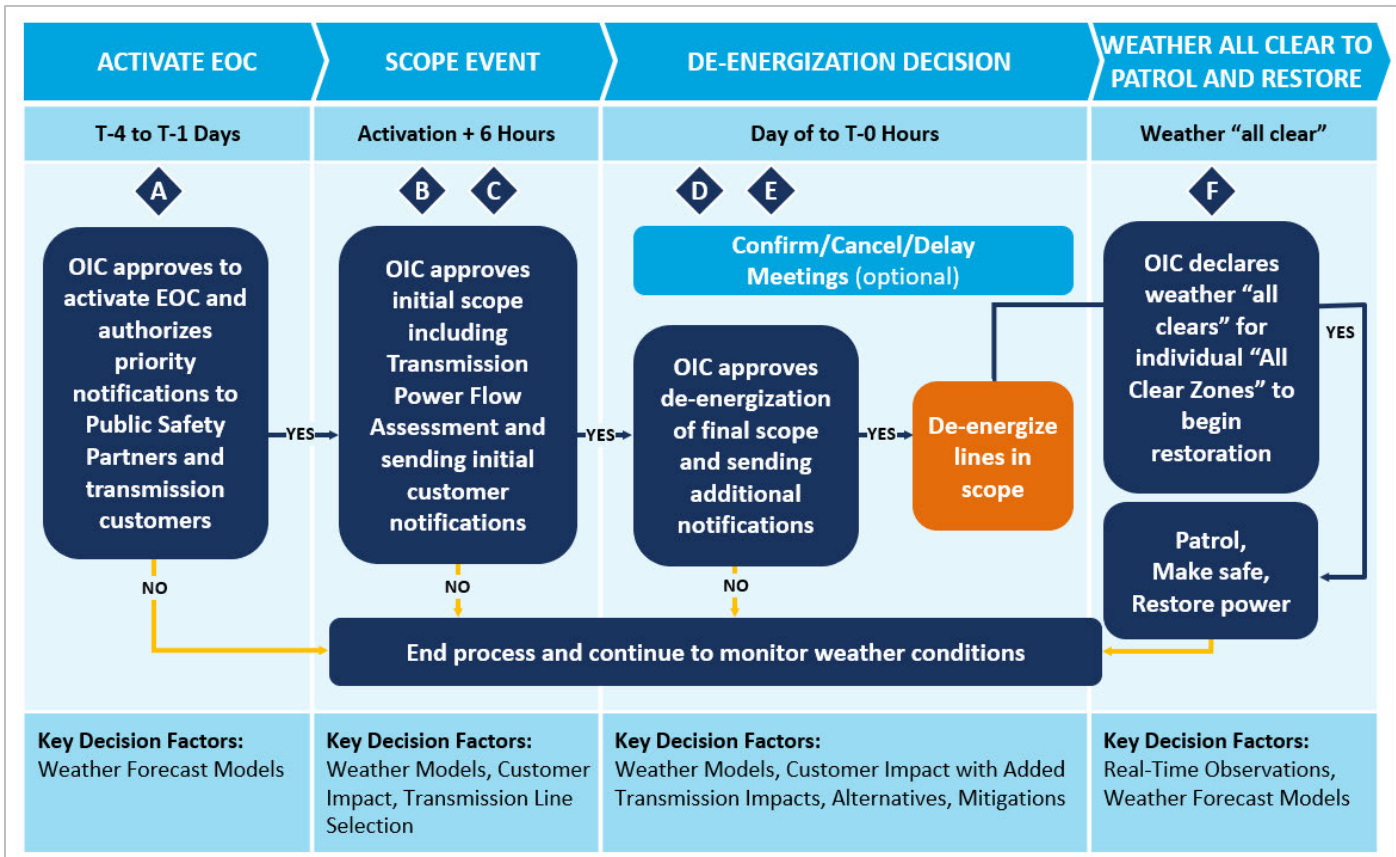
There are six important PSPS decisions, called OIC decisions which the OIC is responsible for making during an event (A-F). Decisions **B** + **C** are made jointly, and Decisions **D** + **E** are made jointly. The OIC Decisions are summarized in Figure 3-14.

Figure 3-14: OIC Decisions A – F



The sequencing of the PSPS decision process, with an example of approximate timing, is visualized in Figure 3-15. The figure below also indicates what happens if a decision is made not to proceed and the process is ended with the continued monitoring of weather conditions.

Figure 3-15: Public Safety Power Shutoff Decision Process



PG&E’s meteorology team and HAWC will continue to closely monitor changing forecasts and conditions leading up to the event and update the OIC of any changes in the forecasts or conditions. Concurrently, PG&E will begin notifying all potentially impacted entities including state, local, and tribal agencies, public safety partners, and customers. Based upon the latest information provided by the meteorology team and Command and General Staff, the OIC will decide whether to proceed with de-energization of the transmission and distribution lines passing through the areas of forecasted risk.

To make this decision, the OIC will consider various factors, including but not limited to, the availability of alternatives to de-energization and the ability to mitigate the adverse impacts on customers and communities in areas planned for shutoff through steps such as warning customers through notifications, mobilizing community assistance locations, implementing sectionalization and microgrids where possible, or providing back up power support under exception circumstances.

Based on the intelligence provided, the OIC must determine there is an imminent and significant risk of strong winds impacting PG&E assets, and a significant risk of large, destructive wildfires should ignition occur. The OIC must determine alternatives to de-energization are not adequate to reduce this risk and that the public safety risk of catastrophic wildfire outweighs the adverse impacts of de-energization within the given scope. If it is determined that de-energization is necessary to protect public safety, the OIC will approve the decision to de-energize the final scope of the event and send warning notifications to the customers in scope.

After the decision to de-energize is made, PG&E continues to actively monitor weather forecasts up until the planned de-energization time. The EOC Commander, Operations, and the Meteorology teams monitor approaching weather, and may hold a series of “Confirm/ /Cancel/Delay” meetings to:

1. **Confirm** – confirm that weather has materialized and de-energization can proceed per plan,
2. **Cancel** – confirm that the weather threat did not materialize, in all or certain areas, and the de-energization should be cancelled, or
3. **Delay** - confirm that the weather threat is still imminent but has materialized slower than expected and the final decision to de-energize areas in question needs to be delayed.

This final set of meetings immediately prior to anticipated de-energization allows PG&E to change course and reduce or expand the scope, as necessary, if there is an emergent change in the weather.

3.4 PSPS Preparedness

3.4.1 Organization

All employees involved with a PSPS event will be oriented to the PSPS Annex, applicable department emergency plans, and their respective emergency centers’ contact list. Refer to [EOC Intranet site](#) for additional information on EOC staffing plans, training, job aids, and further EOC related information.

A staffing plan identifies on-call individuals. The on-call responsibilities include the following:

- Ensure availability during defined schedule.
- Maintain a heightened level of awareness of all potential, forecasted, and in-process PSPS events.

3.4.2 Readiness Expectations

EP&R SE determines and posts EOC on-call teams, rotations, and yearly scheduling. Rotations and scheduling can be adapted as necessary. EOC on-call distribution lists are maintained to ensure team notifications are timely and accurate.

For more information see [CERP section 8.3](#).

3.4.3 Pre-Event Preparation

See section 3.5.3 on “Event Specific Readiness Posture”.

Note: Readiness Posture is not a requirement for EOC activation and may not occur in all PSPS events.

3.4.4 Hazard Forecasting and Prediction

The potential for an R5-Plus weather forecast based on numerical weather prediction models and forecasted FPI and IPW models will trigger Meteorology to call the Vice President of EP&R to discuss the forecast. These discussions may occur several days before the event depending on the forecast.

If the forecasted weather event is beyond the range of PG&E’s high-resolution forecast model, PG&E utilizes a suite of public and proprietary global weather models to evaluate potential for strong, dry winds to occur with dry fuel conditions present. The frequency of weather updates increases leading up to a potential PSPS event as PG&E has more access to internal and federal high-resolution forecast data.

3.4.5 Event Specific Readiness Posture

When Meteorology identifies forecast models that have the potential for developing R5-Plus level conditions and there is advance time before de-energization is forecasted to be required, the on-call EOC Commander can call on representatives from select sections and officers to meet, track developing conditions, perform readiness tasks where possible, and when warranted make a recommendation to the OIC to activate the EOC for a potential PSPS event.

Readiness Posture is equivalent to EOC Activation Level 2, Enhanced Steady-State/Partial Activation, described within National Incident Management System (NIMS) as “certain EOC team members/organizations are activated to monitor a credible threat, risk, or hazard and/or to support the response to a new and potentially evolving incident.”

Time permitting, the on-call EOC Commander can decide to declare Readiness Posture.

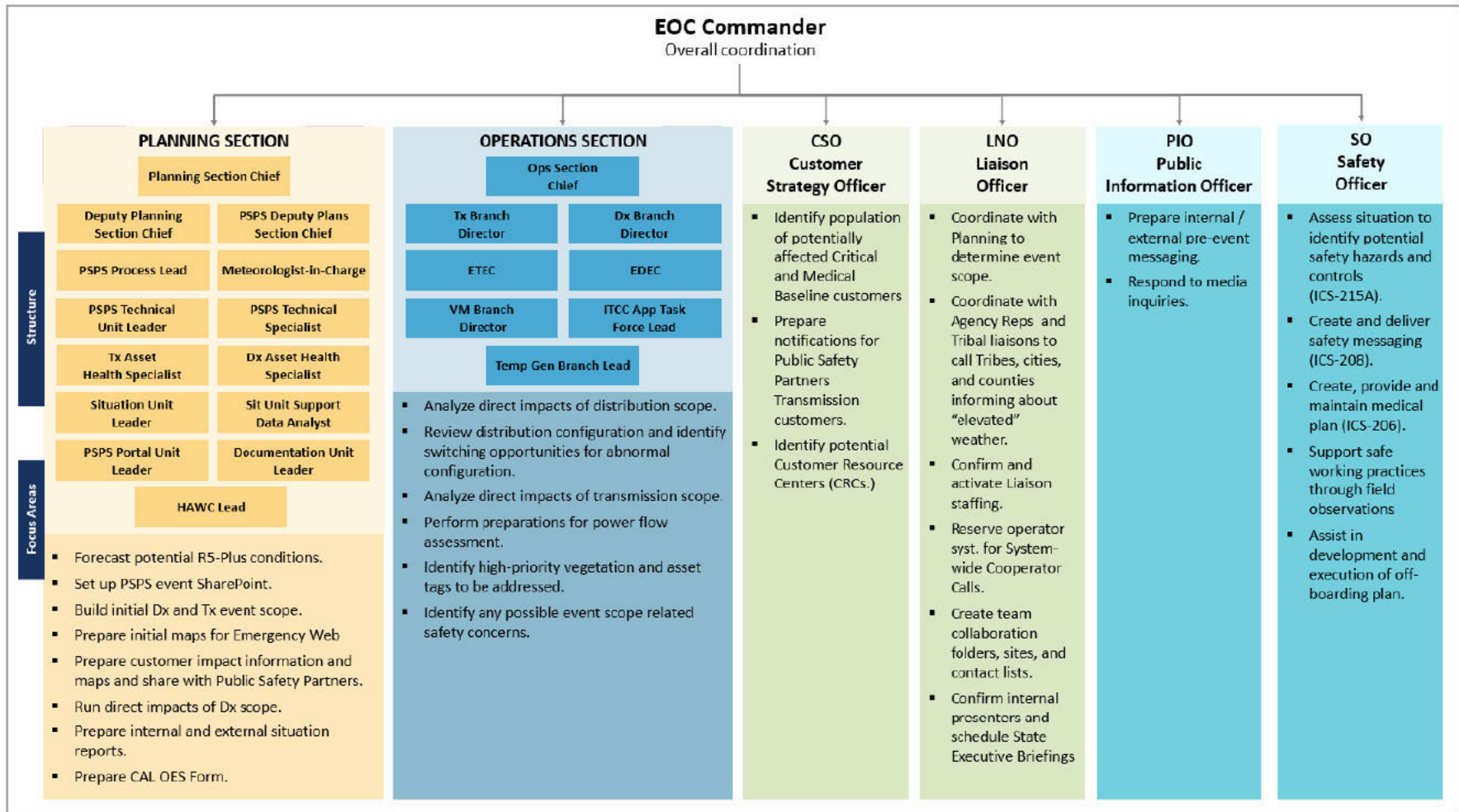
Upon request from the on-call EOC Commander or his/her delegate, EP&R S&E will make internal notifications that the EOC is moving into a Readiness Posture and those in pre-assigned positions are to report.

See Figure 3-16, on page 3-21, for overview of Readiness Posture sections and focus areas.

Readiness Posture Overview

Figure 3-16 shows combined overview of Readiness Posture structure and focus areas based on text in section 3.5.3

Figure 3-16: Readiness Posture – Structure and Focus Areas



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3.4.6 Readiness Posture – Sections and Focus Areas

The on-call EOC Commander is responsible for overall coordination, insight, and readiness of activities related to Readiness Posture.

Sections and focus areas for Readiness Posture include Planning, Operations, Customer Strategy Officer (CSO), Liaison Officer (LNO), Public Information Officer (PIO) and Safety Officer (SO). See Figure 3-16, on page 3-18, for overview of Readiness Posture sections and focus areas.

Planning

Roles:

- Planning Section Chief
- Deputy Planning Section Chief
- PSPS Deputy Planning Section Chief
- PSPS Process Lead
- Meteorologist-in-Charge (MIC)
- PSPS Technical Unit Leader
- PSPS Technical Specialist
- Transmission Asset Health Specialist (TAHS)
- Distribution Asset Health Specialist (DAHS)
- Situation Unit Leader
- Situation Unit Support
- Situation Unit Support Data Analyst
- PSPS Portal Unit Leader
- Documentation Unit Leader
- HAWC Lead

Focus Areas may include:

- Forecast potential R5-Plus conditions.
- Setting-up PSPS event SharePoint.
- Building initial distribution and transmission event scope.
- Preparing initial maps for Emergency Web.
- Preparing customer impact information and maps and share with Public Safety Partners.
- Preparing internal and external situation reports.
- Preparing State Executive Briefing materials.

Operations

Roles

- Operations Section Chief
- Distribution Branch Director
- Transmission Branch Director
- Vegetation Management Branch Director
- Temporary Generation Branch Lead
- Information Technology Coordination Center (ITCC) PSPS Application Task Force Lead
- Vegetation Management Branch Director

Focus Areas may include:

- Analyzing direct impacts of distribution scope.
- Reviewing distribution configuration and identify switching opportunities for abnormal configuration.
- Analyzing direct impacts of transmission scope.
- Performing preparations for power flow assessment.
- Identifying high-priority vegetation and asset tags to be addressed.
- Identifying any possible event scope related safety concerns.

Customer Strategy Officer

Focus Areas may include:

- Identifying population of potentially affected Critical and Medical Baseline customers (source Planning Section from PSPS Viewer).
- Preparing notifications for Public Safety Partners and Transmission customers.
- Identifying potential Community Resource Center (CRC) sites.

Liaison Officer

Focus Areas may include:

- Coordinating with Plans to determine event scope.
- Coordinating with Agency Representatives and tribal liaisons to call Tribes, cities, and counties informing about “elevated” weather.
- Confirming and activate Liaison team staffing.
- Confirm internal presenters and schedule State Executive Briefings.
- Reserving operator system for Systemwide Cooperators Calls.
- Creating team collaboration folders, sites and contact lists to support team collaboration and agency notifications.

Public Information Officer

Focus Areas may include:


- Preparing internal / external pre-event messaging.
- Responding to media inquiries.

Safety Officer

Focus Areas may include:

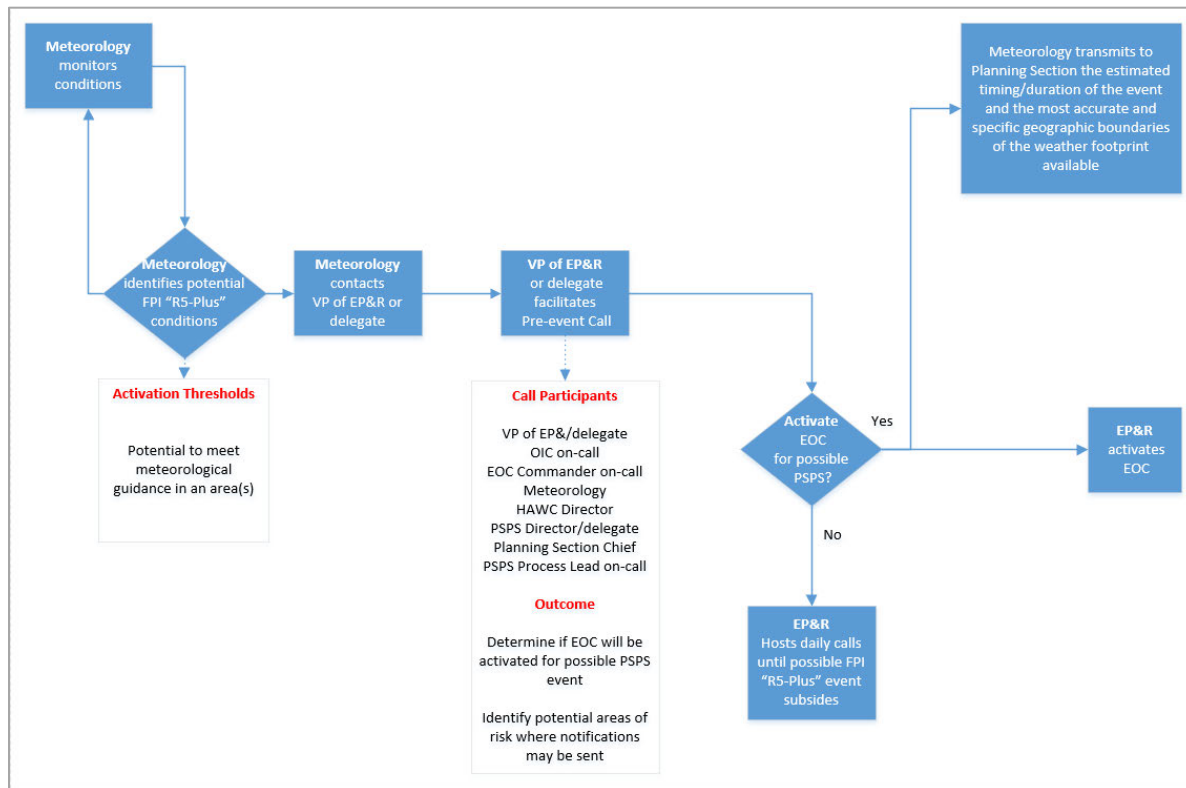
- Assessing situation to identify potential safety hazards and controls (ICS-215A).
- Creating and deliver safety messaging (ICS-208).
- Creating, providing, and maintaining medical plan (ICS-206).
- Supporting safe working practices through field observations.
- Assisting in development and execution of off-boarding plan.

3.5 Response - EOC Activation Process for Potential PSPS Event

PG&E's EOC has been established to coordinate overall response and support in an emergency. On an initial call established and facilitated by the Vice President of EP&R (or delegate) the OIC, with input from on-call EOC Commander and a representative from Meteorology, EOC Planning Section Chief, PSPS Process Lead, and representative from the HAWC, will decide if forecasted conditions indicate a credible threat to warrant activating the EOC and all EOC team personnel (OIC decision  see section 3.8.1).

Once the decision is made, standard procedures outlined in the *CERP* are followed to activate the EOC. Figure 3-17 shows the PSPS EOC activation process. Due to the dynamic circumstances of a PSPS event, OIC Decision A may or may not happen as weather conditions may unfold quicker than planned or back-to-back PSPS events may result in the EOC staying activated between events.

Figure 3-17: PSPS EOC Activation Process



Details about the ICS approach and EOC activation process and execution are outlined in PG&E's [CERP section 8](#).

3.6 Notifications – Internal and External

3.6.1 Internal Notifications

When requested by on-call EOC Commander, VP of EP&R or Planning Section Chief instructs the EOC Communication Technical Specialist in coordination with the EOC Coordinator to send out EOC activation notifications to EOC personnel that the EOC is activating for a PSPS.

3.6.2 External Notifications – CPUC, Cal OES, and Public Safety Partners

In compliance with Standard Six of G.O. 166, within one hour of identification of a major outage or other newsworthy event, EP&R SE must notify the CPUC and the Warning Center at California Office of Emergency Services (Cal OES) of the location, possible cause and expected duration of the outage.

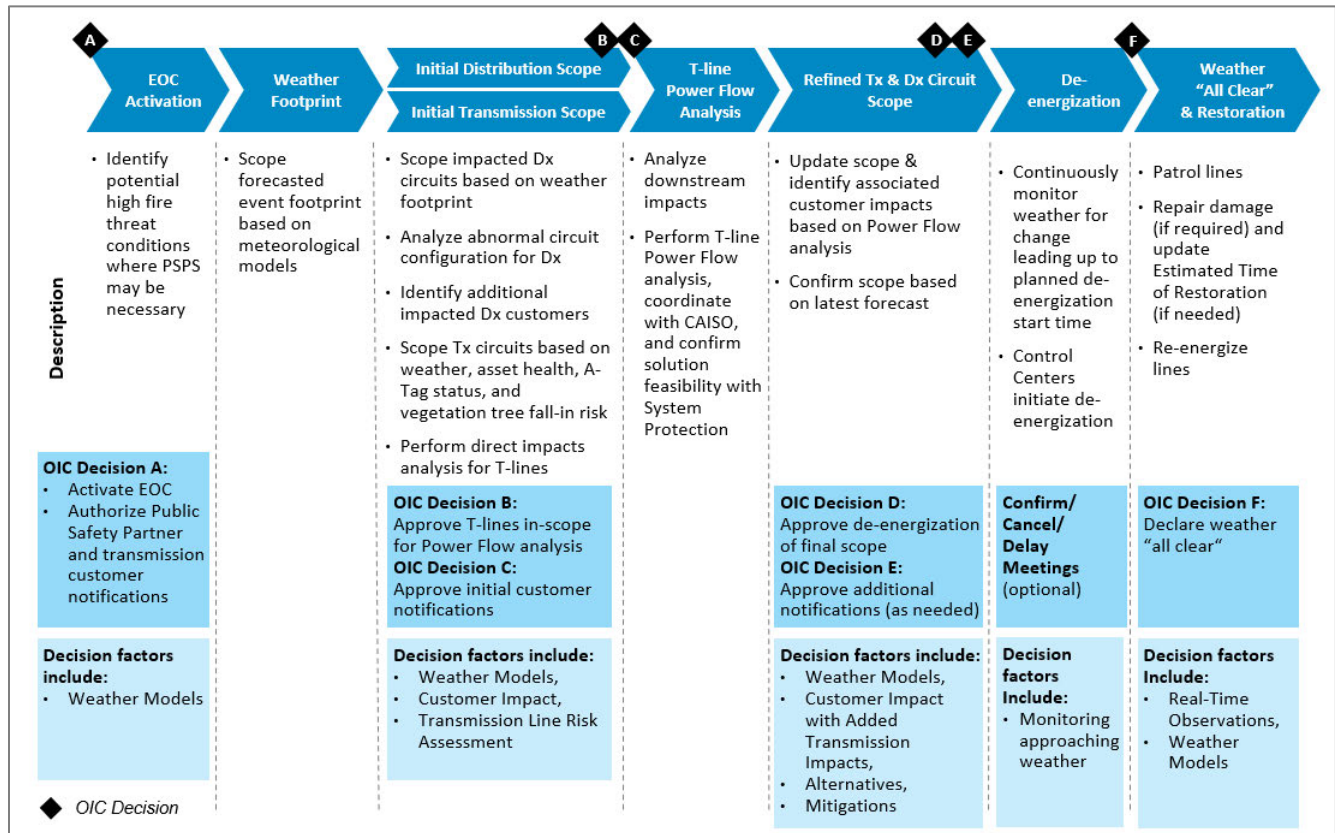
Per CPUC D.19-05-042, Liaison and Customer notify Public Safety Partners when the EOC is activated in anticipation of a de-energization event or whenever the determination is made that de-energization is likely, whichever occurs first. PG&E includes information as outlined in D.19-05-042.

3.7 PSPS Event

3.7.1 PSPS Event Overview

The overview in Figure 3-18 provides a high-level diagram of major PSPS phases, discussion points, deliverables, and decisions. It is a guide and not a prescription for PSPS events.

Figure 3-18: PSPS Event Overview with OIC Decisions



OIC Decisions:

- ◆ **A** Activate the EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
- ◆ **B** Approve event scope and initiate Transmission line power flow assessment.
- ◆ **C** Authorize customer notifications.
- ◆ **D** Approve final event scope and decision to de-energize.
- ◆ **E** Authorize additional customer notifications.
- ◆ **F** Declare weather "all clear" to begin patrol, repair, and restoration.

3.7.2 PSPS De-energization Playbook using PSPS Viewer, PSPS Situational Intelligence Platform, and Transmission List

The PSPS Viewer and (when applicable) a Transmission PSPS direct impact analysis output or total impacts study output are used to create and update an event specific PSPS de-energization Playbook with versions A-D. The initial PSPS Playbook A is generated from the initial event using PSPS Viewer and PSPS Situational Intelligence Platform (PSIP), then sent to the DCC (Distribution Control Center) for review. The finalized PSPS Playbook D incorporates distribution circuits and abnormal configurations, direct and indirect transmission lines, Substations, and customers, that are being considered for de-energization. This information can then be used to notify the scope of the event with outside entities and customers.

De-energization Playbooks

- **Playbook A** – Initial distribution playbook.
- **Playbook B** – Adds distribution abnormal circuits from direct impacts and confirmed temporary generation.
- **Playbook C** – Adds direct transmission impacts and updated confirmed temporary Generation.
- **Playbook D** – Adds total transmission impacts (direct & indirect) and updated confirmed temporary generation.

3.7.3 Electric Transmission Emergency Center for PSPS

Initiation of a PSPS event triggers activation of the Electric Transmission Emergency Center (ETEC) at the primary location, which is currently at the Vacaville GCC or Grid Support Center (GSC). ETEC will serve as a hub for all transmission assets as well as communication and coordination between internal entities such as the EOC, Electric Distribution Emergency Center (EDEC), Substation Transmission Operations Emergency Center (STOEC), and external agencies such as California Independent System Operator (CAISO), municipally owned utilities, etc. ETEC consists of the GCC Supervisor(s), Operations Engineers (OEs), System Protection, Transmission System Operations (TSO) Programs (as required), Emergency Management System (EMS) (as required), and Remedial Action Schemes (RAS) Operations (as required).

The GCC Supervisor sends a “PSPS Awareness” notification to CAISO by phone and e-mail. This notification will consist of potentially impacted transmission lines and an estimated timeline of the PSPS event. After further analysis, EOC Planning Section will provide a list of transmission lines to ETEC and Operations Section Chief. Once the line list is received, ETEC team will begin the process to determine direct transmission impact analysis with support from Operations Engineering, System Protection, and the CAISO.

ETEC responsibilities include:

- Identifying directly impacted transmission assets and facilities within the potentially-impacted geographic scope meeting transmission line selection criteria, which involves the creation of a PSPS Direct Impacts analysis (also called “Tx Playbook C”) output spreadsheet indicating impacted lines and outage cards via Transmission Operations Tracking & Logging System, then sharing with CAISO.
- ETEC Lead sends the PSPS Direct Impact Summary to Electric Transmission Branch Director and EOC Planning Section Chief.

Upon the Planning Section receiving the PSPS Direct Impact Summary, presenting the list of T-lines for OIC approval to commence the power flow studies (OIC Decision **B** see section 3.3.4)

Upon approval of OIC decision **B**, ETEC team initiates PSPS Total Impact Analysis (initiates an in-depth scenario analysis in parallel with CAISO’s own impact study, which includes power flow studies and contingency analysis). These studies will help ETEC team and CAISO identify any necessary mitigation requirements to maintain the stability of the system when implementing PSPS.

The study results are then exchanged and validated with CAISO. When mitigation requirements are identified and agreed upon, ETEC team will provide all the operational requirements to System Protection, which will confirm overall protection coordination and adequacy of the grid through a complete Protection Dependability Study and Final Bus Fault Duty Analysis. CAISO, System Protection, and OEs will analyze the overall results and then agree upon the complete set of operational requirements for the implementation of PSPS (such as rotating outages, pro-rata load-sharing to minimize the impacts to other utilities, changes in relay settings, etc.).

ETEC team will then produce a PSPS Total Impact Summary and share with ETEC Lead, CAISO, EDEC, and STOEC. The ETEC Lead will provide this to Electric Transmission Branch Director and EOC. The summary contains:

- Transmission lines impacted with voltage level information.
- Impacted substations and static estimated customer count.
- Transmission customers impacted (load, generators, municipally owned utilities, etc.).
- Estimated power generation impact in megawatt (MW).
- Estimated load impact (MW).
- Rotating outage plan projection (if needed) based on load forecast.

System Protection identifies transmission-level customers/entities that will remain energized but experience a fault duty change of greater than 15%, prompting the third party to perform a coordination study and potentially reset relays for the duration of the event. Notification of third-party transmission interconnection customers to be done as per established process through the Critical Infrastructure Lead (CIL).

ETEC team creates new outage cards or updates the existing cards with CAISO based on Total Impact Analysis results. Next, ETEC team identifies critical in-service lines for patrol prior to weather event, and then create a prioritized sequence for de-energization of transmission grid elements including load, generation, system protection settings, and other assets. ETEC Lead then shares the plan with STOEC, EDEC, CAISO, and EOC. Finally, based on all the information discussed above, ETEC team prepares PG&E's electric grid for the PSPS event. This involves coordination with CAISO, EDEC and STOEC.


3.7.4 Forecast Fire Potential Index of R5-Plus - Assessment Actions

The Fire Potential Index (FPI) forecast describes the potential for fires to ignite and spread rated on a scale from "R1" (lowest) to "R5" (highest) specific to each FPI Rating Area. "R5-Plus" indicates there is elevated fire potential plus the potential for wind-related outage activity from the IPW model, which may warrant a PSPS event. (See section 5.1.1 for more information on Fire Potential Index.)

When an R5-Plus weather event is forecasted, a pre-assessment review is conducted¹ that includes:

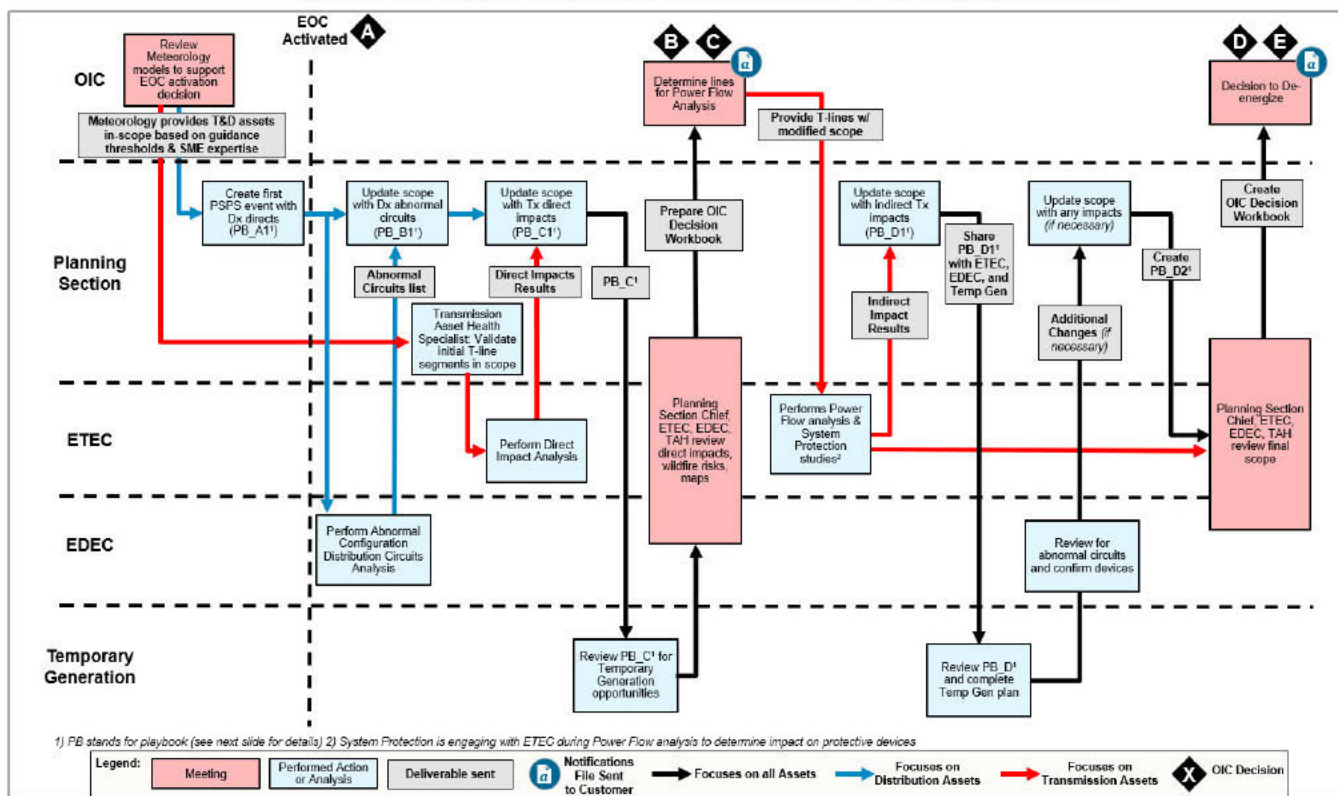
- Stopping specific types of work in areas where R5-Plus is forecasted according to according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#).
- Reviewing high-priority maintenance tags (A and B tags) along high-risk areas (using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits and accelerating work if possible or needed.
- Reviewing planned work (e.g., Vegetation Management) along high risk areas (determined using fire spread modeling, wind outage history) within the Meteorology determined times and places and/or along specific circuits.
- Determining if Enhanced Vegetation Management work has occurred.
- Evaluating Red Flag warnings, temperature forecast, and other weather conditions to determine if high-risk work (e.g., temperature impact to loading) can be safely completed prior to PSPS event).
- Confirming work is complete prior to PSPS event.

Aerial patrols may be considered for a pre-event grid assessment and will depend on efficacy prior to a forecasted R5-Plus event. The HAWC, in coordination with Aviation Services and Electric Operations, will make the determination if aerial patrols are warranted.

Figure 3-19 shows a process flow for the Transmission and Distribution PSPS scoping process including OIC Decisions A-E and Playbooks A-D. The process flow is limited to PSPS scoping and for that reason does not show OIC Decision  or Restoration Playbook F.

¹ The pre-assessment review may not be completed depending on time and employee safety concerns.

Figure 3-19: Transmission and Distribution PSPS Scoping Process



Note: Not rendered in figure, possible “break-ins” or having to loop back to the beginning due changes in forecasted weather.

OIC Decisions:

- ◆ **A** Activate EOC for potential PSPS event and authorize priority notification to Public Safety Partners and transmission customers.
- ◆ **B** Approve event scope & initiate Transmission power flow assessment.
- ◆ **C** Authorize customer notifications.
- ◆ **D** Approve final event scope & decision to de-energize.
- ◆ **E** Authorize additional customer notifications.
- ◆ **F** OIC Decision (weather “all clear”) not part of scoping process.

De-energization Playbooks

- ◆ **Playbook A** – Initial distribution playbook
- ◆ **Playbook B** – Adds distribution abnormal circuits from direct impacts and confirmed temp generation
- ◆ **Playbook C** – Adds direct transmission impacts and confirmed temp generation
- ◆ **Playbook D** – Adds total transmission impacts (direct/indirect) and confirmed temp generation
- ◆ **Restoration Playbook F** not part of scoping process.

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3.7.5 Resource Planning

The guiding principles for PSPS resource planning are listed below. Resource plans should:

- 1) Identify specific PSPS resource needs including resource requirements for patrolling circuits prior to restoration, field observation, and restoration.
- 2) Strive for restoration of power to all customers affected by the PSPS event as quickly and safely as possible, after the weather “all clear”, while maintaining safety for customers and PG&E employees.
- 3) Have triggers for mutual assistance requests based on the size of the PSPS event.
- 4) Refine resource allocations as the event evolves and de-energization approaches.

When weather events are occurring at the same time as a PSPS event, the weather forecast will be part of the overall resource planning via the Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) model that Meteorology produces for system outage forecasts. The SOPP model will inform staffing for response to the weather event.

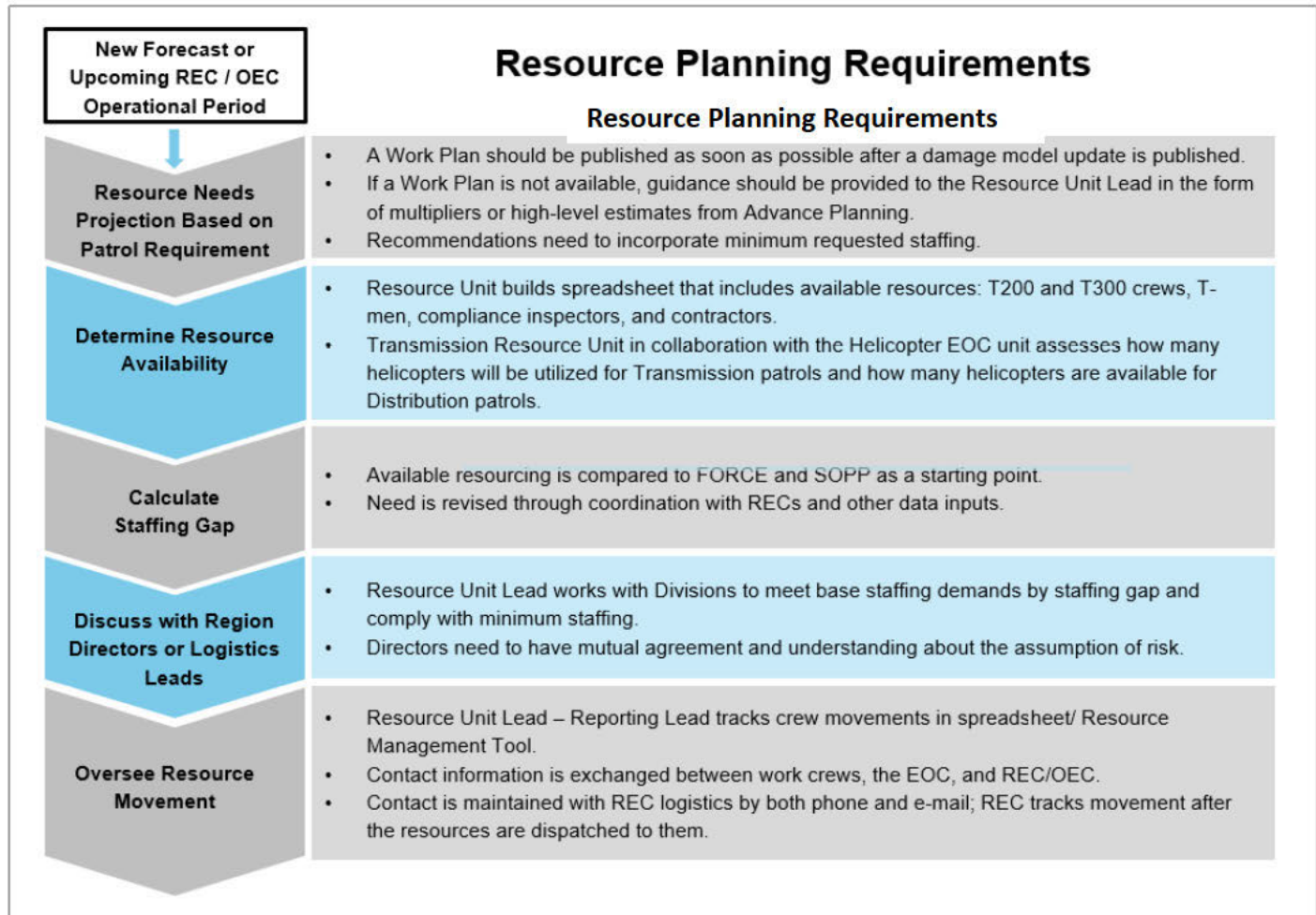
For PSPS events, the EOC allocates all Qualified Electric Worker (QEW) / crew resources based on FORCE tool outputs and REC crew requests, which also includes taking into account the availability of helicopters for Distribution line patrols. The FORCE tool provides a reference point based on inputs, but actual staffing may exceed or be below FORCE staffing models based on overall staffing availability and input from our local REC resource teams. Commonly, when there are not enough resources to meet the need (including resources through mutual aid), the Resource Unit will attempt to balance resources based on the FORCE and/or SOPP outputs using a ratio/percentage base. EOC reviews output with RECs before starting dispatch.

Elements that influence resource plans include:

- FORCE model outputs.
- SOPP model and forecast system outages.
- Outage Management Tool (OMT) information on actual outage counts.
- Event timing (i.e., day of week, time of day).
- Circuits and customers impacted (i.e., circuit miles, amount and type of customers, circuit accessibility and/or visibility to aerial patrols).
- Resource availability and planned work.
- Availability of helicopters to conduct patrol, which may be impacted by any fire activity in the vicinity.
- Grid awareness (i.e., abnormal switching, SCADA and protection capabilities).

The RECs are accountable for assessing the local situation in collaboration with their local Operations Emergency Center (OEC) resource planning teams. The REC / OEC process is illustrated in Figure 3-20.

Figure 3-20: REC / OEC Resource Planning Process



Each PSPS event is unique. Resource staging may vary but, in general, will be prepared in the following locations:

- Control Centers (various): Distribution and Transmission Control Centers: stage resources for system protection analysis and coordination of resources required for automatic switching and separately for manual switching.
- Service Centers, base camps, staging areas, micro sites, material laydown areas and/or Community Resource Centers (CRCs), will vary based on the forecasted event. Field Observers, Vegetation Management crews, Restoration crews, Local Customer Representatives, and (potentially) Maintenance and Construction crews will await deployment from a local Service Center.
- Aviation Services consolidate operations to Vacaville and Winters. Vacaville will serve as the centralization of PG&E's aviation organization. Winters will be the main training center.

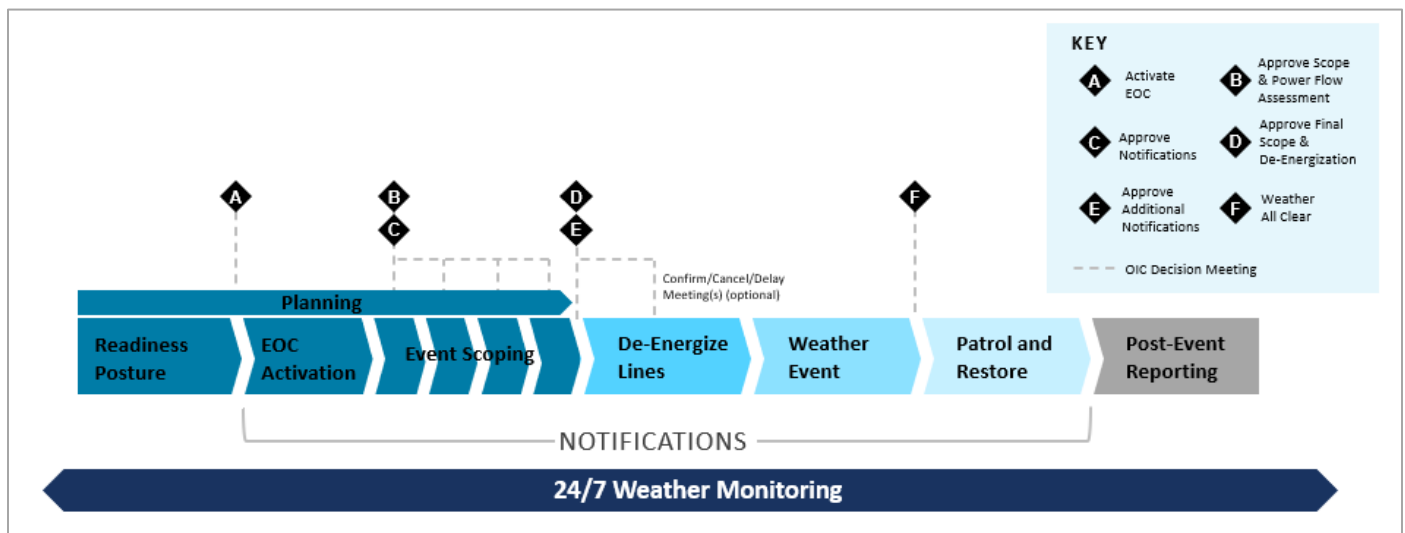
3.7.6 Field Observer Resourcing

When requested, field observations are completed by members of Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

3.8 PSPS Event Scoping

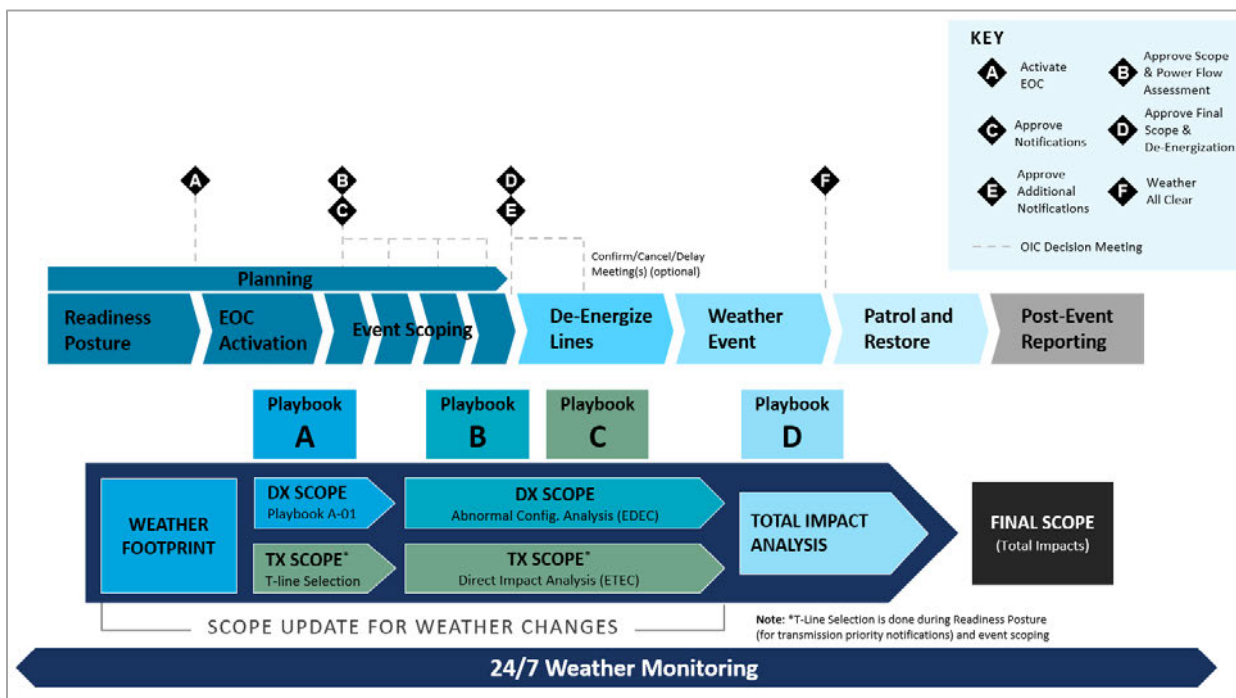
Scoping of a potential PSPS event can begin during Readiness Posture. If there is no Readiness Posture scoping begins after EOC activation. OIC Decisions **B** through **E** are made during the scoping phase. Figure 3-21 shows overview of PSPS sequence and event scoping.

Figure 3-21: PSPS Process with OIC Decisions



Scoping of a PSPS event includes information from meteorology, distribution, and transmission. Through an iterative process a series of Playbooks are created starting with Playbook A and leading towards Playbook D. Figure 3-22 shows components of the scoping process and Playbooks.

Figure 3-22: Scoping Components and Playbooks



3.9 Approval and De-Energization

3.9.1 OIC Approval to Shut off Power

The OIC will make the final decision to shut off power (OIC Decision **D** see section 3.3.4). This decision will be based on an assessment of the quantitative and qualitative factors listed in section 3.3.1.

Upon confirming the decision to shut off power for safety, the OIC will hand off to the EOC Commander to execute the necessary steps to de-energize. The OIC can delegate the authority to the EOC Commander to adjust the scope of the event as necessary if there are emergent weather changes.

3.9.2 De-energization

The de-energization process consists primarily of the following actions:

- EOC team and OIC finalize scope to proactively de-energize customers based on evaluation of quantitative and qualitative information.
- OIC makes decision to proactively de-energize (OIC Decision **D**, see section 3.3.4). If applicable in conjunction with OIC Decision **D**, OIC authorizes notifying any additional customers, OIC Decision **E**.
- Depending on the timing of OIC Decision D in relation to the time of de-energization, with permission from the OIC, the EOC Commander may elect to reaffirm OIC

Decision **D** closer to the start of the weather event in a subsequent de-energization Confirm/Cancel/Delay meetings to account for quickly changing weather conditions and allow for increased situational awareness closer to the time of de-energization.

- Preparations for notifications before de-energization include:
 - Planning Section confirms facilities and customers for shutoff with Electric Operations via approved PSPS Playbook.
 - Planning Section uses the PSPS Viewer and Foundry tools to create updated customer lists, reports, event maps, and files reflecting de-energization plans created from the PSPS Viewer.
 - Planning Section prepares the Cal OES form to notify when first de-energization begins.
 - Digital Strategy team uploads content to the PG&E website, including updated files for the affected area maps, updated files for the address lookup tool, and information that the decision to de-energize has been made.
 - PSPS Portal Lead uploads content to the ArcGIS Online PSPS Portal including updated GIS layers for customer impacts and affected circuits, updated medical baseline and critical facility lists for agency users, and updated affected site lists for critical facility providers.
 - Liaison stages notifications to CPUC, cities, counties, Tribes, and other stakeholder groups informing them of imminent power shutoff (pointing users to the latest files on the web and Portal).
 - Prior to notifying transmission customers PG&E will engage Public Safety Partners as required by the CPUC. In order to ensure compliance with FERC Standards of Conduct, PG&E will communicate concurrently with the initial transmission PSPS scope for the given event (and subsequent modified transmission scopes) to Public Safety Partners who may also be electric wholesale market participants.
 - Planning Section / Digital strategy will post communications, including specifying the transmission PSPS scope, to PG&E's FERC Standards of Conduct website pge.com. PG&E has sought FERC guidance regarding these procedures and may modify these procedures based upon additional input from FERC.
 - Customer Team sends notifications to Public Safety Partners, Critical Customers, Critical Facilities and all other customers informing them of imminent power shut off. Once power has been turned off, customers also receive "power off" notifications.
 - PIO posts on social media and issues press release communications.
 - PG&E will make best effort attempts to provide affected customers, or their agents, with notice, but shall not be liable for interruption if notice cannot be provided in a timely manner, as required in [Electric Rule No. 14](#).

- If conditions exist that make it impossible to inform customers and other stakeholders of an imminent power shutoff, Customer Care and Liaison will send notifications to customer and stakeholders as soon as possible notifying them of the shutoff.
- Electric Transmission and Distribution Control Centers verify impacted circuits and devices.
- Electric Transmission and Distribution Control Centers coordinate opening and closing devices according to PSPS Playbook.
- Electric Transmission and Distribution Control Centers confirm that devices have been opened and that power is shut off.
- Once confirmed, the Transmission and Distribution Control Centers communicate to their respective EDEC/ETEC, who communicate to the respective Distribution and Transmission Branch Directors.
- Distribution Control Centers create outages in Distribution Management System (DMS) that appear in Outage Management Tool (OMT) for distribution to track PSPS devices proactively de-energized (including handing off to next shift).
- DCCs complete via SCADA or give switching instructions to OEC/TFL to complete circuit segmenting after de-energization is completed.
- EOC Commander ensures that Command Calls have appropriate timing to discuss re-energization and protocols (may be necessary in addition to standard schedule).
- DCC segments PSPS impacted distribution circuits following de-energization based on pre-identified locations per the approved Playbook and PSPS Circuit Segment Guides.

3.10 PSPS Recovery - Monitor, Patrol, and Restore

3.10.1 Re-energization Process

The re-energization process consists primarily of the following actions:

- Electric Transmission Grid and Distribution Control Centers (GCC, DCC), and Operations Emergency Centers (OECs) develop restoration plans and determine scope of restoration, including prioritization of circuits/lines and available resources (ground and aerial).
- The EOC provides an estimate of crews (ground and aerial) needed for patrols based on desired ETOR and amount of line miles in HFRA, terrain and accessibility of circuit.

- Meteorology provides a forecast of weather “all clears” by “All Clear Zones” including circuits prior to the OIC Decision **F** meeting to the Planning Section, which creates a “forecast” restoration playbook and sends this to the EOC Operations Chief, who then cascades this forecast to field operations. This facilitates pre-staging of patrol resources.
- EOC Commander provides the OIC the recommendation to re-energize power (i.e., weather “all clear”) for designated “All Clear Zones” or globally for all areas previously de-energized for PSPS. If a recommendation is made only for a designated area/s, later recommendations will address remaining de-energized areas. In some instances, depending on the scale and scope of the Event, EOC Commander may recommend a weather “all clear” for an entire TP, in which case, all of the “All Clear Zones” in the TP will be recommended for re-energization.
- The OIC gives approval to re-energize power (i.e., weather “all clear”, OIC Decision **F**) for designated All Clear Zones or globally for all PSPS de-energized areas. If a decision is made only for a designated area, later decisions will address remaining de-energized areas.

Following each OIC Decision **F** meeting, the PSPS Recorder immediately inputs the approved All Clear Time and the corresponding approved “All Clear Zones” into a form in Foundry. If an entire TP is approved for “all clears” then the Recorder will input the approved All Clear Time and the specific TP in the form. The Recorder also sends a message to the PSPS Technical Unit Leader that this action is complete.

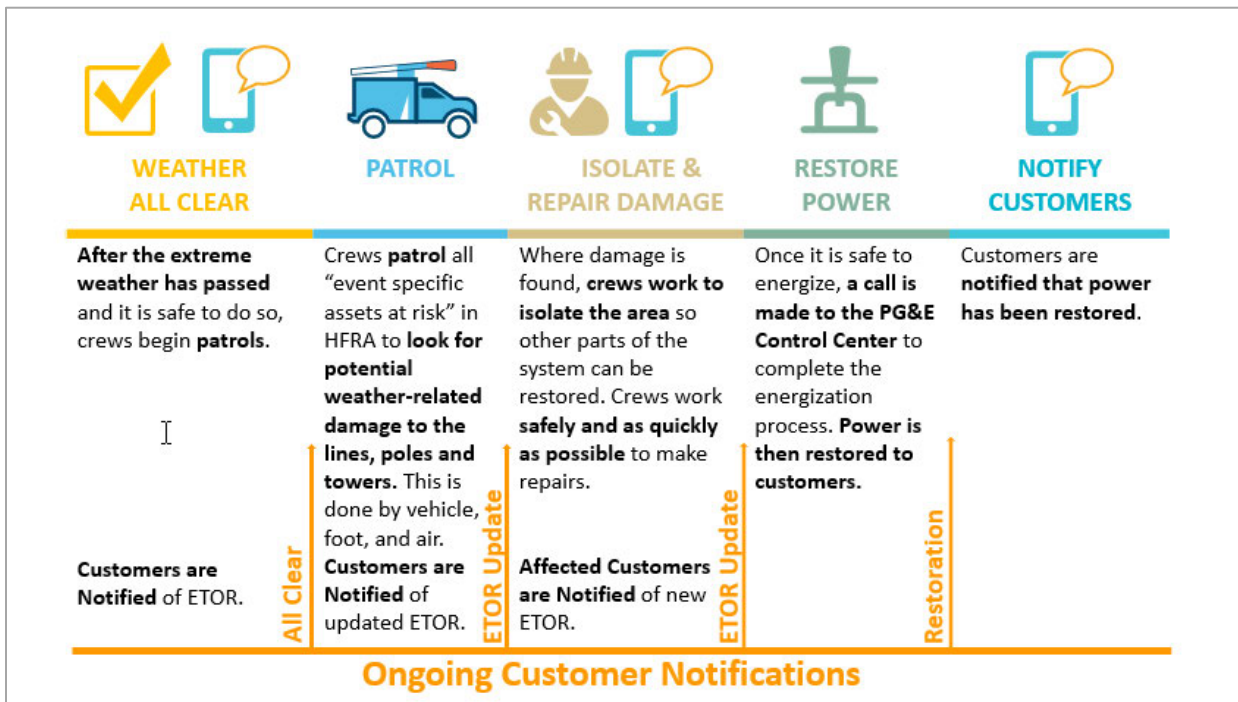
Upon receipt of this information from the Recorder, the Planning Section updates Restoration Playbook F to reflect the approved weather “all clears” and sends the updated Restoration Playbook to the EOC Operations Chief, who further cascades the information to field operations. This process is repeated for every subsequent Decision **F** meeting.

GCC, DCC and Field resources follow procedures found in PSPS-1000P-01 to execute the restoration process.

For guidance on the PSPS re-energization process, see [PSPS-1000P-01, PPS for Transmission and Distribution Lines](#).

The weather “all clear” sets a series of restoration steps in motion as shown in Figure 3-23.

Figure 3-23: Steps after Weather “All Clear”



PG&E intends to provide press releases and updates to pge.com for each of the phases above.

Note: In addition to the overview above, whenever there is new information about the process or through daily updates, PG&E notifies customers about any changes in ETOR and when power has been restored.

3.10.2 Monitor during De-energization

During de-energization the EOC will monitor the weather and impacts to the system (i.e., wind outages in non-high-fire threat areas that may still be impacted) as well as the presence of any emerging or existing fires.

The EOC will coordinate with the Safety Officer to confirm that all field personnel are following safety guidelines for high fire-threat risks, and that employees are not dispatched into potentially dangerous conditions.

Following complete de-energization of all lines in scope, the GCC continues to monitor grid integrity, and the ETEC initiates restoration sequence planning. This involves creation of a prioritized sequence for restoration of transmission assets and validation of the plan with the GCC and CAISO. This plan is discussed/developed with both the EOC and EDEC, finalized, and then provided to the EOC and EDEC to allow for coordinating the restoration efforts once the weather event has passed.

For distribution, once identified assets in the event scope have been de-energized, DCC(s) having jurisdiction over impacted distribution facilities “set up” the de-energized portions of

those circuits by “segmenting” to provide for “step restoration” (details in 3.9.4.1) once the weather event has passed. This segmenting consists of opening pre-identified devices that delineate circuit segment boundaries that are provided both to DCC and field patrol personnel to ensure alignment of patrol efforts once the event has passed. The Customer Owned Line (COL-distribution) and Foreign Transmission Line (transmission- FTL) assets identified during the event scoping phases can typically be isolated during the segmenting phase if resources are available. If not, they would need to be isolated during the restoration phase.

3.10.3 Re-Energization Decision Factors

To begin patrol and restoration, current weather conditions must be below meteorology PSPS guidance, including declining pressure gradients, weather stations must report that winds are decreasing in strength, and field observations must confirm decreasing fire-weather conditions. Additionally, weather forecasts should also indicate that winds are forecast to continue decreasing in strength such that conditions will not exceed meteorology PSPS guidance in the immediate future.

3.10.4 Weather “All Clear” Decision Methodology

Weather “all clears” are called based on pre-defined areas that align with timing of weather conditions. This is known as the All Clear Zone methodology. Due to the large geographic span of some Fire Index Areas (FIA), the Meteorology Department has further divided FIAs into pre-defined boundaries to allow for varying geographic weather conditions. These All Clear Zones align with known meteorological phenomena, such as mountain tops and wind gaps which may experience longer periods of extreme weather. This methodology provides for further granularity in calling weather “all clears”, thereby allowing for areas less prone to extended periods of wind gusts or adverse conditions to potentially be cleared earlier and restored as these more localized conditions permit.

Based on this weather “all clear” decision methodology, the OIC provides the weather “all clears” to begin the re-energization process. The OIC can declare weather “all clears” for specific “All Clear Zones”, entire TPs and also for complete FIAs.

3.10.5 Patrols and Restoration

Following the OIC’s decision to declare weather “all clear”, Electric Operations begins procedures for patrol and restoration.

Once the weather “all clear” is given, PG&E patrols PG&E owned lines to the point of service with Customer-owned lines equipment COL – (Distribution) and Foreign Transmission Lines (FTL - Transmission)².

Once the "All Clear" is given for COL or FTL assets in event scope, they would either have been isolated during the weather event or during the restoration phase of the event. At that

² Customer-owned lines/Foreign Transmission Lines here refers to customers that own either distribution (COL) and/or transmission (FTL) facilities

point, PG&E continues to patrol to the point of service with the COL/FTL. In addition, the customer is notified of the "All Clear" and that they are required to confirm that their equipment is both safe and ready to be energized once PG&E is able to do so and to notify PG&E once customer has completed that confirmation. PG&E will not restore those COL/FTL assets until that customer confirmation has been received. See [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#) for additional details on the overall COL and FTL related process.

The Transmission Branch Director communicates transmission patrol results to the GCC Supervisor. GCC isolates all equipment with found trouble and reports the same to ETEC.

For Distribution facilities, circuit-based structured teams are typically formed and utilized to patrol the impacted "Event Specific Assets at Risk in HFRA" distribution grid assets for damage, and any damage is reported accordingly. The appropriate DCC and OEC will be notified of damage, and any repair work that will require the impacted asset to be cleared. If repairs are required, the Task Force Lead (TFL) notifies the DCC for further instructions. Assets requiring repair are analyzed and subsequent restoration plan adjustments are made, when necessary, then communicated from the DCC to the TFL for alignment and execution.

If a privately-owned line (POL) is de-energized due to a PSPS event, PG&E will provide a courtesy patrol prior to re-energizing. If after the patrol, the line is deemed unsafe and repairs are needed by the POL owner, PG&E will isolate the POL and not-re-energize it until the corrections have been completed.

Field resources patrol lines according to [TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work](#) and [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#). Crews do not have to patrol the entire line at once; rather, they can perform step restoration as they complete patrols.

3.10.6 Step Restoration

Crews patrol circuits in segments. When the patrol of an individual segment is completed (and providing a source is available), that segment can be re-energized. This strategy allows for more efficient restoration of customers compared to having to patrol the entire line prior to re-energization.

- PSPS circuits have been analyzed to 'pre-sectionalize' them into smaller patrol zones called "segments".
- Segments have been prioritized with alphabetical order labels in order of criticality (i.e., critical infrastructure when applicable, customer impacts, etc.) aligned with source availability.
- There is not a 'one-size-fits-all' approach and strategy for every circuit. Patrol and restoration are based upon infrastructure/customer criticality and impacts, with additional considerations typically being length, configuration, patrol types required (i.e., air, vehicle, foot) and given resource availability.

- A 'guidance' based approach for maximizing restoration has been implemented:
 - Simultaneous segment patrols and restoration.
 - Air and ground patrols.
- Communication strategies between TFLs and control centers.
- TFLs are the single point of contact between the DCC and field operation restoration activities. For guidance on restoration, see [PSPS-1000P-01, PSPS for Transmission and Distribution Lines](#).

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4 PSPS Information, Notifications, and Coordination Strategies

4.1 General Information about PSPS Program

PG&E continues outreach and education to share our PSPS criteria and meteorological guidance. This includes but is not limited to briefing the California Public Utilities Commissions (CPUC), California Department of Forestry and Fire Protection (CAL FIRE), California Governor's Office of Emergency Services (Cal OES), and local and tribal governments throughout PG&E's electric service territory. PG&E has also shared its general meteorological guidance information broadly with the public through a series of open houses, webinars, meetings and presentations beginning in 2018. The general meteorological guidance and criteria are also posted on PG&E's external-facing website and included in PG&E's PSPS Policies and Procedures available on pge.com PSPS page listed under "Outages" tab.

To provide greater transparency for interested stakeholders, PG&E has provided detailed weather and PSPS forecasting information on PG&E's public-facing website at pge.com under "Outages" / select "Public Safety Power Shutoff" "PSPS updates and alerts". This includes general information about PSPS, PSPS outages, and PSPS updates and alerts. as well as "[Weather monitoring awareness](#)" with Seven-day PSPS forecasts

Customers are also informed about the PSPS program and how to prepare for a PSPS through various types of customer communications such as letters, doorhangers and information on pge.com. See Appendix E for examples.

4.1.1 Community Resource Centers

To minimize PSPS outage impacts and serve our communities and vulnerable customers during a PSPS event, PG&E is required to open Community Resource Centers (CRCs) in impacted communities. CRCs provide customers and residents a safe location to meet their basic power needs, such as charging medical equipment and electronic devices, access to resources (water, snacks, restrooms, etc.), and up to date event information. PG&E works closely with impacted counties and Tribes to mobilize indoor and outdoor CRCs as soon as possible from the time of de-energization until the time electric service is fully restored. CRC standard operating hours are from 8:00 AM - 10:00 PM.

For additional details on: PG&E's coordination with counties, Tribes, and other key stakeholders in the selection of CRC sites and the formation of its CRC plan, details on site selection requirements and steps, resources available at CRCs, considerations for AFN and medical baseline customers, on-site and off-site support staff, and many other details related to the CRC program see the [CRC Plan](#) located in Appendix A of PG&E's 2022 Preseason Report.

4.1.2 Support for Access and Functional Needs Populations

PG&E recognizes that de-energization has a disproportionate impact on our most vulnerable populations, including Medical Baseline customers, as well as individuals with

Access and Functional Needs (AFN) individuals as defined by the California Public Utilities Commission.³ It is critical to ensure these individuals are aware of a potential PSPS and are prepared with information and resources.

Before, during and after PSPS, PG&E collaborates with a number of Community Based Organizations (CBOs) as both information and resource partners to help broaden our message, provide resources and assist with emergency preparedness. Refer to PG&E's AFN plan for specific details. PG&E collaborates with the California Foundation for Independent Living Centers (CFILC) to implement the Disability Disaster Access and Resource (DDAR) program. The [DDAR program](#) provides assistances to those individuals who require continuous power for medical sustainability or independent living needs with emergency planning and assistance charging medical devices during PSPS. This may include but is not limited to those in the aging population and those who may have disabilities. Local Independent Living Centers (ILCs) participating in the DDAR program can be found at [Disability Disaster Access & Resources](#).

PG&E is also partnered with the California Network of 211, a free-confidential calling and texting service to provide customers with support and resources during periods of critical needs. 211 provides PSPS education, outreach and emergency planning in advance of PSPS outages and connect individuals with AFN or other needs to critical resources. This includes transportation, food delivery, hotel accommodations, portable backup batteries, food replacement and other social services during and after PSPS.

To view additional resources, partnerships and detailed information, see [pge.com](#) "[Resources for accessibility, financial, language, and aging needs.](#)"

4.1.3 Microgrids for Community Power Continuity

Objectives

PG&E has two microgrid initiatives designed to support customers during PSPS, each of which is configured to address a different type of PSPS impact:

1. **Temporary Substation Microgrids** are focused on energizing customers when the substation serving them is impacted by an upstream transmission line de-energization but the distribution lines coming out of the substation still have safe-to-energize load (i.e., transmission-level only impacts).
2. **Temporary Distribution Microgrids** are focused on energizing "main street corridors" with shared services and critical facilities when the distribution lines serving these areas are de-energized as a result of a PSPS event (i.e., distribution-level impacts or transmission-level impacts).

The microgrids are "temporary" in nature because they utilize mobile temporary generation.

³ CPUC PSPS Phase 1 D.19-05-042 (pp. A6-A7), AFN Populations consists of "individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant."

The scale and scope of each temporary microgrid will vary. The common design elements among them are:

- A safe-to-energize polygon that can be isolated from the wider grid using sectionalizing devices. The scale and scope of the polygon, and whether sectionalizing devices are operated manually or remotely will vary by site.
- For Distribution Microgrid deployments, a pre-installed interconnection hub (PIH) made up of a pad-mounted transformer and recloser. The PIH is constructed to enable rapid mobile generation connection. The PIH design will be standardized across sites to speed up construction and simplify operating procedures.

Process

Step-by-step instructions including rental equipment needs, switching logs, and customer notification processes will be handled by the EOC and Distribution Control Centers for each temporary microgrid that is declared operationally ready.

4.1.4 Backup Power Support

As a general policy, PG&E does not offer backup generation to individual facilities. However, PG&E's policy allows for granting exceptions for critical facilities when a prolonged outage could have a significant adverse impact to public health or safety (including illustrative examples):

- High risk to public safety (e.g., hospital with active trauma units; critical water or wastewater asset; city or county EOC).
- High risk of environmental hazard (e.g., chemical plant which risks toxic spill into local river).
- High risk to essential emergency response and support facilities (e.g., 911 call center; water pump availability compromises firefighting; critical telecommunications equipment or other support businesses that directly affect emergency services provision).

PG&E's EOC manages incoming requests for backup power support during PSPS events. Requests will be routed through an approval process within the ICS, and, if approved, will be fulfilled by PG&E in partnership with generator contractors.

Temporary generation requests and prioritization are reviewed on a rolling basis during PSPS events in accordance with [PSPS-4999-B001, Mobile generator use during Public Safety Power Shutoff \(PSPS\)](#). (to become Standard PSPS-4000S, targeted publishing September, 2022)

4.2 Identifying Impacted Customers

To effectively identify impacted customers and deliver notifications, Customer Section needs:

- Customer Impact and Customer Notification files
- Medical Baseline, Self-Identified Vulnerable, AFN characteristics, and Critical Facility customer data
- Transmission Customers
- Event maps

Figure 4-1 shows the groups to be identified among impacted customers.

Figure 4-1: Identifying Impacted Customers



4.3 Event Specific Information

Recognizing that de-energization for public safety does burden communities with risks and hardships, PG&E is committed to providing notice to customers and communities when severe weather, combined with heightened fire risk are forecasted. As part of this commitment, PG&E provides event information using a multi-channel notification approach through direct (i.e. phone calls, text and e-mails) and indirect (i.e., social media, local news, radio and the pge.com) outreach.

The EOC Planning Section is the central source for all event-specific data and maps. Public Information, Customer Care, Liaison and IT teams coordinate with the EOC Commander and Planning Section on required sequencing of notifications, consistent with CPUC guidelines.

Before notifications are sent out:

1. Planning Section, PIO, LNO, and CSO ensure all channels are ready to receive in-bound traffic (e.g., pge.com, the PG&E emergency web site, PG&E's PSPS Portal and call center).

2. Planning Section ensures data files are transferred to Digital Strategy (Emergency Web), PSPS Portal and Customer and Liaison Sections (notifications).
3. Planning Section / Digital Strategy uploads FERC notification to FERC Standards of Conduct after OIC Decision **C** and again at OIC Decision **E**.

4.3.1 PSPS Portal – Event Specific Information for Public Safety Partners

During a PSPS event, maps and other event information are posted on the PSPS Portal concurrent with the initial notification to Public Safety Partners (PSAP). PG&E updates the maps and data files on the PSPS Portal as weather forecasts change and detailed customer impact assessments are performed. PG&E also validates that the information shared on the Portal is refreshed twice daily at fixed times in the morning at 0900 and afternoon at 1500, regardless of a change in scope or customer impacts.

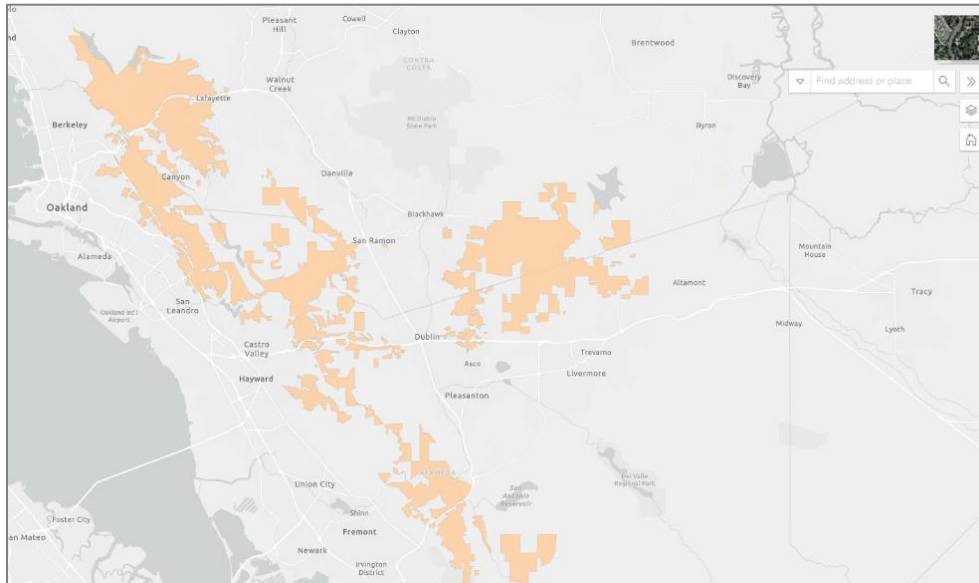
The PSPS Portal has an interactive map that will allow the user to select various data sets for visualization. The map includes a search function to display customer and critical facility impacts within a geographic area, such as a particular city or county.

PSPS Portal Users receive e-mail notifications when new files are available on the PSPS Portal, as well as at the twice daily morning and afternoon update. PSPS Portal users are also encouraged to check back every few hours as information will be updated in real-time. Agency representatives aim to keep cities, counties and Tribes informed during the event when changes to the Portal have been made.

Agency users must accept an online confidentiality agreement related to customer privacy and data handling requirements to receive enhanced data access. This enhanced access includes names and addresses of potentially impacted Medical Baseline and Self-Identified Vulnerable customers, critical facilities and all impacted customers within a jurisdiction in advance of and during a PSPS event.

Event map: Allows the user to view a map of the areas projected to be affected by the shutoff event. These maps are parcel based without buffered areas. An example is shown in Figure 4-2.

Figure 4-2: Example Parcel Based Map



Event files: Include County PDF maps, GIS layers, and an event-specific Customer Impact Summary Report. For agencies these files include lists of Medical Baseline customers, Critical Facilities, and All Impacted Customers within the forecasted scope of the event. Critical facility providers are provided a list of all sites within the forecasted scope of the event. This also includes files for ad hoc data requests from users.

Access: For internal PG&E users to get access to the PSPS Portal see Appendix D, PSPS Portal – Instructions to Request Access. External users should request access via an online form available at: pspsportal.pge.com.

4.3.2 Event Specific Information on PGE.com

Event specific information is made available to the public on the PSPS page of the [PG&E Emergency Web](#) including PSPS updates, maps, and a way for customers to do an address lookup to see if an address will potentially be affected. Updates to the site are made when possibility of PSPS event is announced, when new information is available along the way to decision to de-energize, weather “all clear” to begin restoration, information on patrols, estimated times of restoration (ETORs) and restoration progress/restored.

PSPS Warning – The company Emergency Operations Center (EOC) is activated and customers in areas being considered for PSPS have been or are being notified. This level indicates execution of PSPS is probable given the latest forecast of weather and fuels and/or observed conditions. PSPS is typically executed in smaller and more targeted areas than the PG&E Geographic Zones. This level does not guarantee a PSPS execution as conditions and forecasts may change.

Based on a detailed analysis of PG&E's high resolution 30-year climatology and historical weather patterns, conditions that may warrant PSPS are most likely to occur in September/October/November when fuels are typically at their driest levels and dry offshore winds occur before widespread rain. PSPS events are also possible at other times of year based on the lack of precipitation and droughts. For example, a persistently dry autumn or winter season may result in potential PSPS conditions extending later into the year.

4.3.4 Social Media Engagement

PG&E uses social media, including Facebook, Instagram, Twitter and NextDoor, to direct users to its website where they can access important emergency preparedness information, as well as PSPS event updates and resources (e.g., Customer Resource Center (CRC) locations).

4.4 Customer and Agency Notifications

PG&E is committed to adhering to state directives for disseminating information during a PSPS event.

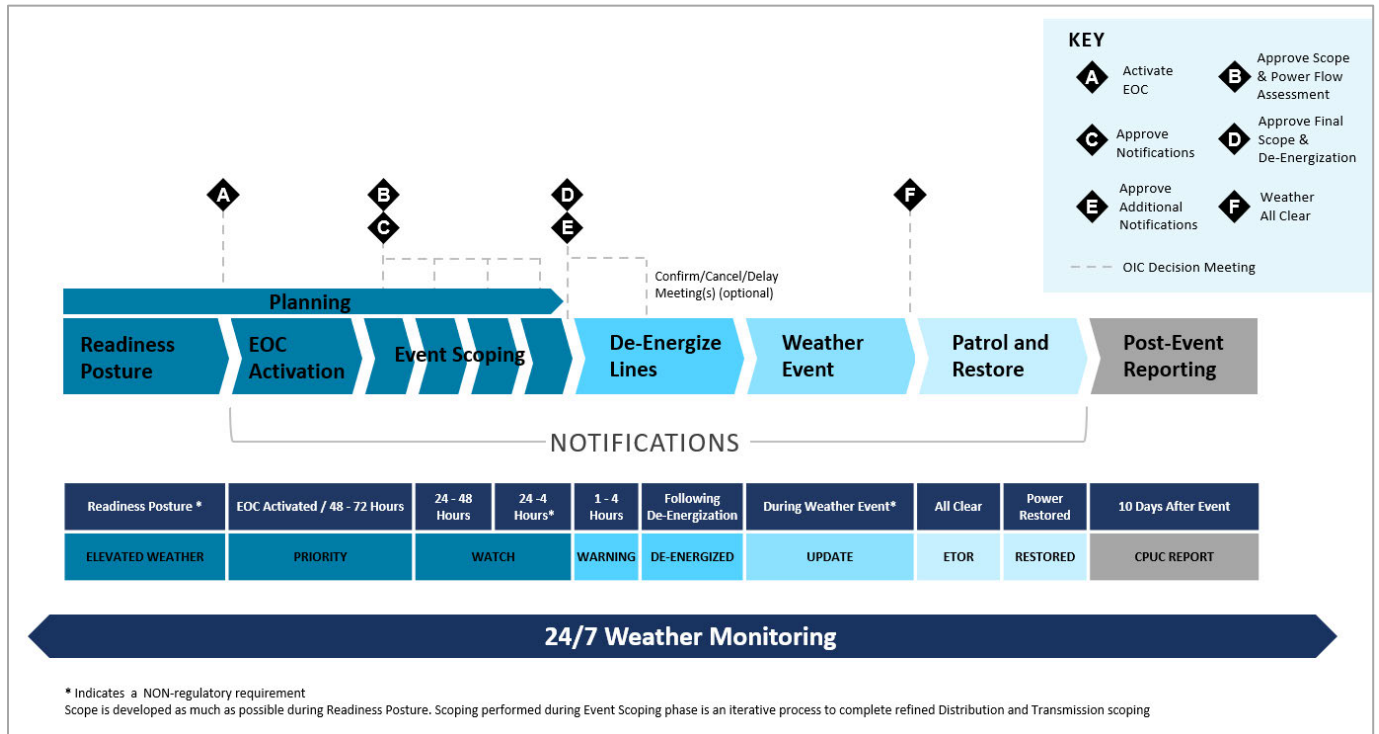
The OIC will make the decision to notify agencies and customers of PG&E's scope for de-energization (OIC decisions **C** [initial] and **E** [approve additional customer notifications (if scope has changed)]), see section 3.8.1.

PG&E notifies Cal OES via the Cal OES PSPS State Notification Form and the CPUC via email prior to making a decision to de-energize unless the threat to public safety would increase by taking time to first notify these agencies. PG&E will also notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications. For the transcripts of notifications see Appendix C.

Communications and external outreach to the public via website updates, press releases and social media updates, along with direct notification to potentially impacted customers will be made after agencies are notified of the decision to de-energize based on the strategy outlined in the section above.

PG&E will provide as much notice as possible when a decision has been made to shut off power. Figure 4-4 shows the timeline for PSPS notifications.

Figure 4-4: PSPS Notification Timeline



4.4.1 Initial Notification Sequence

Priority Notice is sent out in a pre-specified sequence approximately 48-72 hours prior to de-energization:

1. Cal OES, CPUC, County OES, Public Safety Partners, Tribes, and California Independent System Operators (CAISO).
2. City, County, Community Choice Aggregates (CCAs), Publicly Owned Utilities (POUs).
3. Level 1 Critical Customers (CC1s) including telecom, emergency hospital services, water agencies
4. Transmission-level customers.

The OIC makes decision **C** is to send the first wave of customer notifications.

Customer notifications are sent out in a prescribed sequence starting at “Watch” within 24-48 hours:

1. Public safety partners.
2. Other critical facilities, Medical Baseline, Residential and Commercial Customers.
3. News release (depending on cycle).
4. Medical Baseline Doorbell Rings.

The next CPUC prescribed notification after 24-48 hours is 1-4 hrs before de-energization.

The following describes PG&E's notification process for PSPS events, whenever possible, and depending upon conditions. When issuing Priority Notice for a potential PSPS event, PG&E will complete the following tasks:

- Publish all web content for PSPS Portal and Emergency Web.
- Submit Public Safety Power Shutoff State Notification Form to Cal OES.
- Contact CPUC Safety and Enforcement Division (SED) Director.
- Conduct live calls to County Office of Emergency Services (OES), County and Local Public Safety Answering Points (PSAPs) and Tribal governments potentially impacted by the PSPS event.
- Conduct coordination with CAISO through ETEC.
- Execute automated calls, emails and texts to counties, cities, Tribes and Community Choice Aggregators (CCAs), wholesaler, transmission and municipal utilities customers potentially impacted by the PSPS event, which includes a link to PG&E's PSPS Portal and PG&E's Priority Partner page where event-specific information and maps can be found.
- Execute automated calls, e-mails and texts to critical facilities, Transmission-level customers, and other Public Safety Partners that are PG&E's customers and a critical facility (referred to as a "Critical Service Provider"). Notifications to the critical service providers will include a link to PG&E's Priority Public Safety Partners page where event-specific information and maps can be found.
- If Transmission lines are in scope, generating the FERC posting.

Starting approximately two days (or within 24-48 hours) prior to de-energization, once the above notifications have been completed, PG&E will send the first notification to potentially impacted critical facilities and all other customers (including Medical Baseline), wholesaler, transmission and municipal utilities customers. Customers with active temporary generation efforts in their area will receive information specific to their area.

PG&E will take additional steps to notify customers who are enrolled in the PG&E Medical Baseline program. Event notifications to these customers are made through automated calls, texts, and emails in advance of de-energization and PG&E will ask these customers to confirm they have received the message.

For Medical Baseline customers and Self-Identified Vulnerable customers with whom PG&E is unable to make successful contact, PG&E representatives will also conduct doorbell rings to ensure they have received pre-energization notification to activate their emergency plan. PG&E will prioritize doorbell rings with those customers who rely on electricity for critical life-sustaining equipment.

PG&E works to notify stakeholders on this timeline and to provide multiple notifications whenever possible before de-energization:

- **Priority Notice** (48-72 hours) prior to anticipated de-energization: notification to Public Safety Partners/Transmission Customers/Critical Public-Safety, CCAs and POUs related facilities.
- **Watch** (~ 2 Days) prior to anticipated de-energization: notification to all potentially impacted customers and stakeholders/populations.
- **Watch** (~ 1 Days) prior to anticipated de-energization: notification of all potentially impacted customers and stakeholders/populations.
- **Warning** (1-4 hours before de-energization) notification of all potentially- impacted customers and stakeholders/populations.
- **De-energization** notification of all impacted customers and stakeholders/populations.
- **Update** notification (if PSPS event / de-energization is extended/delayed/cancelled): notification of all impacted customers and stakeholders/populations.

After the OIC and EOC Commander indicate a weather “all clear”, OIC Decision **F**, PG&E communicates the post-weather event update to impacted customers via phone call, e-mail, and text (based on customer/account contact information populated in their PG&E profile). PG&E will notify cities, counties, Tribes, CCAs, and other public safety partners prior to sending customer notifications.

As ETOR is updated by Operations, ETOR Update notifications will be sent to customers and public safety partners impacted by the PSPS event.

Upon restoration, impacted customers and public safety partners will receive a Power Restored notification.

For the transcripts of notifications, see Appendix C.

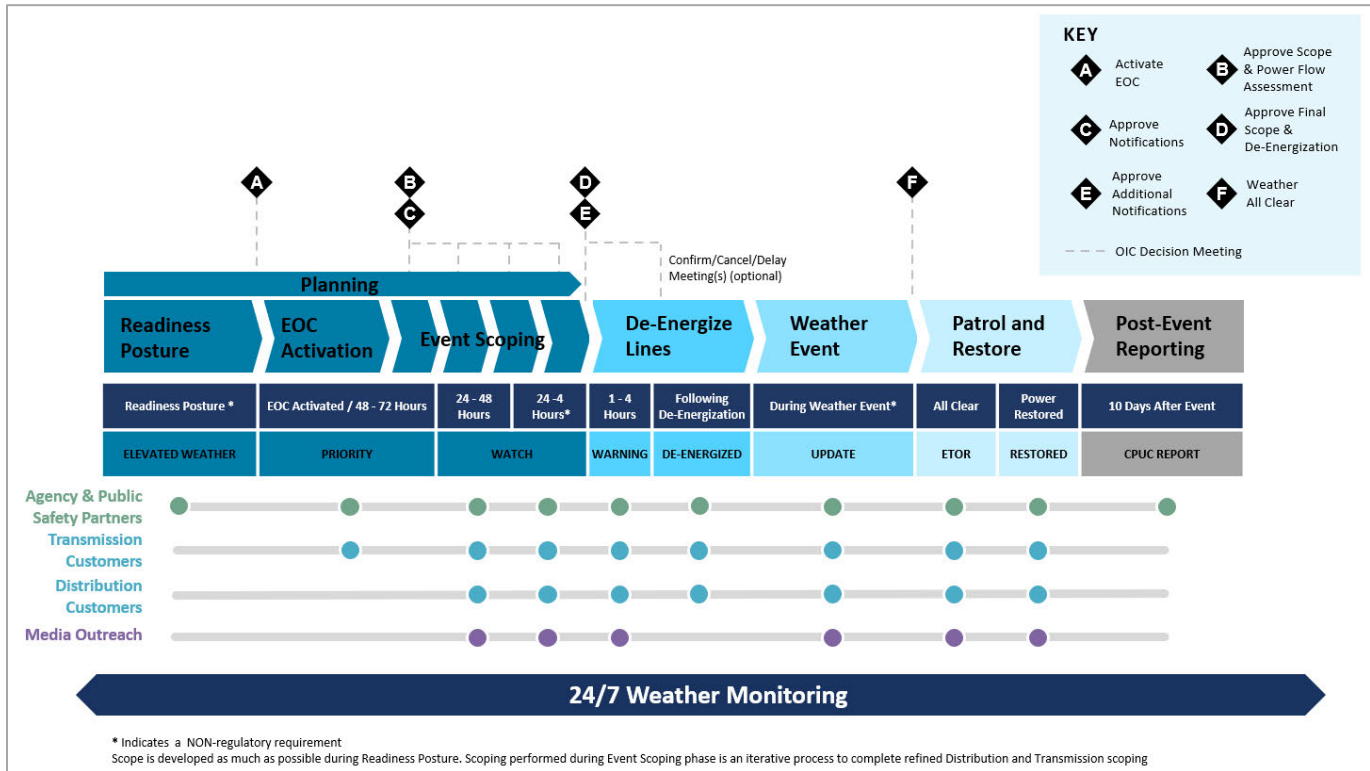
Affected customers will receive the following notifications during the restoration process.

- **Weather All Clear** (patrols begin): notification of all other impacted customers and stakeholders/populations and Public Safety Partners.
- **Estimated Time of Restoration (ETOR) Update** (available when OMT is updated with ETORs): notification of all other impacted customers and stakeholders/populations and Public Safety Partners with ETOR information. The ETOR provided at this time supersedes the global ETOR provided in advance of de-energization.
- **Power Restored** (re-energization is complete): notification to all impacted customers/populations with date and time their power was restored and notification to agencies with the information that their jurisdiction has been restored.

NOTE: Actual timing of notifications will be driven by the timing of weather, forecasting, and expected impacts.

Figure 4-5 shows a timeline for PSPS Notifications.

Figure 4-5: PSPS Notifications Timeline



4.5 De-energization Customer Cancellation Notification

PG&E will also send a cancellation notice if the decision is made not to de-energize, when and where possible within 2 hours of the decision. For an example of a cancellation notice transcript see Appendix C.

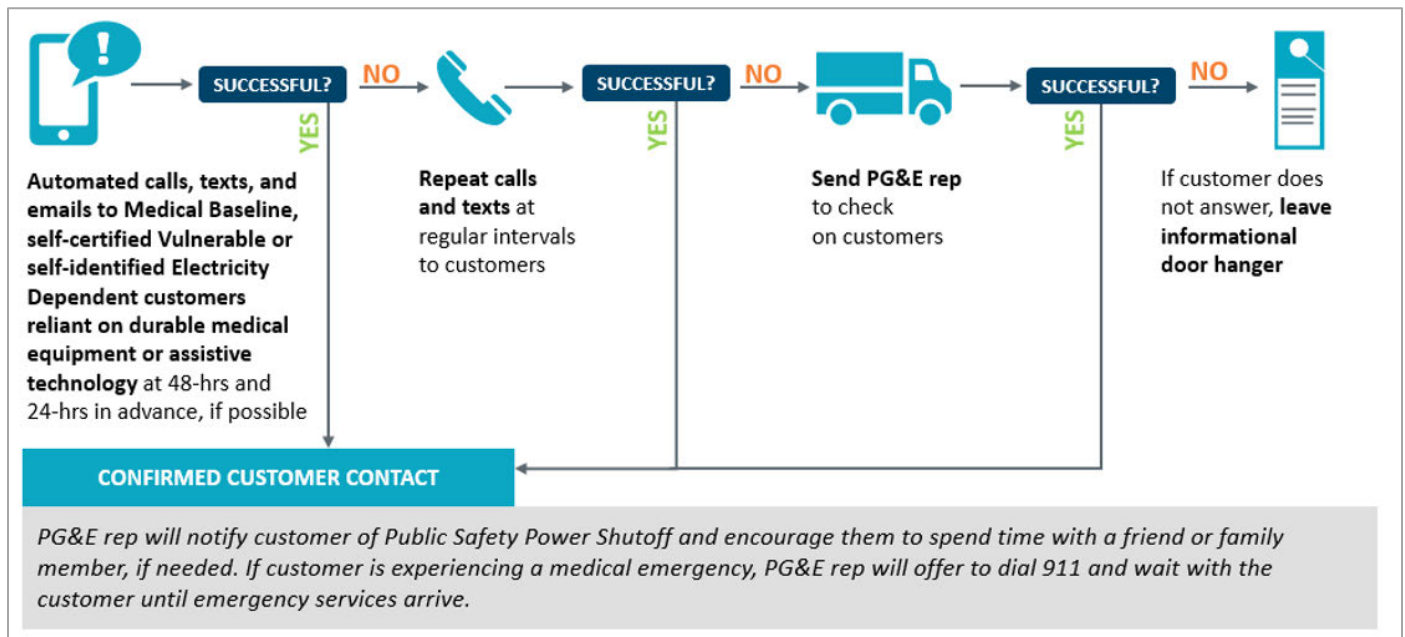
4.6 Doorbell Ring Process

Successfully notifying and confirming acknowledgment of notifications to Medical Baseline, self-certified Vulnerable, self-identified Electricity Dependent customers reliant on durable medical equipment or assistive technology, is critical and of the highest priority to ensure they are aware of the potential de-energization and can execute their emergency plan accordingly.

If automated phone calls, e-mails, and text messages are not acknowledged by these customers, and repeated calls are also not successful, PG&E will send representatives to the previously referenced customer’s address to ring the doorbell to ensure the resident

has been notified of the potential PSPS. Figure 4-6 gives an overview of the Doorbell Ring process.

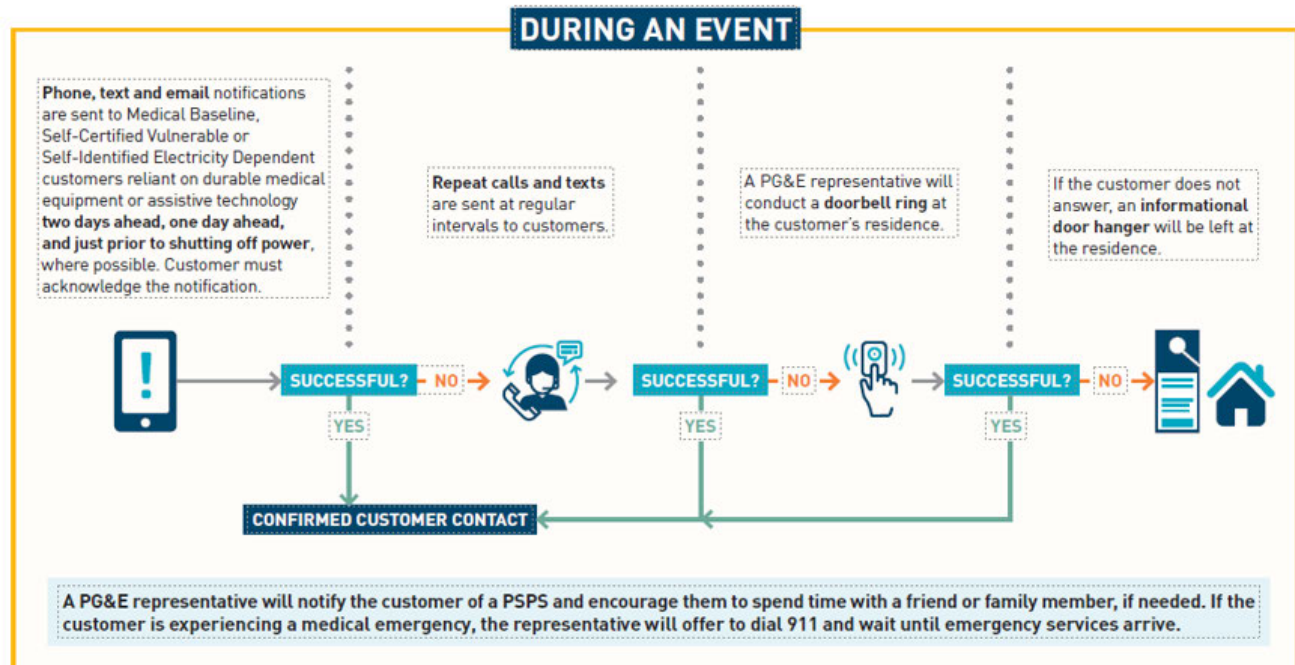
Figure 4-6: Doorbell Ring Process



Contact Success Reporting to EOC

Figure 4-7 shows the process towards Medical Baseline, self-certified Vulnerable or self-identified Electricity Dependent customers reliant on durable medical equipment or assistive technology Success Reporting to the EOC.

Figure 4-7: Contact Success Reporting to the EOC



4.7 Master Meter Customer Notification

Master Meter customers are those that have a single account that covers multiple residences or business. Examples include apartment buildings and property management companies.

Since tenants and businesses in locations that have a Master Meter receive electric service from PG&E, but they are not the account holder, PG&E has no contact information to reach out before or during events. The exception to this is if a master meter tenant is enrolled in Medical Baseline.

PG&E continues to conduct outreach to the Master Meter account holder and provides resources and information for each account holder to provide to their tenants.

4.7.1 Pre-event Outreach

PG&E continues to drive awareness of the PSPS program to customers that are tenants of master-metered accounts. This includes sending a tenant education kit to master-metered owners via direct mail and email (if an email address is available). This kit contains a letter to remind master-metered owners to maintain contact information for their tenants and distribute PSPS notification details to their tenants in the event of a PSPS event, as well as provide PSPS overview flyers that can be posted in communal areas.

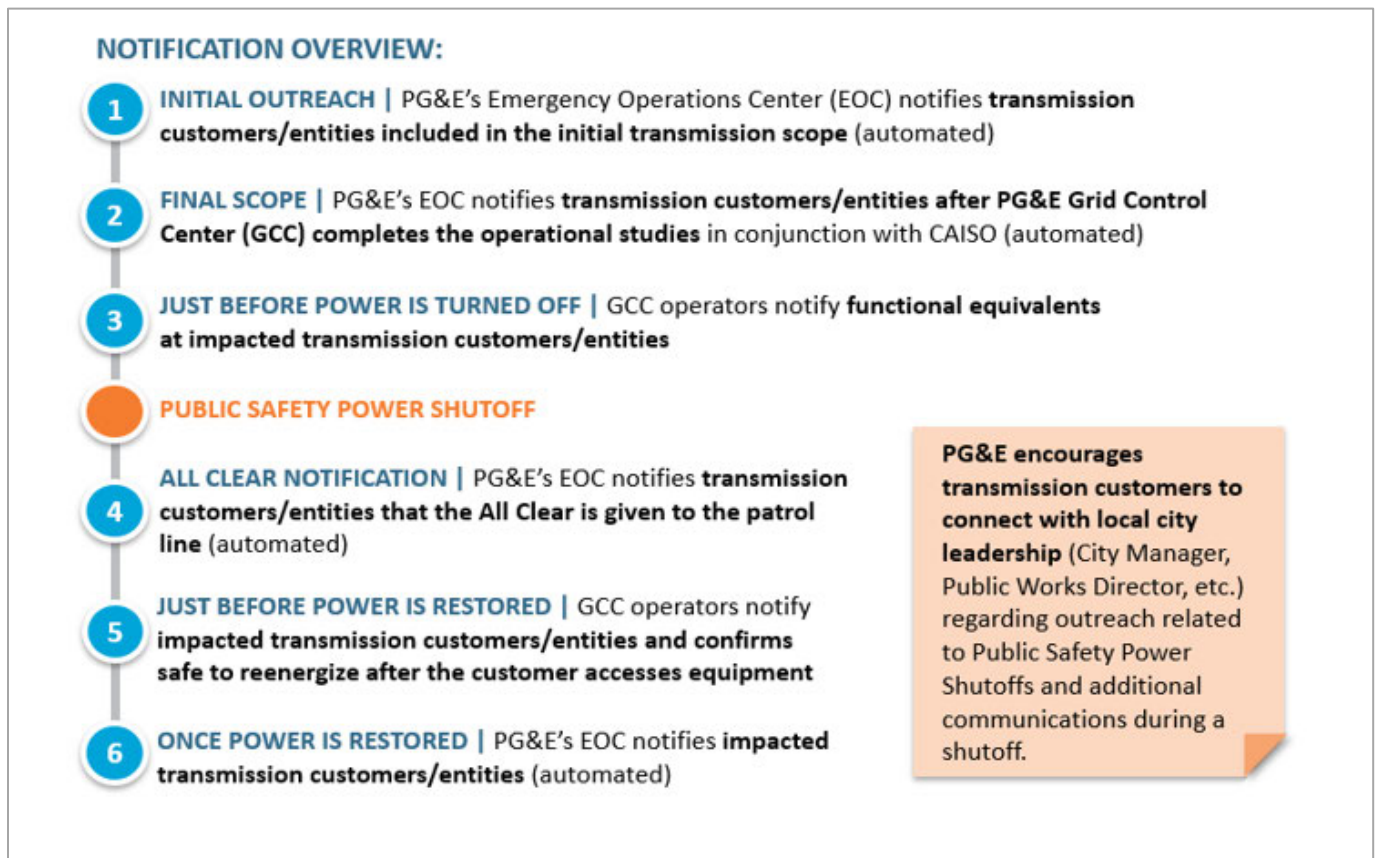
4.7.2 Address Level Alerts

PG&E continues to drive awareness of Address Level Alerts to master metered owners. This tool can be utilized by tenants to receive PSPS notifications for a specific address. Notifications can be received via Interactive Voice Recording (IVR) or SMS and in-language (English + 15 languages).

4.8 PSPS Notifications for Transmission Customers

Figure 4-8 shows a sequence for notifications of Transmission Customers.

Figure 4-8: Notifications for Transmission Customers



4.9 Agency Event Notifications and Coordination

4.9.1 What Agencies can expect before, during, and after a PSPS Event

4.9.1.1 Information Resources in Advance of a PSPS Event

The following information resources are available in advance of a PSPS event:

- Access to the PSPS Portal, which includes:
 - Planning maps.
 - Summary Customer Impact tabular files.
 - Lists of Medical Baseline program participants (customers and master metered tenants) in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.
 - Critical facilities in areas estimated to be within the scope of the upcoming event and within the jurisdiction of the agency.

- The [PSPS Policy and Procedures document](#) that includes information such as PSPS criteria, event notifications and customer resources.
- Access to an assigned Agency Representative who can help provide additional materials or information regarding emergency planning and PSPS.
- A phone call to affected Office of Emergency Services (OES) from their dedicated PG&E representative when an upcoming event is being monitored.

4.9.1.2 Information Resources during a PSPS Event

The following information resources are available when the PG&E EOC has been activated for a PSPS event:

- An assigned Agency Representative who will assist with resolving local issues in real-time.
- A phone call to all Public Safety Answering Points (PSAP) in potentially affected areas.
- A phone call and e-mail to potentially affected county/tribal OES's with information regarding estimated event timing, availability of preliminary event maps and customer lists, and an offer to embed a PG&E representative in their local EOC. Additionally, a phone call is made to neighboring counties to County OES impacted by a potential PSPS event.
- Automated calls, texts and e-mails at least once a day with event timing (i.e., de-energization, weather "all clear," updates, restoration and/or cancellation) for their jurisdiction.
- Tribal and Operational Area Cooperator calls hosted by Tribal and Agency Representatives to review event-specific information changes and resolve local issues (Tribal and Agency Representative and county to determine need and frequency).
- Daily Systemwide Cooperator's Call hosted by PG&E's EOC providing the latest high-level PG&E systemwide event updates.
- E-mail notifications to all PSPS Portal users when any updates are made.
- Resources uploaded to the PSPS Portal, including:
 - Situation Reports (posted twice daily).
 - Maps (interactive, PDFs and GIS layers) at a parcel-level and updated as decisions affecting shut off scope are made.
 - Summary reports with customer impact totals by jurisdiction.
 - Lists of potentially affected Medical Baseline program participants (customers and master meter tenants) and critical customer lists with names and addresses (for Public Safety Partner agencies that accepted the online agreement).
- Local governments are welcome to embed a representative in PG&E's EOC for any PSPS event. Once PG&E's EOC is activated, a request should be made to the

Agency Representative, who can provide additional logistical details and notify PG&E's EP&R department.

4.9.1.3 Information Resources after a PSPS Event

The following information resources are available after a PSPS event:

- PG&E submits an event report to the California Public Utilities Commission (CPUC).
- A copy of the event report is provided to impacted cities, counties and Tribes.
- The report is posted on PG&E's website.

4.9.1.4 Emergency Operations Center Coordination

PG&E offers the following resources to support local Emergency Operations Centers (EOCs) during a PSPS event:

- **Agency Representative** will be assigned to each county and tribe to act as a single point of contact during an event. The Agency Representative can also staff a county or tribe's local EOC upon request.
- **Third-Party Representative** such as Tribes, cities, counties, water agencies and telecommunication providers may request to send/virtually embed a representative to the PG&E EOC during a PSPS event.
- **Account Managers and Local Customer Strategy Officers** engage with critical customers locally.

NOTE: To further reduce the risk of Covid-19 transmission, PG&E provides remote support when able.

4.9.1.5 Notifications Process for Adjacent Agencies

The PSS will call County OES of neighboring counties adjacent to potentially affected jurisdictions to notify them of a potential PSPS event. They will also be invited to a once daily Systemwide Cooperators Call. The call-in information will be provided via email once PG&E's EOC is activated. All local and tribal governments will have access to event information through the PSPS Portal, regardless of whether they are expected to be impacted or not. Email notifications will also be sent via the PSPS Portal to all users when any event information has been posted.

4.9.1.6 PSPS Daily Calls

Figure 4-9 shows a schedule for PSPS daily calls.

Figure 4-9: PSPS Daily Calls

| SCHEDULE | |
|----------|---|
| 0800 | Operational Areas Cooperators Comms, as requested |
| 0900 | |
| 0930 | Tribal Cooperators Call |
| 1100 | |
| 1200 | Systemwide Cooperators Call Resource Partner Coordination Call |
| 1300 | |
| 1400 | |
| 1500 | Operational Areas Cooperators Comms, as requested State Executive Briefing |
| 1600 | Tribal Cooperators Call |
| 1700 | |

4.9.1.7 Systemwide Cooperators Call

At noon each day, PG&E's EOC will host a Systemwide Cooperators Call (Figure 4-10) to provide an update on the PSPS event. The call will be open to tribal, city, county governments, water agencies, telecom providers, emergency hospitals, community-based organizations and community choice aggregators within PG&E's service area, not just those within the PSPS scope.

Figure 4-10: Agenda for Systemwide Cooperators Call

| AGENDA | | | | |
|-------------------------|---------------------------------------|---|---------------------|--------|
| Meeting | PG&E PSPS Systemwide Cooperators Call | | | |
| Call Time | 1200-1230 | Leader | Liaison Officer | |
| Meeting Location | <i>Vendor to provide info</i> | Facilitator | Liaison Officer | |
| Call-In Info | <i>Vendor to provide info</i> | Recorder | Liaison Coordinator | |
| Item | Topic | Description | Lead | Time |
| 1 | Introductions | <ul style="list-style-type: none"> Welcome Meeting purpose Safety | Liaison Officer | 3 Mins |
| 2 | Weather | <ul style="list-style-type: none"> Weather updates | Meteorologist | 5 Mins |
| 3 | Operations | <ul style="list-style-type: none"> Key operational activities Counties currently in scope Timing of de-energization and restoration | Liaison Officer | 5 Mins |
| 4 | Agency Outreach | <ul style="list-style-type: none"> State agency outreach Agency notifications last completed/next anticipated Agency Representative outreach to counties/tribes | Liaison Officer | 5 Mins |
| 5 | Customer Outreach | <ul style="list-style-type: none"> Customers impacted Call Center wait time status Customer notification last completed/next anticipated Medical Baseline Program customer outreach status Community Resource Centers status Community Based Organizations update | Assistant CSO | 5 Mins |
| 6 | Public Information | <ul style="list-style-type: none"> Website stability status News release last completed/next anticipated PSPS Public Briefing timing | PIO | 5 Mins |
| 7 | Closing | <ul style="list-style-type: none"> Reminder to coordinate with PG&E contact for any questions Date and time of next call | Liaison Officer | 2 Mins |

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5 PSPS Data Sources

The decision factors for considering PSPS are both quantitative and qualitative:

Quantitative measures include but are not limited to current conditions of wind speed, humidity, temperature, asset health, and live and dead vegetation moisture content.

Qualitative measures include real-time outage tracking, observations in the field, and third-party hazardous condition reporting (which will help validate forecasted weather conditions). PG&E Field Observers conduct field observations to verify that nothing is happening weather-wise earlier than expected, and to act as eyes on the ground to confirm that there is no need to execute earlier than expected based on weather forecasts.

All data created during a PSPS event are to be stored on the [EOC SharePoint](#) under “Past Incidents” / “Incidents” into the respective year and PSPS event folder. The Planning Section creates an event specific file structure at the beginning of the event and circulates the link to all teams so that the information can be centralized and stored according to Enterprise Records Information policies.

5.1 Weather Forecasting / Large Fire Probability Model – Quantitative Factors

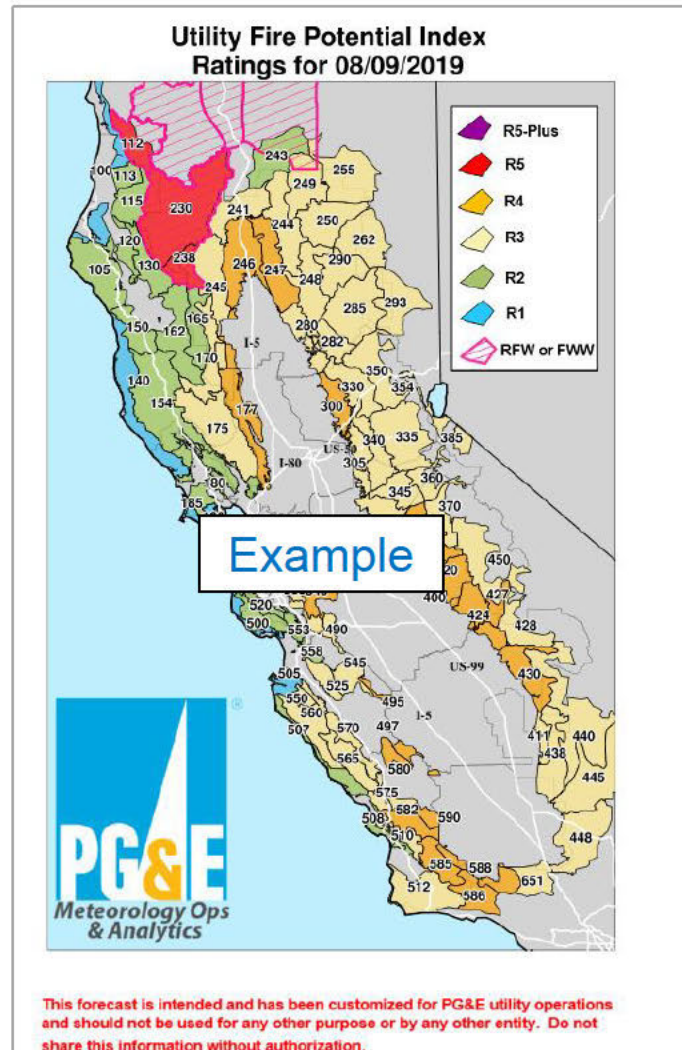
5.1.1 Fire Danger Rating Scale and Utility Fire Potential Index

Modeled fire weather and fuel conditions are combined in a Utility Fire Potential Index (FPI) to forecast daily fire danger ratings by FIA. The fire danger rating scale (shown below) and related thresholds are based on historical incidence of large fires across PG&E’s territory, and the potential for increasingly severe and uncontrollable fires as the scale moves up from R1 to R5 as shown in Figure 5-1. An example map with utility fire potential index ratings is shown in Figure 5-2.

Figure 5-1: PG&E Utility Fire Potential Index Scale

| |
|---------|
| R1 |
| R2 |
| R3 |
| R4 |
| R5 |
| R5-Plus |

Figure 5-2: Example Map with Utility Fire Potential Index Ratings



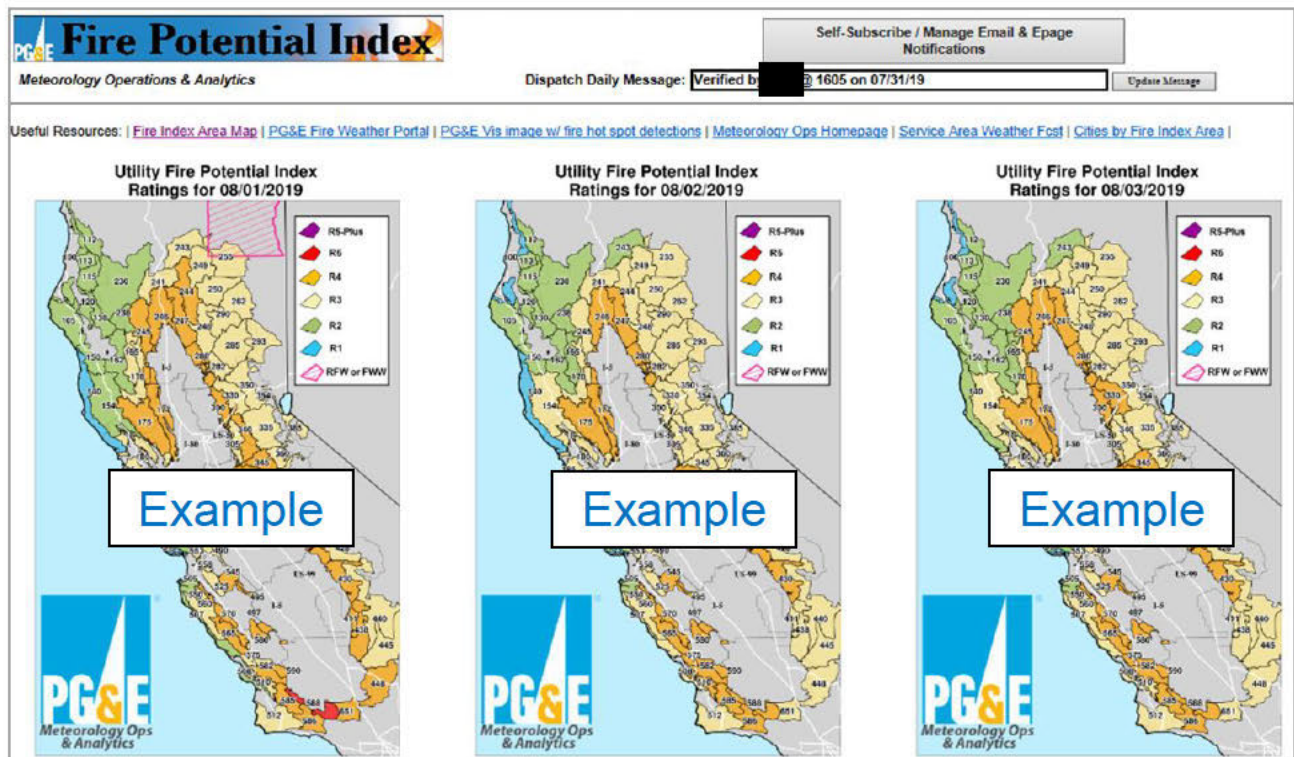
The FPI forecast describes the potential for fires to ignite and spread rated on a scale from “R1” (lowest) to “R5” (highest) specific to each FPI Rating Area. “R5-Plus” indicates there is elevated fire potential plus the potential for wind-related outage activity from the IPW model, which may warrant a PSPS event. The FPI model was calibrated using a high-resolution dataset of historical weather, fuel conditions, geographic-features, and fires.

Utility Fire Potential Index (Utility FPI)

The Utility FPI is PG&E’s main operational fire danger rating system. It provides hourly output 4 days out.

Figure 5-3 shows an example of Fire Potential Index with ratings shown for three days.

Figure 5-3: Example Fire Potential Index



PG&E's Meteorology and Fire Science team developed and calibrated the Utility FPI using a robust 30-year meteorological dataset, combined with a fire occurrence dataset in the PG&E territory. The Utility FPI combines several factors including a fire weather index (wind, temperature, turbulence, and vapor pressure deficit) with fuel moisture data (10-hour, 100-hour and 1000-hour dead fuel moisture, woody and herbaceous live fuel moistures), topography (terrain ruggedness, slope, and wind-terrain alignment) and landcover type (grass, shrub, timber or urban).

The Utility FPI is a balanced random forest classification model. The Utility FPI outputs ratings from R1 (lowest) to R5 (highest) in defined geographic areas that drive operational mitigating actions to reduce the risk of starting a fire. These include altering reclosing operations as well as work activities in the field.

5.1.2 Ignition Probability Weather Model

PG&E's Meteorology and Fire Science team also developed the IPW forecast model for 2021. IPW is a location-specific model and related to the historic frequency of outages in an area based on the wind speed and other factors.

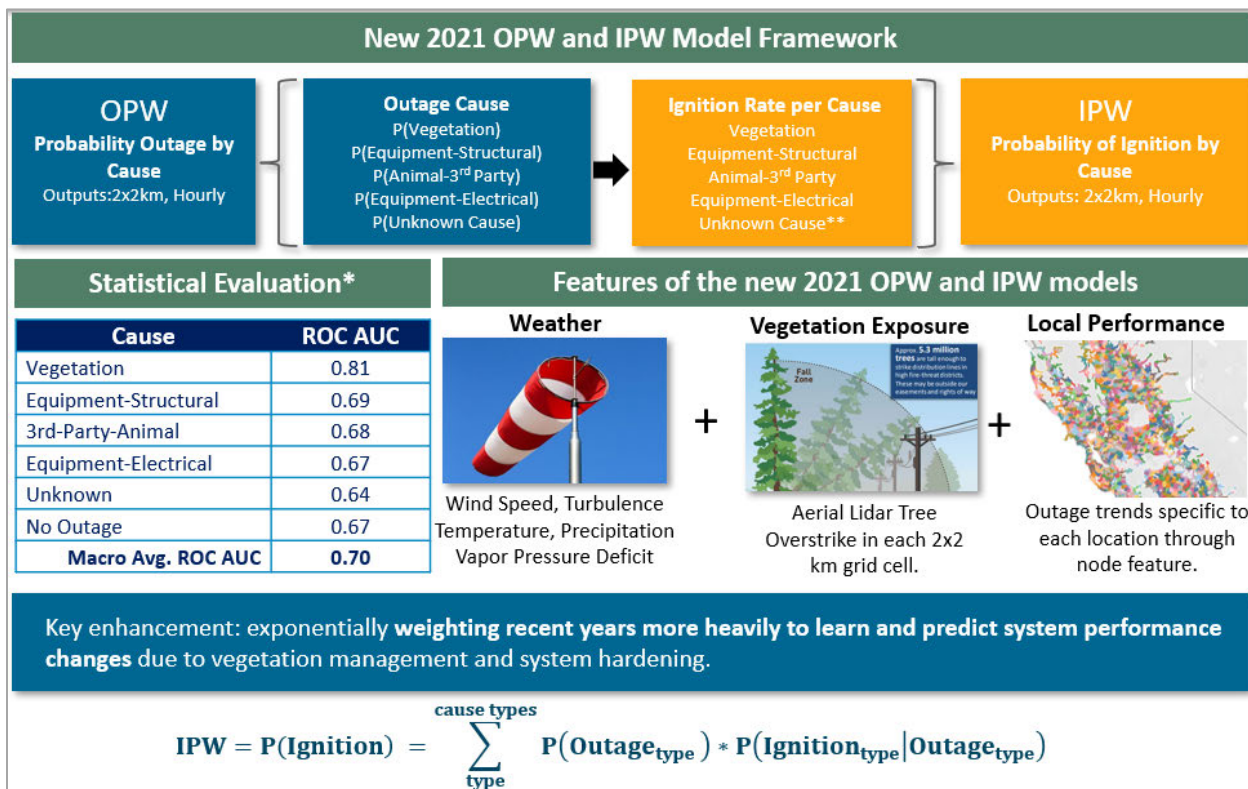
The 2021 OPW and Ignition Probability Weather (IPW) model version represents the next generation of distribution outage and ignition models building on the 2020 OPW 2.0 model. The core model is a new OPW model, that now can forecast outage probability by specific causes. The OPW output is transformed to an ignition probability (IPW) using known outage to ignition ratios for each outage cause.

The 2021 OPW model is trained on windspeeds from the 31 year down-scaled climatology at 2 x 2km resolution and approximately 500,000 sustained and momentary outages occurring on the distribution grid from 2008 to end of 2020. Excluded from these outages were underground outages and non-weather driven major event days, such as fires and earthquakes from the training dataset. PSPS event damages and hazards were also included in the training set.

The operational application of IPW is forecast four times per day producing hourly outage and ignition probabilities. The model has a forecast horizon of 129 hours ahead at the same 2 x 2 km resolution as the PG&E Operational Mesoscale Modelling System (POMMS), a configuration of Weather Research and Forecasting (WRF) model.

Figure 5-4 shows the framework for OPW/IPW.

Figure 5-4: OPW/IPW Framework



The CFP, the combination of IPW and Utility FPI, is forecast across PG&E’s territory four times daily at 2KM spatial resolution using PG&E’s Operational Mesoscale Model System (POMMS). The output of both models is evaluated daily by members of PG&E’s Meteorology and Fire Science team to determine if there is concurrence of a heightened outage risk from a wind event and the potential for large fires to occur. The IPW and Utility FPI models are also used with other factors and external forecasts as well as subject matter expertise to reach risk-informed decisions about PSPS.

For more information about PSPS decision criteria see section 3.3.1.

5.2 Real-time Field Conditions

5.2.1 Field Observations

When requested by Meteorology, real-time field observations are made to provide information about weather conditions on circuits forecasted to be in a PSPS event. The observers are to be in position prior to the forecasted PSPS de-energization timing and prior to the timing of the weather “all-clear”. They provide information on the presence of R5-Plus conditions. With input from Meteorology, the HAWC makes decisions related to resourcing and location of Field Observers. Plans for use of Field Observers are reviewed by the EOC Commander.

Field observations are completed by members of the Safety and Infrastructure Protection Team (SIPT). The HAWC provides guidance and coordination of the SIPT teams.

Field Observers are sent to specific locations within or as close as possible to the expected weather footprint.

The number of Field Observers will vary depending on the scope of the event, surrounding terrain, facility attributes, and radio / cellular coverage.

On-the-ground, real-time field observations are conducted to provide qualitative as well as quantitative information (for example, flying debris, trees/branches down, conductor movement, ground level wind speed, relative humidity (RH), and temperature) about the presence of R5-Plus conditions and the possible need to trigger a PSPS event sooner than expected. Field observations are conducted by SIPT crews that have completed appropriate training.

When possible, Field Observers provide inputs to the HAWC from a designated area and observations will generally occur prior to the predicted weather event. It is expected that observers may report differing observations based on their specific location.

Field Observers will also be mobilized near the end of the wind event to aid in making a weather “all clear” decision. This acts as a second source in addition to real-time weather station observations to ensure that winds have subsided.

5.2.2 Field Observer Locations

Field Observers initially go to locations specified by the HAWC. When selecting sites for Field Observer locations, the HAWC will consider:

- Cellular phone and radio communications coverage.
- Road access.
- Altitude.
- Open exposure.
- Visibility to circuits.
- Safety factors as reported by the Field Observers.

- Field observation locations have been pre-identified for every Fire Index Area (FIA) within PG&E's service territory

5.2.3 Conditions to Observe and/or Validate

Field Observers note hazards related to wind conditions, which may lead to outages. They update conditions using the SIPT Viewer. If no mobile connection is available, Field Observers radio in observations to the HAWC, who manually input the data into the dashboard.

Field Observers must record observations including date/time and location specifics about the following conditions:

- Trees / branch movement
- Flying debris
- Conductor movement
- Local real-time wind speed data

The HAWC Lead and Technical Specialist review incoming observations and determine if conditions warrant additional field observation and submission of real-time condition videos. In certain circumstances, the information may warrant immediate consideration for PSPS initiation sooner than expected. This information is communicated to the Planning Section Chief, Meteorology and the EOC Commander.

5.2.4 Reporting Guidelines

Observations are classified as follows and depicted in Table 5-1.

- **No Movement:** No leading indicators of outages and little to no high winds in the area.
- **Slight Movement:** Some observations indicating R5-Plus conditions in the area.
- **Substantial Movement:** Many observations indicating R5-Plus conditions in the area.

Table 5-1: Reporting Guidelines for Field Observers

| Factors | Not Applicable | No Movement | Slight Movement | Substantial Movement |
|-------------------------|---|--|--|---|
| Tree Observation | No trees in the area of assigned field observation | Leaves and small twigs in motion, small branches and bushes sway, slender branches and twigs move gently | Pole sized trees in the open sway noticeably, large branches in the open toss, tops of trees in dense stands sway (Wind extends small flag) | Large trees in motion, tree damage increases with occasional breaking of exposed branches and tops (Effort needed to walk against the wind) |
| Wire Movement | No visible assets in the area of assigned field observation | No visible impact of wind on assets | Overhead conductors occasionally in motion, not sustained. Gusts have visible impact on assets (Umbrella use becomes difficult, empty garbage cans move in wind) | Assets visibly impacted due to weather, overhead conductors in sustained motion & whistling heard (Cars veer, damage to large tents, observable wind impacts) |
| Debris Movement | No debris in the area of assigned field observation | Loose paper and leaves begin to move (wind flutters small flag) | Debris movement observed during gusts, gentle movement during sustained winds | Visible debris (trash, dead leaves, bins, etc.) violently blowing around in constant motion |

5.3 Materials used to inform Officer-in-Charge

Materials used to inform the OIC include:

- 1. Meteorology Reports** – Various models and reports showing useful weather information that will help the EOC Commander or the OIC in their decision-making process include:
 - Pressure gradients.
 - Forecasted humidity.
 - High resolution POMMS Weather Model, FPI and IPW.
 - Red Flag Warnings.
 - North/South Ops Predictive Services forecasts.
 - Asset risk/consequence information directly as well as in ArcGIS.
 - Other external reports as necessary.

2. **Maps** – Maps showing assets in scope and outage area impacts (source – GIS Technical Specialist, PSPS Viewer, Google Earth):
 - Asset locations.
 - Impacted customers' locations.
 - Weather footprints.
3. **Internal Situation Report – event-based summary displaying impacts of de-energization from planning to restoration** (source – PSPS Deputy, Foundry Tool):
 - User-enabled plan selection with options to select and focus on specific time-places.
 - Customer counts by time-places, PG&E divisions, counties, cities, zip codes, circuits, for possible de-energization.
 - High level customer notification metrics for critical facility, medical baseline, life support, and general customers with optional notification drilldown information.
 - Automated restoration progress view.
4. **HAWC Report** – Report from the Hazard and Awareness Center outlining any current:
 - Ongoing fires in the areas in consideration.
 - Additional hazards.
 - Real time field observations.
5. **Transmission PSPS Scoping Analysis** - Presentation materials detailing transmission lines or sections of transmission lines within the geographic region of the PSPS event which are recommended to be in scope due to exceeding guidance of at least one of the Transmission Line scoping criteria or other known conditions (source – PSPS Transmission Asset Health Specialist) including the following:
 - Summary of recommendation showing the number of lines by voltage proposed to be in scope.
 - Number of Transmission Customers and Municipalities affected.
 - Summary of Generation impacted.
 - Waterfall Chart detailing the number of lines that are in scope due to each transmission scoping criterion.
 - Detailed list of recommended Transmission lines for PSPS scope with the associated rationale for inclusion in PSPS Scope.

- 6. PSPS Tags Report** – Presentation materials detailing information related to open PSPS-qualified tags impacting scope (source – PSPS Distribution Asset Health Specialist, Foundry tool):
- Number of P1, P2 tags and Electric Compliance (EC) Priority A, B, and E tags in scope.
 - Number of prioritized P1, P2 tags and EC tags to be closed out by Operations and Vegetation Management and removed from scope.
 - Incremental circuits in scope.
 - Incremental customers in scope.

For information on documentation of OIC decision process see section 8.1.1.

5.3.1.1 Transmission Scoping Process

On an event-by-event basis, PG&E considers the health of each transmission structure, vegetation risk near each structure, the local area wind speed and Utility FPI forecasts. Given the specific forecast and factors listed above, PG&E determines which structures exceed a risk guidance value outputting a preliminary scope of transmission lines to be deenergized.

The primary drivers for determining which structures and lines should be considered for PSPS is the Transmission Large Catastrophic Probability model (CFP_T), which is the combination of the FPI and Operability Assessment (OA) model. The model produces output for every transmission structure on an hour-by-basis. A Vegetation Risk Index (VRI) is also considered. The VRI takes advantage of LiDAR information about trees surrounding transmission lines and is used to prioritize those lines that have higher risk of vegetation impacts.

Ultimately, there is no single factor or threshold that will automatically trigger de-energization of any particular transmission line. Based on the relative wildfire risk calculated for each transmission line in the footprint, PG&E will exercise expert judgment to identify which transmission lines, if any, should be considered for de-energization. The transmission lines identified during this evaluation process drive the initial transmission PSPS scope.

PG&E then conducts a total impact analysis in coordination with the California Independent System Operator (CAISO) to ensure that the initial transmission PSPS scope is feasible and will not compromise reliable bulk power system operations.

This step is critical to support compliance with Federal Energy Regulatory Commission (FERC) and North American Electric Reliability Corporation (NERC) Reliability Standards, and to ensure that de-energizations will not negatively impact bulk power system integrity. This assessment process identifies the total count of customers who are likely to be impacted by a transmission PSPS event, including any publicly owned utilities/electric cooperatives, adjacent jurisdictions, and small/multi-jurisdictional utilities, as well as other facilities interconnected at the transmission level.

This step may also result in the identification of additional downstream PG&E distribution customers that would be impacted by transmission de-energization. Due to networked configuration of the transmission system, customers and entities impacted by a transmission PSPS event may not be directly located within the weather event footprint itself or in a high-fire threat area.

If a potential transmission PSPS scope is feasible from a grid operations standpoint while maintaining compliance with regulatory standards, then the benefits of de-energization of the potential transmission lines will be weighed against the public safety risks of de-energization. If it is determined that the benefits of de-energization outweigh the risks of de-energization of those transmission lines, PG&E will de-energize the identified transmission lines in coordination with the CAISO, after the decision has been approved by PG&E's Officer-in-Charge (OIC).

5.3.1.2 Transmission Scoping Assessment and Scoping Dashboard


The Transmission PSPS Scoping Dashboard (example in Figure 5-5) is used to identify directly impacted transmission lines for inclusion in a PSPS event. This dashboard gathers and displays information related to Catastrophic Fire Behavior, Catastrophic Fire Probability of both Asset (CFPT - Asset) and Risk of Induction (CFPT - Induction), FPI, vegetation risk, the presence of open A-tags on any structure in a section of line or entire line that exceeds minimum FPI guidance and the presence of open vegetation HNI/HNU tags. This information is utilized to generate a list of directly impacted lines to be sent to ETEC for study. The results of this study are summarized in a presentation slide for the OIC at Decision .

Figure 5-5: Example Tx PSPS Scoping Dashboard

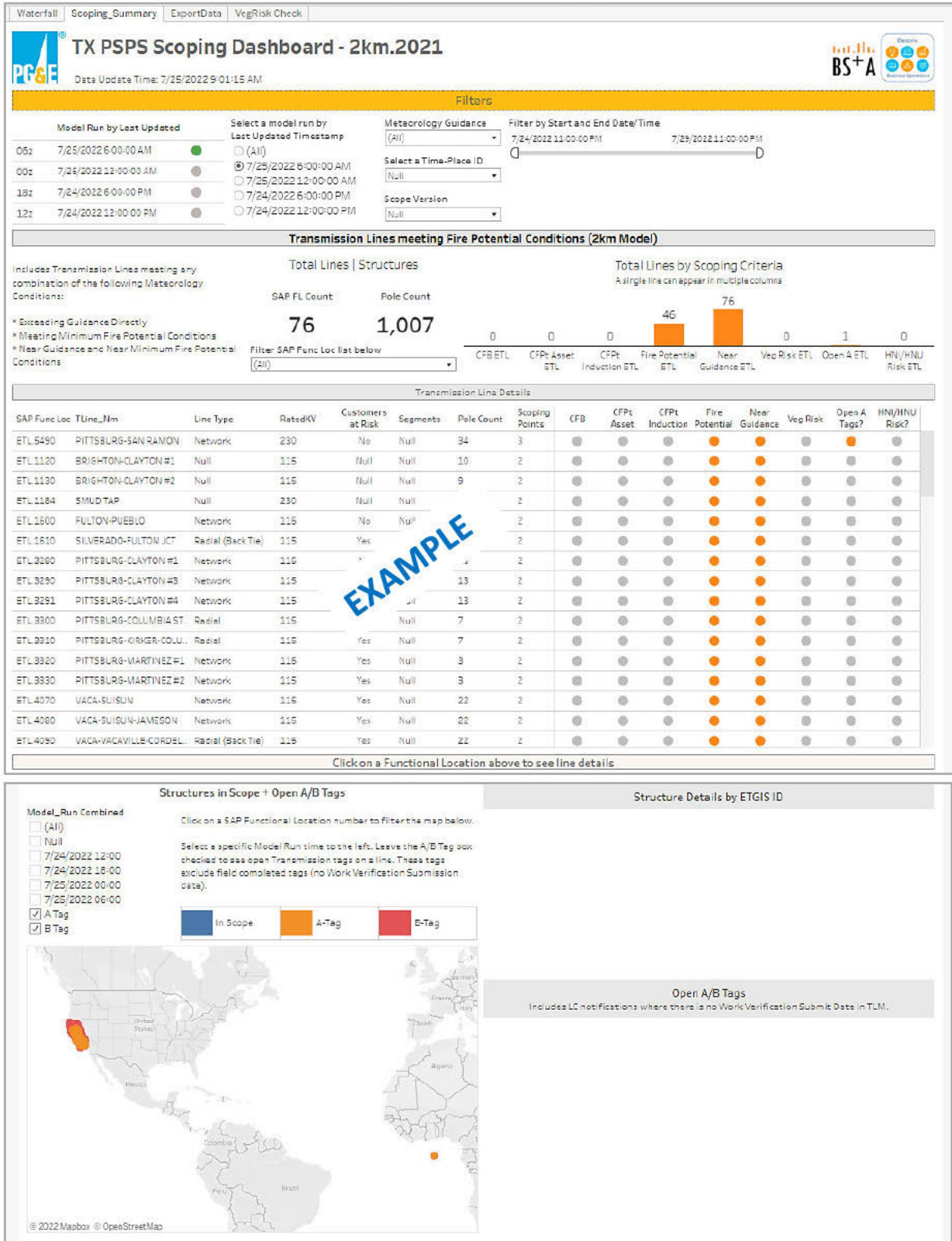
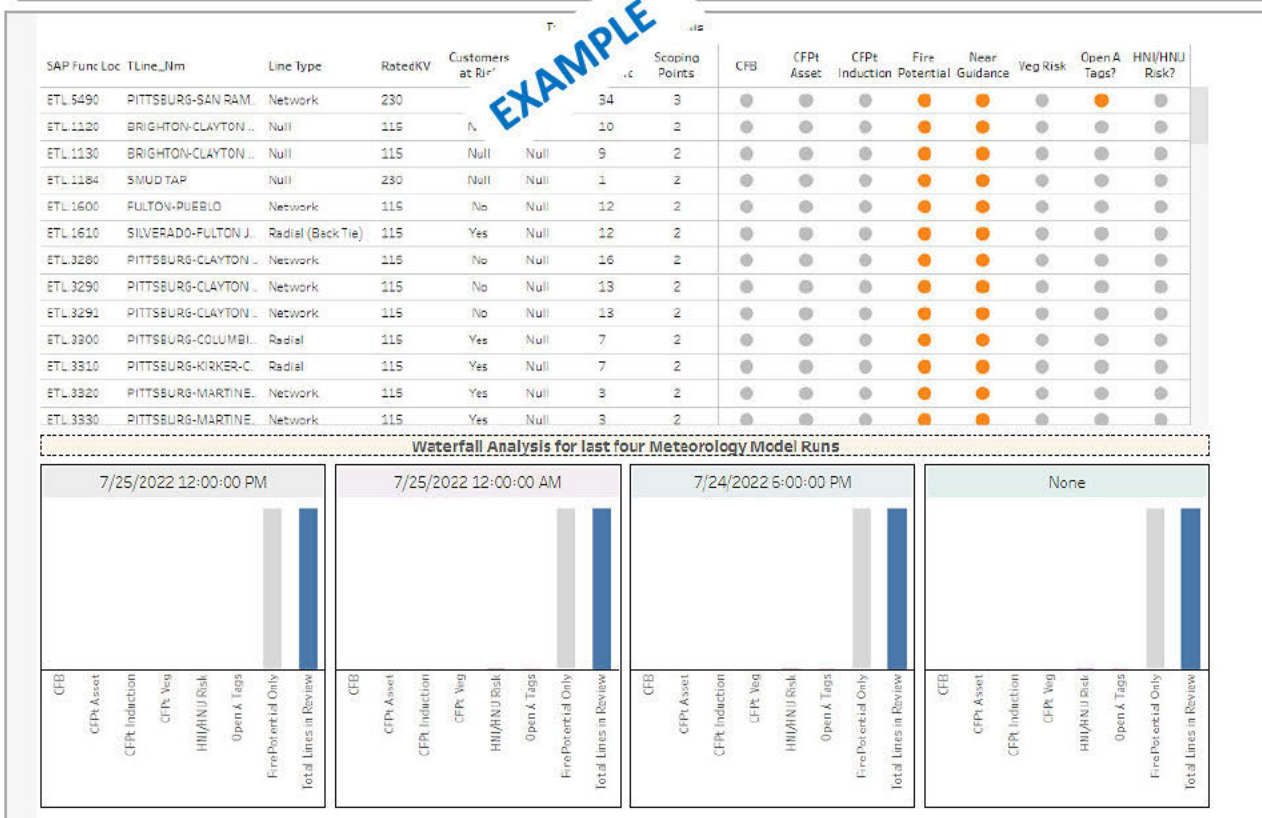
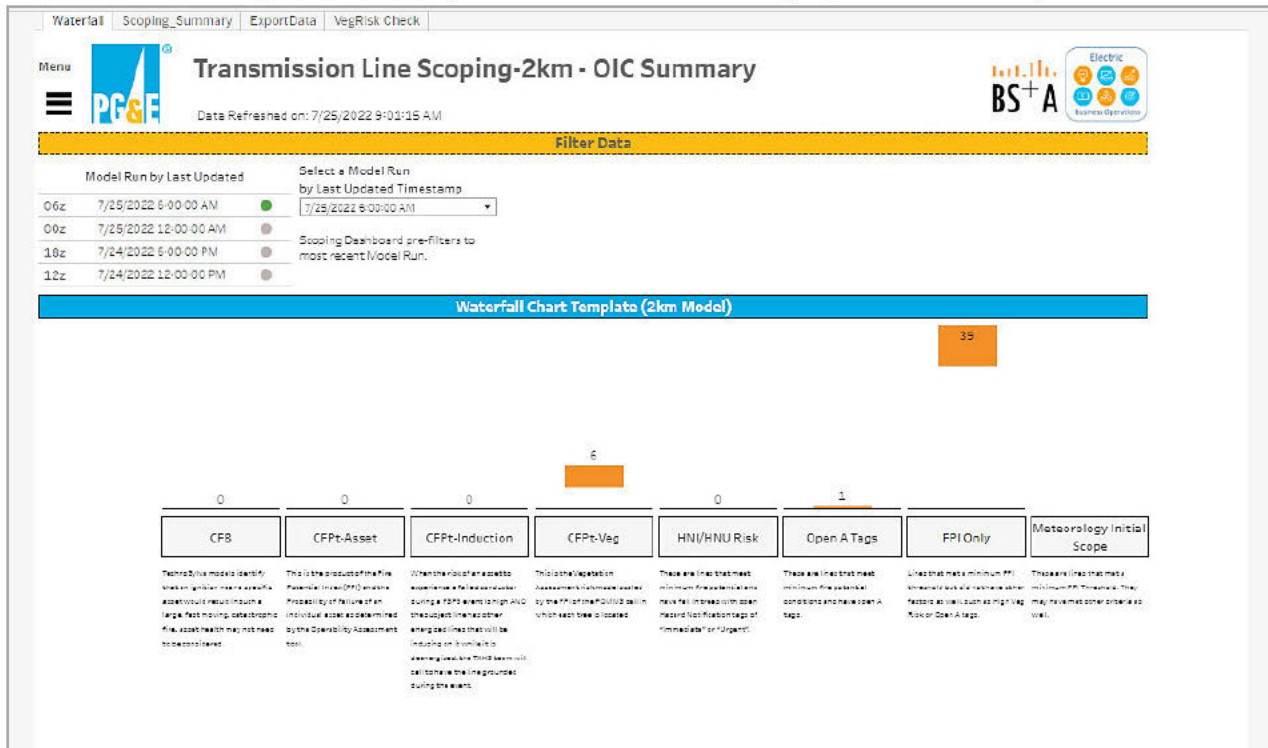


Figure 5-6 shows an example of the Transmission Line Scoping – OIC Summary.

Figure 5-6: Example Transmission Line Scoping – OIC Summary



Transmission Lines Operated at Distribution Voltage

For transmission idle lines or segments that are designed, constructed and maintained to transmission line standards, but are currently operated at distribution voltage serving distribution customer load (e.g., ETL.4317 METCALF-HICKS 1 & 2 115KV operating as a portion of the Hicks 2101 21 kV), the Transmission Asset Health Specialist (TAHS) will perform the Operability Assessment and provide a recommendation, based on applicable transmission PSPS thresholds, to the OIC for inclusion or exclusion in the overall scope of the PSPS event.

5.4 PSPS Viewer

The OIC, HAWC, Meteorology, the Operations Section, Planning Section, CSO, the PIO, and LNO use GIS systems information to inform the potential impacts of a PSPS event. The PSPS Viewer displays the circuits, premises, and facilities potentially - impacted by a PSPS event. The PSPS Viewer and PSPS Situational Intelligence Platform (PSIP, section 5.5) incorporate this information to support customer and stakeholder outreach and notifications.

The PSPS viewer is a tool used to translate meteorological scope to distribution circuit sections and to identify appropriate isolation devices to safely de-energize the distribution overhead electrical infrastructure in the area identified by meteorological team. This data is then integrated into PSIP to display and share the list of customers who will be affected when PSPS is executed for a specific area.

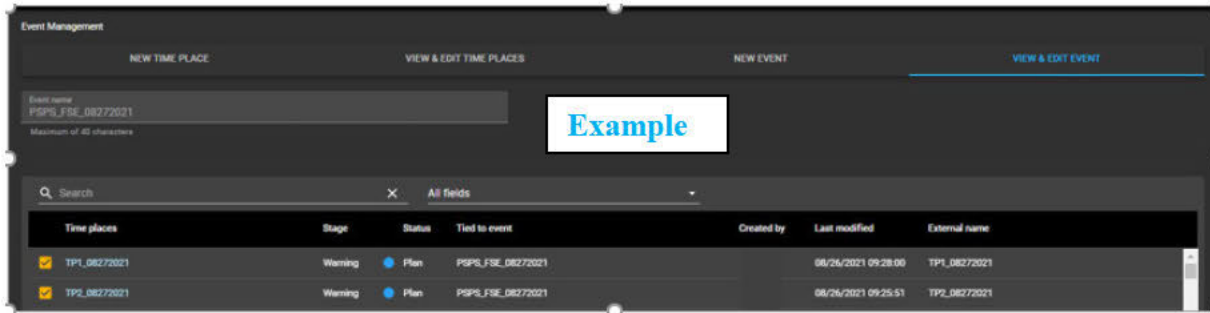
The PSPS Viewer identifies distribution customers and is based on the tracing and connectivity model in the Electric Distribution Geographic Information System (EDGIS). The PSPS Viewer can model abnormal configuration and temporary outages that are planned as a result of PSPS. The abnormal configuration includes the application of mid-feeder microgrids and substation temporary generation. PSPS Viewer is also used to incorporate potential impact to scope due to open P1/P2 tree tags, and Electric Compliance (EC) tags not addressed before de-energization.

The PSPS Viewer:

- Used for creating the scope of de-energization. This information is shared with PSIP to generate the De-energization Playbook and Restoration Playbook.
- Provides information about impacted distribution overhead circuit miles used towards restoration planning and estimating resource needs.
- Utilized to reflect the distribution feeders and associated customer impacts due to any Transmission PSPS action.

The PSPS Technical Lead and PSPS Technical Specialist are the primary users of the PSPS Viewer. Figure 5-7 shows an example of a PSPS Viewer screen.

Figure 5-7: Example View of PSPS Viewer



5.5 PPS Situational Intelligence Platform

The PPS Situational Intelligence Platform (PSIP) is built on PG&E's implementation of the Palantir Foundry system, which is currently connected to 50+ source systems that contain billions of records relevant to asset health analytics such as GIS, SAP, and CC&B.

The data platform does not replace the underlying source data systems of record, but rather provides a central platform to enable data integration/virtualization and access, support for data management and advanced analytics. PSIP is the central platform to inform PPS decision-making, reporting, and communications. Major features include the following:

- Situation Report (example in Figure 5-8) - an event-based summary displaying impacts of de-energization from planning to restoration with the external situation report shared with external parties such as CAL FIRE and local emergency management agencies.
- Distribution Asset Health Specialist Dashboard – dashboard to view P1, P2 and Electric Compliance (EC) tags that should be included into scope.
- Customer Notifications – payloads generated and used for distribution to distribution, transmission, COL, and agency customers for notification.
- De-energization and Restoration Playbooks - generation of playbooks to be used for de-energization and restoration.
- Regulatory PPS Reporting – repository of customers involved in PPS events.

Figure 5-8: Example Situation Report

PSPS SITUATION REPORT | PSPTS_10142021
Need Help
Data Freshness Data Refreshed: 10/13/2021, 10:23:40 AM
Print Summary

PLAN SELECTION

| | | | | |
|--|---|--|--|--|
| PLAN_C-04 Tx Playbook: Created: Wed, Oct 13 12:36 DIC Approved: TPs: 10 | PLAN_D-04 Tx Playbook: PSPS Even... Created: Wed, Oct 13 16:22 DIC Approved: Wed, Oct 13 17:47 TPs: 10 | PLAN_D-04_REV1 Tx Playbook: PSPS Even... Created: Wed, Oct 13 20:48 DIC Approved: Wed, Oct 13 17:47 TPs: 10 | PLAN_D-04_REV2 Tx Playbook: Created: Thu, Oct 14 08:32 DIC Approved: Wed, Oct 13 17:47 TPs: 1 | PLAN_D-04_REV3 Tx Playbook: Created: Thu, Oct 14 16:14 DIC Approved: Wed, Oct 13 17:47 TPs: 1 |
|--|---|--|--|--|

PLAN SUMMARY | PLAN_D-04_REV3

| | | | | |
|---|--|---|---|---|
| TOTAL SCOPE Time Places: 1 Options: 1 Counties: 1 Timebar: 8 | ASSETS Tx: No attached Tx Playbook DC Circuits: 0 | CUSTOMERS Affected Customers: 666 Total: 0 Medical: 34 Critical Facilities: 36 | NOTIFICATIONS Customers not notified: 0 MFL not attempted: 0 MFL not delivered: 0 MFL not confirmed: 0 | TEMPORARY GENERATION Temporary microgrids (TMG): 0 Substations (SUB): 0 Customers supported by TMG & SUB: 0 ICU Hospitals & PWR: 0 Ad-hoc backup power support: 0 |
|---|--|---|---|---|

GENERAL EVENT SUMMARY

Summary: The PG&E Emergency Operations Center remains activated in support of the current PSPS event along the Tehachapi foothills. The forecast continues to show Kern County in PSPS warning through tomorrow as periods of locally gusty south winds are expected through the early afternoon. Please stay tuned to future updates and read on for more details.

Discussion: Breezy winds associated with a Santa Ana wind event have developed over the Tehachapi and are being observed through favorable passes. Winds could briefly decrease during the day before strengthening this evening and overnight then continuing through early tomorrow afternoon. Spikes are expected to reach 10-20 mph with gusts generally in the 20-30 mph range, although wind prone areas could see localized gusts reach 40 mph. Apart from the winds, dry and milder weather will continue through Saturday followed by cool and unsettled weather Sunday into early next week as a weather system moves across the north. Breezy south to southwest winds and rain showers will likely develop across the north with the passage of the system, while dry conditions continue farther south. Fair and dry weather will continue across the southern territory through the midweek while the north could potentially experience another chance of rain with a weak frontal passage Wednesday. A chance for more unsettled weather is anticipated late next week as long-range models suggest a series of weather systems could move through the territory. Dead fuel moisture has increased in some areas due to recent precipitation, but overall values are still below normal across most of the territory for this time of year and the moisture content is brush and chaparral remains at or below critical levels.

EVENT TIME PLACES

note: map displays a sample of simplified outage areas

PLAN DRILLDOWN

Select [] for a filtered summary

PLAYBOOKS (Tx / DC) CUSTOMERS / NOTIFIED CRITICAL FACILITIES

AFFECTED CUSTOMER SUMMARY

| | | | |
|--|---|--|--|
| AFFECTED CUSTOMERS 666 95.1% Delivered Attempted Contactable | CRITICAL FACILITIES 36 100.0% Delivered Attempted Contactable | MEDICAL BASELINE 34 94.1% Received Attempted Total | LIFE SUPPORT 26 91.2% Received Attempted Total |
|--|---|--|--|

Note: Affected Customers are notified if there is valid information. Attempted, delivered and received status are determined based on CPSC guidelines for MFL Customers. Life Support only includes residential premise types.

Affected Customer Segments Report **MFL No Contact Report** **ALFNC Report** Analyze in Context: Event

| COUNTY | TOTAL NOT ATTEMPTED | CONTACTABLE | TOTAL ATTEMPTED | CRITICAL FACILITIES NOT ATTEMPTED | CRITICAL FACILITIES DELIVERED | MFL NOT ATTEMPTED | MFL RECEIVED |
|--------|---------------------|-------------|-----------------|-----------------------------------|-------------------------------|-------------------|--------------|
| KERN | 0 | 663 | 100% (663) | 0 | 100% (26) | 0 | 94% (32) |
| OTHER | 0 | 2 | 100% (2) | 0 | N/A (0) | 0 | N/A (0) |

Showing 1 to 2 of 2 entries Previous Next

RESTORATION STATUS

De-energization Outage Data range: 2021-10-11 01:00 → 2021-10-14 18:30

Exclude outages shorter than: Seconds

Show restoration data from OMT Show ETORs from OMT Include only PSPS outages

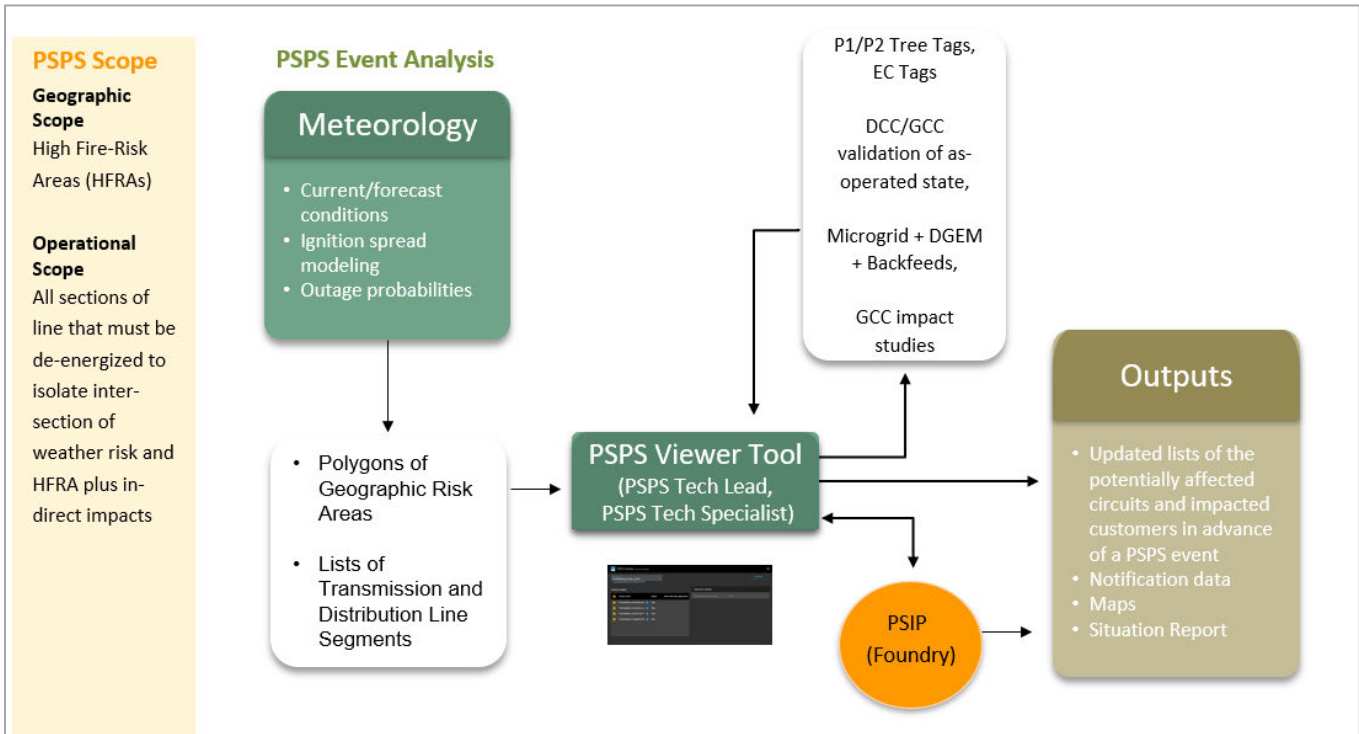
| COUNTY | ESTIMATED DE-ENERGIZATION | ESTIMATED RESTORATION | ESTIMATED CUSTOMERS IMPACTED | ESTIMATED CRITICAL FACILITIES IMPACTED | ESTIMATED MEDICAL BASELINE IMPACTED | % TOTAL RESTORED | % CRITICAL FACILITIES RESTORED | % MEDICAL BASELINE RESTORED |
|--------|---------------------------|-----------------------|------------------------------|--|-------------------------------------|------------------|--------------------------------|-----------------------------|
| KERN | 10/13 0100 | 10/16 2200 | 664 | 36 | 34 | - | - | - |
| OTHER | 10/13 0100 | 10/16 2200 | 2 | 0 | 0 | - | - | - |

EXAMPLE

5.6 Data Sources and Flow of Information

The sequence in Figure 5-9 occurs as necessary in the EOC to enable the OIC and EOC Commander to make informed decisions during a PSPS event.

Figure 5-9: Data Sources and Flow of Information for Distribution Lines



6 Performance Indicators

Performance Indicators for PSPS are under development as a means of monitoring select metrics and being able to show how the program progresses and improves. PG&E metrics for PSPS in 2022 will include, at a minimum:

6.1 Customers Restored within 24 Hours

Purpose: Measure PG&E's progress towards improving restoration times and customer experience in a way that incentivizes improvements, while reducing variation from factors beyond PG&E's control. This provides leadership a clear view of both our progress and our opportunities for improvement.

Description: The percentage of customers who are restored within 24 hours after weather "all clear" is declared.

- This calculation excludes customers whose restoration was delayed because of fire damage to assets, access restrictions by emergency services, or by other factors that PG&E cannot control or meaningfully mitigate.
- A customer is "all clear" if weather conditions permit safe patrol and restoration of both the customer's distribution line and upstream transmission lines.

6.2 ETOR Accuracy

Purpose: Measure PG&E's progress towards improving the accuracy of Estimated Time of Restoration (ETOR) notifications.

Description: Percentage of customers whose restoration time meets criteria* divided by the number of customers who received an ETOR estimate**.

**Restoration criteria for customers restored must be within the following bounds: less than 2 hours before notification, or 15 minutes after the ETOR; no more than 2 updates following All Clear notification; and ETOR update sent before previous ETOR expiration.*

***ETOR estimates considered can be communicated during Warning, Power-Off, All Clear or ETOR update notifications*

6.3 Customers Notified Prior to Shutoff

Purpose: To improve accuracy of the notifications PG&E sends to PSPS affected customers in advance of their outage.

Description: The percentage of PG&E transmission and distribution electric customers (account holders) affected by PSPS who receive notifications in advance of PSPS outages. This excludes customers with no contact information and cancellation notifications.

6.4 Substation Temporary Generation Readiness Metric

Purpose: Keep safe-to-energize customers impacted by upstream transmission level PSPS outages energized.

Description: In 2022, based on the 10 year lookback data and the established scope criteria analysis, no substations meet the criteria that would warrant temporary generation reservation and pre-staging. If a substation(s) were to come into scope an early “no regrets” decision would be required to deploy “on demand” temporary generators and resources.

6.5 Automated Distribution Sectionalization Metric

Purpose: Reduce the number of customers impacted during future PSPS events affecting the distribution system.

Description: The number of new, automated distribution sectionalizing devices installed and SCADA commissioned by the start of peak PSPS season on 9/1/2022. The target for 2022 is 100 new devices.

6.6 Temporary Distribution Microgrids Metric

Purpose: Increase quantity of temporary distribution microgrids with pre-installed interconnection hubs available to energize “main street” corridors with critical and shared community services during PSPS events relative to 2022.

Description: The total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2022 minus the total quantity of distribution microgrid PIHs ready to operate during PSPS events in 2021. This is an end-of-the-year metric.

6.7 Transmission Line Switches Metric

Purpose: PSPS events can cause significant disruption to communities and customers. PG&E plans to continue implementing our transmission segmentation strategy to minimize the number of customers impacted during future PSPS events by narrowing down the segments of a circuit to de-energize.

Description: Prioritization of new or upgraded transmission sectionalizing devices is based on circuit HFTD location, likelihood of potential de-energization during future PSPS events (based on a study of ten years of weather data), and potential customer impact. Switch upgrades are typically identified at line junctions and substations, where operational flexibility may be most beneficial.

Execution of switch installations is dependent on constraints in addition to the overall program priority. Access challenges, permitting issues, clearance restrictions, etc. are key drivers of the order switches may be installed. Approximately, 200 additional switches are planned to be installed in the next three to five years.

6.8 Emergency Backup Generation at PG&E Facilities Metric

Purpose: Provide PG&E facilities with emergency backup power to support the entire campus for the purpose of longer duration PSPS events.

Description: This project has a commitment to have 52 high priority facilities completed by 12/31/2022. Through 12/31/2021, 37 facilities have been completed, and 15 facilities are targeted for completion by 12/31/2022. Completed facilities include emergency generation system capable of backing up the campus in its entirety. To achieve this, existing emergency generators, automatic transfer switches, and in most cases, main switchboards, are either being replaced or reconfigured to attain emergency generation back up for the entire site.

For information on further metrics related to wildfire mitigation and PSPS see [2022 Wildfire Mitigation Plan](#).

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7 Training and Exercises

7.1 Training Program

PG&E supports and conducts various training platforms throughout the year relating to and supporting PSPS response activity. This includes emergency preparedness, response principles, the *CERP*, and activity unique to a PSPS response.

PG&E's emergency preparedness and response efforts function on Incident Command System (ICS) principles. ICS and Standardized Emergency Management System (SEMS) training courses are assigned to all emergency and coordination center personnel. Each role in the EOC requires a specific set of SEMS/ICS training.

7.1.1 PSPS Specific Training Program

The PSPS Specific Training Program is designed to prepare personnel to respond to PSPS events. This training program delivers general PSPS specific content to all personnel who would respond to a PSPS event. Additionally, this training program includes tailored curriculum paths designed for specific roles in EOC which are only activated during a PSPS event.

Supplemental role specific training is designed and developed to address PSPS specific responsibilities all-hazards roles assume during a PSPS event. All PSPS specific trainings include activities and exercises to facilitate learning, performance support tools to support the learning inside and outside the learning environment, and knowledge and skill checks to ensure competence and instill confidence.

The training content is updated each year to reflect the improvements to PG&E's PSPS program. The delivery of PSPS specific trainings aligns with the start of the PSPS season and evaluated for effectiveness at the end of each PSPS season.

7.2 Exercise Program

PG&E's Emergency Preparedness & Response Strategy & Execution Exercise Team plans, coordinates, and conducts the exercises for PSPS and other hazards.

All exercises are designed and executed in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology and in alignment with the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E EP&R S&E Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises also fulfills a key component of compliance with CPUC GO 166, specifically Standard 3, parts *a* and *b*.

In support of PSPS readiness, PG&E is required to conduct both a table-top exercise (TTX) and a functional exercise annually prior to July 1st.

Training for the PSPS program is updated and administered annually. For more information see [CERP section 3.7, "Training and Exercises Program"](#).

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8 Documenting PSPS Event

8.1 Internal PG&E

8.1.1 OIC Decision Records

The PSPS Recorder documents the OIC's decision to de-energize, update scope or re-energize using templates for OIC decision-making records. The Recorder is also responsible for taking notes during other meetings involving the OIC, as needed.

8.1.2 After Action Report

The After-Action Report (AAR) summarizes key information related to activation response and recovery activities. In accordance with *CERP* section 3.7.3, PG&E conducts an After-Action Review with responding incident leadership to identify strengths and opportunities for improvement. The responsible emergency management organization solicits and analyzes feedback from key leaders who supported the activation and then prepares a draft AAR.

The AAR includes an Improvement Plan with recommended corrective actions, which may be used to enhance existing procedures and planning future emergency response exercises.

Corrective Actions deemed significant (or which remain pending) may be submitted into the Corrective Action Program (CAP). CAP entries are assigned ownership from the responsible functional business units who actively track and evaluate to ensure completion.

8.2 External

In addition to data provided to external partners during an event, PG&E is required to file two forms/reports that document the PSPS event: Cal OES PSPS State Notification Form updates and CPUC De-energization Report.

8.2.1 Cal OES PSPS State Notification Form

The Cal OES PSPS Notification Form is the official notification of PSPS updates from a utility to the Governor's Office of Emergency Services. The form provides critical information on PSPS event timing and scope and is intended to provide a general summary overview of potential and current impacts in a timely manner. The online form, PDF form, instructions, past submissions, and Standard Operating Guide are all located on the [Cal OES Public Safety Power Shutoff Hub](#) (to access need ArcGIS online account).

The Situation Unit in the Planning Section is responsible for filling out the Notification Form and seeking review and approval from the Planning Chief and EOC Commander. At the beginning of the event, the Deputy Planning Section Chief or PSPS Deputy Planning Section Chief should request delegation of authority from the Planning Chief and EOC Commander. The Situation Unit will then submit the form and notify the Deputy Planning Section Chief or PSPS Deputy Planning Section Chief and PSPS Communications

Coordinator. The Deputy Planning Section Chief, PSPS Deputy Planning Section Chief, or delegated authority will call the Warning Center at Cal OES to confirm form submission and receipt for only the first submission.

The Cal OES Form should be submitted a minimum of twice a day (0700 and 1500), or in the event of a stage change or significant change in scope. A significant change in scope is an impact of +/- 10,000 customers and/or +/- a county.

- **Activating PSPS Protocols / Potential to De-energize** – IOU is considering a PSPS event due to incoming weather.
- **Decision to De-energize** – IOU has determined it will shut off power to some or all areas considered in the PSPS event.
- **De-energization Initiated** – IOU has begun process of shutting off power to areas determined in prior notifications/stages.
- **Re-energization Initiated** – IOU has determined that the weather event has subsided and has begun to assess power lines for re-energization.
- **Event Concluded** – IOU has re-energized all lines shut off due to PSPS event or no lines were shut off and the period of concern has passed.

Figure 8-1 shows example of the online form and Figure 8-2 shows example of the PDF form to be used as back-up for tech-down situations. Figure 8-3 is an example of the dashboard for a past online form submission.


Figure 8-1: Example Cal OES PSPS State Notification Form (online form)

The screenshot shows the PG&E PSPS Notification Form. At the top, it says "PG&E PSPS Notification Form" and provides instructions: "For Submission 1, please call the Warning Center to confirm receipt at 916-845-8911." The form is divided into several sections:

- Event Description**: Includes a dropdown for "Utility Name:" (PG&E) and a text field for "Event Name:*. Event should be named (Utility) PSPS Event (start date of period of concern). Example: PG&E PSPS Event 07/02/22".
- Submission Number:***: A text field containing "12".
- Weather Event Window:***: A text field with instructions: "Please indicate the timeframe of the weather of concern. Example: 07/02/22 at 0600 hours to 07/03/22 at 1300 hour".
- Link to Detailed GIS Data:***: A text field.
- Daily Executive Briefing**: A section header.
- Daily Operations Briefing Information**: A section header.
- Essential Elements of Information**: A section with a question: "Does this notification include a major scope change (please reference your stated threshold below)?*". Below the question is the "Definition of Scope Change:" with two bullet points: "• +/- 10,000 customers" and "• +/- county". There are two radio button options: "Yes" and "No".
- IOU Representative Contact Information**: A section with two sub-sections:
 - Time Data Pulled for this Notification***: Two text fields, one for start time (m/d/yyyy) and one for end time (h:mm).
 - Submittal Time**: Two text fields, one for date (7/17/2022) and one for time (10:35 PM).
- Notes:**: A large text area for additional information.

A large diagonal watermark reading "EXAMPLE" is overlaid on the form. At the bottom right of the form area, there is a small "255" and a "Submit" button.

Figure 8-2: Example Cal OES PSPS State Notification Form (PDF form)



Public Safety Power Shutoff (PSPS) State Notification Form

Please complete this form per instructions provided, save as a PDF, and send to the California State Warning Center at warning.center@oes.ca.gov. **Upon submission of form, call the CSWC at (916) 845-8911 to confirm receipt.** Please call with any questions.

PSPS Notification Form

Primary IOU representative contact information:

Secondary contact information:

Daily Executive Briefing Information:

Daily Operations Briefing Information:

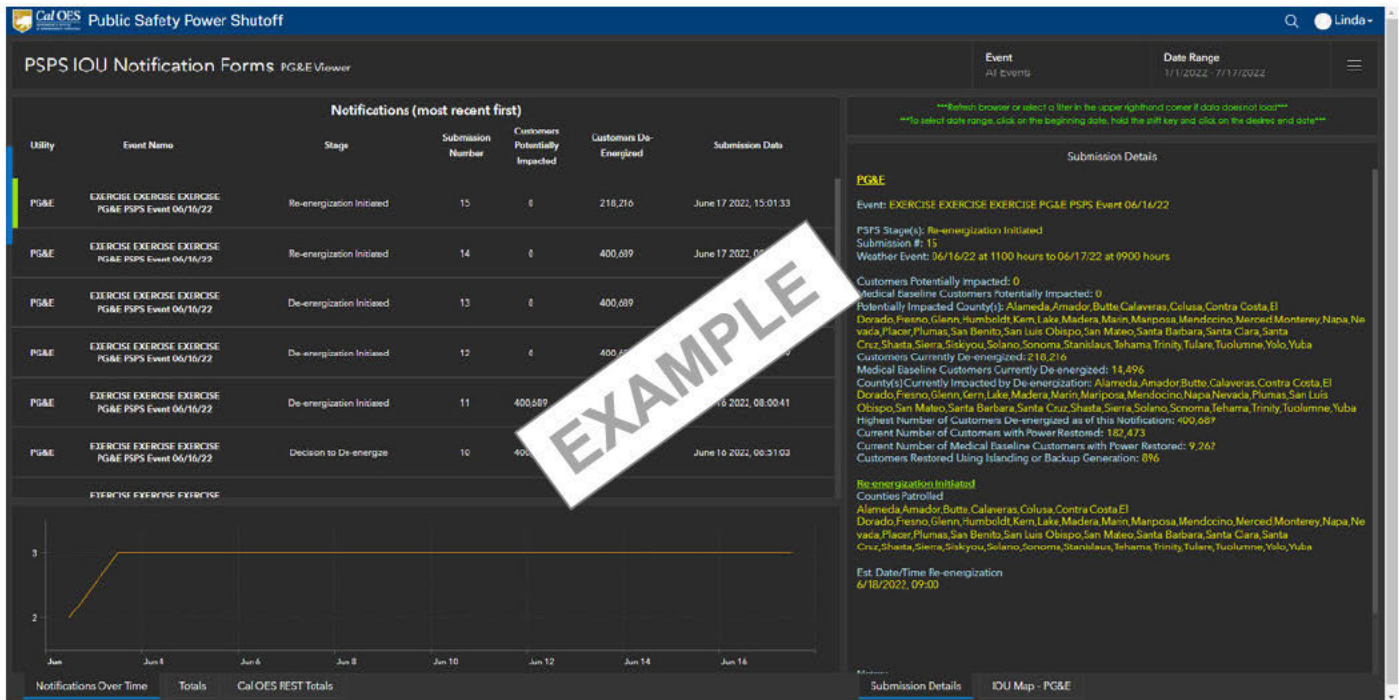
| 1a | INFORMATION |
|----|---|
| | Utility Submitting Report: Select Utility |
| | Date: _____ Time: _____ |
| | Event Name: _____ |
| | Time Data Pulled: _____ |
| | Submission Number: _____ |
| | Weather Event Window: _____ |
| | Link to Detailed GIS Data: _____ |

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Figure 8-3: Example Cal OES PSPS Dashboard - PSPS IOU Notification Forms



8.2.2 CPUC De-Energization Report

In accordance with CPUC [Resolution ESRB-8, Decision \(D.\) 20-05-051](#) all Investor Owned Utilities (IOUs) are required to file a report with the director of the Commission's Safety and Enforcement Division (SED) no later than 10 business days following an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization but no de-energization occurred.

The PG&E PSPS De-energization Report to the CPUC (also called the 10-Day Report), is broken into 12 sections, each of which is assigned to a PSPS workgroup. Each section has a respective job aid, which the teams fill out during the event and finalize shortly after restoration.

At the start of EOC activation, the PSPS PMO 10-day report lead will notify responsible individual(s) to maintain information necessary for the CPUC report. The sections of the report and responsible business owners are outlined in Table 8-1.

Table 8-1: PG&E PSPS Report to the CPUC – Sections

| Section | Section Name | Responsible Individuals |
|---------|--|--|
| 1 | Executive summary | <ul style="list-style-type: none"> • PSPS PMO 10-day report Lead |
| 2 | Decision-Making Process | <ul style="list-style-type: none"> • PSPS PMO 10-day report Lead • Meteorology and Fire Science • PSPS PMO • Risk vs Benefit Team |
| 3 | De-energized Time, Place, Duration and Customers | <ul style="list-style-type: none"> • PSPS PMO 10 day report Lead • PSPS Ops Data Engineer |
| 4 | Damage and Hazards to Overhead Facilities | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 5 | Notifications | <ul style="list-style-type: none"> • PSPS PMO Business Analyst • CC PSPS Program Team • CC WFM Business Analysis • LROE (Liaison & Regulatory Operations & Engagement) |
| 6 | Local and State Public Safety Partner Engagement | <ul style="list-style-type: none"> • LROE (Liaison & Regulatory Operations & Engagement) • LCE Planning and Operations • Substation Construction Mgmt & Temp Generation • PSPS Product Management (Portal) |
| 7 | Complaints & Claims | <ul style="list-style-type: none"> • CC PSPS Program Team • LROE (Liaison & Regulatory Operations & Engagement) |
| 8 | Power Restoration | <ul style="list-style-type: none"> • Emergency Field Operations • PSPS PMO |
| 9 | Community Resource Centers | <ul style="list-style-type: none"> • Community Resource Center Strategy Group |
| 10 | Mitigations to Reduce Impact | <ul style="list-style-type: none"> • PSPS Scoping and Process Team • Substation Construction Mgmt & Temp Generation • LCE Planning and Operations |
| 11 | Lessons Learned from this Event | <ul style="list-style-type: none"> • PSPS PMO • Emergency Preparedness & Response • Meteorology and Fire Science |
| 12 | Other Relevant Information (PG&E addition, not required by CPUC) | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead • Meteorology and Fire Science |
| | Officer Verification | <ul style="list-style-type: none"> • Regulatory Relations - CPUC Communications |
| | Appendix | <ul style="list-style-type: none"> • PSPS PMO • Meteorology and Fire Science • CC PSPS Program Team • |

NOTE: The format of the CPUC De-energization Report is subject to change depending on regulatory requirements.

Prior reports can be accessed at [external PG&E website](#).

8.2.2.1 R. 18-12-005 Phase 1 (D. 19-05-042) Requirements

In addition to the reporting requirements in Resolution ESRB-8, CPUC decision R. 18-12-005 Phase 1 (D. 19-05-042) requires the electric IOUs to provide further information in the 10-Day Report including:

- Decision criteria leading to de-energization, including 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.
- A copy of all notifications, the timing of notifications, the methods of notifications and who made the notifications (the utility or local public safety partners).
- If the utility fails to provide advanced notification or notification according to the minimum timelines set forth in these Guidelines, an explanation of the circumstances that resulted in such failure.
- A description and evaluation of engagement with local and state public safety partners in providing advanced education and outreach and notification during the de-energization event.
- For those customers where positive or affirmative notification was attempted, an accounting of the customers (which tariff and/or AFN population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved.
- A description of how sectionalization, i.e., separating loads within a circuit, was considered and implemented and the extent to which it impacted the size and scope of the de-energization event.
- An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks.
- The timeline for power restoration (re-energization) in addition to the steps taken to restore power as required in Resolution ESRB-8.
- Lessons learned from the de-energization event.
- Any recommended updates to the guidelines adopted in Resolution ESRB-8 and this decision (19-05-042).

8.2.2.2 R. 18-12-005 Phase 2 (D. 20-05-051) Requirements

CPUC decision R. 18-12-005 Phase 2 (20-05-051) adds further requirements to the 10-Day including:

- Each electric investor-owned utility shall report on all potential or active de-energization events in its post event reports. These reports shall include a thorough and detailed description of the quantitative and qualitative factors it considered in calling, sustaining, or curtailing each de-energization event (including information regarding why the de-energization event was a last resort option) and a specification of the factors that led to the conclusion of the de-energization event.
- The electric IOUs should explain any false communications in the post event reports by citing the sources of changing data, and lessons learned should be incorporated

in ongoing de-energization communications and notifications to increase their accuracy and effectiveness.

- For any circuits that require more than 24 hours to restore, the utility should explain why it was unable to restore each circuit within this timeframe in its post event report.

8.2.2.3 R. 18-12-005 Phase 3 (D. 21-06-034) Requirements

CPUC Decision 8.2.2.3 R. 18-12-005 Phase 3 (21-06-034) adds further requirements to the 10-Day including:

- In its post-event reports, each electric investor-owned utility must provide the number of customers notified in comparison to the number of customers de-energized.

For more information about reporting requirements in Phase 3, see [Phase 3 Decision](#), Appendix A, section K.

8.2.2.4 I. 19-11-013 PSPS Order Instituting Investigation (D. 21-06-014) Requirements

CPUC decision I. 19-11-013 PSPS Order Instituting Investigation (OII) (D. 21-06-014) adds further requirements to the 10-Day Report including:

- Quantification of public risk and harms and how they were weighed in decision making.
- Separate sections on PSPS as a last resort, alternatives considered, mitigation measures employed.
- Best Practices discussed in Joint-IOU Working Group Meetings.

For more information about reporting requirements in PSPS OII see [CPUC Decision 21-06-014](#).

8.2.3 Pre-Season Report

The Pre-Season Report is an annual CPUC requirement for all IOUs. This report is to be filed annually by July 1st and used to describe “actions the IOUs have taken, or are taking, in preparation for potential PSPS events during the upcoming wildfire season.”

For more information on requirements for the Pre-season Report see [Phase 3 Decision](#) section 6.11 and Appendix A, section K.

Within the report, PG&E provides information in response to specific question from the CPUC via:

- **Narrative Section:** Includes written responses to ten sections, which are drafted by subject matter experts (see Table 8-3, on page 8-10, for a list of the functional business units that drafted each section).
- **Excel File:** Includes quantitative data. A confidential and public version are provided to the CPUC.

PG&E filed their 2022 PSPS Pre-Season Report on July 1. The Report is also located on [PG&E's website](#).

Table 8-2 shows section name and responsible individuals.

Table 8-2: PG&E PSPS Report to the CPUC – PSDR

| Section | Section Name | Responsible Functional Business Unit |
|--------------|--|--------------------------------------|
| Section I | Authorities | N/A |
| Section II | Community Resource Center Table 1 CRC List Table 2 CRC Recommendation Table 3 CRC Metrics Table 4 CRC Feedback Table 5 CRC Challenges | Customer |
| Section III | Critical Facility Infrastructure Table 6 CFI List Table 7 CFI Requests | Customer |
| Section IV | PSPS Exercise Reports Table 8 Exercise Summary Table 9 Exercise Participants | EP&R |
| Section V | Education and Outreach Table 10 Survey Summary Table 11 Outreach Recommendation | Customer Liaison |
| Section VI | Notification Plan Table 12 List of Joint Efforts on AFN Notification Plan Table 13 AFN Population Subset Notification Plan | Customer Liaison Portal |
| Section VII | PSPS Event Lessons Learned Table 14 Lessons learned | PSPS PMO |
| Section VIII | High Risk Circuits Table 15 High Risk PSPS Circuits | PSPS PMO |
| Section IX | Others Table 16 JUPSPSWG Meetings | PSPS PMO Customer, Liaison |
| Section X | Tree Overstrike | PSPS PMO Meteorology |

8.2.4 Post-Season Report

The Post-Season Report (POSTSR) is a requirement by the CPUC for all IOUs to file annually by March 1st. In general, the purpose of the post-season reports is to describe all the actions the IOUs took with respect to calling PSPS events, including specific notifications and measures taken to mitigate the impacts of PSPS events on different customer segments and communities.

For more information on requirements for the Post-season Report see [Phase 3 Decision](#) section 6.11 and Appendix A, section K.

POSTSR is divided into four deliverables: POSTSR 1 – Narrative, POSTSR 2A (Geospatial GDB) & 2B (Non Geospatial Excel File) – Census Tract (Tabular and Non-Tabular), POSTSR 3 – Education and Outreach Cost Tracking, and POSTSR 4 – Complaint tracking.

Table 8-3 shows section name and responsible individuals.

Table 8-3: PG&E PSPS Report to the CPUC – POSTSR 1

| Section | Section Name | Responsible Individuals |
|---------|--|--|
| 1 | Overarching Requirements (No action required) | <ul style="list-style-type: none"> N/A |
| 2 | Amendments to Post-Event Reports | <ul style="list-style-type: none"> PSPS PMO 10-day report lead |
| 3 | Decision Specified Requirements | <ul style="list-style-type: none"> Substation Construction Mgmt & Temp Generation PSPS Scoping and Process Team CC PSPS Program Team LCE Planning and Operations |
| 4 | SED Specified Requirements | <ul style="list-style-type: none"> Meteorology and Fire Science Risk vs Benefit Team Emergency Preparedness & Response Liaison & Regulatory Operations & Engagement (LROE) CC PSPS Program Team |

POSTSR 2A is the geospatial data (shapefile / GDB) that has 15 statistics requested per tract per event. POSTSR 2B is the tabular data (non- spatial) request at census tract level in excel format with 8 metrics requested per census tract.

POSTSR 3 consists of 6 fields of information for each education and outreach program.

POSTSR 4 consists of 9 fields of information per complaint received.

8.2.5 Post-Season Data Report

The Post-Season Data Report (PSDR) is a data request from the Safety and Enforcement Division (SED). It is assumed that this will be an annual data request due by March 1st. In general, the purpose of the post-season data report is to aggregate all data points within the post-event reports, as well as additional data points requested from SED. This data report consists of 344 data points in 14 different tabs for each de-energization event in the calendar year prior (January – December).

Table 8-4 shows section name and responsible roles.

Table 8-4: PG&E PSPS Report to the CPUC – PSDR

| Tab | Section Name | Responsible Roles/Departments |
|-----|------------------------|---|
| 1 | Dashboard | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead • Various |
| 2 | Decision Factors | <ul style="list-style-type: none"> • Meteorology and Fire Science • Risk vs Benefit Team |
| 3 | Distribution | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 4 | Transmission | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead • PSPS Scoping and Process |
| 5 | Counties | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 6 | Tribes | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 7 | CONF – CFCI | <ul style="list-style-type: none"> • PSPS PMO 10 day report lead |
| 8 | Backup Power Resources | <ul style="list-style-type: none"> • Substation Construction Mgmt & Temp Gen |
| 9 | Mitigation | <ul style="list-style-type: none"> • PSPS Ops Data Engineer • PSPS Scoping and Process |
| 10 | CRCs | <ul style="list-style-type: none"> • Community Resource Center Strategy Group |
| 11 | Damages | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 12 | Hazards | <ul style="list-style-type: none"> • Electric Incident Investigations |
| 13 | Claims | <ul style="list-style-type: none"> • Claims Investigator Team • PSPS PMO 10-day report lead • CC PSPS Program Team |
| 14 | EM & EM exercises | <ul style="list-style-type: none"> • Emergency Preparedness & Response |

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9 Appendices

Appendix A, Acronyms and Glossary

Appendix B, Supporting Documents and Links

Appendix C, Catalog of Notification Scripts.

Appendix D, PSPS Portal – Instructions to Request Access

Appendix E, Example Customer Communication Materials for PSPS

Appendix F, PSPS Business Continuity

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Appendix A. Acronyms and Glossary

A.1 Acronym List

| Acronym | Meaning |
|----------|--|
| AAR | After Action Report |
| ADA | American with Disabilities Act |
| AFN | Access and Functional Needs |
| BC(P) | Business Continuity (Plan) |
| BES | Business Energy Solutions |
| CAISO | California Independent System Operator |
| CAL FIRE | Department of Forestry and Fire Protection |
| Cal OES | Governor's Office of Emergency Services |
| CAP | Corrective Action Program |
| CCAs | Community Choice Aggregators |
| CCECC | Customer Contact Emergency Coordination Center |
| CERP | Company Emergency Response Plan |
| CEUA | California Emergency Utilities Association |
| CFILC | California Foundation for Independent Living Centers |
| CIMC | Corporate Incident Management Council |
| CRC | Community Resource Center |
| CRESS | Corporate Real Estate |
| CSO | Customer Strategy Officer (EOC) |
| CWSP | Community Wildfire Safety Program |
| DCC | Distribution Control Center |
| DMS | Distribution Management System |
| DSO | Distribution System Operation |
| Dx | Distribution |
| EDEC | Electric Distribution Emergency Center |
| EDGIS | Electric Distribution Geospatial Information System |
| EOC | Emergency Operations Center |
| EP&R SE | Emergency Preparedness and Response Strategy and Execution |
| ETEC | Electric Transmission Emergency Center |
| ETOR | Estimated Time of Restoration |
| FERC | Federal Energy Regulatory Commission |
| FIA | Fire Index Area |
| FORCE | Field Operations Resource Calculator ETOR |
| FPI | Fire Potential Index |
| FSS | Field Safety Specialist |
| GCC | Transmission Grid Control Center |
| GEC | Gas Emergency Center |

| Acronym | Meaning |
|---------|---|
| GIS | Geographic Information System |
| HAWC | Hazard Awareness and Warning Center |
| HFRA | High Fire Risk Areas |
| HFTD | High Fire Threat District |
| I&I | Intelligence and Investigations |
| ICS | Incident Command Structure |
| ILC | Independent Living Center |
| IOU | Investor Owned Utility |
| IPW | Ignition Probability Weather |
| IOU | Investor Owned Utility |
| ITCC | Information Technology Coordination Center |
| LCE | Local Customer Experience |
| LNO | Liaison Officer (EOC) |
| MBL | Medical Baseline |
| MIC | Meteorologist-in-Charge |
| MW | Megawatt |
| NERC | North American Electric Reliability Corporation |
| NOAA | National Oceanic and Atmospheric Administration |
| OAFN | OES' Office of Access and Functional Needs |
| OE | Operations Engineer/Operations Engineering |
| OEC | Operations Emergency Center |
| OIC | Officer-in-Charge (EOC) |
| OMT | Outage Management Tool |
| OPW | Outage Producing Winds Index |
| OWF | Other Wildfire Areas |
| PIH | Pre-installed interconnection hub |
| PIO | Public Information Officer (EOC) |
| POL | Privately Owned Line |
| POMMS | PG&E's Operational Mesoscale Model System |
| PSIP | PSPS Situational Intelligence Platform |
| REC | Regional Emergency Center |
| RH | Relative Humidity |
| SBFW | Santa Barbara Wildfire Area |
| SCADA | Supervisory Control and Data Acquisition |
| SCE | Southern California Edison |
| SDG&E | San Diego Gas & Electric |
| SED | CPUC Safety and Enforcement Division |
| SIPT | Safety and Infrastructure Protection Teams |
| SIV | Self-identified Vulnerable |

| Acronym | Meaning |
|---------|---|
| SOC | State Operations Center |
| STOEC | Substation Transmission Operations Emergency Center |
| T&D | Transmission and Distribution |
| T-Line | Transmission Line |
| Tx | Transmission |
| WIV | Wildfire Incident Viewer |

A.2 Glossary

Access and Functional Needs (AFN) populations: Individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant.

After-Action Report (AAR): A structured review or de-brief process of an event, focused on performance standards, that enables participants to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. After action reviews, informal or formal, follow the same general format, involve the exchange of ideas and observations, and focus on improving performance. (from NWCG)

CPUC De-Energization Report: In accordance with Resolution ESRB-8, all IOUs are required to file a report with the director of the Commission’s Safety and Enforcement Division no later than 10 business days after an event. This also applies to circumstances after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization though no de-energization occurred.

Critical Facilities (Critical Infrastructure Customers) “Critical Facilities” and “Critical Infrastructure” refer to facilities and infrastructure that are essential to the public safety and that require additional assistance and advance planning to ensure resiliency during de-energization events.

The CPUC adopted the following interim list of Critical Facilities and Critical Infrastructure, as aligned with Department of Homeland Security’s Critical Infrastructure Sectors:

- Emergency Services Sector: Police Stations, Fire Stations, Emergency Operations Centers.
- Government Facilities Sector: Schools, Jails and prisons.
- Healthcare and Public Health Sector: Public Health Departments, Medical facilities, including.
- hospitals, skilled nursing facilities, nursing homes, blood banks, health care facilities, dialysis centers and hospice facilities.

- Energy Sector: Public and private utility facilities vital to maintaining or restoring normal service, including, but not limited to, interconnected publicly owned utilities and electric cooperatives.
- Water and Wastewater Systems Sector: Facilities associated with the provision of drinking water or processing of wastewater including facilities used to pump, divert, transport, store, treat and deliver water or wastewater.
- Communications Sector: Communication carrier infrastructure including selective routers, central offices, head ends, cellular switches, remote terminals and cellular sites.
- Chemical Sector: Facilities associated with the provision of manufacturing, maintaining, or distributing hazardous materials and chemicals.

NOTE: Some customers meet the criteria of being both a Public Safety Partner & Critical Facility, which include Emergency services sector, water and wastewater providers, communication service providers and emergency hospitals.

CSV file: Comma-separated values. A CSV file is a simple file format used to store tabular data, such as a spreadsheet.

De-energization / De-energize: The process of shutting off power.

Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Model: The DSO SOPP is a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Electric Compliance (EC) Tag/Notifications: The SAP record that holds the data identifying a compelling abnormal or regulatory condition.

Emergency Preparedness and Response Strategy and Execution (EP&R S&E): An overarching organization that leads initiatives focused on enhancing company-wide emergency preparedness and response.

Emergency Operations Center (EOC): A central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management, or disaster management functions at a strategic level during an emergency and ensuring the continuity of operation of a company.

Fire Ignition Utility Threat Index: a CPUC index that provides information about where utility caused fires of high consequence are probable based on topography, fuel types, and proximity to utility assets (similar basis of analysis for determining Tier 2 and 3 HFTDs).

Fire Index Area (FIA): Boundaries originally designated by the California Department of Forestry and Fire Protection and United States Forest Service for the purpose of establishing a fire-danger rating for that area based on local conditions. There are 109 rating areas in the Company service territory. A map of the FIAs can be viewed at http://www.t2/Weather/EO/FireIndex/fireindex_2011.pdf.

Fire Index Rating: A rating used by fire agencies to determine the risk of fire and its likely behavior. Its calculation considers fuel moisture, humidity, wind speed, air temperature, and historical fire occurrence. These ratings are as follows:

- **R1** – Very little or no fire danger
- **R2** – Moderate fire danger.
- **R3** – When fire danger is so high that care must be taken using fire-starting equipment. Local conditions may limit the use of machinery and equipment to certain hours of the day.
- **R4** – Fire danger is critical. The use of equipment and open flames are limited to specific areas and times.
- **R5** – Fire danger is so critical that the use of equipment and open flames are not allowed at any time.
- **R5-Plus** – Fire danger is at R5 "plus" high risk weather trigger of strong wind.

Fire Potential Index (FPI): see Utility Fire Potential Index.

First/Emergency Responders: Individuals who, in the early stages of an incident, are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers. The term “emergency response providers” includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

Geographic Information System (GIS): A system that integrates many types of data that are designed to capture, manage, analyze, and present geographic and spatial information.

Hazard Awareness and Center (HAWC): The physical operations center that monitors for wildfires. The HAWC leadership communicates and informs other PG&E Business Units and Executive Leadership about potential wildfire impacts.

High Fire Risk Area (HFRA): The HFRA Map considers catastrophic fire risk factors and utility infrastructure and was developed by considering incremental changes to the HFTD map boundaries to add areas where risk factors for the potential of catastrophic fire from utility infrastructure ignition during offshore wind events is higher.

High Fire Threat Districts (HFTDs): Per D.17-01-009, areas of the State designated by the CPUC and CAL FIRE to have elevated wildfire risk, indicating where utilities must take additional action (per GO 95, GO 165, and GO 166) to mitigate wildfire risk.

The districts have three levels:

- **Zone 1:** High Hazard Zones on the U.S. Forest Service-California Department of Forestry and Fire Protection (CAL FIRE) joint map of Tree Mortality High Hazard Zones.
- **Tier 2:** Elevated risk for utility-associated wildfires.
- **Tier 3:** Extreme risk for utility associated wildfires.

High Impact Critical Customers: Non-residential customers that may present a significant community impact in the event they experience a sustained outage but do not meet the CPUC criteria for a Critical Facility Customer.

High Priority Vegetation Tag: “Priority 1” and “Priority 2” vegetation tags which are created when trained vegetation inspectors identify trees or limbs that currently present elevated risk and must be worked on an expedited basis. Inspectors use Priority 1 tags for vegetation (i) in contact or showing signs of previous contact with a primary conductor; (ii) actively failing or at immediate risk of failing and which could strike PG&E’s facilities; or (iii) presenting an immediate risk to PG&E’s facilities. Inspectors use Priority 2 tags for vegetation that does not rise to the level of Priority 1 but has encroached within the PG&E minimum clearance requirements or has an identifiable potential safety issue requiring expedited work.

KMZ file: KMZ stands for Keyhole Markup language Zipped. KMZ is a file extension for a placemark file used by Google Earth Pro. It is a compressed version of a KML (Keyhole Markup Language) file. KMZ files are zipped .KML files, which make them easier to distribute with multiple users.

Large Fire Probability Model for Distribution (LFPD): The Large Fire Probability Model for distribution is the product of the probability of an outage (OPW Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Large Fire Probability Model for Transmission (LFP_T): The Large Fire Probability Model for transmission is the product of the probability of an outage (OA Model) and probability of large fires (FPI Model). This model is used for PSPS events.

Life Support Equipment: A medical device to sustain life as defined by PG&E at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/life-support-equipment.page

Medical Baseline: A PG&E financial assistance program for residential customers who have special energy needs due to certain qualifying medical conditions.

Notification: A communication intended to inform recipients of an unscheduled event for which contingency plans are in place.

Officer-in-Charge (OIC): PG&E maintains an Officer-in-Charge on-call list during wildfire season (typically June through October). Prior to a PSPS event, the on-call list will be used to identify the Officer-in-Charge for PSPS decision-making. The power shutoff decision will be made by the designated (OIC) with the support from Emergency Operations Center (EOC) leads.

Outage Areas: Shared via ESRI compliant GIS files per the Joint Letter issued by CPUC, Cal OES, CAL FIRE. OAs are provided as generalized polygons that display potential or actual circuit areas for de-energization in a PSPS event. Outage Areas are subject to change during the course of an event.

Patrol Inspection: In accordance with GO 165, a simple visual inspection of applicable utility equipment and structures that is designed to identify obvious structural problems and hazards. Patrol inspections may be carried out in the course of other company business.

PG&E Operational Mesoscale Modeling System (POMMS): PG&E Operational Mesoscale Modeling System (POMMS) that provides a high-resolution numerical weather prediction system. Technosylva Suite of wildfire simulation software applications whose propagation and consequence outcomes are based on available fuels, topography, and weather; as well as building and population locational data. Technosylva simulation outputs are used as the source of spatially resolved fire severity data that is the primary input into the spatial consequence calculations.

Playbooks (PSPS):

- **De-energization Playbook:** The list of transmission lines and distribution circuits planned to be de-energized as part of the PSPS event. The De-energization Playbook has 4 main versions A, B, C, D, each playbook updates the previous. Version A is initial distribution impacts. Version B is distribution impacts including abnormal conditions and confirmed mitigations. Version C is distribution abnormal and transmission direct impacts, also including downstream impacted transmission lines. Version D is distribution abnormal and transmission direct and indirect impacts including System Protection. The letter “E” is not used for playbooks.
- **Restoration Playbook F:** The Restoration Playbook contains a list of all circuits by Division, impacted by the PSPS Event, along with the associated All Clear Zones for each circuit and the segment/patrol guides. Prior to the first OIC Decision F meeting, Meteorology provides a forecast of Distribution all clear times for each All Clear Zone in the Playbook, which are then input in the Playbook. At this stage, the Restoration Playbook is named “Restoration Playbook F01_Forecast”. When the first Decision F meeting occurs, the approved all clear times for each approved All Clear Zone are input in the Restoration Playbook, and the corresponding forecast times are grayed out. After the first OIC Decision F meeting, the Restoration Playbook F01_Forecast is then renamed “Restoration Playbook F01_Approved”. This playbook thus notes which areas have been approved for weather “all clears” and which areas will have to be approved in subsequent OIC Decision F meetings.

Polygon (meteorology): When GIS software is an enclosed area, the resulting shape is known as a polygon. For PSPS, PG&E is providing potential outage areas through buffering protection zone portions of circuits as polygons in both shapefiles and KMZ files.

Priority 1 (P1)Condition:

A Priority 1 condition is a hazard that meets any of the following scenarios:

- The vegetation is in contact or showing signs of previous contact with a primary conductor.
- The vegetation is actively failing or at immediate risk of failing and could strike the facilities.
- The vegetation presents an immediate risk to the facilities.

A PG&E Vegetation Management Priority 1 classification aligns with CPUC General Order (G.O.) 95, "Reporting and Resolution of Safety Hazards Discovered by Utilities," Rule 18, Priority Level 1 definition as stated: An immediate safety and/or reliability risk with high probability for significant impact. Take action immediately, either by fully repairing the condition or by temporarily repairing and reclassifying the condition to a lower priority.

Priority 2 (P2) Condition:

A Priority 2 condition is a hazard that meets at least one of the following scenarios:

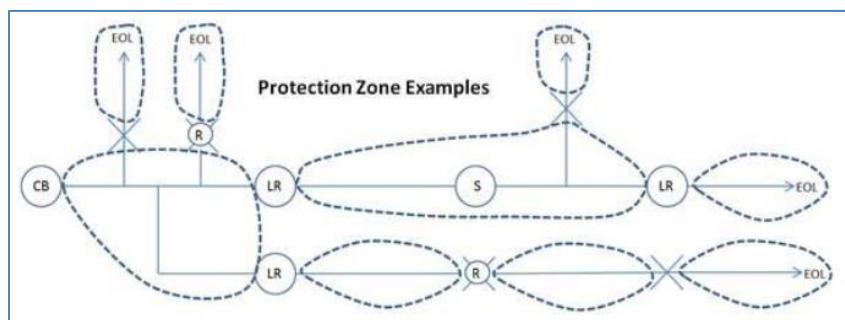
- A Priority 2 condition meets at least one of the following scenarios
- The vegetation has encroached within the PG&E minimum clearance requirements and is not in contact with a conductor

The vegetation has an identifiable integrity issue that does not classify as a Priority 1 condition, is likely to strike facilities, and may manifest into a risk before the next scheduled inspection.

A PG&E Vegetation Management Priority 2 classification aligns with and often exceeds the CPUC General Order (G.O.) 95, "Reporting and Resolution of Safety Hazards Discovered by Utilities," Rule 18, Priority Level 2 definition as stated: A variable (non-immediate high to low) safety and/or reliability risk. Take action to correct within specified time period (fully repair, or by temporarily repairing and reclassifying the condition to a lower priority). Time period for correction to be determined at the point of identification by a qualified company representative (overhead: 0-59 months).

Protection Zone: The area between two protective devices (i.e., starts at the device that relayed and/or locked out or blown) such as a Circuit Breaker (CB), Line Recloser (LR), Switch (S), Fuse (X), Interrupter (I), TripSaver, and End of Line (EOL), and continues downstream until all of the next protective devices are reached which could include multiple branches of the circuit. See Figure 9-1.

Figure 9-1: Protection Zones



Public Safety Partner: First/emergency responders at the local, state and federal level, water, wastewater and communication service providers, affected community choice aggregators, publicly owned utilities/electrical cooperatives, the CPUC, the California Governor's Office of Emergency Services and the California Department of Forestry and Fire Protection.

The term “emergency response providers” includes federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities.

PSPS Event: The time period from the first public safety partner notified of a planned public safety de-energization to the final customer re-energized.

PSPS Patrol: After the severe weather has passed, a PSPS patrol consists of a visual assessment of assets to identify any condition that would prevent a circuit or portion thereof from being safely energized.

Public Safety Partner: First responders at the local, state, and federal level; water, wastewater, and communication providers; Community Choice Aggregators; affected Publicly Owned Utilities/electric cooperatives; CPUC; Cal OES; and CAL FIRE.

Public Safety Power Shutoff Program (PSPS): A Program to proactively de-energize distribution and transmission lines that traverse the high fire-risk area under severe weather.

Re-energization / Re-Energize: The process of turning the power back on.

Red Flag Warning: A warning issued by the National Weather Service to alert fire officials and firefighters of potentially dangerous and imminent fire weather conditions.

Safety and Infrastructure Protection Team (SIPT): in-house team that can be used for pre-treatment, standby, and asset protection. These teams will engage at the operational level with internal and external. They provide inspection, assessment, and medical standby services for day-to-day high-risk work being performed in the system. They also provide field observations for PSPS events.

Sectionalizing: The process of creating segmented power lines by separating loads within a circuit.

Section of Segments: The portion of power line that has been bounded by sectionalizing devices or the end of the distribution line.

Self-Identified Vulnerable: a category for residential (AFN) to supplement Medical Base Line that is made up of customers that have self-identified vulnerable program.

Shapefile: a simple, non-topological format for storing the geometric location and attribute information of geographic features. Geographic features in a shapefile can be represented by points, lines, or polygons (areas).

SOPP Model (The Distribution System Operation (DSO) Storm Outage Prediction Project (SOPP) Modeling System): a modeling system (a collection of models) that is used to predict the number of transformer level and above Sustained Outages (SOs) per division for each of the next four days.

Standardized Emergency Management System: The system required by Government Code §8607 (a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS provides for a multiple level emergency response organization and is intended to structure and facilitate the flow of emergency information and resources within and between the organizational levels.

Step Restoration: When a substation is re-energized, and circuits are subsequently safely energized in segments as patrols continue to confirm areas are free of damage or hazards.

Sustained Wind: The average observed wind speed value over a two-minute period.

System Hardening: Contiguous sections of overhead facilities built to the wildfire rebuild design guidance (TD-9001B-009 rev 2) where the most prominent feature is the covered conductor and minimized exposed energized components.

Transmission Impacts:

- **Direct Impact (D):** Lines considered to have an unacceptable level of ignition risk, wildfire consequence or combination thereof and thus scoped for de-energization on a particular PSPS event.
- **Direct Impact Plus (D+):** Lines and substations identified using TARA to have lost connectivity to the grid given the set of direct impacts.
- **Indirect Impact (I):** Lines and substations that will be de-energized due to operational setups identified through Power Flow and Fault Duty studies to ensure safety, security or stability of our system given the set of Direct Impact and Direct Impact Plus lines and substations.

Wildland Fire: A fire in an area of combustible vegetation occurring in rural areas.

Wind gust: a rapid fluctuation of wind speed with variations of 10 knots or more between peaks and lulls, typically, determined by averaging observed values over a three-second period.

Utility Fire Potential Index (FPI): The Fire Potential Index Model, also referred to as the FPI Model or the Utility FPI Model, combines several factors including a fire weather index (wind, temperature, and humidity) with fuel moisture data (10-hour dead fuel moisture and live fuel moistures), and landcover type (grass, shrub/brush, or forest). The FPI Model outputs the probability of a small fire becoming a large fire. The FPI forecast describes the potential for fires to spread rated on a scale from “R1” (lowest) to “R5” (highest). The FPI Model is run at 2 x 2 km resolution and provides hourly forecasts out 4 days.

Vulnerable Populations: Individuals who have physical, developmental, intellectual disabilities; chronic conditions or injuries, are limited English proficient or non-English speaking; older adults, children, people living in institutionalized settings, low-income, homeless and/or transportation-disadvantaged (i.e., dependent on public transit) and pregnant women.

Weather “all-clear”: The Officer-in Charge gives approval to start restoration and can be issued for all impacted areas at once or for specific areas.

Appendix B. Supporting Documents and Links

B.1 Supporting Documents

The following documentation and procedures are supplemental to this Guidance Document and should be referenced as necessary for PSPS preparation and execution.

| Document Name | Owner |
|--|--|
| EMER 3001M, Company Emergency Response Plan (CERP) | EP&R S&E |
| PSPS-1000S, Public Safety Power Shutoff (PSPS) | PSPS Organization |
| PSPS-1000P-01, Public Safety Power Shutoff for Distribution and Transmission | PSPS Organization |
| EMER-3105M, Wildfire Annex | EP&R S&E |
| PSPS-4999-B001, Mobile generator use during Public Safety Power Shutoff (PSPS) | Temp Gen (to become Standard PSPS-4000S targeted publishing September, 2022) |
| TD-1464S, Preventing and Mitigating Fires While Performing PG&E Work | Electric Ops/HAWC |
| Customer Notifications | Customer Care |
| Wildfire Mitigation Plan (WMP) | Community Wildfire Safety Program |

B.2 Links related to PSPS

| Topic/ SharePoint/ Webpage | Link |
|--|--|
| EOC Incidents SharePoint | ████████████████████ |
| EOC SharePoint for Data Retention | ██ |
| EOC Learning Center | ████████████████████ |
| PG&E Utility Fire Potential Index (FPI) Forecast | To self-subscribe or unsubscribe to these notifications, navigate to the Subscribe/Unsubscribe page. |
| PSPS Landing Page | pge.com/psps |
| PSPS Event Updates Page | pge.com/pspsupdates |
| Wildfire Safety Landing Page | pge.com/wildfiresafety |

| Topic/ SharePoint/ Webpage | Link |
|--------------------------------------|---|
| Wildfire Safety Landing Page | pge.com/wildfiresafety |
| MBL Program | pge.com/medicalbaseline |
| PSPS Updates and Alerts | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-updates-andalerts.page |
| PG&E Disability and Aging (AFN) Page | pge.com/disabilityandaging |
| PSPS Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-support.page |
| Prepare for PSPS | pge.com/en_US/residential/outages/publicsafety-power-shutoff/prepare/prepare-forpsps.page |
| Why PSPS Events Occur | https://www.pge.com/en_US/residential/outages/public-safety-power-shutoff/why-psps-events-occur.page |
| Minimizing PSPS Events | pge.com/en_US/residential/outages/publicsafety-power-shutoff/minimizing-ppsevents.page |
| Wildfire Recovery and Support | pge.com/en_US/residential/outages/publicsafety-power-shutoff/psps-support.page |
| PSPS Event Reports | pge.com/pspsreports |
| Wildfire Mitigation Plan | https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan.page?WT.mc_id=Vanity_wildfiremitigationplan |

Appendix C. Catalog of Notification Scripts.

Catalog of Notifications Scripts

1. T-66 – ADVANCED PRIORITY PARTNER NOTIFICATION
2. T-24-48 HOURS – WATCH
3. T-4-0 HOURS – WARNING
4. CANCELATION
5. DE-ENERGIZATION
6. UPDATE
7. INSPECTING
8. RESTORED

For current scripts see [link to location with notifications folder.](#)

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Appendix D. PSPS Portal – Instructions to Request Access

D.1 Internal PSPS Portal Access Job Aid

PSPS Portal Job Aid

PORTAL ENTERPRISE ACCOUNT—PGEISPORTAL

July 2021

Purpose: Provides step-by-step instructions to create PSPS Portal Enterprise Account and complete access set-up

PORTAL ENTERPRISE ACCESS REQUEST INSTRUCTIONS

1. To request for Portal Enterprise access, on your web browser, go to [SailPoint](#) site (also known as MyElectronicAccess)

*Click Manage User Access

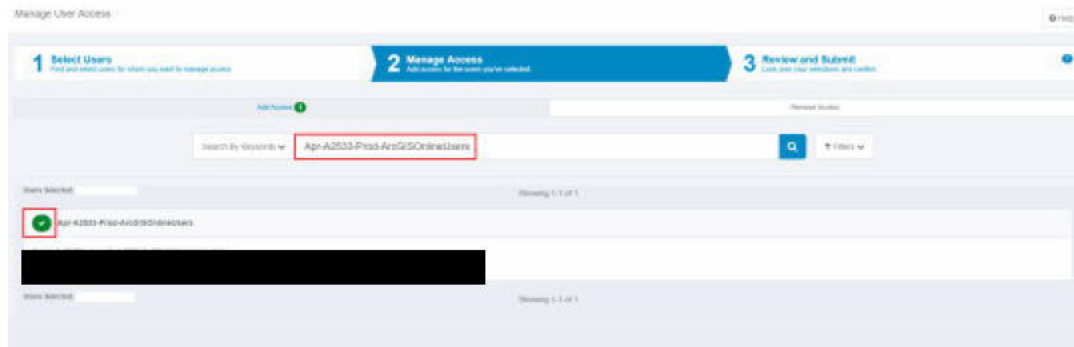
The screenshot shows the browser address bar with the URL 'sailpointui.utility.pge.com/identityiq/home.jsf'. Below the browser, the page header includes 'MyElectronicAccess@PG&E' and navigation links for 'Home', 'My Work', and 'Intelligence'. The main content area features a 'Home' section with two buttons: 'Manage User Access' (highlighted with a red box) and 'Track My Requests'.

2. Select Users (Search for them if you're requesting access on someone else's behalf). The user's name should be on the top left corner. Click the check mark next to your name to turn the circle Green. A Blue 'Next' button will appear in the bottom of the browser window. Click 'Next' at the bottom of the screen

The screenshot shows the 'Manage User Access' interface. It has a three-step progress bar: '1 Select Users', '2 Manage Access', and '3 Review and Submit'. A search bar is highlighted with a red box. Below the search bar, there is a table of users with a green checkmark in the top right corner. At the bottom of the page, a blue 'Next' button is highlighted with a red box.

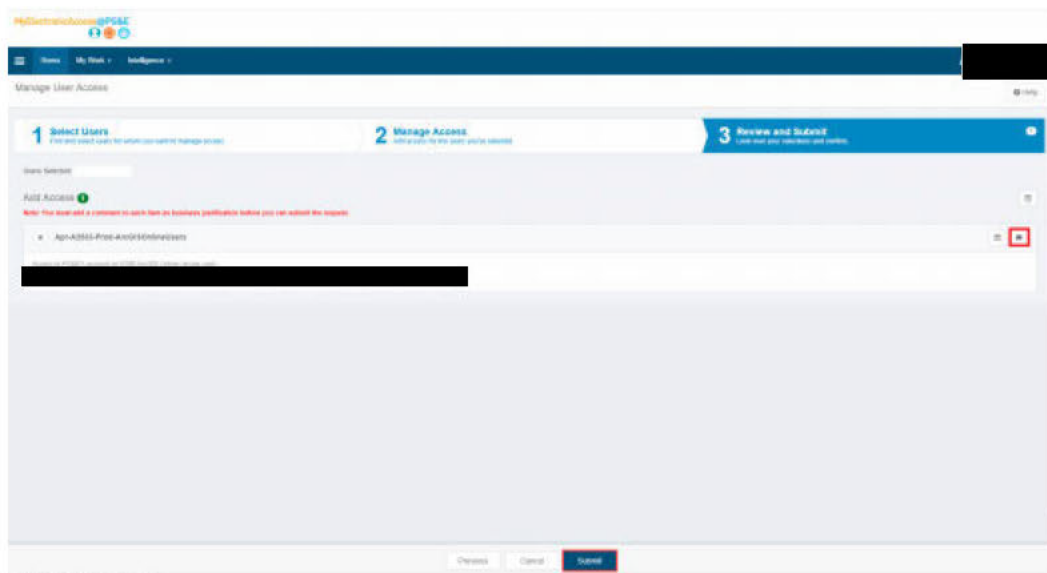
1

3. In the search box type keyword “GeoHub-PROD-Creator” and click search icon



Click the Check mark icon next to the “GeoHub-PROD-Creator” so that the circle turns Green, just like when you were selecting your name. This will also bring up the ‘Next’ button at the bottom of your browser. Please click the ‘Next’ button

4. Type in a Justification: to do this Click on the Comment Icon to the right of the “GeoHub-PROD-Creator” selection rectangle. Don’t forget to Save the Comment.



Example Comment: “I need to be able to view the PSPS Impacted Area Maps, and Impacted Customer Lists in pgeisportal in order to provide support to Public Safety Partners, in an effort to assist the customers in a PSPS event.”

5. Indicate the **Start Date** and **End Dates** for the access requested by clicking on the calendar icon next to the Comments button



You can track your request's progress through the MEA link at the top of the page under 'Track my Requests' (directly to the Right of 'Manage User Access').

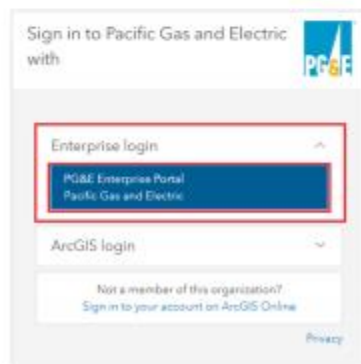
Note: Your request will be routed to your supervisor first and then to site owners of pgegisportal within the IT GISCOE. For follow-up questions for the IT GISCOE, please contact [GeoMart OnM Support](#)

NEXT STEPS (once you get access to Enterprise Login)

1. Try logging into <https://pgegisportal.maps.arcgis.com> using the "Sign In" button on the top right corner of the web page



2. Once you click on sign in, you'll be directed to the Sign In options window from which pick up the "Enterprise Login" option



3. Clicking on the blue PG&E Enterprise Portal button may present the following two (or just one) windows in which you'll need to enter your 4 character LAN ID and network password to finally be able to login into the pgegisportal site.

Note: In case of any issues while logging into the pgegisportal site using your LAN ID and password and Enterprise login option, reach out to the GeoMart O&M support team by raising a ticket at the [GeoMart Ops front door web page](#) and choose Application as **AGOL - ArcGIS Online** and Request types as **"Other"** as shown in the screenshot given:

Application: *

AGOL - ArcGIS Online ▾

Request Type: *

Other ▾

ACTION ITEMS ON YOU:

Since **'Public Safety Power Shutoff Portal Members'** group does not exist in PGEISPORTAL, we are unable to add you in that group but your Enterprise account in pgegisportal is invited to join the group, you are also made a member of new group **'PSPS Portal Members'** in PGEISPORTAL.

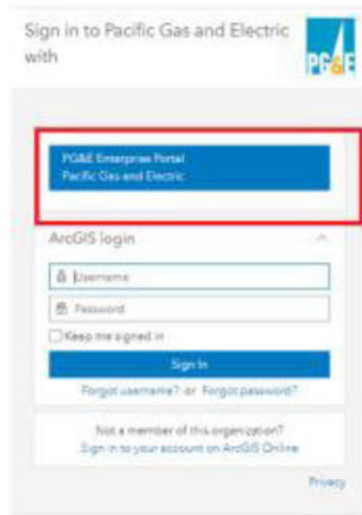
Your PGEISPORTAL Enterprise user ID role is changed to **'PSPS Portal Users'** if your current role was **'Viewer'**, else it remains unchanged.

1. Login to <https://pgegisportal.maps.arcgis.com/> with your Enterprise Account.

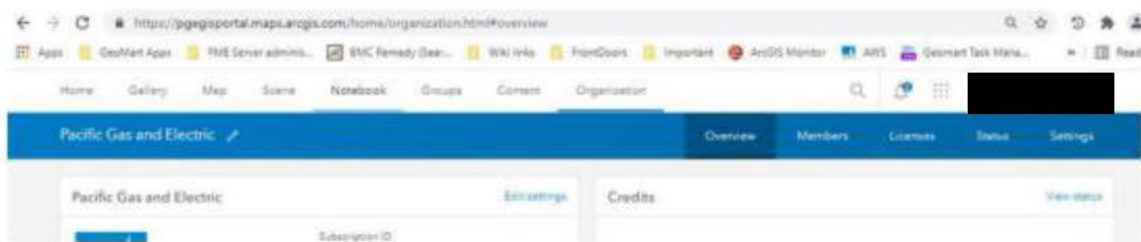
2. It should take you to this page, where you have to click Sign In option.



- 3. After clicking, you should get this window, where you have to click this blue button to login on "Enterprise"



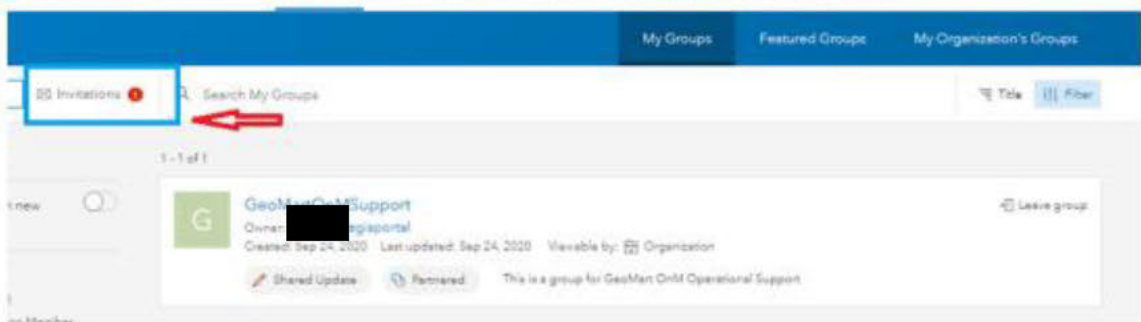
- 4. After clicking on this, you should land on the following page:



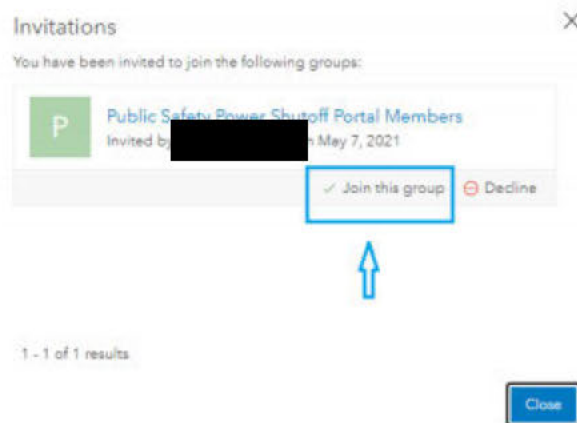
- 5. Go to "Groups" tab.



- 6. Inside My Groups, on the top left corner, You should see invitations, click on that.



7. After clicking "Invitations" following pop-up window should appear, click on join the group.



Note: Please also verify if your **role** was "Viewer", it should have been **updated to "PSPS Portal Users"**

Your new enterprise account in PGEGISPORTAL should be member of all groups where your current PSPS portal account is member of (except those which does not exist in PGEGISPORTAL and groups out of PGEGISPORTAL, which means groups maintained by other organizations/ vendors).

8. Validate your group membership and if you think your group membership in PGEGISPORTAL is missing when compared to your respective PSPS portal, or in case of any issues kindly reach out to the GeoMart O&M Support team by raising a ticket at the [GeoMart Ops front door web page](#)

~ End of Instructions ~

D.2 External PSPS Portal Job Aid



Public Safety Power Shutoff Portal Registration Guide

Last Revised: November 2020

STEP 1: Go to pge.com/pspsportal to Request Access



Welcome screen on pge.com/pspsportal

Once on pge.com/pspsportal, select **Request Access**.

STEP 2: Complete Request Access Form

After selecting Request Access, complete the application form.

This form requests the following information: first and last name, email, phone number, title, organization name and organization type. Each line item on the form is required in order to process the request. A list of the organization types that are eligible for access is provided on the following page.

Request access

NOTE: Requests may take up to 3 business days to be reviewed and processed. We'll send you an email once processing is complete. If approved, the email will include your username and password.

*Required field

FIRST NAME*

LAST NAME*

WORK EMAIL ADDRESS*

WORK PHONE NUMBER*

ORGANIZATION NAME*

YOUR TITLE*

ORGANIZATION TYPE*

-Please Select-

View of the Request Access Form

| Organization Types | Example |
|---|--|
| Federal Agency* | FEMA, US Coast Guard |
| State Agency* | Cal OES |
| County Agency* | Marin County |
| City Agency* | City of Santa Rosa |
| Tribal Agency* | Hoopa Valley Tribe |
| Community Choice Aggregator | East Bay Community Energy |
| Regional | Regional Transportation Planning Authority |
| Critical Facility <ul style="list-style-type: none"> ■ Emergency Hospital ■ Publicly-Owned Utility ■ Telecommunications Provider ■ Water/Wastewater Agency ■ Transportation Agencies | Community Regional Medical Center |
| | Alameda Municipal Power |
| | AT&T, Comcast |
| | East Bay Municipal Utility District |
| | BART, Amtrak |

**Eligible to receive confidential customer information*

STEP 3: Agencies to Determine Level of Access Required

For agencies and tribes to complete the registration process, users must select the level of access required during PSPS events. Those that require confidential customer information, such as names and addresses, to support emergency management efforts will need to review and accept the online agreement. Accepting the online agreement assumes reasonable safeguards will be implemented to protect the information. If confidential customer information is not needed, users will still be able to view aggregated summary-level information and will not be required to accept the online agreement.

Choose your level of access*

I need access to customer names and addresses, as well as customer and facility impact totals, to support emergency management efforts.

I need access to customer and facility impact totals only.

Level of Access Selection Screen from PSPS Registration Process

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. CCC-1120-2971.

Below is an overview of the information provided for the two levels of access:

1 Detailed Customer and Critical Facility Information

- Affected customer details, including names and addresses
- Medical Baseline customer details, including names and addresses
- Critical Facility customer details, including names and addresses

2 Customer and Critical Facility Summary Totals

- Aggregated customer counts by jurisdiction and customer type

Note: Critical facility customers and community choice aggregators (CCAs) will be provided with a list of their site locations and aggregate summary-level information.

For those that only require aggregated customer and critical facility impact totals, hit **SUBMIT** at the bottom of the screen and proceed to Step 5. This will complete the access request process. For those that require customer names and addresses, please continue to Step 4.

STEP 4: Online Agreement

For agencies that require customer names and addresses to support emergency management efforts, users will be required to read, agree to and electronically sign the online agreement. Once complete, hit **SUBMIT** at the bottom of the screen to finish the access request process.

STEP 5: Confirmation Page

Upon submitting a request, you will be directed to a confirmation page, indicating your request was received. If your request is approved, you will receive an email from ArcGIS Notifications (notifications@arcgis.com) containing your username and a link to create your account password. Please use those credentials to log in to your account and access the PSPS Portal.

We received your request

You will receive an email within the next 5 business days regarding your request for access. If your request has been approved, the email will include your username and password.

Questions? Please email PSPSPortal@pge.com.

View of Confirmation Page



For access questions or technical assistance, please email PSPSPortal@pae.com.

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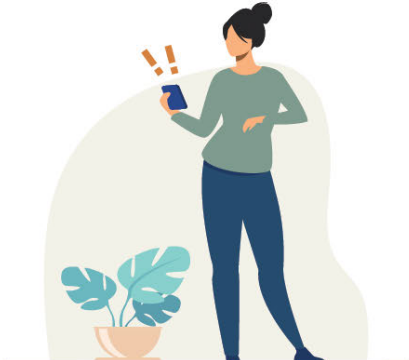
Appendix E. Example Customer Communication Materials for PSPS

E.1 Example CWSP PSPS Customer Postcard

IMPORTANT SAFETY MESSAGE FROM PG&E

Your contact information is out of date.

We know losing power disrupts lives. Consider updating your contact information today to stay informed and prepared for power outages.



PG&E Update today by visiting pge.com/mywildfirealerts or by calling **1-866-743-6589**.


Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2020 Pacific Gas and Electric Company. All rights reserved. CCC-0321-3205. 3/12/2021

Update your contact information today in three easy steps.

- 1** Log in to your account at pge.com/mywildfirealerts
– OR –
Call us at **1-866-743-6589**

- 2** Provide your phone number(s) and email address(es) and/or an alternate contact who can reach you before an outage

- 3** Select your language preference for PG&E notifications

 For translated support in over 250 additional languages, contact PG&E at: **1-866-743-6589**.



Pacific Gas and Electric Company
P.O. Box 997320
Sacramento, CA 95899

E.2 Example CWSP PSPS Medical Baseline Customer Door Hanger



DATE:



⚠️ IMPORTANT NOTICE:

Your power may be shut off for safety

Your safety is our most important priority. Electricity at your address may be impacted today or tomorrow.
(see date above)

Severe weather is forecast. For public safety, we may need to turn off power to prevent wildfires. This is called a Public Safety Power Shutoff (PSPS).

ACTION REQUIRED:
 We have been unable to reach you

- Update your contact information and set your language preference for PSPS notifications at pge.com/mywildfirealerts or by calling [1-866-743-6589](tel:18667436589).
- Watch for notifications from [1-800-743-5002](tel:18007435002), PGECustomerService@notifications.pge.com or [976-33](tel:97633). Answer the phone or reply "1" to let us know you have received our notifications.

 **Tip:** Save PG&E's number as a contact.

 **Note:** If notifications go unanswered, we will continue to try to make contact.

We know it is a hardship on our customers any time the power is turned off for safety. We are working non-stop to make our system safer, and improve PSPS events for you and the communities we serve.

For current PSPS information, visit: pge.com/pspsupdates 

See reverse for steps you can take to prepare →

We know how important power is for your medical and independent living needs.

Take these steps to prepare:

-  **Plan for medical needs** like medications that require refrigeration or devices that need power.
-  Call 911 immediately if you or a family member are experiencing a medical emergency.
-  **Build or restock your emergency kit** with flashlights, batteries, first aid supplies, food, water and cash.
-  **Keep your devices charged** and **identify backup power methods.** pge.com/backuppowers
-  **Find your local Community Resource Center** to charge devices and get basic supplies. pge.com/crc
-  **Discover additional resources** such as portable batteries and information on financial assistance. pge.com/disabilityandaging
-  Visit the **Disability Disaster Access and Resources website** for additional support during a power shutoff. disabilitydisasteraccess.org

Find resources that can help you stay safe during an outage. pge.com/pspsupport

FOLLOW US FOR UPDATES AT:

 [@PGE4Me](https://twitter.com/PGE4Me)

 [@pacificgasandelectric](https://facebook.com/pacificgasandelectric)

 For translated support in over 250 additional languages, please contact PG&E at [1-866-743-6589](tel:18667436589).

Some of the measures included in this document are contemplated as additional precautionary measures intended to further reduce the risk of wildfires. "PG&E" refers to Pacific Gas and Electric Company, a subsidiary of PG&E Corporation. ©2021 Pacific Gas and Electric Company. All rights reserved. CCC-0321-3317. 03/30/2021.

E.3 Example CWSP PSPS Bill Insert

AN IMPORTANT SAFETY MESSAGE

How will you be notified of a Public Safety Power Shutoff?



At Pacific Gas and Electric Company (PG&E), our most important responsibility is the safety of the customers and communities we are proud to serve. That is why we may need to turn off power to prevent wildfires during severe weather. This is known as a **Public Safety Power Shutoff (PSPS)**.



We know how disruptive it is to be without power.
We are listening to our customers and finding ways to reduce the impact of PSPS events, without compromising safety. To learn more, visit pge.com/pspsupport.

Keep your contact information up to date so you are informed about PSPS events before and during outages.

Visit pge.com/mywildfirealerts or call **1-866-743-6589** to update your information and select your preferred language for PSPS notifications. Notifications will be made through automated calls, texts and emails.



As a PG&E account holder, you will automatically receive notifications for your home and/or business. **If you would like to know about potential PSPS events** at other important addresses, such as work, school or family members' homes, consider signing up for Address Alerts at pge.com/addressalerts.

For translated support in over 200 additional languages, contact PG&E at 1-866-743-6589.



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E.4 Example CWSP PSPS Preparedness Brochure – General Version

Helping You Prepare

When wildfire risk is high, power may need to be shut off for safety.

To prepare:

- Update your contact information for notifications at pge.com/myalerts.
- Create an emergency plan at safetyactioncenter.com.
- Explore backup power options at pge.com/backuppowers.
- Sign up for PSPS Address Alerts at pge.com/addressalerts.



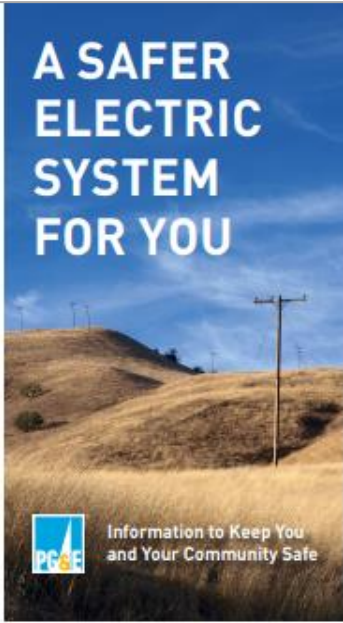
Pacific Gas and Electric Company
P.O. Box 997320
Sacramento, CA 95899

Prepare Now For Safety Outages

For translation support in 20+ languages, call 1-866-740-4389. Additional brochures are available for download in Spanish, Chinese, Vietnamese, Korean, Tagalog, Russian, Arabic, Farsi, Punjabi, Japanese, Khmer, Hindi, Thai, and Portuguese at pge.com/2022.

Some of the resources listed may be subject to change without notice. For more information, visit pge.com/2022. © 2022 PG&E. All rights reserved. PG&E is a registered trademark of PG&E. PG&E is a registered trademark of PG&E. PG&E is a registered trademark of PG&E. PG&E is a registered trademark of PG&E.

A SAFER ELECTRIC SYSTEM FOR YOU




Information to Keep You and Your Community Safe

We are making immediate and long-term improvements to help prevent wildfires and keep you safe.

Steps we are taking:

- Undergrounding powerlines
- Exceeding state vegetation standards
- Installing stronger powerlines and poles
- Reducing the impact of Public Safety Power Shutoffs
- Expanding safety technology to all powerlines in areas with high fire risk



We are taking advanced safety measures in response to the growing wildfire threat in California.

This includes two types of wildfire safety outages customers may experience this year.

Public Safety Power Shutoffs (PSPS)

Power is turned off proactively to help prevent wildfires as a last resort during severe weather.

How will you be notified?
You will be notified in advance. Real-time updates will be provided through your preferred contact method.

When are outages more likely?
During high winds, low humidity and dry vegetation. This is most likely from September to November.

To learn more about wildfire safety outages, visit pge.com/wildfiresafety.

Enhanced Powerline Safety Settings (EPSS)


When wildfire risk is higher, EPSS technology is enabled to turn off power within one-tenth of a second if a hazard, like a tree branch, strikes the line. This helps to prevent wildfires before they start.

How will you be notified?
If there is an outage, we will share updates on when power will be restored through your preferred contact method. Since power goes off from an unplanned safety threat, we are unable to notify you in advance.

When are outages more likely?
During hot and dry summer conditions. This is most likely from May to November.

Last year, we saw an **80% reduction in ignitions on EPSS-enabled lines.***

*Reduction in CPUC-reportable ignitions in High Fire-Threat Districts compared to the prior 3-year average as of 12/31/21.



Support for You and Your Family

We know how difficult it is to be without power. Resources are available to prepare before a safety outage.

Before an outage, visit pge.com/wildfiresafety to:


- Explore backup power options*
 - Generator rebates
 - Portable batteries
 - Backup power transfer meters
- *Check website for eligibility requirements.
- Apply for the Medical Baseline Program for energy savings and extra PSPS outage notifications.

During a PSPS outage, visit pge.com/pspresources to:

- Locate Community Resource Centers for basic supplies and charging stations.
- Access meal replacements from local food banks.
- Find accessible transportation and hotel options.

Take Action

- View current outages and restoration times at pge.com/outages.
- Follow us on Twitter, Facebook and Instagram.
- Use our planning map tool to prepare for outages and learn about safety improvements at pge.com/customerpspsplanningmaps.



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Appendix F. PSPS Business Continuity

In the event that the PSPS Business Continuity Plan is activated, please refer to the various [Business Continuity Plans](#).

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Exhibit C

Emergency Communications Annex



***Pacific Gas and
Electric Company***[®]

Emergency Communication Annex

to the Company Emergency Response Plan

[GENERAL INSTRUCTIONS: Information that is specific to the LOB/Annex is contained in this Annex. Information that is consistent across the company is located in the base company plan. Links to the base company plan may be included in the Annex, if needed, and are indicated as a hyperlink in this document. OPTIONAL HEADINGS/SECTIONS ARE NOTED THROUGHOUT.]

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<http://www.pge.com>

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EMER-3008M

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Document Control

maintains this Emergency Communication Annex. This section records the revisions made to the Emergency Communication Annex, the responsible persons for its preparation, maintenance, review, updates, and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section(s) Affected | Person Responsible for Revision | Change | Date |
|---------------------|---------------------------------|-----------|------|
| All | | New Annex | |
| | | | |
| | | | |
| | | | |
| | | | |

Document Preparer

| Name | Position |
|------|---|
| | Principal, Marketing and Communications |
| | |

Document Reviewers

| Name | Position |
|----------------|---|
| | Director, Marketing and Communications |
| | Senior Director, Marketing and Communications |
| Keith Stephens | Vice President, Marketing and Communications |
| | Director, EP&R Strategy and Execution |

Document Owner

| Name | Position |
|------|---|
| | Principal, Marketing and Communications |

Document Approvers

| Name | Position |
|----------------|---|
| [REDACTED] | Director, Marketing and Communications |
| [REDACTED] | Senior Director, Marketing and Communications |
| Keith Stephens | Vice President, Marketing and Communications |
| | |

2021-43422 Document Routing Request


Created on: 6/29/2021 1:51:39 PM **Status:** EDR request approved.
Requestor: [REDACTED] **Department:** Emergency Preparedness & Response-ET
Document Type: Manuals **Readable by All:** No
Document Title: Emergency Communications Annex (Ver 5)
Dollar Amount: \$0
Job Order Num:
ITWR Number:
Major Work Category:

| Documents | | Reviewers/Approvers | |
|--|----------------|---|----------------------------------|
| Title | Version | <input type="button" value="Modify Reviewers/Approvers"/> | |
| Emergency Comms Annex (Ver 5) -DRAFT.docx | Original | Reviewers | |
| <input type="button" value="Consolidate Files"/> | | [REDACTED] | Approved on 7/21/2021 7:39:48 AM |
| | | [REDACTED] | Approved on 6/30/2021 5:21:03 PM |
| | | [REDACTED] | Approved on 6/29/2021 3:13:00 PM |
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| 7/21/2021 7:30:31 AM - [REDACTED] <input type="button" value="Edit"/> | |
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| 6/29/2021 1:58:05 PM [REDACTED] <input type="button" value="Edit"/> | |
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Change Request Form

To request changes, corrections, or additions to the Company Emergency Response Plan (CERP) or associated annexes, submit a completed copy of [EMER-2001S-F01](#), Change Request Form, to EPRCERP@pge.com. The [EMER-2001S-F01](#) is located on the [Guidance Document Library](#):



Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once a Bulletin is communicated, a copy will be placed under the respective Annex located in the GDL and be included as content in the next Annex update.

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1 Introduction

1.1 Purpose

The purpose of the Emergency Communications Annex is to provide a high-level overview of Pacific Gas and Electric Company (PG&E) actions and strategies regarding communications activities during any type of emergency.

PG&E's goal is to provide safe, reliable, affordable, and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions, and develop processes to ensure the safe, prompt, and efficient restoration of services.

In support of that goal, PG&E has developed a Company Emergency Response Plan (CERP) to provide staff with a safe, efficient, and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the CERP.

1.2 Emergency Communications Annex Overview

This Annex provides a high-level overview of communications strategies and procedures during emergencies, and is a companion to the Emergency Communications Plan, also referred as the "Book of All Knowledge" (BOAK). That plan was developed by the Marketing and Communications, Public Affairs and Customer Care organizations. It is a comprehensive plan that contains the Marketing and Communications business continuity plan, detailed planning and process information and pre-approved content for staff to update as appropriate during or following an emergency or catastrophic event that severely impacts company operations.

1.3 Role of Marketing and Communications During Emergency Preparedness and Response

The Marketing and Communications/Public Information Officer (PIO) team is responsible for developing and distributing timely, accurate and consistent emergency communications to employees, media, and customers through various internal and external channels. The PIO team supports Company efforts to safely secure and restore communities following emergency and catastrophic events by:

- Providing strategic communications counsel to the Incident Commander (IC)
- Preparing pre-approved messages for media, employees, customers, government and regulatory officials that can be shared immediately until approved safety and restoration information can be provided
- Ensuring plans and processes for all communication channels are current and efficient with a goal of being best in class
- Identifying and working with key stakeholders in operations and other lines of business where there is an interdependency for information and/or execution of

emergency communications, so they have a thorough and complete understanding of their role in the emergency communications plan

- Ensuring that media, employees, customers, government and regulatory officials receive approved, timely, accurate and consistent information related to PG&E's activities and restoration efforts

1.4 Annex Maintenance

PG&E's Emergency Preparedness and Response (EP&R) department is responsible for developing, updating, and maintaining the CERP and its Annexes in collaboration with the subject matter experts from the responsible lines of business. Please refer to section 1.6 (Plan Maintenance) of the [Company Emergency Response Plan \(EMER 3001M\)](#) for information regarding document approval, revision, and periodic maintenance. After approval, the CERP and its Annexes are published in PG&E's Guidance Document Library (GDL). You can access the site here:

██

2 Emergency Organization and Responsibilities

2.1 Emergency Facilities

There is no dedicated emergency communication center for public information. The Marketing and Communications/Public Information Officer team staffs multiple levels of Company Emergency Facilities, depending on the type and scope of incident.

The Emergency Operations Center (EOC) is located at the [REDACTED].

2.1.1 Primary and Alternate Positions

2.1.1.1 On-Call Teams

Eight teams (Alpha, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, and Hotel) provide on-call emergency communications support over the weekend and between 1730 and 0830 during weeknights. On-call shifts are one-week long and rotate between teams every Monday. Weekend hours begin Friday at 1730 through Monday at 0830.

On-call expectations:

- Stay fit for duty
- Have your laptop with you (and be sure you have remote access with Virtual Private Network (VPN) or Citrix)
- Know (or have ready access to) the list of on-call Marketing and Communications personnel on your team
- Have Outage Management Tool (OMT) access on your laptop and phone
- Keep your PG&E cell phone charged with ringer on

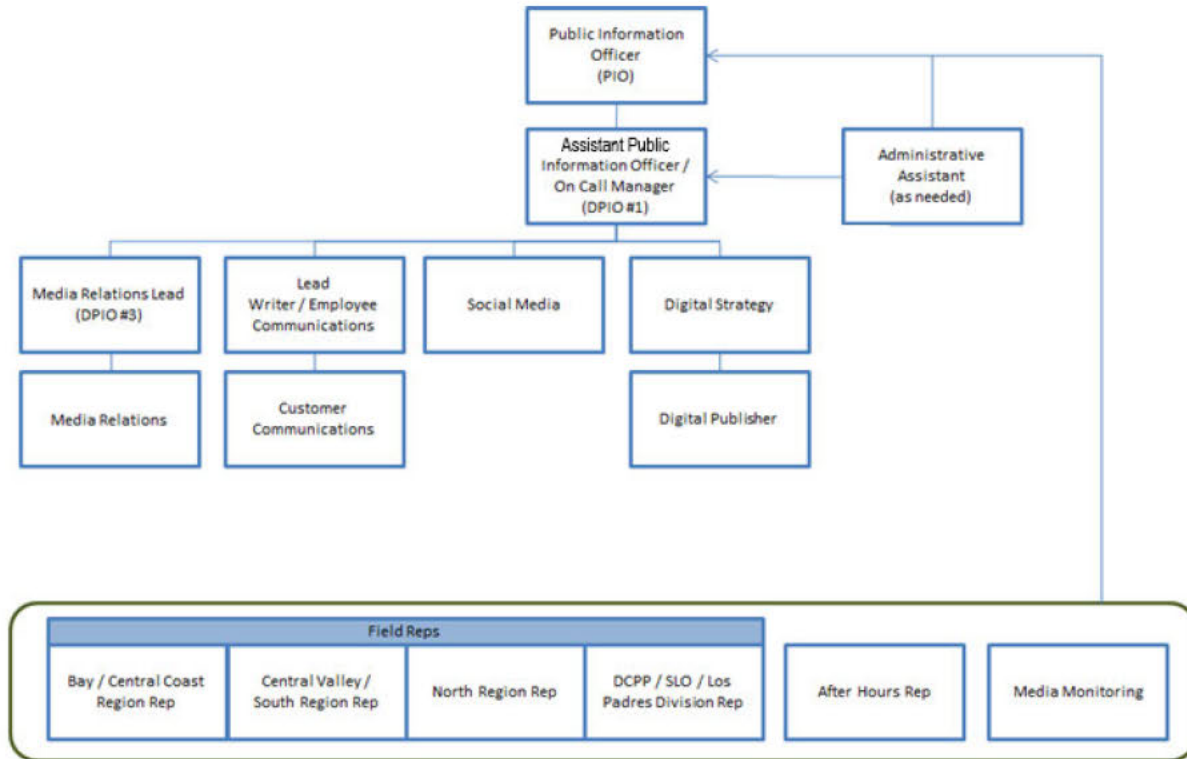
If a catastrophic event occurs, the next team on the on-call schedule will become the second or relief shift. All other teams on the on-call schedule are expected to report to the EOC as soon as possible. For example, if Charlie team is on-call when the EOC is activated after-hours for a catastrophic event, they are expected to report to the EOC within one hour. Delta team is expected to come in as the second shift to relieve Charlie team after the first operational period is over (typically every 24 hours, unless otherwise instructed by the Incident Commander). All the other teams are expected to report to the EOC as soon as they can.

The following are brief descriptions of the PIO on-call team and roles. More detailed job aids for the following roles can be found in the Appendix.

2.2 PIO Emergency Communications Organizational Structure

Figure 2-1 shows the typical structure of the Communications section during an emergency operations center activation.

Figure 2-1: Emergency Communications Structure



2.3 PIO Roles During an EOC Activation

| Role | Responsibility |
|--|--|
| Public Information Officer (PIO) | Provides strategic communications counsel to the Incident Commander. Oversees the development and distribution of timely, accurate and consistent communications that are approved by the Incident Commander to ensure the company is speaking with “One Voice” during an emergency. |
| Deputy PIO / On-Call Manager (DPIO #1) | Provides leadership, tactical, logistical and staff support as needed to ensure timely communications process and approval management. |
| Deputy PIO / Gas Emergency Center (DPIO #2 or GEC PIO) | Provides similar support as the DPIO #1 / On-Call Manager role but specifically supports gas emergency communications in the Gas Emergency Center (GEC). |
| Deputy PIO / Media Relations (DPIO #3) | Provides strategic guidance and oversees support for sharing timely, accurate and consistent information with reporters, facilitating media availabilities, and managing media inquiries during an emergency. |
| Lead Writer | Oversees the development and distribution of approved news releases, talking points, Currents stories, executive communications, and various employee communications. |

| Role | Responsibility |
|--|--|
| Customer Communications Writer | Provides strategic communications counsel to the Customer Strategy Officer and supports the development of outbound call scripts for customers, on hold messages for the contact center and talking points for Customer Care staff in the contact center and in the field. |
| Employee Communications Writer | Supports employee communication needs for executives, Human Resources (HR) and Information Technology (IT) during an emergency. |
| Digital Strategy | Oversees the development and posting of timely, accurate and consistent information on PG&E's website during an emergency. |
| Digital Publisher | Executes the development and posting of timely, accurate and consistent information on PG&E's website during an emergency. |
| Social Media Lead | Provides strategic guidance and oversees support for managing PG&E's social media channels during an emergency including Twitter, Facebook, Instagram and Currents. |
| Planning & Intelligence (P&I) Liaison | Works with the P&I Section in the EOC to collect information, escalate issues and follow through on data requests for PIO staff. |
| Media Rep: Bay/Coast | Focus areas: San Francisco, North Bay, East Bay, Diablo, Mission, San Jose, DeAnza, Peninsula Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Media Rep: North | Focus areas: Sonoma, Humboldt, North Valley, Sierra, Sacramento Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Media Rep: South | Focus areas: Yosemite, Fresno, Kern, Stockton Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Diablo Canyon Power Plant (DCPP) & Los Padres Division PIO | Focus areas: DCPP, Los Padres Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Customer Strategy Officer and staff | Provides strategic guidance to the Incident Commander regarding customer communications and support during emergencies including outbound calls, contact center operations, customer support strategies in the field and support for critical and essential customers. |
| Liaison Officer and Staff | Provides strategic guidance to the Incident Commander regarding communications, support and coordination with government, regulatory and community-based agencies, including the Red Cross and County Offices of Emergency Services. |

2.3.1 Call-Out Procedures

| | |
|---|--|
| Name of Process: | Business Continuity Reporting for Duty |
| Process Owner: | Marketing and Communications Operations Team |
| Process Purpose: | This process describes how Public Information Office on-call staff should report in for duty during an emergency event. |
| Process Scope: | This process includes reporting for duty in-person or remotely. This process applies to after-hours, weekends and holidays. |
| Process Input: | Catastrophic event has occurred |
| Process Boundaries: | This process is to be used when a major disaster (earthquake, tsunami, communication tech down) has occurred. It is for Corporate Relations staff to inform their supervisor that they are alive and able to report for duty. |
| Process Requirements: | <ol style="list-style-type: none"> 1. An emergency has occurred 2. Staff contact information 3. Ability to contact staff via phone, email, text message |
| Process Flow: | <ol style="list-style-type: none"> 1. A catastrophic event has occurred (earthquake, tsunami, when a disaster disables communications systems) 2. PIO team to determine: <ul style="list-style-type: none"> • Am I safe? Is my family safe? • Is my home safe? • If yes to these questions, notify supervisor via phone, text message and email: <ul style="list-style-type: none"> ○ Confirm okay or not okay ○ Reporting for duty or not reporting for duty (regardless if on-call or not) ○ Going to XXXX PG&E facility (primary or secondary emergency reporting location or another PG&E facility that is safe) ○ SAMPLE: OKAY, REPORTING IN, LOCATION: XXXX • If no to these questions, stay safe and keep lines of communication open 3. Supervisor to respond confirmation of text or email and inform whether to report in <ul style="list-style-type: none"> • If no response from supervisor within 30 minutes, then report to your Director 4. Director to respond confirmation of text or email <ul style="list-style-type: none"> • If no response from director within 30 minutes, then report to Senior Directors 5. Senior Directors confirm receipt of text or email <ul style="list-style-type: none"> • Determine if PIO staff needs to report to their geographic primary or backup location regardless of being on-call or not |
| | Note: If company systems are down, contact supervisor via personal email, cell phone and text message. In a complete tech down situation, follow tech down processes. |
| Process Output: | <ol style="list-style-type: none"> 1. List of employees that have reported in by the first hour (accounted and unaccounted) 2. Employee safety and location 3. Communication channels that are available |
| Exceptions to Normal Process Flow: | Refer to assumption #2 regarding internet and cellphone access. |

| | |
|---|---|
| Control Points and Measurements: | Understanding of how employees should report that they are alive and can report in forduty following a catastrophic event |
| Related Processes: | <ol style="list-style-type: none">1. Business Continuity Plan2. Emergency Event Notification3. Staff Activation |

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3 Concept of Operations

Emergency Communications Strategy is developed by the Public Information Officer, in collaboration with the Customer Strategy Officer and Liaison Officer. The Incident Commander is the approving authority for strategy and all communications materials.

3.1 Emergency Communications Strategy Development

| | |
|------------------------------|--|
| Name of Process: | Emergency Communications Strategy Development |
| Process Owner: | Electric Communications |
| Process Purpose: | This process describes how the emergency communications strategy is developed during an emergency event by the Public Information Officer (PIO), Customer Strategy Officer (CSO) and Liaison Officer (LNO). |
| Process Scope: | The scope includes developing an emergency communications strategy during an event. |
| Process Input: | The following need to be defined: <ul style="list-style-type: none"> • Strategic objectives: proactive, timely, relevant • Stakeholders • Current perception of public safety, restoration progress, overall response efforts • Specific messages • Communication channels, schedule and frequency • Reporting and metrics • Next steps (if needed) |
| Process Boundaries: | This process begins when the IC activates the EOC and ends when Corporate Relations on-call staff report in for emergency communications duties. |
| Process Requirements: | <ol style="list-style-type: none"> 1. Updated event information and impacts 2. Restoration status |

| | |
|--|--|
| <p>Process Flow:</p> | <ol style="list-style-type: none"> 1. PIO and DPIOs review event-specific material from BOAK upon notification from IC to report in. 2. IC, Ops and Logistics provide updated information and impacts of the event during the initial command staff briefing. 3. PIO and DPIOs provide corporate relations briefing to on-call staff regarding event and impacts, immediate needs, tasks to be completed and deadlines. <i>The following are defined:</i> <ol style="list-style-type: none"> a. Stakeholders b. Current perception of public safety, restoration progress and overall response efforts c. Assigned tasks and communication channels to be used d. Input from Operations and latest Estimated Time of Restoration (ETOR) e. Insight from customers and governmental agencies f. Anticipated issues or concerns g. PIO and DPIOs meet with Customer Strategy and Liaison Officers for additional strategy twice daily (once before Command Staff meeting and once before end of the day to assess and refine objectives and strategies). h. Set up timing cadence for updated content, numbers, reports 4. PIO shares objectives and strategies with PIO team. 5. IC and Deputy IC review and approve final materials. |
| | <p>Process ends. Continue to <i>Data Gathering and Content Creation/Approval</i> process.</p> |
| <p>Process Output:</p> | <p>Communications strategy and communications approach.</p> |
| <p>Exceptions to Normal Process Flow:</p> | <ol style="list-style-type: none"> 1. If PIO and DPIOs are unable to reach an on-call staff or key EOC resource, then PIO and DPIOs would reassign roles and review contacts. 2. "Tech Down" situation could impact staff notification, materials development, etc. |
| <p>Control Points and Measurements:</p> | <ol style="list-style-type: none"> 1. Number of materials developed. 2. Number of tactics deployed. |
| <p>Related Processes:</p> | <ol style="list-style-type: none"> 1. On-Call Staff Activation 2. Content Dissemination Internal and External <p>Resources:</p> <ol style="list-style-type: none"> 1. Emergency Communications Team Meeting Agenda 2. Emergency Communications Timeline 3. Emergency Communications Information and Content Checklist 4. Emergency Communications Messaging Overview and Strategy Tools |

3.2 Readiness

PG&E employees are essential to major earthquake/disaster recovery and are expected to support restoration efforts if called upon. Customers rely on us to be ready to restore service immediately following a catastrophic incident or major disaster, even one of major proportions.

Since PG&E cannot predict the number of employees needed, or the duration of the response to a catastrophic incident or major disaster, it is important for every employee to be available for work as soon as the “All Clear” is communicated.

Employees are expected to report for assigned duties before, during and after a catastrophic incident or major disaster based on business unit specific guidance.

Any employee who fails to report for duty as assigned without communicating special circumstances will be subject to disciplinary action, up to and including termination. Each situation will be handled on a case-by-case basis.

3.3 Readiness Expectations

The Business Continuity Reporting for Duty process is to be used during or following a catastrophic incident, such as an earthquake, tsunami or major disaster that disables communication systems (refer to Tech Down processes).

Personal assessment and checklist:

- Am I safe? Are my family members and loved ones safe?
- Is my home impacted? Do I need to evacuate?
- Report to supervisor within 30 minutes of incident or when able to safely do so
- Grab your emergency go-bag
 - Be safe in transit Important and helpful materials:
 - Marketing and Communications Staff Roster (Emergency contact included)
 - Marketing and Communications Designated Reporting Locations (In the case where staff are unable to report into the Emergency Operations Center in San Francisco during or following a catastrophic event)

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4 Coordination and Communication

The PIO team develops messaging/content based on updated event information in coordination with CSO and LNO after command staff meeting.

1. PIO shares messaging with IC for approval
2. IC approves or edits messaging
3. Approved – continue to next step
4. Make edits – return to step 1 until IC approves
5. If IC-directed changes/edits to Talking Points are not processed during a shift (i.e., new Talking Points are not distributed with the changes/edits), then the Deputy PIO will provide specific direction in his/her transition note and during the transition call to ensure that the incoming PIO EOC team is aware of and will process these edits into the next set of Talking Points.
6. PIO and DPIOs share approved messaging with PIO, CSO, and LNO teams and Incident Commander, Senior Leadership.
7. Corporate Relations All Employees, On-Duty CSO Staff, On-Duty LNO Staff
8. Corporate Affairs All Employees.
9. Separate Email: 32 floor Leadership.
10. The PIO team shares messages via various communication channels (phone calls to reporters, social media content, employee notes, customer Interactive Voice Response (IVRs), etc.)

Repeat Data Gathering and Content Creation/Approval, Strategy Development processes as event information is updated.

4.1 Thresholds for Regulatory Reporting

PG&E maintains two incident reporting lines to ensure compliance with Regulatory Reporting rules. Guidelines for reporting policies are outlined below.

Electric Incident Reporting Line [REDACTED]

Gas Incident Reporting Line [REDACTED]

4.2 Electric Incident Reporting Policy

If the utility receives calls from three separate media outlets (includes television, radio, print, online and wire services) within 12 hours of an electric incident, and/or there exists a reasonable expectation that an event will garner media coverage because of one or more unique circumstances, excluding storms, the External Communications department will notify the Electric Incident On-Call Representative, who in turn will decide whether to notify the California Public Utilities Commission (CPUC).

The Electric Incident On-Call Representative will also be contacted if, during normal business hours, the utility's media monitoring personnel capture three internet stories on media outlet web sites within 12 hours of an electric incident. (A media outlet web site includes any website operated by a television, radio, print or online media company.)

In addition to the three media calls requirement, the Electric Incident On-Call Representative will be contacted anytime a media interview is conducted on-site at an event, or anytime there is a television camera on-site during an electric incident in the Bay Area media market. (The Bay Area media market includes San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Marin, Napa, and Sonoma counties.)

4.3 Gas Incident Reporting Policy

If the utility receives calls from three separate media outlets within 12 hours of a gas incident, and/or there exists a reasonable expectation that an event will garner media coverage because of one or more unique circumstances, the External Communications department will notify the Gas Incident On-Call Representative, who in turn will decide whether to notify the CPUC.

In addition to the three media calls requirement, the Gas Incident On-Call Representative will be contacted anytime a media interview is conducted on-site at an event or anytime a television camera is on-site during a gas incident in the Bay Area or greater Sacramento/Stockton area.

4.4 Generating Station Incident Reporting Policy

If the utility receives one media call regarding a generating station incident, excluding nuclear and hydro facilities, then the Electric Incident On-Call Representative will be contacted.

5 Training and Exercises

PG&E supports various trainings and exercises throughout the year. PG&E trains its employees on emergency preparedness and response principles and the CERP. Training is offered via several formats, including on the job, tailboards, web-based training (WBT) and instructor-led training (ILTs) courses, and simulated emergency exercises. For additional information, refer to Section 3.6.1 of the CERP.

In accordance with CPUC Regulation, EP&R ensures that the CERP is exercised annually, while each line of business is responsible for ensuring that the functional and hazard-specific Annexes to the CERP are exercised annually. Both the CERP and Annex exercises are based on emergency management program priorities and test the specific operational components included in the CERP and Annexes. Exercises are conducted in tabletop, functional and full-scale formats, with the format being selected based on the capabilities and objectives identified.

PG&E's Emergency Preparedness and Response (EP&R) Strategy and Execution Training Division is responsible for developing and executing a comprehensive training program that aligns with the National Incident Management System (NIMS), Standardized Emergency Management System (SEMS) and Incident Command System (ICS). ICS principles are used extensively during PG&E's emergency preparedness and response efforts. ICS training courses are updated regularly and available to all emergency and coordination center personnel. PG&E requires all EOC personnel to complete a four-phase training plan. For additional information regarding training, see section 3.6.1 of EMER-3001M, Company Emergency Response Plan (CERP).

PG&E's Emergency Preparedness & Response Strategy & Execution Exercise Team plans, coordinates, and conducts the following types of Emergency Preparedness Exercises:

- Tabletop Exercise (TTX)
- Functional Exercise (FE)
- Full Scale Exercise (FSE)

All exercises are designed and executed in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology, the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E EP&R S&E Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises also fulfills a key component of compliance with CPUC GO 166, specifically Standard 3, parts a and b.

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6 After-Action Reports

After-Action Reports (AAR) summarize key information related to activation response and recovery activities. In accordance with Section 3.5.3 of the CERP, PG&E conducts an After-Action Review with responding incident leadership to identify strengths and opportunities for improvement. The responsible emergency management organization solicits and analyzes feedback from key leaders who supported the activation and prepare a draft AAR.

The AAR includes an Improvement Plan with recommended corrective actions, which may be used to enhance existing procedures and planning future emergency response exercises. Corrective Action deemed significant (or which remain pending) may be submitted into the Corrective Action Program (CAP). CAP entries are assigned ownership from the responsible line of business that are actively tracked and evaluated to ensure completion.

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7 Appendices

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Appendix A. Acronyms

| Acronym | Definition |
|---------|---|
| AAR | After Action Report |
| BOAK | Book of All Knowledge |
| CAP | Corrective Action Program |
| CERP | Company Emergency Response Plan |
| CPUC | California Public Utilities Commission |
| CSO | Customer Safety Officer |
| DCPP | Diablo Canyon Power Plant |
| DPIO | Deputy Public Information Officer |
| EOC | Emergency Operations Center |
| EP&R | Emergency Preparedness and Response |
| ETOR | Estimate Time of Restoration |
| GDL | Guidance Document Library |
| GEC | Gas Emergency Center |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| HR | Human Resources |
| IC | Incident Commander |
| ILT | Instructor Led Training |
| IT | Information Technology |
| IVR | Interactive Voice Response |
| LNO | Liaison Officer |
| MYTEP | Multi-Year Training and Exercise Plan |
| NIMS | National Incident Management System |
| OMT | Outage Management Tool |
| PG&E | Pacific Gas and Electric Company |
| P&I | Planning and Intelligence |
| PIO | Public Information Officer |
| SEMS | Standardized Emergency Management System |
| VPN | Virtual Private Network |
| WBT | Web Based Training |

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Appendix B. Contact / Notification Lists

Emergency response personnel contact lists are currently maintained by Emergency Communications staff on SharePoint. Contact [REDACTED] for more information.

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Appendix C. TOOLS, JOB AIDS, TRAINING AIDS, AND OTHER REFERENCE MATERIALS

Refer to BOAK for all Job Aids.

C.1 Emergency Center Activation Checklists

C.2 Emergency Center Primary and Alternate Location

C.3 Conference Call Agendas for Activation

C.4 Intelligence Summary Template and Instructions

C.5 After Action Report Template and Instructions

C.6 Outage Management Tool

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***Pacific Gas and
Electric Company***[®]

Emergency Communication Annex

to the Company Emergency Response Plan

[GENERAL INSTRUCTIONS: Information that is specific to the LOB/Annex is contained in this Annex. Information that is consistent across the company is located in the base company plan. Links to the base company plan may be included in the Annex, if needed, and are indicated as a hyperlink in this document. OPTIONAL HEADINGS/SECTIONS ARE NOTED THROUGHOUT.]

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Document Control

maintains this Emergency Communication Annex. This section records the revisions made to the Emergency Communication Annex, the responsible persons for its preparation, maintenance, review, updates, and signature authorities for approval.

Change Record

The following table is used to record all changes made to the plan. It describes the revisions made, the locations of the revisions, the names of the persons responsible for the revisions, and dates of revisions:

| Section(s) Affected | Change | Date |
|---------------------|---|-----------|
| Throughout | DPIO to APIO | 6/22/2022 |
| Throughout | LNO to LO | 6/22/2022 |
| Document Reviewers | Updated | 6/22/2022 |
| Document Approvers | Updated | 6/22/2022 |
| 2.1.1.1.1 | Third paragraph, added reference to COVID-19 | 6/22/2022 |
| 2.2, Fig 2-1 | Updated | 6/22/2022 |
| 2.3 | Deleted reference to DPIO/ Gas Emergency Center | 6/22/2022 |
| 2.3 | Changed Customer Communications Writer to Assistant Writer | 6/22/2022 |
| 2.3 | Deleted Reference to Employee Communications Writer | 6/22/2022 |
| 3.3 | Last bullet, changed location of EOC to Vacaville | 6/22/2022 |
| 4.1 | Updated Gas Control Center phone number | 6/22/2022 |
| 4.3 | Changed Gas Incident On Call Representative to Gas Command Center | 6/22/2022 |
| Acronyms | Updated list | 6/22/2022 |

Revision Log

| Document Number | Title |
|-----------------|-------|
| NA | NA |

Reference Documents

| Document Number | Title |
|-----------------|--|
| EMER-3001M | Company Emergency Response Plan (CERP) |

Document Preparer

| Name | Position |
|------------|---|
| [REDACTED] | Principal, Marketing and Communications |
| [REDACTED] | Director, Marketing and Communications |

Document Reviewers

| Name | Position |
|------------|---|
| [REDACTED] | Director, Marketing and Communications |
| [REDACTED] | Manager, Emergency Preparedness & Response Strategy and Execution (reviewing for [REDACTED] on vacation) |

Document Owner

| Name | Position |
|------------|---|
| [REDACTED] | Principal, Marketing and Communications |

Document Approvers

| Name | Position |
|------------|---|
| [REDACTED] | Senior Director, Marketing and Communications |

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| EMER-3008M Comms Anx (v6)-DRAFT(06.22).docx | Original | Reviewers | |
| Consolidate Files | | [REDACTED] | Approved on 6/23/2022 8:24:26 AM |
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 [REDACTED] is reviewing for [REDACTED] who is on vacation.

Change Request Form

To request changes, corrections, or additions to this *Annex*, the [Company Emergency Response Plan \(CERP\)](#) or other associated annexes, submit a request through the [online change request here](#).

Proposed changes are significant when they affect the emergency organizational structure, critical operations, key facilities, or execution of the plan; the information will be published by a Bulletin to the CERP or Annex. Minor changes will be saved and addressed during the next document update.

Once a Bulletin is communicated, a copy will be placed under the respective Annex located in the GDL and be included as content in the next Annex update.

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1 Introduction

1.1 Purpose

The purpose of the Emergency Communications Annex is to provide a high-level overview of Pacific Gas and Electric Company (PG&E) actions and strategies regarding communications activities during any type of emergency.

PG&E's goal is to provide safe, reliable, affordable, and clean commodities (natural gas and electricity) to customers every day. PG&E is constantly working to safeguard and improve its natural gas and electric systems, to minimize the risk of service interruptions, and develop processes to ensure the safe, prompt, and efficient restoration of services.

In support of that goal, PG&E has developed a Company Emergency Response Plan (CERP) to provide staff with a safe, efficient, and coordinated response strategies to emergency incidents within the PG&E service territory. This document serves as an annex to the CERP.

1.2 Emergency Communications Annex Overview

This Annex provides a high-level overview of communications strategies and procedures during emergencies, and is a companion to the Emergency Communications Plan, also referred as the "Book of All Knowledge" (BOAK). That plan was developed by the Marketing and Communications, Public Affairs and Customer Care organizations. It is a comprehensive plan that contains the Marketing and Communications business continuity plan, detailed planning and process information and pre-approved content for staff to update as appropriate during or following an emergency or catastrophic event that severely impacts company operations.

1.3 Role of Marketing and Communications During Emergency Preparedness and Response

The Marketing and Communications/Public Information Officer (PIO) team is responsible for developing and distributing timely, accurate and consistent emergency communications to employees, media, and customers through various internal and external channels. The PIO team supports Company efforts to safely secure and restore communities following emergency and catastrophic events by:

- Providing strategic communications counsel to the Incident Commander (IC)
- Preparing pre-approved messages for media, employees, customers, government and regulatory officials that can be shared immediately until approved safety and restoration information can be provided
- Ensuring plans and processes for all communication channels are current and efficient with a goal of being best in class
- Identifying and working with key stakeholders in operations and other lines of business where there is an interdependency for information and/or execution of

emergency communications, so they have a thorough and complete understanding of their role in the emergency communications plan

- Ensuring that media, employees, customers, government and regulatory officials receive approved, timely, accurate and consistent information related to PG&E's activities and restoration efforts

1.4 Annex Maintenance

PG&E's Emergency Preparedness and Response (EP&R) department is responsible for developing, updating, and maintaining the CERP and its Annexes in collaboration with the subject matter experts from the responsible lines of business. Please refer to section 1.6 (Plan Maintenance) of the [Company Emergency Response Plan \(CERP\) \(EMER-3001M\)](#) for information regarding document approval, revision, and periodic maintenance. After approval, the CERP and its Annexes are published in PG&E's Guidance Document Library (GDL). You can access the site here:

██

2 Emergency Organization and Responsibilities

2.1 Emergency Facilities

There is no dedicated emergency communication center for public information. The Marketing and Communications/Public Information Officer team staffs multiple levels of Company Emergency Facilities, depending on the type and scope of incident.

The Emergency Operations Center (EOC) is located at the [REDACTED]
[REDACTED]

2.1.1 Primary and Alternate Positions

2.1.1.1 On-Call Teams

Eight teams (Alpha, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, and Hotel) provide on-call emergency communications support over the weekend and between 1730 and 0830 during weeknights. On-call shifts are one-week long and rotate between teams every Monday. Weekend hours begin Friday at 1730 through Monday at 0830.

On-call expectations:

- Stay fit for duty
- Have your laptop with you (and be sure you have remote access with Virtual Private Network (VPN) or Citrix)
- Know (or have ready access to) the list of on-call Marketing and Communications personnel on your team
- Have Outage Management Tool (OMT) access on your laptop and phone
- Keep your PG&E cell phone charged with ringer on

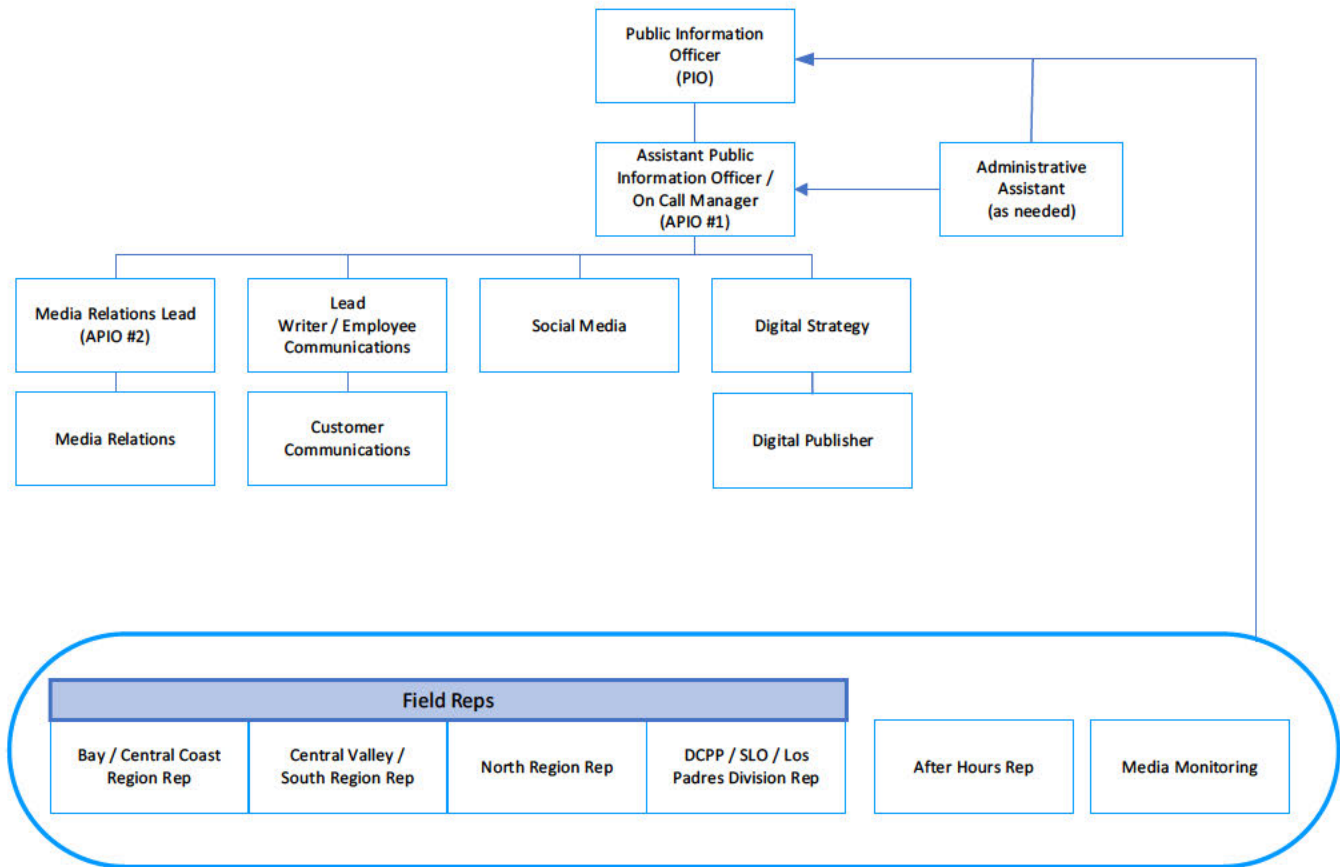
If a catastrophic event occurs, the next team on the on-call schedule will become the second or relief shift. All other teams on the on-call schedule are expected to report to the EOC as soon as possible. For example, if Charlie team is on-call when the EOC is activated after-hours for a catastrophic event, they are expected to report to the EOC within one hour. Delta team is expected to come in as the second shift to relieve Charlie team after the first operational period is over (typically every 24 hours, unless otherwise instructed by the Incident Commander). All the other teams are expected to report to the EOC as soon as they can. (Due to COVID-19 precautions, many of the shifts have been served remotely from 2020-2022.)

The following are brief descriptions of the PIO on-call team and roles. More detailed job aids for the following roles can be found in the Appendix.

2.2 PIO Emergency Communications Organizational Structure

Figure 2-1 shows the typical structure of the Communications section during an emergency operations center activation.

Figure 2-1: Emergency Communications Structure



2.3 PIO Roles During an EOC Activation

| Role | Responsibility |
|---|--|
| Public Information Officer (PIO) | Provides strategic communications counsel to the Incident Commander. Oversees the development and distribution of timely, accurate and consistent communications that are approved by the Incident Commander to ensure the company is speaking with “One Voice” during an emergency. |
| Assistant PIO / On-Call Manager (APIO #1) | Provides leadership, tactical, logistical and staff support as needed to ensure timely communications process and approval management. |
| Assistant PIO / Media Relations (APIO #2) | Provides strategic guidance and oversees support for sharing timely, accurate and consistent information with reporters, facilitating media availabilities, and managing media inquiries during an emergency. |
| Lead Writer | Oversees the development and distribution of approved news releases, talking points, Currents stories, executive communications, and various employee communications. |

| Role | Responsibility |
|--|---|
| Assistant Writer | Supports Lead Writer. Also, provides strategic communications counsel to the Customer Strategy Officer and supports the approval of outbound call scripts for customers, on hold messages for the contact center and talking points for Customer Care staff in the contact center and in the field. |
| Digital Strategy | Oversees the development and posting of timely, accurate and consistent information on PG&E's website during an emergency. |
| Digital Publisher | Executes the development and posting of timely, accurate and consistent information on PG&E's website during an emergency. |
| Social Media Lead | Provides strategic guidance and oversees support for managing PG&E's social media channels during an emergency including Twitter, Facebook, Instagram and Currents. |
| Planning and Intelligence (P&I) Liaison | Works with the P&I Section in the EOC to collect information, escalate issues and followthrough on data requests for PIO staff. |
| Media Rep: Bay/Coast | Focus areas: San Francisco, North Bay, East Bay, Diablo, Mission, San Jose, DeAnza, Peninsula divisions Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Media Rep: North | Focus areas: Sonoma, Humboldt, North Valley, Sierra, Sacramento divisions Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Media Rep: South | Focus areas: Yosemite, Fresno, Kern, Stockton Divisions Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Diablo Canyon Power Plant (DCPP) and Los Padres Division PIO | Focus areas: DCPP, Los Padres Division Reports to the local emergency center or key field location(s) to provide onsite media relations support and checks in with the operations supervisor on scene. |
| Customer Strategy Officer (CSO) and staff | Provides strategic guidance to the Incident Commander regarding customer communications and support during emergencies including outbound calls, contact center operations, customer support strategies in the field and support for critical and essential customers. |
| Liaison Officer (LO) and Staff | Provides strategic guidance to the Incident Commander regarding communications, support and coordination with government, regulatory and community-based agencies, including the Red Cross and County Offices of Emergency Services. |

2.3.1 Call-Out Procedures

| | |
|---|--|
| Name of Process: | Business Continuity Reporting for Duty |
| Process Owner: | Marketing and Communications Operations Team |
| Process Purpose: | This process describes how Public Information Office on-call staff should report in for duty during an emergency event. |
| Process Scope: | This process includes reporting for duty in-person or remotely. This process applies to after-hours, weekends and holidays. |
| Process Input: | Catastrophic event has occurred |
| Process Boundaries: | This process is to be used when a major disaster (earthquake, tsunami, communication tech down) has occurred. It is for Corporate Relations staff to inform their supervisor that they are alive and able to report for duty. |
| Process Requirements: | <ol style="list-style-type: none"> 1. An emergency has occurred 2. Staff contact information 3. Ability to contact staff via phone, email, text message |
| Process Flow: | <ol style="list-style-type: none"> 1. A catastrophic event has occurred (earthquake, tsunami, when a disaster disables communications systems) 2. PIO team to determine: <ul style="list-style-type: none"> • Am I safe? Is my family safe? • Is my home safe? • If yes to these questions, notify supervisor via phone, text message and email: <ul style="list-style-type: none"> ○ Confirm okay or not okay ○ Reporting for duty or not reporting for duty (regardless if on-call or not) ○ Going to XXXX PG&E facility (primary or secondary emergency reporting location or another PG&E facility that is safe) ○ SAMPLE: OKAY, REPORTING IN, LOCATION: XXXX • If no to these questions, stay safe and keep lines of communication open 3. Supervisor to respond confirmation of text or email and inform whether to report in <ul style="list-style-type: none"> • If no response from supervisor within 30 minutes, then report to your Director 4. Director to respond confirmation of text or email <ul style="list-style-type: none"> • If no response from director within 30 minutes, then report to Senior Directors 5. Senior Directors confirm receipt of text or email <ul style="list-style-type: none"> • Determine if PIO staff needs to report to their geographic primary or backup location regardless of being on-call or not |
| | Note: If company systems are down, contact supervisor via personal email, cell phone and text message. In a complete tech down situation, follow tech down processes. |
| Process Output: | <ol style="list-style-type: none"> 1. List of employees that have reported in by the first hour (accounted and unaccounted) 2. Employee safety and location 3. Communication channels that are available |
| Exceptions to Normal Process Flow: | Refer to assumption #2 regarding internet and cellphone access. |
| Control Points and Measurements: | Understanding of how employees should report that they are alive and can report in for duty following a catastrophic event |

| | |
|---------------------------|---|
| Related Processes: | <ol style="list-style-type: none">1. Business Continuity Plan2. Emergency Event Notification3. Staff Activation |
|---------------------------|---|

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3 Concept of Operations

Emergency Communications Strategy is developed by the Public Information Officer, in collaboration with the Customer Strategy Officer and Liaison Officer. The Incident Commander is the approving authority for strategy and all communications materials.

3.1 Emergency Communications Strategy Development

| | |
|------------------------------|--|
| Name of Process: | Emergency Communications Strategy Development |
| Process Owner: | Electric Communications |
| Process Purpose: | This process describes how the emergency communications strategy is developed during an emergency event by the Public Information Officer (PIO), Customer Strategy Officer (CSO) and Liaison Officer (LO). |
| Process Scope: | The scope includes developing an emergency communications strategy during an event. |
| Process Input: | The following need to be defined: <ul style="list-style-type: none"> • Strategic objectives: proactive, timely, relevant • Stakeholders • Current perception of public safety, restoration progress, overall response efforts • Specific messages • Communication channels, schedule and frequency • Reporting and metrics • Next steps (if needed) |
| Process Boundaries: | This process begins when the IC activates the EOC and ends when Corporate Relations on-call staff report in for emergency communications duties. |
| Process Requirements: | <ol style="list-style-type: none"> 1. Updated event information and impacts 2. Restoration status |

| | |
|--|--|
| <p>Process Flow:</p> | <ol style="list-style-type: none"> 1. PIO and APIOs review event-specific material from BOAK upon notification from IC to report in. 2. IC, Ops and Logistics provide updated information and impacts of the event during the initial command staff briefing. 3. PIO and APIOs provide corporate relations briefing to on-call staff regarding event and impacts, immediate needs, tasks to be completed and deadlines. <i>The following are defined:</i> <ol style="list-style-type: none"> a. Stakeholders b. Current perception of public safety, restoration progress and overall response efforts c. Assigned tasks and communication channels to be used d. Input from Operations and latest Estimated Time of Restoration (ETOR) e. Insight from customers and governmental agencies f. Anticipated issues or concerns g. PIO and APIOs meet with Customer Strategy and Liaison Officers for additional strategy twice daily (once before Command Staff meeting and once before end of the day to assess and refine objectives and strategies). h. Set up timing cadence for updated content, numbers, reports 4. PIO shares objectives and strategies with PIO team. 5. IC and Deputy IC review and approve final materials. |
| | <p>Process ends. Continue to <i>Data Gathering and Content Creation/Approval</i> process.</p> |
| <p>Process Output:</p> | <p>Communications strategy and communications approach.</p> |
| <p>Exceptions to Normal Process Flow:</p> | <ol style="list-style-type: none"> 1. If PIO and APIOs are unable to reach an on-call staff or key EOC resource, then PIO and APIOs would reassign roles and review contacts. 2. "Tech Down" situation could impact staff notification, materials development, etc. |
| <p>Control Points and Measurements:</p> | <ol style="list-style-type: none"> 1. Number of materials developed. 2. Number of tactics deployed. |
| <p>Related Processes:</p> | <ol style="list-style-type: none"> 1. On-Call Staff Activation 2. Content Dissemination Internal and External <p>Resources:</p> <ol style="list-style-type: none"> 1. Emergency Communications Team Meeting Agenda 2. Emergency Communications Timeline 3. Emergency Communications Information and Content Checklist 4. Emergency Communications Messaging Overview and Strategy Tools |

3.2 Readiness

PG&E employees are essential to major earthquake/disaster recovery and are expected to support restoration efforts if called upon. Customers rely on us to be ready to restore service immediately following a catastrophic incident or major disaster, even one of major proportions.

Since PG&E cannot predict the number of employees needed, or the duration of the response to a catastrophic incident or major disaster, it is important for every employee to be available for work as soon as the “All Clear” is communicated.

Employees are expected to report for assigned duties before, during and after a catastrophic incident or major disaster based on business unit specific guidance.

Any employee who fails to report for duty as assigned without communicating special circumstances will be subject to disciplinary action, up to and including termination. Each situation will be handled on a case-by-case basis.

3.3 Readiness Expectations

The Business Continuity Reporting for Duty process is to be used during or following a catastrophic incident, such as an earthquake, tsunami or major disaster that disables communication systems (refer to Tech Down processes).

Personal assessment and checklist:

- Am I safe? Are my family members and loved ones safe?
- Is my home impacted? Do I need to evacuate?
- Report to supervisor within 30 minutes of incident or when able to safely do so
- Grab your emergency go-bag
 - Be safe in transit Important and helpful materials:
 - Marketing and Communications Staff Roster (Emergency contact included)
 - Marketing and Communications Designated Reporting Locations (In the case where staff are unable to report to the Emergency Operations Center in Vacaville during or following a catastrophic event)

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4 Coordination and Communication

The PIO team develops messaging/content based on updated event information in coordination with CSO and LO after command staff meeting.

1. PIO shares messaging with IC for approval
2. IC approves or edits messaging
3. Approved – continue to next step
4. Make edits – return to step 1 until IC approves
5. If IC-directed changes/edits to Talking Points are not processed during a shift (i.e., new Talking Points are not distributed with the changes/edits), then the Deputy PIO will provide specific direction in his/her transition note and during the transition call to ensure that the incoming PIO EOC team is aware of and will process these edits into the next set of Talking Points.
6. PIO and APIOs share approved messaging with PIO, CSO, and LO teams and Incident Commander, Senior Leadership.
7. Corporate Relations All Employees, On-Duty CSO Staff, On-Duty LO Staff
8. Corporate Affairs All Employees.
9. Separate Email: EoT
10. The PIO team shares messages via various communication channels (phone calls to reporters, social media content, employee notes, customer Interactive Voice Response (IVRs), etc.)

Repeat Data Gathering and Content Creation/Approval, Strategy Development processes as event information is updated.

4.1 Thresholds for Regulatory Reporting

PG&E maintains two incident reporting lines to ensure compliance with Regulatory Reporting rules. Guidelines for reporting policies are outlined below.

Electric Incident Reporting Line: [REDACTED]

Gas Control Center: [REDACTED]

4.2 Electric Incident Reporting Policy

If the utility receives calls from three separate media outlets (includes television, radio, print, online and wire services) within 12 hours of an electric incident, and/or there exists a reasonable expectation that an event will garner media coverage because of one or more unique circumstances, excluding storms, the External Communications department will notify the Electric Incident On-Call Representative, who in turn will decide whether to notify the California Public Utilities Commission (CPUC).

The Electric Incident On-Call Representative will also be contacted if, during normal business hours, the utility's media monitoring personnel capture three internet stories on media outlet web sites within 12 hours of an electric incident. (A media outlet web site includes any website operated by a television, radio, print or online media company.)

In addition to the three media calls requirement, the Electric Incident On-Call Representative will be contacted anytime a media interview is conducted on-site at an event, or anytime there is a television camera on-site during an electric incident in the Bay Area media market. (The Bay Area media market includes San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Marin, Napa, and Sonoma counties.)

4.3 Gas Incident Reporting Policy

If the utility receives calls from three separate media outlets within 12 hours of a gas incident, and/or there exists a reasonable expectation that an event will garner media coverage because of one or more unique circumstances, the External Communications department will notify the Gas Command Center, who in turn will decide whether to notify the CPUC.

In addition to the three media calls requirement, the Gas Command Center will be contacted anytime a media interview is conducted on-site at an event or anytime a television camera is on-site during a gas incident in the Bay Area or greater Sacramento/Stockton area.

4.4 Generating Station Incident Reporting Policy

If the utility receives one media call regarding a generating station incident, excluding nuclear and hydro facilities, then the Electric Incident On-Call Representative will be contacted.

5 Training and Exercises

PG&E supports various trainings and exercises throughout the year. PG&E trains its employees on emergency preparedness and response principles and the CERP. Training is offered via several formats, including on the job, tailboards, web-based training (WBT) and instructor-led training (ILTs) courses, and simulated emergency exercises. For additional information, refer to Section 3.6.1 of the CERP.

In accordance with CPUC Regulation, EP&R ensures that the CERP is exercised annually, while each line of business is responsible for ensuring that the functional and hazard-specific Annexes to the CERP are exercised annually. Both the CERP and Annex exercises are based on emergency management program priorities and test the specific operational components included in the CERP and Annexes. Exercises are conducted in tabletop, functional and full-scale formats, with the format being selected based on the capabilities and objectives identified.

PG&E's Emergency Preparedness and Response (EP&R) Strategy and Execution Training Division is responsible for developing and executing a comprehensive training program that aligns with the National Incident Management System (NIMS), Standardized Emergency Management System (SEMS) and Incident Command System (ICS). ICS principles are used extensively during PG&E's emergency preparedness and response efforts. ICS training courses are updated regularly and available to all emergency and coordination center personnel. PG&E requires all EOC personnel to complete a four-phase training plan. For additional information regarding training, see section 3.6.1 of EMER-3001M, *Company Emergency Response Plan (CERP)*.

PG&E's Emergency Preparedness and Response Strategy and Execution Exercise Team plans, coordinates, and conducts the following types of Emergency Preparedness Exercises:

- Tabletop Exercise (TTX)
- Functional Exercise (FE)
- Full Scale Exercise (FSE)

All exercises are designed and executed in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) methodology, the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the PG&E EP&R S&E Multi-Year Training and Exercise Plan (MYTEP). The conduct of emergency preparedness exercises also fulfills a key component of compliance with CPUC GO 166, specifically Standard 3, parts a and b.

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6 After-Action Reports

After-Action Reports (AAR) summarize key information related to activation response and recovery activities. In accordance with Section 3.5.3 of the CERP, PG&E conducts an After-Action Review with responding incident leadership to identify strengths and opportunities for improvement. The responsible emergency management organization solicits and analyzes feedback from key leaders who supported the activation and prepare a draft AAR.

The AAR includes an Improvement Plan with recommended corrective actions, which may be used to enhance existing procedures and planning future emergency response exercises. Corrective Action deemed significant (or which remain pending) may be submitted into the Corrective Action Program (CAP). CAP entries are assigned ownership from the responsible line of business that are actively tracked and evaluated to ensure completion.

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7 Appendices

Appendix A, Acronyms

Appendix B, Contact / Notification Lists

Appendix C, Tools, Job Aids, Training Aids, and Other Reference Materials

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Appendix A. Acronyms

| Acronym | Definition |
|---------|---|
| AAR | After Action Report |
| APIO | Assistant Public Information Officer |
| BOAK | Book of All Knowledge |
| CAP | Corrective Action Program |
| CERP | Company Emergency Response Plan |
| CPUC | California Public Utilities Commission |
| CSO | Customer Safety Officer |
| DCPP | Diablo Canyon Power Plant |
| EOC | Emergency Operations Center |
| EP&R | Emergency Preparedness and Response |
| ETOR | Estimate Time of Restoration |
| FE | Functional Exercise |
| FSE | Full Scale Exercise |
| GDL | Guidance Document Library |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| IC | Incident Commander |
| ICS | Incident Command System |
| ILT | Instructor Led Training |
| IVR | Interactive Voice Response |
| LO | Liaison Officer |
| MYTEP | Multi-Year Training and Exercise Plan |
| NIMS | National Incident Management System |
| OMT | Outage Management Tool |
| PG&E | Pacific Gas and Electric Company |
| P&I | Planning and Intelligence |
| PIO | Public Information Officer |
| SEMS | Standardized Emergency Management System |
| TTX | Tabletop Exercise |
| VPN | Virtual Private Network |
| WBT | Web Based Training |

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Appendix B. Contact / Notification Lists

Emergency response personnel contact lists are currently maintained by Emergency Communications staff on SharePoint. Contact [REDACTED] for more information.

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Appendix C. Tools, Job Aids, Training Aids, and Other Reference Materials

Refer to BOAK for all Job Aids.

C.1 Emergency Center Activation Checklists

C.2 Emergency Center Primary and Alternate Location

C.3 Conference Call Agendas for Activation

C.4 Intelligence Summary Template and Instructions

C.5 After Action Report Template and Instructions

C.6 Outage Management Tool

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Exhibit D

Required Elements of General Order 166 Standard 1

Exhibit D--Location of Required Elements of Standard 1

| | |
|--|--|
| Standard 1A, Internal Coordination | <p>Company Emergency Response Plan (CERP) Section—2.3 and subsections, 2.5 and subsections, 4 and subsections, 5 and subsections, 6 and subsections, 8 and subsections, 10, 10.1 and 10.1.1, 10.1.2, 10.1.3 and 10.1.4 10.2, 10.3, 10.5, Appendix A, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G</p> <p>Electric Annex Sections or Subsections—1.5 and 4.1.1</p> <p>Emergency Communications Annex— Subsections 1.3 and 2.3 describe the internal coordination role of the Marketing and Communications team. Subsection 3.1 describes the development of PG&E’s emergency communications strategy. Subsection 3.2 discusses readiness. Section 4 addresses Communication and Coordination.</p> |
| Standard 1B, ISO/TO Coordination | <p>CERP Section—2.3.1.1, 5.2.4, 6.0, 6.2, 6.2.2, 7.5.9, 10.3.2</p> <p>Electric Annex Section or Subsection—4.2.3</p> |
| Standard 1C, Media Coordination | <p>CERP Section—1.4, 5.1.5, 5.1.7, , 8.3.4.6, 10, 10.4 and subsections</p> <p>Electric Annex Section or Subsection — 4.2.2</p> <p>Emergency Communications Annex —Subsections 1.3 and 2.3 address the development and distribution of timely and complete information to the media during all phases of emergency response.</p> |
| Standard 1D, External and Governmental Coordination | <p>CERP Section—1.4, , 4.1, 4.2, 4.3, 5.1, 5.1.7, 6.1.2, 6.1.7, 7 and all subsections, 10 and all subsections, Appendix C, Appendix D</p> <p>Electric Annex Sections or Subsections—3.1.1 and 4.2.2</p> <p>Emergency Communications Annex —Subsections 1.3 and 2.3 address coordination between external audiences and governmental agencies. Section 4 discusses internal and external coordination between Public Information Officer, Liaison Officer, and Customer Strategy Officer functions.</p> |
| Standard 1E, Wildfire Mitigation Plan | <p>CERP Section—2.7 and the Wildfire Mitigation Plan</p> |
| Standard 1F, Safety Considerations | <p>CERP Section—1.3, 2.2, 2.4, 2.5.1, 2.5.5, 3.1.2, 3.2.1, 5.1, 5.1.4, , 7.3, 7.6.3,7.6.5, 8.3.2, 9.3, 10 10.3.1, 10.3.3, Appendix and all subsections, Appendix E and all subsections.</p> <p>Electric Annex Sections or Subsections—2.2.2, 3.2.2.2.3, 3.2.3.6, and 3.2.3.7</p> <p>Emergency Communications Annex —Subsection 2.3.1, Call Out Procedures, addresses safety concerns for the communications staff when responding to emergencies.</p> |

Exhibit D--Location of Required Elements of Standard 1

| | |
|---|--|
| Standard 1G, Damage Assessment | CERP Section—2.4.1, 2.5.1, 3.2.2, 3.2.3, 3.4, 3.4.2, 5.2.3, 5.2.4, 5.4.3, 5.6, 6.1.2, 6.1.4, 6.2.7, 6.3.3, 8.1, 8.3,8.3.1, 8.3.5, 9.1.1.1 and subsections, 10.1.4, Appendix D.2.3, D.2.5.3 |
| | Electric Annex Sections or Subsections - 2.1.2.1, 2.1.3, 2.2.2, 2.2.3, 2.2.4, 2.2.6, 2.3.5.1, 3.2.3 and subsections, 4.1.1, 4.1.6.1, 4.2.1, 4.2.4, 5.3, 6.2, 6.3.2 |
| Standard 1H, Restoration Priority Guidelines | CERP Section—2.3.1, 2.3.1.2,2.4.1, 3.1.2, 4.5, 5.2,5.2.2, 5.2.3, 5.2.4, 5.2.6,5.3.4, 5.4, 5.4.3, 5.5.2, 6.1.1, 6.1.2, 6.2.1, 6.2.2, 8.3.1, 8.3.2, 8.3.5, 8.3.6, 9.1.1, 9.1.1.1, 9.1.1.2, 9.1.1.4, 9.1.4, 9.2, 10, 10.3.4, Appendix D.1.3, D.2.2, Appendix E.2, E.3 |
| | Electric Annex Section or Subsection— 3.2.3 |
| Standard 1I, Mutual Assistance | CERP Section—1.5, 3.2.1, 4.5, 5.2.5, 5.4, 5.5.2, 5.5.2.6, 6.1.5,6.4.2, 7.1, 7.2, 8.3.6, 9, 9.1.1, 9.1.4, 9.2 and subsections, 10 |
| | Electric Annex Sections or Subsections—3.2.4.3.1 |
| Standard 1J, Plan Updates | CERP Section— Change Record, 1.6, 2.5.1, 3.5, 5 and subsections |
| | Electric Annex Section or Subsection --1.6 |

**See PG&E Exhibit E attachment to April 27, 2022,
General Order 166 filling for areas added or updated in
CERP Version 7 in effect from August 4, 2021, to
December 31, 2022.**

Exhibit F
Mutual Assistance Agreements

Exhibit G

June 10 & 13-17, 2022 Wildfire Full Scale Exercise After Action Report



2022 Public Safety Power Shutoff & Wildfire Full-Scale Exercise

June 10 & June 13-17, 2022

Full-Scale Exercise (FSE) After-Action Report (AAR)





HANDLING INSTRUCTIONS

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3. For more information on this after-action report, please consult:



4. This Report was approved on August 19, 2022 by:

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EXERCISE OVERVIEW

| | |
|--|--|
| Exercise Name | 2022 Public Safety Power Shutoff (PSPS) and Wildfire (WF) Full-Scale Exercise (FSE) |
| Exercise Dates | June 10, 2022(Readiness Posture); June 13-17, 2022 (Main Full-Scale Exercise) |
| Scope | The FSE simulated R5-Plus weather and extreme wildfire risk conditions to test PG&E’s ability to prepare for, respond to, and recover from a PSPS and/or WF event in alignment with the Company Emergency Response Plan (CERP), PSPS Annex, and other Functional Business Units (FBU)-specific plans. The scenario challenged players to respond in real-time to solve operational concerns. |
| Mission Area(s) | Response |
| Core Capabilities | The overarching exercise objectives align to the following core capabilities: <ol style="list-style-type: none"> 1. Planning 2. Operational Coordination and Communication 3. Public Information and Warning 4. Situational Awareness 5. Critical Resources 6. Fire Suppression and Management 7. Natural and Cultural Resources |
| Threat/Hazard | R5-Plus Weather Conditions and Wildfire Risk |
| Participating Lines of Business | <ul style="list-style-type: none"> ▪ Electric Distribution ▪ Transmission Grid Operations ▪ Electric Transmission ▪ Electric Field Operations ▪ Information Technology (IT) ▪ Electric Incident Investigations ▪ Corporate Safety ▪ Corporate Security ▪ Corporate Real Estate Strategy and Services (CRESS) ▪ Aviation Services ▪ Corporate Affairs ▪ Supply Chain Logistics ▪ Customer Care ▪ Human Resources (HR) ▪ Marketing & Communications ▪ PSPS Technology/Operations ▪ Meteorology ▪ Public Affairs ▪ Temporary Generation ▪ Hazard Awareness & Warning Center (HAWC) ▪ Finance ▪ Vegetation Management ▪ Power Generation ▪ Gas Operations ▪ PSPS Program ▪ Safety and Infrastructure Protection (SIPT) |
| Points of Contact | <p>██████████</p> <p>EP&R</p> <p>Pacific Gas and Electric</p> <p>██████████</p> |



INTRODUCTION

Pacific Gas and Electric (PG&E) Emergency Preparedness and Response (EP&R) hosted the 2022 Public Safety Power Shutoff (PSPS) and Wildfire (WF) Full-Scale Exercise (FSE) on June 10, 2022 (Readiness Posture); June 13-17, 2022 (Main Full-Scale Exercise). PG&E conducted this exercise in the virtual Emergency Operations Center (EOC) and field environments. The FSE simulated R5-Plus weather and extreme wildfire risk conditions testing PG&E's ability to prepare for, respond to, and recover from a PSPS Event, with an ignition of a rapidly expanding Wildfire Incident, in alignment with the Company Emergency Response Plan (CERP), PSPS Annex, Wildfire Annex, and other functional business unit (FBU) specific plans. The exercise scenario focused on the entirety of PG&E's service territory, challenging players to focus and respond in real-time to solve operational concerns. The exercise included participation from PG&E's EOC, Region Emergency Centers (RECs) and Operations Emergency Centers (OECs). In addition, the exercise included integrated play with Cal OES, California Department of Water Resources, Southern California Edison and four counties.

This After-Action Report (AAR) synthesizes key evaluation information from the PSPS and WF FSE. Evaluators analyzed PG&E's ability to properly address exercise objectives and critical tasks by identifying both strengths and areas for improvement. Inputs include evaluator observations, virtual Exercise Evaluation Guide (EEG) responses, participant hotwash forms, Controller/Evaluator (C/E) debriefing notes, and observations from external Public Safety Partners (PSP).

This AAR is divided into three main sections:

- **Exercise Overview and Evaluation:** Overview of the exercise including objectives, scenario, and participants, as well as the methodology used to evaluate PG&E's performance in the exercise
- **Enterprise-Wide Summary Analysis and Performance Analysis for Evaluated Groups:** Strategic, top-level findings and observations that reflect PG&E-wide capabilities and areas for improvement, as well as an overview of specific response component performance
- **Appendices:** Enterprise-wide corrective action plan, that includes corrective actions for key incident response components, section-specific performance ratings, and a list of external partners who either played in or observed the FSE.

EXERCISE DESIGN AND PARTICIPATION

The 2022 PSPS and WF FSE was designed to test seven exercise objectives, aligned to PG&E's core capabilities:

- **Objective 1 — Planning:** Implement a planning cycle according to CERP procedures, PSPS Annex, and ICS principles that uses the circuit information provided to conduct a PSPS and develop a restoration plan prior to receiving the "All Clear" from the Officer-in-Charge (OIC).
- **Objective 2 — Operational Coordination and Communication:** Implement a response structure that effectively integrates EOC sections, FBUs, and external partners, including transmission level customers into a cohesive team capable of successfully aligning operational activities with internal and external priorities to safely manage the PSPS event.
- **Objective 3 — Public Information and Warning:** Communicate strategic and required messages to key audiences including PG&E personnel, the public, response partners, and customers including developing press releases, social media posts, and frequently asked questions (FAQ) for the public and delivering required notifications to California Governor's Office of Emergency Services (Cal OES), California Public Utilities Commission (CPUC), and other regulatory bodies.
- **Objective 4 — Situational Awareness:** Support company-wide situational awareness by establishing and maintaining a common operating picture across the response organizational structure to meet the needs of relevant internal and external stakeholders impacted by PSPS (e.g., critical, medical baseline, and commercial customers).
- **Objective 5 — Critical Resources:** Analyze the impacted area to prioritize available resources in a way that reduces physical security concerns and minimizes impacts of the shutoff to company facilities and other critical infrastructure.
- **Objective 6 – Fire Suppression and Management:** Provide support to firefighting activities to manage and suppress fires of all types and complexities while protecting the lives, property, and the environment in the affected area.
- **Objective 7 – Cultural and Natural Resources:** Protect natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore them consistent with post-disaster community priorities and best practices and in compliance with applicable environmental and historic preservation laws and executive orders.



EXERCISE SCENARIO

This six-day virtual and field FSE, that included a Readiness Posture, was conducted to test the company's ability to respond to a PSPS and Wildfire event by applying specific knowledge provided by PSPS and Wildfire Seminars in a realistic scenario. The scenario was aimed at testing the various stages of the PSPS Procedural Flow (ProFlow) process with internal functional business units, External Agencies (PSP, Community Based Organizations (CBO), Telecommunications partners, Access and Functional Needs (AFN) Organizations, Tribal entities, and Transmission Level Customers.

The FSE consisted of a dry, offshore wind event that developed on Thursday, June 16th, 2022, with increasing winds during the late morning timeframe, before reaching peak intensity Thursday evening. Wind speeds were highly variable, reaching 25 – 35 mph with gusts 45 – 55+ mph across elevated terrain. The Meteorology Services team implemented a Distribution System Operations (DSO) Storm Outage Prediction Project (SOPP) model to determine the severity of the incident.

The FSE allowed for a 7-hour readiness posture prior to EOC activation. Readiness posture began at 0900 on Friday, June 10, 2022 (Day 1), at which point the event scoping, planning, and notifications phase began at T-96 hours from the weather start. The Readiness Posture iteration culminated in the Officer In Charge (OIC) Decision A meeting, which approved the response to a PSPS Event and determines activation status of PG&E's EOC, which took place at 0600 on Monday June 13th, 2022.

At the onset of the exercise, PG&E's Meteorology Operations & Analytics' Fire Potential Index (FPI)¹ forecasts called for widespread R5-Plus conditions across the entire service territory on Thursday and Friday, June 16-17, 2022.

A wildfire incident took place beginning in the early afternoon of June 14th, and experienced latent growth until the PSPS-related wind event began, which caused an explosive increase in fire activity, eventually reaching a total of 9,000 acres in less than 12 hours. The wildfire's point of origin was in the Stanislaus National Forest, before spreading into State Response Area in the vicinity of Tuolumne County and PG&E's Yosemite Division. Additionally, two newly-formed All-Hazards Incident Management Teams deployed in Yosemite and Kern divisions to test their ability to respond to Wildfire in the field, working in conjunction with OEC and PSP agencies.

As of June 16th, 2022, at 1800 hrs., there were a total of 400,689 impacted customers identified in 15 PSPS Time-Places. A total of 40 Counties, 15 Tribes, 23,758 Medical Baseline Customers, 81 Transmission Circuits, and 311 Distribution Circuits were impacted by the PSPS Event portion of the scenario.

¹ FPI forecasts describes the potential for fires to ignite and spread rated on a scale from "R1" (lowest) to "R5" (highest) specific to FPI Rating Areas. "R5-Plus" indicates there is elevated fire potential plus the potential for wind-related outage activity from the PG&E's Outage Producing Wind (OPW) model, which may warrant a PSPS event.



PG&E EXTENT OF PLAY

The FSE exercised the procedures to mitigate a PSPS Event impacting all five Regions of the PG&E Service Territory, with the overlying Wildfire Incident taking place in Yosemite Division. Due to the ongoing remote work posture caused by the Coronavirus Disease 2019 (COVID-19) pandemic, the majority of PG&E personnel participated in the PSPS and WF FSE in a virtual posture, with Electric Operations, Aviation, and two OECs participating in the field in Yosemite and Kern Divisions.

This exercise included members of On-Call EOC, RECs and OECs, participants from other local and FBU-specific emergency centers as well as, local, state, tribal, and PSP, AFN, CBO, Transmission, and Telco partners. Additionally, the exercise included other utility and PSP. For list of External participants, see Appendix D.

PG&E conducted the FSE as a six-day event on June 10th, 13th-17th of 2022, with a 7-hour Readiness Posture iteration, beginning on Friday, June 10, 2022, with specified on-call EOC Readiness Posture personnel. The FSE was paused (PauseEx) for the weekend, resuming the following Monday, June 13th. Exercise play resumed (ResumeEx) at 0600 each day, with a pause of exercise (PauseEx) at 1800 on June 13-16 and ended (EndEx) at 1400 on June 17, followed by the Player Hotwash.

Table 1 identifies all participating FBUs and their activated emergency centers during the FE.

Table 1: PG&E Participants Activated at Several Exercise Locations

| Emergency Center | FBUs | Activation Posture |
|------------------|--|--------------------|
| EOC | <ul style="list-style-type: none"> ▪ Corporate Safety ▪ Corporate Security ▪ Customer Care ▪ Electric Distribution ▪ Electric Field Ops ▪ Electric Transmission ▪ Finance ▪ Gas Operations ▪ HR ▪ I&I ▪ IT ▪ Legal ▪ Logistics ▪ Meteorology ▪ Planning | Staffed- Virtual |



| Emergency Center | FBUs | Activation Posture |
|--|--|---|
| | <ul style="list-style-type: none"> ▪ Power Generation ▪ PSPS ▪ Public Affairs ▪ Substation ▪ Temp Gen ▪ VM ▪ HAWC | |
| Information Technology Coordination Center (ITCC) | <ul style="list-style-type: none"> ▪ IT | Simulated |
| Electric Transmission Emergency Center (ETEC) / Grid Control Center (GCC) | <ul style="list-style-type: none"> ▪ Electric Transmission | Simulated |
| Human Resources Coordination Center (HRCC) | <ul style="list-style-type: none"> ▪ HR | HRCC Data- Staffed-Virtual All other HRCC-Simulated |
| Customer Contact Emergency Coordination Center (CCECC) | <ul style="list-style-type: none"> ▪ Customer Care | Staffed-Simulated |
| Operations Emergency Centers (OEC) | <ul style="list-style-type: none"> ▪ Electric Distribution | Kern- Staffed Yosemite- Staffed All other OECs-Simulated |
| Regional Emergency Center | <ul style="list-style-type: none"> ▪ Electric Distribution | North Coast- Staffed-Virtual North Valley/Sierra- Staffed- Virtual Bay Area- Staffed- Virtual Central Valley- Staffed-Virtual South Bay/Central Coast- Staffed- Virtual |
| Electric Distribution Emergency Center (EDEC) / Distribution Coordination Center (DCC) | <ul style="list-style-type: none"> ▪ Electric Distribution | Staffed- Virtual |
| Substation and T-Line Operations Emergency Center (STOEC) | <ul style="list-style-type: none"> ▪ Substation ▪ T-Line | Simulated |



| Emergency Center | FBU | Activation Posture |
|---|--|---------------------------|
| Materials and Transportation Coordination Center (MTCC) | <ul style="list-style-type: none">Logistics | Simulated |
| All Hazards Incident Management Team | <ul style="list-style-type: none">Emergency Field Operations | Staffed |



EXTERNAL PARTICIPATION

External participants are listed in Appendix D.

EVALUATION METHODOLOGY

The exercise evaluation team assessed PG&E’s performance using a system based on the Federal Emergency Management Agency (FEMA) Homeland Security Exercise and Evaluation Program (HSEEP) methodology.²

Evaluators observed exercise conduct to collect relevant data, assess performance, identify the underlying root cause of challenges, and outline strengths and areas for improvement. Evaluators referenced objectives and associated critical tasks and expected player actions that were identified using the PG&E CERP and PSPS Annex to evaluate each group’s ability to successfully address the seven exercise objectives that were identified and in accordance with PG&E’s core capabilities.

PLAYER PERFORMANCE

Evaluators assessed group performance using an outcome-oriented process to assess the degree to which PG&E successfully achieved each exercise objective. To assist evaluators, Exercise Evaluation Guides (EEG) included the following:

Critical Tasks: For each objective, evaluators used pre-determined *critical tasks*—distinct actions that are necessary to achieve an objective—as the basis for each group’s performance assessment.

Root Cause Analysis: Evaluators were prompted to identify, where possible, the underlying cause of challenges, specifically whether they stemmed from issues around plans, policies, or procedures; organizational structure; training, drills, experience; and/or resources.

PG&E evaluated players in groups according to their roles and responsibilities within the ICS structure:

| | |
|--|---|
| <ul style="list-style-type: none"> ▪ EOC Commander/Deputy ▪ Public Information Officer (PIO) ▪ Liaison Officer (LNO) ▪ Customer Strategy Officer (CSO) ▪ Safety Officer (SO) ▪ Operations Emergency Center (OEC) | <ul style="list-style-type: none"> ▪ Operations (OPS) Section ▪ Planning (PLANS) Section ▪ Logistics (LOG) Section ▪ Finance & Administration (F&A) Section ▪ Intelligence & Investigation (I&I) Section ▪ Regional Emergency Centers (REC) |
|--|---|

² <https://www.fema.gov/sites/default/files/2020-04/Homeland-Security-Exercise-and-Evaluation-Program-Doctrine-2020-Revision-2-2-25.pdf>

PERFORMANCE RATING SYSTEM

PG&E uses a rating system to evaluate exercise play. Evaluators provided outcome-focused ratings based on their observations throughout the exercise. The evaluation team analyzed all evaluation materials to provide context to outcomes and identify critical insights across the response enterprise, and ultimately inform improvement planning.

Table 2: PG&E Exercise Performance Rating System

| Rating | Criteria |
|----------------------------------|---|
| Performed | Exercise objective performed without challenges <ul style="list-style-type: none"> ▪ Comprehensively demonstrated compliance with established policies, plans, and procedures |
| Performed with Challenges | Exercise objective performed adequately, but with challenges <ul style="list-style-type: none"> ▪ Some aspects of exercise objective were done incorrectly or were not demonstrated ▪ Plans, policies, and procedures were followed, but with some degree of difficulty ▪ Challenges may have impacted the team’s overall ability to perform their mission |
| Not Performed | Exercise objective was unable to be performed |

Table 3 illustrates the overall performance of objectives by the exercise participants. A complete performance analysis by Section is contained in Appendix D.

Table 3: PSPS and/or WF FSE Overall Performance Rating

| Objective | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | | X | |
| Operational Coordination and Communication | | X | |
| Public Information and Warning | | X | |
| Situational Awareness | | X | |
| Critical Resources | | X | |
| Fire Suppression and Management | | X | |
| Cultural and Natural Resources | | X | |

ANALYSIS OF CORE CAPABILITIES

This report presents evaluation outcomes and analysis from the PSPS and Wildfire FSE organized by strengths and areas for improvement. Evaluators focused on strategic-level observations of performance of critical tasks as well as PG&E's ability to successfully manage the event.

The following provides an analysis of the top findings for strengths and areas for improvement in PSPS and/or Wildfire risk reduction and electric service restoration measures carried out in relation to FSE emergency preparedness core capabilities and exercise objectives. A comprehensive Improvement Plan may be found in Appendix A.

CORE CAPABILITY 1: PLANNING OBJECTIVE 1

Implement a planning cycle according to CERP procedures, PSPS Annex, and Incident Command System (ICS) principles that uses the circuit information provided to conduct a PSPS and develop a restoration plan prior to receiving the "All Clear" from the Officer-In-Charge.

STRENGTHS

STRENGTH:

Community Resource Center (CRC) team regularly coordinated with Logistics and Liaison for CRC set up, specific city/county requests, and overall scope changes impacting CRCs. Included strong coordination between tribal liaison/partners.

AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Lack of standard for microgrid substation development, decision-making structure for prioritizing resources, and optimizing public transparency surrounding those decisions.

CORE CAPABILITY 2: OPERATIONAL COORDINATION AND COMMUNICATION OBJECTIVE 2

Implement a response structure that effectively integrates EOC sections, FBUs, field crews, and external partners into a cohesive team capable of successfully aligning operational activities and external priorities to safely manage the PSPS event.

STRENGTHS

STRENGTH:

Based on incident objectives, resources were identified, coordinated and staged at appropriate OECs.



AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Restoration Playbook was delayed due to inability to use automatic process for transmission impact inclusion. Power Flow Analysis (PFA) doubled scope and required that tasks be completed manually, potentially resulting in a delay of restoration. Any delay in restoration would adversely impact the AFN community.

CORE CAPABILITY 3: PUBLIC INFORMATION AND WARNING OBJECTIVE 3

Communicate strategic and required messages to key audiences including PG&E personnel, the public, response partners, and customers including developing press releases, social media posts, and frequently asked questions (FAQs) for the public and delivering required notifications to the California Governor's Office of Emergency Services (Cal OES), California Public Utilities Commission (CPUC), and other regulatory bodies.

STRENGTH:

The Joint Information System (JIS) was successfully used throughout the exercise, resulting in enhanced communications and situational awareness among entities served by Liaison, Customer, and PIO.

AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Inadequate coordination between Liaison and Agency Reps on live calls or notifications to counties with <50 customer impacts.

CORE CAPABILITY 4: SITUATIONAL AWARENESS OBJECTIVE 4

Support company-wide situational awareness by establishing and maintaining a common operating picture across the response organizational structure to meet the needs of relevant internal and external stakeholders impacted by PSPS (e.g., critical, and essential, medical baseline, and commercial customers).

STRENGTHS

STRENGTH:

A new Finance and Admin Section Common Operating Picture (F&A COP) was implemented to support operational period transition process.



AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Lack of inclusion of Logistics Section in Readiness Posture led to delays in initial section activities upon full activation of the EOC.

CORE CAPABILITY 5: CRITICAL RESOURCES OBJECTIVE 5

Analyze the impacted area to prioritize available resources in a way that reduces physical security concerns and minimizes impacts of the shutoff to company facilities and other critical infrastructure.

STRENGTHS

STRENGTH:

Aviation (Air Operations) worked closely with the Resource Management Unit to coordinate helicopter patrol assignment across company divisions from Operational Period to Operational Period.

AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Lack of awareness and training regarding parameters and functional process of requesting, procuring, and deploying Mutual Assistance crews.

CORE CAPABILITY 6: FIRE SUPPRESSION AND MANAGEMENT OBJECTIVE 6

Provide support to firefighting activities to manage and suppress fires of all types and complexities while protecting the lives, property, and the environment in the affected area.

STRENGTHS

STRENGTH:

The Power Generation Branch Director's response to a request from Cal Fire to use Stanislaus Forebay for water supply to support their air operations was timely and accommodating.

AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

Inadequate or unclear status or prioritization process of F Tags on EPSS-enabled circuits during a PSPS Event where the circuit is impacted by a wildfire.



CORE CAPABILITY 7: CULTURAL AND NATURAL RESOURCES OBJECTIVE 7

Protect natural and cultural resources and historic properties through appropriate planning, mitigation, response, and recovery actions to preserve, conserve, rehabilitate, and restore them consistent with post-disaster community priorities and best practices and in compliance with applicable environmental and historic preservation laws and executive orders.

STRENGTHS

STRENGTH:

Liaison Officer and Tribal Group Supervisor were in close coordination to ensure Tribes were effectively supported and had event-specific information (i.e., through Tribal Cooperators Calls)

AREAS FOR IMPROVEMENT

AREA FOR IMPROVEMENT:

N/A- None Reported



CONCLUSION

Overall, during the FSE on June 10 & 13-17, 2022, PG&E continued to exhibit its ability to successfully respond to a challenging PSPS event in a primarily virtual posture. The designated team players were able to adapt and manage a PSPS event of greater complexity than any real-world event since 2019. The exercise players also fielded over 700 distinct injects, which included a destructive wildfire that took place inside a Time-Place polygon, demonstrating that PG&E's response team is capable of mitigating even the most severe incidents. Despite the challenges presented to them, personnel were able to analyze and mitigate the impacts to customers with increasingly complex grid solutions throughout the exercise, which included live Power Flow Analyses that mimicked what would happen in a real event, in real time.

Beyond the operational component, during the exercise, PG&E has continued to leverage strong relationships with local, state, tribal, and PSP, AFN, CBO, Transmission, utility, PSAP, and Telecom partners, building on foundations established in prior years. This included a vastly enhanced exercise design and planning process in which all participating external agencies were invited to take part. Additionally, PG&E directly engaged the Northern California Power Agency in the design and planning process, which represents 10 Transmission Level Customers, allowing for enhanced coordination and mitigation of potential future impacts to that population. For list of External Participants, see Appendix D.

While PG&E's responding elements were successful overall in responding to a postulated PSPS Event and overlying Wildfire Incident, several areas for improvement have been identified, particularly regarding operational coordination & communication, mutual assistance process, situational awareness, and overall pre-event/pre-season planning and training. These challenges require attention to resolve and (where applicable) will be added into PG&E's Corrective Action Program (CAP) for tracking, assignment, and follow up.



APPENDIX B: SECTION-SPECIFIC PERFORMANCE

Following exercise conduct, evaluators completed an Exercise Evaluation Guide (EEG) designed to capture outcome-focused assessments and strategic-level findings for each participating evaluated group. For this Exercise, the evaluation focused on the position's performance, rather than the individual. This appendix highlights these observations and analyzes each team's strengths and areas for improvement.

EOC COMMANDER & DEPUTY

Table B1: EOC Commander Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | | x | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | x | | |
| Natural and Cultural Resources | | | x |



SAFETY OFFICER

Table B2: Safety Officer Performance Ratings by Core Capability Strengths

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | x | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |

INFORMATION TECHNOLOGY

Table B3: IT Performance Ratings by Objective

| Objective | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |



CRESS

Table B4: CRESS Performance Ratings by Objective

| Objective | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | x | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | x | | |
| Natural and Cultural Resources | | x | |



LIAISON OFFICER

Table B5: Liaison Officer Performance Ratings by Objective

| Objective | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | | x | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | x | | |
| Natural and Cultural Resources | x | | |

CUSTOMER STRATEGY OFFICER

Table B6: CSO Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | x | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | x | | |



OPERATIONS SECTION CHIEF & DEPUTY

Table B7: Operations Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | x | | |
| Natural and Cultural Resources | | x | |



TEMPORARY GENERATION BRANCH SECTION

Table B8: Temporary Generation Branch Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | | X | |
| Operational Coordination and Communication | | X | |
| Public Information and Warning | | X | |
| Situational Awareness | | X | |
| Critical Resources | | X | |
| Fire Suppression and Management | | X | |
| Natural and Cultural Resources | | X | |

AVIATION BRANCH

Table B9: Aviation Branch Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |

POWER GENERATION SECTION

Table B10: Power Generation Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | | X | |
| Operational Coordination and Communication | X | | |
| Public Information and Warning | N/A | | |
| Situational Awareness | X | | |
| Critical Resources | X | | |
| Fire Suppression and Management | X | | |
| Natural and Cultural Resources | N/A | | |

ELECTRIC DISTRIBUTION BRANCH

Table B11: EDEC Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | | x | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |

ELECTRIC TRANSMISSION BRANCH

Table B12: ETEC Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | | X | |
| Operational Coordination and Communication | | X | |
| Public Information and Warning | N/A | | |
| Situational Awareness | | X | |
| Critical Resources | | X | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |



LAND/ENVIRONMENTAL BRANCH

Table B13: Land/Environmental Branch Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | | | x |
| Fire Suppression and Management | | | x |
| Natural and Cultural Resources | | x | |

VEGETATION MANAGEMENT BRANCH

Table B14: Vegetation Management Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | | X | |
| Operational Coordination and Communication | X | | |
| Public Information and Warning | | X | |
| Situational Awareness | X | | |
| Critical Resources | N/A | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |



INTELLIGENCE & INVESTIGATION SECTION

Table B15: Intelligence & Investigation Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | | X | |
| Operational Coordination and Communication | | X | |
| Public Information and Warning | | X | |
| Situational Awareness | | X | |
| Critical Resources | | X | |
| Fire Suppression and Management | | X | |
| Natural and Cultural Resources | | X | |



PLANNING SECTION (DOC, SIT, & RESOURCE UNITS)

Table B16: Planning Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | | x | |
| Situational Awareness | | x | |
| Critical Resources | x | | |
| Fire Suppression and Management | x | | |
| Natural and Cultural Resources | N/A | | |



PLANNING SECTION (PSPS PLANNING)

Table B17: PSPS Planning Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | | x | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | x | | |
| Situational Awareness | | x | |
| Critical Resources | N/A | | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |



Table B8: Planning Section Performance Ratings by Core Capability

LOGISTICS SECTION

Table B18: Logistics Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | | x | |
| Fire Suppression and Management | | x | |
| Natural and Cultural Resources | N/A | | |



CORPORATE SECURITY BRANCH

Table B19: Corporate Security Branch Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | x | | |
| Public Information and Warning | | x | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire and Suppression Management | x | | |
| Natural and Cultural Resources | x | | |



FINANCE & ADMINISTRATION SECTION

Table B20: F&A Section Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|------------------|----------------------------------|----------------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | | x | |
| Situational Awareness | x | | |
| Critical Resources | x | | |
| Fire and Suppression Management | N/A | | |
| Natural and Cultural Resources | N/A | | |

HAZARD AWARENESS AND WARNING CENTER

Table B21: HAWC Performance Ratings by Core Capability

| Core Capability | Performed | Performed with Challenges | Not Performed |
|--|-----------|---------------------------|---------------|
| Planning | x | | |
| Operational Coordination and Communication | | x | |
| Public Information and Warning | N/A | | |
| Situational Awareness | x | | |
| Critical Resources | | x | |
| Fire Suppression and Management | N/A | | |
| Natural and Cultural Resources | N/A | | |

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Table C1: Acronym and Abbreviation List

| Acronym | Definition |
|----------|---|
| AAR | After-Action Report |
| AAR/IP | After-Action Report/Improvement Plan |
| ACWA | Association of California Water Agencies |
| AOBD | Air Operations Branch Director |
| AREP | Agency Representative |
| BUG | Backup Generation |
| C&G | Command and General |
| CAP | Corrective Action Program |
| C/E/S | Controller/Evaluator/Simulator |
| Cal OES | California Governor's Office of Emergency Services |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CCECC | Customer Contact Emergency Coordination Center |
| CEO | Chief Executive Officer |
| CERP | Company Emergency Response Plan |
| COVID-19 | Coronavirus Disease 2019 |
| CPUC | California Public Utilities Commission |
| CRC | Customer Resource Center |
| CRESS | Corporate Real Estate Strategy and Services |
| CSO | Customer Strategy Officer |
| DCC | Distribution Coordination Center |
| DCPP | Diablo Canyon Power Plant |
| EDEC | Electric Distribution Emergency Center |
| EEG | Exercise Evaluation Guide |
| EER | Exercise Evaluation Report |
| EndEx | End of Exercise |
| EOC | Emergency Operations Center |
| EP&R | Emergency Preparedness and Response |
| ETEC | Electric Transmission Emergency Center |
| ETOR | Estimated Time of Restoration |
| F&A | Finance and Administration |
| FAQ | Frequently Asked Questions |
| FCC | Facility Coordination Center |
| FEMA | Federal Emergency Management Agency |
| FIA | Fire Index Area |
| FPI | Fire Potential Index |
| FSE | Full-Scale Exercise |
| FSS | Field Safety Specialist |



| Acronym | Definition |
|----------------|---|
| GCC | Grid Control Center |
| GIS | Geographic Information System |
| HAWC | Hazard Awareness and Warning Center |
| HR | Human Resources |
| HRCC | Human Resources Coordination Center |
| HRO | Human Resources Officer |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| IAP | Incident Action Plan |
| ICS | Incident Command System |
| I&I | Intelligence and Investigations |
| IMT | Incident Management Team |
| IT | Information Technology |
| ITCC | Information Technology Coordination Center |
| LNO | Liaison Officer |
| FBU | Functional Business Unit |
| LOG | Logistics |
| M&C | Marketing and Communications |
| MBL | Medical Baseline |
| MTCC | Materials and Transportation Coordination Center |
| NERC | North American Electric Reliability Corporation |
| NIMS | National Incident Management System |
| OEC | Operations Emergency Center |
| OIC | Officer-in-Charge |
| OP | Operational Period |
| OPS | Operations |
| OSC | Operations Section Chief |
| PauseEx | Pause of Exercise |
| PFS | Participant Feedback Survey |
| PG&E | Pacific Gas and Electric |
| PGBD | Power Generation Branch Director |
| PIO | Public Information Officer |
| PLANS | Planning |
| PMO | Project Management Office |
| PO | Purchase Order |
| ProFlow | Procedural Flow |
| PSS | Public Safety Specialist |
| PSPS | Public Safety Power Shutoff |
| PWDAAC | People with Disabilities and Aging Advisory Council |
| REC | Regional Emergency Center |
| RTO | Real-Time Operations |
| SCADA | Supervisory Control and Data Acquisition |



| Acronym | Definition |
|----------------|---|
| SIPT | Safety and Infrastructure Protection Team |
| SitRep | Situation Report |
| SO | Safety Officer |
| SPID | Service Point Identification |
| StartEx | Start of Exercise |
| STOEC | Substation and T-Line Operations Emergency Center |
| SUB | Substation |
| TAHS | Transmission Asset Health Specialist |
| TBRD | Transmission Operations Branch Director |
| T-Line | Transmission Line |
| Temp Gen | Temporary Generation |
| TMG | Temporary Generation Microgrids |
| TO | Transmission Operations |
| TSC | Technology Support Center |
| VERC | Vacaville Emergency Response Center |
| VGCC | Vacaville Grid Control Center |
| VM | Vegetation Management |



APPENDIX D: PSPS AND WF FSE EXTERNAL PARTICIPATION

Several state, local, and community partners observed the PSPS and WF FSE. **Table D1** identifies the external partner agencies and their respective exercise participation. “X” indicates entity participated, “I” indicates entity was invited (participation not confirmed).

Table D1: External Organizations Participating in the PSPS and Wildfire Full-Scale Exercise

| Participating External Agency | Player | Observer |
|--|--------|----------|
| Federal Agency Partners | | |
| US Forest Service- Stanislaus National Forest | | I |
| State Agency Partners | | |
| California Governor’s Office of Emergency Services (Cal OES) | X | |
| California Department of Forestry and Fire Protection (CAL FIRE) | X | |
| California Public Utility Commission (CPUC) | X | |
| California Department of Water Resources (DWR) | X | |
| California Department of Developmental Services | | I |
| Local Agency Partners | | |
| Alameda County | X | |
| Bay Area Rapid Transit (BART) | | I |
| Butte County | | I |
| CHP Santa Barbara | | I |
| City of Albany | | I |
| City of Ukiah | | I |
| Contra Costa County | | I |
| Fresno County OES | | I |
| Kings County OES | | I |
| Livermore Pleasanton FD | | I |
| City of Lompoc | | I |
| Madera County OES | | I |
| Marin County | | I |



| | | |
|------------------------------------|---|---|
| Mariposa County | | I |
| Mendocino County | | I |
| Merced County | | I |
| City of Morgan Hill | | I |
| Napa County | | I |
| City of Paradise | | I |
| Plumas County | | I |
| San Luis Obispo County | | I |
| Santa Barbara County | | I |
| City of Santa Rosa | | I |
| Sierra County | | I |
| San Mateo County | | I |
| Stanislaus County | | I |
| City of Oakland | | X |
| Sonoma County | | I |
| Yolo County | X | |
| Nevada County | | X |
| Yuba County | X | |
| Tuolumne County | X | |
| Telecommunication Companies | | |
| AT&T | X | |
| Comcast | X | |
| Sierra Telephone | | I |
| Suddenlink | | I |
| Charter Communications | | I |
| Utility Partners | | |
| Southern California Edison | X | |
| Filsinger Energy | | X |
| Northern California Power Agency | X | |
| Gannett Fleming | | X |
| Solano Irrigation District | | I |



| | | |
|--|---|--|
| Bear Valley Electric Service | | |
| Liberty Utilities | | |
| Southern California Gas | | |
| XCEL Energy | | |
| Community Based Organizations | | |
| CFILC | X | |
| 211 of California | X | |
| United Way of Northern California | | |
| Connecting Point | | |
| Family Resource & Referral Center- San Joaquin | | |
| DDARC | | |
| Redwood Coast Regional Center | | |
| Tribal Partners | | |
| Cloverdale Rancheria | | |
| Pinoleville Rancheria | | |
| Hopland Tribe | | |
| Hoopla Tribe | | |

Exhibit H

PG&E Repair and Maintenance Employees

| Work County Name | Work Division | Job | Job Name | Number of Employees |
|------------------|---------------|----------|--|---------------------|
| Alameda | East Bay | 50010151 | Electrician | 8 |
| | East Bay | 50010152 | Electrician - GC | 2 |
| | East Bay | 50010157 | Apprentice Electrician - GC | 6 |
| | East Bay | 50010178 | Subforeman A - Underground | 2 |
| | East Bay | 50010180 | Subforeman A - Station/Hydro | 5 |
| | East Bay | 50010191 | Electric Crew Foreman | 2 |
| | East Bay | 50010194 | Electric Maintenance Crew Leader | 1 |
| | East Bay | 50010196 | Lead Electrical Technician | 1 |
| | East Bay | 50010199 | Cable Crew Foreman | 2 |
| | East Bay | 50010202 | Working Foreman (PIO) | 1 |
| | East Bay | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | East Bay | 50010223 | Utility Worker - GC | 13 |
| | East Bay | 50010227 | Compliance Inspector | 4 |
| | East Bay | 50010243 | Night Electric Transm & Dsbn Assistant | 3 |
| | East Bay | 50010244 | Lineman | 8 |
| | East Bay | 50010246 | Unassigned Lineman | 1 |
| | East Bay | 50010373 | Gas Service Representative | 24 |
| | East Bay | 50010375 | Cable Splicer | 4 |
| | East Bay | 50010377 | Cable Splicer - GC | 1 |
| | East Bay | 50010405 | Electrical Technician | 1 |
| | East Bay | 50010431 | Transmission Troubleman | 2 |
| | East Bay | 50010432 | Troubleman | 7 |
| | East Bay | 50070742 | Electrician - Switching | 4 |
| | East Bay | 50251367 | Working Foreman B - Non-Climbing | 2 |
| | East Bay | 50315043 | M&C Coordinator - Electric | 1 |
| | East Bay | 51574842 | Distribution Line Technician | 5 |
| | East Bay | 51654546 | Gas Compliance Representative | 15 |
| | East Bay | 51664847 | Construction Operator-GC Gas | 20 |
| | East Bay | 51754495 | Appr Cable Splicer Hired after 1-1-15 | 3 |
| | East Bay | 51754496 | Appr Cable Splicer-GC Hired after 1-1-15 | 1 |
| | Mission | 50010152 | Electrician - GC | 4 |
| | Mission | 50010157 | Apprentice Electrician - GC | 8 |
| | Mission | 50010178 | Subforeman A - Underground | 1 |
| | Mission | 50010179 | Subforeman A - Overhead | 2 |
| | Mission | 50010180 | Subforeman A - Station/Hydro | 4 |
| | Mission | 50010191 | Electric Crew Foreman | 8 |
| | Mission | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Mission | 50010196 | Lead Electrical Technician | 2 |
| | Mission | 50010217 | Utility Worker - Gas Transm & Dsbn | 4 |

| | | | | |
|----------------|----------|----------|--|------------|
| | Mission | 50010223 | Utility Worker - GC | 5 |
| | Mission | 50010227 | Compliance Inspector | 6 |
| | Mission | 50010244 | Lineman | 19 |
| | Mission | 50010246 | Unassigned Lineman | 2 |
| | Mission | 50010247 | Lineman - GC | 7 |
| | Mission | 50010287 | Station Mechanic | 1 |
| | Mission | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Mission | 50010373 | Gas Service Representative | 37 |
| | Mission | 50010377 | Cable Splicer - GC | 1 |
| | Mission | 50010405 | Electrical Technician | 1 |
| | Mission | 50010432 | Troubleman | 13 |
| | Mission | 50070742 | Electrician - Switching | 6 |
| | Mission | 50251367 | Working Foreman B - Non-Climbing | 4 |
| | Mission | 50253877 | Crane Operator - GC Field-Not Gas | 2 |
| | Mission | 50253878 | Miscellaneous Equipment Operator-Not Gas | 3 |
| | Mission | 50315043 | M&C Coordinator - Electric | 3 |
| | Mission | 51574842 | Distribution Line Technician | 2 |
| | Mission | 51654546 | Gas Compliance Representative | 18 |
| | Mission | 51664847 | Construction Operator-GC Gas | 6 |
| | Mission | 51754496 | Appr Cable Splicer-GC Hired after 1-1-15 | 1 |
| | Mission | 51758207 | Lead Electrical Technician-GC | 1 |
| | Stockton | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Stockton | 50010196 | Lead Electrical Technician | 1 |
| | Stockton | 50010405 | Electrical Technician | 2 |
| | Stockton | 50010406 | Apprentice Electrical Technician | 1 |
| | Stockton | 50070742 | Electrician - Switching | 5 |
| Alameda | | | Sum: | 334 |
| Amador | Stockton | 50010191 | Electric Crew Foreman | 2 |
| | Stockton | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Stockton | 50010196 | Lead Electrical Technician | 1 |
| | Stockton | 50010216 | Utility Worker - Electric Maintenance | 1 |
| | Stockton | 50010244 | Lineman | 3 |
| | Stockton | 50010246 | Unassigned Lineman | 2 |
| | Stockton | 50010360 | Apprentice Water System Repairperson | 2 |
| | Stockton | 50010373 | Gas Service Representative | 1 |
| | Stockton | 50010405 | Electrical Technician | 1 |
| | Stockton | 50010432 | Troubleman | 5 |
| | Stockton | 50315043 | M&C Coordinator - Electric | 1 |
| Amador | | | Sum: | 20 |

| | | | | |
|--------------|--------------|----------|--|------------|
| Butte | North Valley | 50010152 | Electrician - GC | 2 |
| | North Valley | 50010157 | Apprentice Electrician - GC | 11 |
| | North Valley | 50010179 | Subforeman A - Overhead | 5 |
| | North Valley | 50010180 | Subforeman A - Station/Hydro | 4 |
| | North Valley | 50010191 | Electric Crew Foreman | 6 |
| | North Valley | 50010194 | Electric Maintenance Crew Leader | 1 |
| | North Valley | 50010196 | Lead Electrical Technician | 1 |
| | North Valley | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | North Valley | 50010223 | Utility Worker - GC | 10 |
| | North Valley | 50010227 | Compliance Inspector | 7 |
| | North Valley | 50010244 | Lineman | 8 |
| | North Valley | 50010246 | Unassigned Lineman | 2 |
| | North Valley | 50010247 | Lineman - GC | 11 |
| | North Valley | 50010373 | Gas Service Representative | 11 |
| | North Valley | 50010405 | Electrical Technician | 1 |
| | North Valley | 50010431 | Transmission Troublemán | 2 |
| | North Valley | 50010432 | Troublemán | 13 |
| | North Valley | 50070742 | Electrician - Switching | 9 |
| | North Valley | 50251365 | Working Foreman A - Non-Climbing | 1 |
| | North Valley | 50251367 | Working Foreman B - Non-Climbing | 6 |
| | North Valley | 50253772 | Fieldperson - GC-Not Gas | 4 |
| | North Valley | 50253773 | Technical Crew Leader A-Not Gas | 3 |
| | North Valley | 50253876 | Backhoe Operator-Not Gas | 1 |
| | North Valley | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | North Valley | 50253878 | Miscellaneous Equipment Operator-Not Gas | 7 |
| | North Valley | 50315043 | M&C Coordinator - Electric | 3 |
| | North Valley | 51574842 | Distribution Line Technician | 2 |
| | North Valley | 51654546 | Gas Compliance Representative | 6 |
| | North Valley | 51664847 | Construction Operator-GC Gas | 16 |
| | North Valley | 51758207 | Lead Electrical Technician-GC | 2 |
| Butte | | | Sum: | 157 |
| Calaveras | Stockton | 50010152 | Electrician - GC | 2 |
| | Stockton | 50010157 | Apprentice Electrician - GC | 1 |
| | Stockton | 50010180 | Subforeman A - Station/Hydro | 2 |
| | Stockton | 50010191 | Electric Crew Foreman | 1 |
| | Stockton | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Stockton | 50010196 | Lead Electrical Technician | 1 |
| | Stockton | 50010223 | Utility Worker - GC | 1 |
| | Stockton | 50010244 | Lineman | 4 |
| | Stockton | 50010246 | Unassigned Lineman | 1 |

| | | | | |
|------------------|----------|----------|--|-----------|
| | Stockton | 50010334 | Roving Operator | 3 |
| | Stockton | 50010405 | Electrical Technician | 1 |
| | Stockton | 50010406 | Apprentice Electrical Technician | 1 |
| | Stockton | 50010432 | Troubleman | 5 |
| | Stockton | 50251365 | Working Foreman A - Non-Climbing | 1 |
| | Stockton | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Stockton | 50253772 | Fieldperson - GC-Not Gas | 2 |
| | Stockton | 50253876 | Backhoe Operator-Not Gas | 1 |
| | Stockton | 50315043 | M&C Coordinator - Electric | 1 |
| | Stockton | 51574842 | Distribution Line Technician | 1 |
| | Stockton | 51758207 | Lead Electrical Technician-GC | 2 |
| Calaveras | | | Sum: | 33 |
| Contra Costa | Diablo | 50010152 | Electrician - GC | 5 |
| | Diablo | 50010156 | Unassigned Electrician - Elec & Hydro | 1 |
| | Diablo | 50010157 | Apprentice Electrician - GC | 5 |
| | Diablo | 50010178 | Subforeman A - Underground | 1 |
| | Diablo | 50010179 | Subforeman A - Overhead | 4 |
| | Diablo | 50010180 | Subforeman A - Station/Hydro | 5 |
| | Diablo | 50010191 | Electric Crew Foreman | 4 |
| | Diablo | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Diablo | 50010196 | Lead Electrical Technician | 4 |
| | Diablo | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | Diablo | 50010223 | Utility Worker - GC | 13 |
| | Diablo | 50010227 | Compliance Inspector | 5 |
| | Diablo | 50010242 | PIO Electric Transm & Dsbn Assistant | 1 |
| | Diablo | 50010243 | Night Electric Transm & Dsbn Assistant | 1 |
| | Diablo | 50010244 | Lineman | 16 |
| | Diablo | 50010246 | Unassigned Lineman | 6 |
| | Diablo | 50010247 | Lineman - GC | 11 |
| | Diablo | 50010287 | Station Mechanic | 1 |
| | Diablo | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Diablo | 50010373 | Gas Service Representative | 27 |
| | Diablo | 50010377 | Cable Splicer - GC | 5 |
| | Diablo | 50010405 | Electrical Technician | 1 |
| | Diablo | 50010432 | Troubleman | 14 |
| | Diablo | 50070742 | Electrician - Switching | 4 |
| | Diablo | 50251367 | Working Foreman B - Non-Climbing | 2 |
| | Diablo | 50253773 | Technical Crew Leader A-Not Gas | 3 |
| | Diablo | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Diablo | 50253878 | Miscellaneous Equipment Operator-Not Gas | 2 |

| | | | | |
|---------------------|----------|----------|--|------------|
| | Diablo | 50315043 | M&C Coordinator - Electric | 4 |
| | Diablo | 51574842 | Distribution Line Technician | 2 |
| | Diablo | 51654546 | Gas Compliance Representative | 18 |
| | Diablo | 51664847 | Construction Operator-GC Gas | 24 |
| | Diablo | 51758207 | Lead Electrical Technician-GC | 1 |
| | East Bay | 50010178 | Subforeman A - Underground | 1 |
| | East Bay | 50010179 | Subforeman A - Overhead | 2 |
| | East Bay | 50010191 | Electric Crew Foreman | 3 |
| | East Bay | 50010199 | Cable Crew Foreman | 1 |
| | East Bay | 50010216 | Utility Worker - Electric Maintenance | 1 |
| | East Bay | 50010217 | Utility Worker - Gas Transm & Dsbn | 4 |
| | East Bay | 50010223 | Utility Worker - GC | 3 |
| | East Bay | 50010243 | Night Electric Transm & Dsbn Assistant | 1 |
| | East Bay | 50010244 | Lineman | 8 |
| | East Bay | 50010247 | Lineman - GC | 8 |
| | East Bay | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | East Bay | 50010373 | Gas Service Representative | 15 |
| | East Bay | 50010375 | Cable Splicer | 1 |
| | East Bay | 50010377 | Cable Splicer - GC | 5 |
| | East Bay | 50010432 | Troubleman | 7 |
| | East Bay | 50253877 | Crane Operator - GC Field-Not Gas | 3 |
| | East Bay | 50315043 | M&C Coordinator - Electric | 1 |
| | East Bay | 51654546 | Gas Compliance Representative | 13 |
| | East Bay | 51664847 | Construction Operator-GC Gas | 1 |
| | East Bay | 51754495 | Appr Cable Splicer Hired after 1-1-15 | 1 |
| | East Bay | 51754496 | Appr Cable Splicer-GC Hired after 1-1-15 | 4 |
| | Mission | 50010152 | Electrician - GC | 2 |
| | Mission | 50010157 | Apprentice Electrician - GC | 1 |
| | Mission | 50010180 | Subforeman A - Station/Hydro | 1 |
| | Mission | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Mission | 51654546 | Gas Compliance Representative | 1 |
| Contra Costa | | | Sum: | 284 |
| El Dorado | Sierra | 50010179 | Subforeman A - Overhead | 1 |
| | Sierra | 50010191 | Electric Crew Foreman | 3 |
| | Sierra | 50010227 | Compliance Inspector | 4 |
| | Sierra | 50010244 | Lineman | 7 |
| | Sierra | 50010246 | Unassigned Lineman | 4 |
| | Sierra | 50010247 | Lineman - GC | 4 |
| | Sierra | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Sierra | 50010432 | Troubleman | 6 |

| | | | | |
|------------------|--------------|----------|--|------------|
| | Sierra | 50315043 | M&C Coordinator - Electric | 1 |
| | Sierra | 51654546 | Gas Compliance Representative | 2 |
| El Dorado | | | Sum: | 33 |
| Fresno | Fresno | 50010151 | Electrician | 1 |
| | Fresno | 50010152 | Electrician - GC | 3 |
| | Fresno | 50010156 | Unassigned Electrician - Elec & Hydro | 1 |
| | Fresno | 50010157 | Apprentice Electrician - GC | 2 |
| | Fresno | 50010179 | Subforeman A - Overhead | 5 |
| | Fresno | 50010180 | Subforeman A - Station/Hydro | 3 |
| | Fresno | 50010188 | Underground Constr Crew Frmn - Electric | 1 |
| | Fresno | 50010191 | Electric Crew Foreman | 11 |
| | Fresno | 50010194 | Electric Maintenance Crew Leader | 5 |
| | Fresno | 50010196 | Lead Electrical Technician | 4 |
| | Fresno | 50010217 | Utility Worker - Gas Transm & Dsbn | 8 |
| | Fresno | 50010223 | Utility Worker - GC | 9 |
| | Fresno | 50010227 | Compliance Inspector | 13 |
| | Fresno | 50010244 | Lineman | 21 |
| | Fresno | 50010246 | Unassigned Lineman | 2 |
| | Fresno | 50010247 | Lineman - GC | 12 |
| | Fresno | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Fresno | 50010334 | Roving Operator | 6 |
| | Fresno | 50010373 | Gas Service Representative | 30 |
| | Fresno | 50010395 | Electrical Technician - GC | 8 |
| | Fresno | 50010405 | Electrical Technician | 5 |
| | Fresno | 50010406 | Apprentice Electrical Technician | 4 |
| | Fresno | 50010432 | Troubleman | 19 |
| | Fresno | 50070742 | Electrician - Switching | 2 |
| | Fresno | 50251365 | Working Foreman A - Non-Climbing | 1 |
| | Fresno | 50251367 | Working Foreman B - Non-Climbing | 3 |
| | Fresno | 50253772 | Fieldperson - GC-Not Gas | 3 |
| | Fresno | 50253773 | Technical Crew Leader A-Not Gas | 3 |
| | Fresno | 50253878 | Miscellaneous Equipment Operator-Not Gas | 7 |
| | Fresno | 50315043 | M&C Coordinator - Electric | 6 |
| | Fresno | 51574842 | Distribution Line Technician | 2 |
| | Fresno | 51654546 | Gas Compliance Representative | 13 |
| | Fresno | 51664847 | Construction Operator-GC Gas | 28 |
| | Fresno | 51758207 | Lead Electrical Technician-GC | 7 |
| Fresno | | | Sum: | 249 |
| Glenn | North Valley | 50010191 | Electric Crew Foreman | 2 |

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|-----------------|--------------|----------|--|-----------|
| | North Valley | 50010244 | Lineman | 3 |
| | North Valley | 50010432 | Troubleman | 3 |
| | North Valley | 50315043 | M&C Coordinator - Electric | 1 |
| Glenn | | | Sum: | 9 |
| Humboldt | Humboldt | 50010152 | Electrician - GC | 1 |
| | Humboldt | 50010157 | Apprentice Electrician - GC | 1 |
| | Humboldt | 50010179 | Subforeman A - Overhead | 1 |
| | Humboldt | 50010180 | Subforeman A - Station/Hydro | 1 |
| | Humboldt | 50010191 | Electric Crew Foreman | 8 |
| | Humboldt | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Humboldt | 50010196 | Lead Electrical Technician | 2 |
| | Humboldt | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | Humboldt | 50010223 | Utility Worker - GC | 3 |
| | Humboldt | 50010227 | Compliance Inspector | 2 |
| | Humboldt | 50010244 | Lineman | 8 |
| | Humboldt | 50010246 | Unassigned Lineman | 6 |
| | Humboldt | 50010247 | Lineman - GC | 4 |
| | Humboldt | 50010373 | Gas Service Representative | 6 |
| | Humboldt | 50010431 | Transmission Troubleman | 1 |
| | Humboldt | 50010432 | Troubleman | 10 |
| | Humboldt | 50070742 | Electrician - Switching | 3 |
| | Humboldt | 50253878 | Miscellaneous Equipment Operator-Not Gas | 1 |
| | Humboldt | 50315043 | M&C Coordinator - Electric | 4 |
| | Humboldt | 51574842 | Distribution Line Technician | 2 |
| | Humboldt | 51654546 | Gas Compliance Representative | 2 |
| | Humboldt | 51664847 | Construction Operator-GC Gas | 1 |
| Humboldt | | | Sum: | 69 |
| Kern | Kern | 50010152 | Electrician - GC | 8 |
| | Kern | 50010157 | Apprentice Electrician - GC | 3 |
| | Kern | 50010179 | Subforeman A - Overhead | 5 |
| | Kern | 50010180 | Subforeman A - Station/Hydro | 3 |
| | Kern | 50010191 | Electric Crew Foreman | 9 |
| | Kern | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Kern | 50010196 | Lead Electrical Technician | 1 |
| | Kern | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | Kern | 50010223 | Utility Worker - GC | 10 |
| | Kern | 50010227 | Compliance Inspector | 7 |
| | Kern | 50010244 | Lineman | 17 |
| | Kern | 50010246 | Unassigned Lineman | 2 |

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|--------------|----------|----------|--|------------|
| | Kern | 50010247 | Lineman - GC | 11 |
| | Kern | 50010373 | Gas Service Representative | 26 |
| | Kern | 50010405 | Electrical Technician | 3 |
| | Kern | 50010406 | Apprentice Electrical Technician | 1 |
| | Kern | 50010431 | Transmission Troublemán | 2 |
| | Kern | 50010432 | Troublemán | 14 |
| | Kern | 50070742 | Electrician - Switching | 1 |
| | Kern | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Kern | 50253878 | Miscellaneous Equipment Operator-Not Gas | 6 |
| | Kern | 50315043 | M&C Coordinator - Electric | 4 |
| | Kern | 51574842 | Distribution Line Technician | 4 |
| | Kern | 51654546 | Gas Compliance Representative | 14 |
| | Kern | 51664847 | Construction Operator-GC Gas | 15 |
| Kern | | | Sum: | 170 |
| Kings | Fresno | 50010152 | Electrician - GC | 7 |
| | Fresno | 50010157 | Apprentice Electrician - GC | 5 |
| | Fresno | 50010180 | Subforeman A - Station/Hydro | 4 |
| | Fresno | 50010191 | Electric Crew Foreman | 3 |
| | Fresno | 50010223 | Utility Worker - GC | 3 |
| | Fresno | 50010244 | Lineman | 6 |
| | Fresno | 50010246 | Unassigned Lineman | 2 |
| | Fresno | 50010432 | Troublemán | 3 |
| | Fresno | 50251367 | Working Foreman B - Non-Climbing | 5 |
| | Fresno | 50315043 | M&C Coordinator - Electric | 1 |
| | Fresno | 51574842 | Distribution Line Technician | 1 |
| | Fresno | 51758207 | Lead Electrical Technician-GC | 1 |
| Kings | | | Sum: | 41 |
| Lake | Humboldt | 50010179 | Subforeman A - Overhead | 2 |
| | Humboldt | 50010191 | Electric Crew Foreman | 4 |
| | Humboldt | 50010244 | Lineman | 7 |
| | Humboldt | 50010246 | Unassigned Lineman | 1 |
| | Humboldt | 50010247 | Lineman - GC | 2 |
| | Humboldt | 50010431 | Transmission Troublemán | 1 |
| | Humboldt | 50010432 | Troublemán | 6 |
| | Humboldt | 50315043 | M&C Coordinator - Electric | 2 |
| Lake | | | Sum: | 25 |
| Madera | Yosemite | 50010152 | Electrician - GC | 9 |
| | Yosemite | 50010157 | Apprentice Electrician - GC | 4 |
| | Yosemite | 50010179 | Subforeman A - Overhead | 2 |

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|-----------------|-----------|----------|--|-----------|
| | Yosemite | 50010180 | Subforeman A - Station/Hydro | 6 |
| | Yosemite | 50010191 | Electric Crew Foreman | 6 |
| | Yosemite | 50010223 | Utility Worker - GC | 1 |
| | Yosemite | 50010227 | Compliance Inspector | 1 |
| | Yosemite | 50010244 | Lineman | 7 |
| | Yosemite | 50010246 | Unassigned Lineman | 3 |
| | Yosemite | 50010247 | Lineman - GC | 1 |
| | Yosemite | 50010373 | Gas Service Representative | 3 |
| | Yosemite | 50010431 | Transmission Troubleman | 4 |
| | Yosemite | 50010432 | Troubleman | 7 |
| | Yosemite | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Yosemite | 50253775 | Working Foreman C-Not Gas | 3 |
| | Yosemite | 50253877 | Crane Operator - GC Field-Not Gas | 2 |
| | Yosemite | 50253878 | Miscellaneous Equipment Operator-Not Gas | 2 |
| | Yosemite | 50315043 | M&C Coordinator - Electric | 2 |
| | Yosemite | 51574842 | Distribution Line Technician | 1 |
| Madera | | | Sum: | 65 |
| Marin | North Bay | 50010191 | Electric Crew Foreman | 5 |
| | North Bay | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | North Bay | 50010223 | Utility Worker - GC | 1 |
| | North Bay | 50010227 | Compliance Inspector | 1 |
| | North Bay | 50010244 | Lineman | 7 |
| | North Bay | 50010246 | Unassigned Lineman | 2 |
| | North Bay | 50010373 | Gas Service Representative | 10 |
| | North Bay | 50010375 | Cable Splicer | 1 |
| | North Bay | 50010432 | Troubleman | 4 |
| | North Bay | 50315043 | M&C Coordinator - Electric | 2 |
| | North Bay | 51574842 | Distribution Line Technician | 1 |
| | North Bay | 51654546 | Gas Compliance Representative | 11 |
| | North Bay | 51664847 | Construction Operator-GC Gas | 5 |
| Marin | | | Sum: | 52 |
| Mariposa | Yosemite | 50010432 | Troubleman | 2 |
| Mariposa | | | Sum: | 2 |
| Mendocino | Humboldt | 50010179 | Subforeman A - Overhead | 3 |
| | Humboldt | 50010191 | Electric Crew Foreman | 7 |
| | Humboldt | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Humboldt | 50010196 | Lead Electrical Technician | 1 |
| | Humboldt | 50010223 | Utility Worker - GC | 1 |
| | Humboldt | 50010227 | Compliance Inspector | 3 |

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|------------------|---------------|----------|--|------------|
| | Humboldt | 50010244 | Lineman | 8 |
| | Humboldt | 50010246 | Unassigned Lineman | 2 |
| | Humboldt | 50010247 | Lineman - GC | 8 |
| | Humboldt | 50010334 | Roving Operator | 2 |
| | Humboldt | 50010373 | Gas Service Representative | 2 |
| | Humboldt | 50010405 | Electrical Technician | 1 |
| | Humboldt | 50010431 | Transmission Troublemán | 1 |
| | Humboldt | 50010432 | Troublemán | 8 |
| | Humboldt | 50070742 | Electrician - Switching | 4 |
| | Humboldt | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Humboldt | 50253878 | Miscellaneous Equipment Operator-Not Gas | 4 |
| | Humboldt | 50315043 | M&C Coordinator - Electric | 3 |
| | Humboldt | 51574842 | Distribution Line Technician | 2 |
| | Humboldt | 51654546 | Gas Compliance Representative | 2 |
| | Humboldt | 51664847 | Construction Operator-GC Gas | 1 |
| Mendocino | | | Sum: | 65 |
| Merced | Yosemite | 50010179 | Subforeman A - Overhead | 9 |
| | Yosemite | 50010191 | Electric Crew Foreman | 6 |
| | Yosemite | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Yosemite | 50010196 | Lead Electrical Technician | 3 |
| | Yosemite | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | Yosemite | 50010223 | Utility Worker - GC | 3 |
| | Yosemite | 50010227 | Compliance Inspector | 9 |
| | Yosemite | 50010244 | Lineman | 6 |
| | Yosemite | 50010246 | Unassigned Lineman | 4 |
| | Yosemite | 50010247 | Lineman - GC | 21 |
| | Yosemite | 50010373 | Gas Service Representative | 14 |
| | Yosemite | 50010405 | Electrical Technician | 1 |
| | Yosemite | 50010432 | Troublemán | 9 |
| | Yosemite | 50070742 | Electrician - Switching | 4 |
| | Yosemite | 50253877 | Crane Operator - GC Field-Not Gas | 3 |
| | Yosemite | 50253878 | Miscellaneous Equipment Operator-Not Gas | 11 |
| | Yosemite | 50315043 | M&C Coordinator - Electric | 2 |
| | Yosemite | 51574842 | Distribution Line Technician | 1 |
| | Yosemite | 51654546 | Gas Compliance Representative | 6 |
| Merced | | | Sum: | 115 |
| Monterey | Central Coast | 50010152 | Electrician - GC | 4 |
| | Central Coast | 50010155 | Apprentice Electrician-Electric & Hydro | 1 |
| | Central Coast | 50010157 | Apprentice Electrician - GC | 4 |

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|-----------------|---------------|----------|--|------------|
| | Central Coast | 50010179 | Subforeman A - Overhead | 3 |
| | Central Coast | 50010180 | Subforeman A - Station/Hydro | 3 |
| | Central Coast | 50010191 | Electric Crew Foreman | 4 |
| | Central Coast | 50010194 | Electric Maintenance Crew Leader | 2 |
| | Central Coast | 50010196 | Lead Electrical Technician | 1 |
| | Central Coast | 50010217 | Utility Worker - Gas Transm & Dsbn | 3 |
| | Central Coast | 50010223 | Utility Worker - GC | 7 |
| | Central Coast | 50010227 | Compliance Inspector | 5 |
| | Central Coast | 50010244 | Lineman | 8 |
| | Central Coast | 50010246 | Unassigned Lineman | 1 |
| | Central Coast | 50010247 | Lineman - GC | 2 |
| | Central Coast | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Central Coast | 50010373 | Gas Service Representative | 18 |
| | Central Coast | 50010405 | Electrical Technician | 1 |
| | Central Coast | 50010406 | Apprentice Electrical Technician | 1 |
| | Central Coast | 50010431 | Transmission Troubleman | 2 |
| | Central Coast | 50010432 | Troubleman | 12 |
| | Central Coast | 50070742 | Electrician - Switching | 7 |
| | Central Coast | 50251367 | Working Foreman B - Non-Climbing | 4 |
| | Central Coast | 50253878 | Miscellaneous Equipment Operator-Not Gas | 3 |
| | Central Coast | 50315043 | M&C Coordinator - Electric | 4 |
| | Central Coast | 51574842 | Distribution Line Technician | 2 |
| | Central Coast | 51654546 | Gas Compliance Representative | 14 |
| | Central Coast | 51664847 | Construction Operator-GC Gas | 9 |
| Monterey | | | Sum: | 126 |
| Napa | North Bay | 50010152 | Electrician - GC | 2 |
| | North Bay | 50010157 | Apprentice Electrician - GC | 3 |
| | North Bay | 50010180 | Subforeman A - Station/Hydro | 4 |
| | North Bay | 50010191 | Electric Crew Foreman | 3 |
| | North Bay | 50010217 | Utility Worker - Gas Transm & Dsbn | 3 |
| | North Bay | 50010223 | Utility Worker - GC | 4 |
| | North Bay | 50010244 | Lineman | 5 |
| | North Bay | 50010373 | Gas Service Representative | 5 |
| | North Bay | 50010432 | Troubleman | 5 |
| | North Bay | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | North Bay | 50315043 | M&C Coordinator - Electric | 2 |
| | North Bay | 51574842 | Distribution Line Technician | 1 |
| | North Bay | 51654546 | Gas Compliance Representative | 5 |
| Napa | | | Sum: | 43 |

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|---------------|--------|----------|----------------------------|-----------|
| Nevada | Sierra | 50010179 | Subforeman A - Overhead | 1 |
| | Sierra | 50010191 | Electric Crew Foreman | 3 |
| | Sierra | 50010223 | Utility Worker - GC | 1 |
| | Sierra | 50010227 | Compliance Inspector | 3 |
| | Sierra | 50010244 | Lineman | 7 |
| | Sierra | 50010247 | Lineman - GC | 8 |
| | Sierra | 50010373 | Gas Service Representative | 2 |
| | Sierra | 50010432 | Troubleman | 5 |
| | Sierra | 50315043 | M&C Coordinator - Electric | 2 |
| Nevada | | | Sum: | 32 |

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|--------|--------|----------|---|----|
| Placer | Sierra | 50010152 | Electrician - GC | 5 |
| | Sierra | 50010155 | Apprentice Electrician-Electric & Hydro | 1 |
| | Sierra | 50010157 | Apprentice Electrician - GC | 11 |
| | Sierra | 50010179 | Subforeman A - Overhead | 3 |
| | Sierra | 50010180 | Subforeman A - Station/Hydro | 8 |
| | Sierra | 50010191 | Electric Crew Foreman | 5 |
| | Sierra | 50010194 | Electric Maintenance Crew Leader | 6 |
| | Sierra | 50010196 | Lead Electrical Technician | 6 |
| | Sierra | 50010216 | Utility Worker - Electric Maintenance | 3 |
| | Sierra | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | Sierra | 50010223 | Utility Worker - GC | 6 |
| | Sierra | 50010227 | Compliance Inspector | 5 |
| | Sierra | 50010244 | Lineman | 6 |
| | Sierra | 50010246 | Unassigned Lineman | 3 |
| | Sierra | 50010247 | Lineman - GC | 11 |
| | Sierra | 50010360 | Apprentice Water System Repairperson | 3 |
| | Sierra | 50010373 | Gas Service Representative | 16 |
| | Sierra | 50010405 | Electrical Technician | 3 |
| | Sierra | 50010431 | Transmission Troubleman | 4 |
| | Sierra | 50010432 | Troubleman | 7 |
| | Sierra | 50070742 | Electrician - Switching | 3 |
| | Sierra | 50251367 | Working Foreman B - Non-Climbing | 5 |
| | Sierra | 50253772 | Fieldperson - GC-Not Gas | 1 |
| | Sierra | 50253773 | Technical Crew Leader A-Not Gas | 1 |
| | Sierra | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Sierra | 50315043 | M&C Coordinator - Electric | 3 |
| | Sierra | 51574842 | Distribution Line Technician | 3 |
| | Sierra | 51654546 | Gas Compliance Representative | 7 |
| | Sierra | 51664847 | Construction Operator-GC Gas | 18 |
| | Sierra | 51758207 | Lead Electrical Technician-GC | 2 |

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|-----------------------|---------------|----------|--|------------|
| Placer | | | Sum: | 157 |
| Plumas | North Valley | 50010191 | Electric Crew Foreman | 1 |
| | North Valley | 50010194 | Electric Maintenance Crew Leader | 4 |
| | North Valley | 50010196 | Lead Electrical Technician | 1 |
| | North Valley | 50010244 | Lineman | 3 |
| | North Valley | 50010334 | Roving Operator | 5 |
| | North Valley | 50010360 | Apprentice Water System Repairperson | 1 |
| | North Valley | 50010405 | Electrical Technician | 2 |
| | North Valley | 50010406 | Apprentice Electrical Technician | 2 |
| | North Valley | 50010432 | Troubleman | 3 |
| Plumas | | | Sum: | 22 |
| Sacramento | Sacramento | 50010179 | Subforeman A - Overhead | 1 |
| | Sacramento | 50010180 | Subforeman A - Station/Hydro | 1 |
| | Sacramento | 50010217 | Utility Worker - Gas Transm & Dsbn | 10 |
| | Sacramento | 50010223 | Utility Worker - GC | 10 |
| | Sacramento | 50010373 | Gas Service Representative | 40 |
| | Sacramento | 50253775 | Working Foreman C-Not Gas | 4 |
| | Sacramento | 51654546 | Gas Compliance Representative | 20 |
| | Sacramento | 51664847 | Construction Operator-GC Gas | 22 |
| Sacramento | | | Sum: | 108 |
| San Benito | Central Coast | 50010191 | Electric Crew Foreman | 2 |
| | Central Coast | 50010244 | Lineman | 3 |
| | Central Coast | 50010246 | Unassigned Lineman | 1 |
| | Central Coast | 50010432 | Troubleman | 3 |
| | Central Coast | 50315043 | M&C Coordinator - Electric | 1 |
| San Benito | | | Sum: | 10 |
| San Bernardino | Kern | 51654546 | Gas Compliance Representative | 1 |
| San Bernardino | | | Sum: | 1 |
| San Francisco | San Francisco | 50010091 | Cableman | 6 |
| | San Francisco | 50010184 | Night Cable Crew Foreman | 1 |
| | San Francisco | 50010191 | Electric Crew Foreman | 4 |
| | San Francisco | 50010199 | Cable Crew Foreman | 6 |
| | San Francisco | 50010202 | Working Foreman (PIO) | 2 |
| | San Francisco | 50010217 | Utility Worker - Gas Transm & Dsbn | 8 |
| | San Francisco | 50010223 | Utility Worker - GC | 8 |
| | San Francisco | 50010226 | PIO Inspector | 1 |
| | San Francisco | 50010227 | Compliance Inspector | 1 |
| | San Francisco | 50010243 | Night Electric Transm & Dsbn Assistant | 5 |

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|----------------------|---------------|----------|--|------------|
| | San Francisco | 50010244 | Lineman | 3 |
| | San Francisco | 50010246 | Unassigned Lineman | 1 |
| | San Francisco | 50010373 | Gas Service Representative | 28 |
| | San Francisco | 50010375 | Cable Splicer | 7 |
| | San Francisco | 50010378 | Night Cable Splicer | 1 |
| | San Francisco | 50010432 | Troubleman | 1 |
| | San Francisco | 50315043 | M&C Coordinator - Electric | 5 |
| | San Francisco | 51654546 | Gas Compliance Representative | 22 |
| | San Francisco | 51664847 | Construction Operator-GC Gas | 7 |
| | San Francisco | 51754495 | Appr Cable Splicer Hired after 1-1-15 | 4 |
| San Francisco | | | Sum: | 121 |
| San Joaquin | Stockton | 50010152 | Electrician - GC | 7 |
| | Stockton | 50010176 | Technical Crew Leader A - Gas | 4 |
| | Stockton | 50010177 | Technical Crew Leader B - Gas | 6 |
| | Stockton | 50010179 | Subforeman A - Overhead | 4 |
| | Stockton | 50010180 | Subforeman A - Station/Hydro | 5 |
| | Stockton | 50010191 | Electric Crew Foreman | 7 |
| | Stockton | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Stockton | 50010196 | Lead Electrical Technician | 2 |
| | Stockton | 50010217 | Utility Worker - Gas Transm & Dsbn | 4 |
| | Stockton | 50010223 | Utility Worker - GC | 16 |
| | Stockton | 50010227 | Compliance Inspector | 11 |
| | Stockton | 50010244 | Lineman | 13 |
| | Stockton | 50010246 | Unassigned Lineman | 1 |
| | Stockton | 50010247 | Lineman - GC | 7 |
| | Stockton | 50010287 | Station Mechanic | 1 |
| | Stockton | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Stockton | 50010373 | Gas Service Representative | 22 |
| | Stockton | 50010406 | Apprentice Electrical Technician | 1 |
| | Stockton | 50010431 | Transmission Troubleman | 3 |
| | Stockton | 50010432 | Troubleman | 16 |
| | Stockton | 50070742 | Electrician - Switching | 1 |
| | Stockton | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Stockton | 50253773 | Technical Crew Leader A-Not Gas | 1 |
| | Stockton | 50253775 | Working Foreman C-Not Gas | 1 |
| | Stockton | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Stockton | 50253878 | Miscellaneous Equipment Operator-Not Gas | 7 |
| | Stockton | 50315043 | M&C Coordinator - Electric | 5 |
| | Stockton | 51574842 | Distribution Line Technician | 3 |
| | Stockton | 51654546 | Gas Compliance Representative | 17 |

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|------------------------|------------|----------|--|------------|
| | Stockton | 51664847 | Construction Operator-GC Gas | 16 |
| San Joaquin | | | Sum: | 185 |
| San Luis Obispo | Los Padres | 50010179 | Subforeman A - Overhead | 4 |
| | Los Padres | 50010191 | Electric Crew Foreman | 9 |
| | Los Padres | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Los Padres | 50010196 | Lead Electrical Technician | 2 |
| | Los Padres | 50010223 | Utility Worker - GC | 4 |
| | Los Padres | 50010227 | Compliance Inspector | 6 |
| | Los Padres | 50010244 | Lineman | 13 |
| | Los Padres | 50010246 | Unassigned Lineman | 7 |
| | Los Padres | 50010247 | Lineman - GC | 10 |
| | Los Padres | 50010405 | Electrical Technician | 1 |
| | Los Padres | 50010406 | Apprentice Electrical Technician | 1 |
| | Los Padres | 50010431 | Transmission Troublemán | 2 |
| | Los Padres | 50010432 | Troublemán | 11 |
| | Los Padres | 50251367 | Working Foreman B - Non-Climbing | 3 |
| | Los Padres | 50253878 | Miscellaneous Equipment Operator-Not Gas | 5 |
| | Los Padres | 50315043 | M&C Coordinator - Electric | 3 |
| | Los Padres | 51574842 | Distribution Line Technician | 2 |
| | Los Padres | 51654546 | Gas Compliance Representative | 3 |
| San Luis Obispo | | | Sum: | 87 |
| San Mateo | Peninsula | 50010152 | Electrician - GC | 5 |
| | Peninsula | 50010155 | Apprentice Electrician-Electric & Hydro | 2 |
| | Peninsula | 50010157 | Apprentice Electrician - GC | 6 |
| | Peninsula | 50010178 | Subforeman A - Underground | 5 |
| | Peninsula | 50010180 | Subforeman A - Station/Hydro | 7 |
| | Peninsula | 50010191 | Electric Crew Foreman | 6 |
| | Peninsula | 50010194 | Electric Maintenance Crew Leader | 2 |
| | Peninsula | 50010196 | Lead Electrical Technician | 2 |
| | Peninsula | 50010199 | Cable Crew Foreman | 1 |
| | Peninsula | 50010206 | PIO Working Foreman C - Gas | 1 |
| | Peninsula | 50010216 | Utility Worker - Electric Maintenance | 1 |
| | Peninsula | 50010217 | Utility Worker - Gas Transm & Dsbn | 8 |
| | Peninsula | 50010223 | Utility Worker - GC | 21 |
| | Peninsula | 50010227 | Compliance Inspector | 1 |
| | Peninsula | 50010244 | Lineman | 6 |
| | Peninsula | 50010246 | Unassigned Lineman | 4 |
| | Peninsula | 50010247 | Lineman - GC | 2 |
| | Peninsula | 50010323 | Transmission & Distribution Equip Opr | 2 |

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| | Peninsula | 50010373 | Gas Service Representative | 26 |
| | Peninsula | 50010377 | Cable Splicer - GC | 1 |
| | Peninsula | 50010381 | Transmission Cableman | 2 |
| | Peninsula | 50010405 | Electrical Technician | 5 |
| | Peninsula | 50010406 | Apprentice Electrical Technician | 2 |
| | Peninsula | 50010431 | Transmission Troublemán | 2 |
| | Peninsula | 50010432 | Troublemán | 4 |
| | Peninsula | 50070742 | Electrician - Switching | 9 |
| | Peninsula | 50251367 | Working Foreman B - Non-Climbing | 2 |
| | Peninsula | 50253877 | Crane Operator - GC Field-Not Gas | 4 |
| | Peninsula | 50253878 | Miscellaneous Equipment Operator-Not Gas | 1 |
| | Peninsula | 50315043 | M&C Coordinator - Electric | 3 |
| | Peninsula | 51574842 | Distribution Line Technician | 4 |
| | Peninsula | 51654546 | Gas Compliance Representative | 19 |
| | Peninsula | 51664847 | Construction Operator-GC Gas | 29 |
| | Peninsula | 51754496 | Appr Cable Splicer-GC Hired after 1-1-15 | 7 |
| San Mateo | | | Sum: | 202 |
| Santa Barbara | Los Padres | 50010191 | Electric Crew Foreman | 5 |
| | Los Padres | 50010244 | Lineman | 7 |
| | Los Padres | 50010246 | Unassigned Lineman | 1 |
| | Los Padres | 50010432 | Troublemán | 7 |
| | Los Padres | 50315043 | M&C Coordinator - Electric | 3 |
| | Los Padres | 51654546 | Gas Compliance Representative | 1 |
| Santa Barbara | | | Sum: | 24 |
| Santa Clara | De Anza | 50010152 | Electrician - GC | 1 |
| | De Anza | 50010155 | Apprentice Electrician-Electric & Hydro | 1 |
| | De Anza | 50010157 | Apprentice Electrician - GC | 1 |
| | De Anza | 50010180 | Subforeman A - Station/Hydro | 1 |
| | De Anza | 50010191 | Electric Crew Foreman | 4 |
| | De Anza | 50010194 | Electric Maintenance Crew Leader | 2 |
| | De Anza | 50010217 | Utility Worker - Gas Transm & Dsbn | 3 |
| | De Anza | 50010227 | Compliance Inspector | 1 |
| | De Anza | 50010244 | Lineman | 15 |
| | De Anza | 50010246 | Unassigned Lineman | 6 |
| | De Anza | 50010323 | Transmission & Distribution Equip Opr | 2 |
| | De Anza | 50010373 | Gas Service Representative | 20 |
| | De Anza | 50010432 | Troublemán | 9 |
| | De Anza | 50070742 | Electrician - Switching | 8 |
| | De Anza | 50251367 | Working Foreman B - Non-Climbing | 1 |

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|--------------------|---------------|----------|--|------------|
| | De Anza | 50315043 | M&C Coordinator - Electric | 5 |
| | De Anza | 51574842 | Distribution Line Technician | 2 |
| | De Anza | 51654546 | Gas Compliance Representative | 11 |
| | San Jose | 50010152 | Electrician - GC | 1 |
| | San Jose | 50010179 | Subforeman A - Overhead | 6 |
| | San Jose | 50010191 | Electric Crew Foreman | 7 |
| | San Jose | 50010196 | Lead Electrical Technician | 1 |
| | San Jose | 50010217 | Utility Worker - Gas Transm & Dsbn | 5 |
| | San Jose | 50010223 | Utility Worker - GC | 7 |
| | San Jose | 50010227 | Compliance Inspector | 1 |
| | San Jose | 50010244 | Lineman | 5 |
| | San Jose | 50010246 | Unassigned Lineman | 5 |
| | San Jose | 50010247 | Lineman - GC | 7 |
| | San Jose | 50010323 | Transmission & Distribution Equip Opr | 2 |
| | San Jose | 50010373 | Gas Service Representative | 38 |
| | San Jose | 50010405 | Electrical Technician | 2 |
| | San Jose | 50010406 | Apprentice Electrical Technician | 1 |
| | San Jose | 50010431 | Transmission Troublemán | 1 |
| | San Jose | 50010432 | Troublemán | 16 |
| | San Jose | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | San Jose | 50253878 | Miscellaneous Equipment Operator-Not Gas | 5 |
| | San Jose | 50315043 | M&C Coordinator - Electric | 3 |
| | San Jose | 51574842 | Distribution Line Technician | 2 |
| | San Jose | 51654546 | Gas Compliance Representative | 22 |
| | San Jose | 51664847 | Construction Operator-GC Gas | 11 |
| Santa Clara | | | Sum: | 242 |
| Santa Cruz | Central Coast | 50010191 | Electric Crew Foreman | 7 |
| | Central Coast | 50010202 | Working Foreman (PIO) | 1 |
| | Central Coast | 50010227 | Compliance Inspector | 2 |
| | Central Coast | 50010244 | Lineman | 8 |
| | Central Coast | 50010246 | Unassigned Lineman | 2 |
| | Central Coast | 50010323 | Transmission & Distribution Equip Opr | 2 |
| | Central Coast | 50010373 | Gas Service Representative | 12 |
| | Central Coast | 50010432 | Troublemán | 13 |
| | Central Coast | 50315043 | M&C Coordinator - Electric | 3 |
| | Central Coast | 51574842 | Distribution Line Technician | 2 |
| Santa Cruz | | | Sum: | 52 |
| Shasta | North Valley | 50010152 | Electrician - GC | 7 |
| | North Valley | 50010155 | Apprentice Electrician-Electric & Hydro | 1 |

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|---------------|--------------|----------|--|------------|
| | North Valley | 50010157 | Apprentice Electrician - GC | 9 |
| | North Valley | 50010179 | Subforeman A - Overhead | 2 |
| | North Valley | 50010180 | Subforeman A - Station/Hydro | 4 |
| | North Valley | 50010191 | Electric Crew Foreman | 4 |
| | North Valley | 50010194 | Electric Maintenance Crew Leader | 4 |
| | North Valley | 50010196 | Lead Electrical Technician | 3 |
| | North Valley | 50010217 | Utility Worker - Gas Transm & Dsbn | 3 |
| | North Valley | 50010223 | Utility Worker - GC | 5 |
| | North Valley | 50010227 | Compliance Inspector | 1 |
| | North Valley | 50010244 | Lineman | 6 |
| | North Valley | 50010246 | Unassigned Lineman | 3 |
| | North Valley | 50010247 | Lineman - GC | 6 |
| | North Valley | 50010334 | Roving Operator | 5 |
| | North Valley | 50010373 | Gas Service Representative | 5 |
| | North Valley | 50010395 | Electrical Technician - GC | 2 |
| | North Valley | 50010405 | Electrical Technician | 2 |
| | North Valley | 50010406 | Apprentice Electrical Technician | 1 |
| | North Valley | 50010432 | Troubleman | 8 |
| | North Valley | 50070742 | Electrician - Switching | 6 |
| | North Valley | 50251365 | Working Foreman A - Non-Climbing | 1 |
| | North Valley | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | North Valley | 50253772 | Fieldperson - GC-Not Gas | 2 |
| | North Valley | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | North Valley | 50253878 | Miscellaneous Equipment Operator-Not Gas | 1 |
| | North Valley | 50315043 | M&C Coordinator - Electric | 2 |
| | North Valley | 51574842 | Distribution Line Technician | 1 |
| | North Valley | 51654546 | Gas Compliance Representative | 3 |
| | North Valley | 51664847 | Construction Operator-GC Gas | 2 |
| | North Valley | 51758207 | Lead Electrical Technician-GC | 1 |
| Shasta | | | Sum: | 102 |
| Solano | North Bay | 50010244 | Lineman | 1 |
| | North Bay | 50010247 | Lineman - GC | 1 |
| | North Bay | 50010373 | Gas Service Representative | 6 |
| | North Bay | 50010432 | Troubleman | 3 |
| | North Bay | 51664847 | Construction Operator-GC Gas | 5 |
| | Sacramento | 50010152 | Electrician - GC | 3 |
| | Sacramento | 50010157 | Apprentice Electrician - GC | 6 |
| | Sacramento | 50010180 | Subforeman A - Station/Hydro | 5 |
| | Sacramento | 50010188 | Underground Constr Crew Frmn - Electric | 1 |
| | Sacramento | 50010191 | Electric Crew Foreman | 3 |

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|---------------|------------|----------|---------------------------------------|-----------|
| | Sacramento | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Sacramento | 50010196 | Lead Electrical Technician | 1 |
| | Sacramento | 50010217 | Utility Worker - Gas Transm & Dsbn | 5 |
| | Sacramento | 50010223 | Utility Worker - GC | 9 |
| | Sacramento | 50010244 | Lineman | 8 |
| | Sacramento | 50010246 | Unassigned Lineman | 1 |
| | Sacramento | 50010373 | Gas Service Representative | 11 |
| | Sacramento | 50010395 | Electrical Technician - GC | 2 |
| | Sacramento | 50010405 | Electrical Technician | 1 |
| | Sacramento | 50010432 | Troubleman | 5 |
| | Sacramento | 50251367 | Working Foreman B - Non-Climbing | 3 |
| | Sacramento | 50315043 | M&C Coordinator - Electric | 1 |
| | Sacramento | 51654546 | Gas Compliance Representative | 3 |
| | Sacramento | 51664847 | Construction Operator-GC Gas | 8 |
| | Sacramento | 51758207 | Lead Electrical Technician-GC | 1 |
| Solano | | | Sum: | 94 |
| Sonoma | Sonoma | 50010152 | Electrician - GC | 1 |
| | Sonoma | 50010157 | Apprentice Electrician - GC | 3 |
| | Sonoma | 50010179 | Subforeman A - Overhead | 4 |
| | Sonoma | 50010180 | Subforeman A - Station/Hydro | 2 |
| | Sonoma | 50010191 | Electric Crew Foreman | 9 |
| | Sonoma | 50010194 | Electric Maintenance Crew Leader | 1 |
| | Sonoma | 50010196 | Lead Electrical Technician | 4 |
| | Sonoma | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | Sonoma | 50010223 | Utility Worker - GC | 7 |
| | Sonoma | 50010226 | PIO Inspector | 1 |
| | Sonoma | 50010227 | Compliance Inspector | 1 |
| | Sonoma | 50010244 | Lineman | 16 |
| | Sonoma | 50010246 | Unassigned Lineman | 3 |
| | Sonoma | 50010247 | Lineman - GC | 3 |
| | Sonoma | 50010261 | Street Light Maintenance Man | 1 |
| | Sonoma | 50010323 | Transmission & Distribution Equip Opr | 1 |
| | Sonoma | 50010373 | Gas Service Representative | 16 |
| | Sonoma | 50010405 | Electrical Technician | 2 |
| | Sonoma | 50010431 | Transmission Troubleman | 2 |
| | Sonoma | 50010432 | Troubleman | 18 |
| | Sonoma | 50070742 | Electrician - Switching | 5 |
| | Sonoma | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Sonoma | 50253773 | Technical Crew Leader A-Not Gas | 1 |
| | Sonoma | 50253775 | Working Foreman C-Not Gas | 1 |

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|-------------------|--------------|----------|--|------------|
| | Sonoma | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Sonoma | 50253878 | Miscellaneous Equipment Operator-Not Gas | 1 |
| | Sonoma | 50315043 | M&C Coordinator - Electric | 5 |
| | Sonoma | 51574842 | Distribution Line Technician | 2 |
| | Sonoma | 51654546 | Gas Compliance Representative | 15 |
| | Sonoma | 51664847 | Construction Operator-GC Gas | 8 |
| Sonoma | | | Sum: | 137 |
| Stanislaus | Yosemite | 50010191 | Electric Crew Foreman | 2 |
| | Yosemite | 50010217 | Utility Worker - Gas Transm & Dsbn | 2 |
| | Yosemite | 50010223 | Utility Worker - GC | 7 |
| | Yosemite | 50010244 | Lineman | 5 |
| | Yosemite | 50010246 | Unassigned Lineman | 1 |
| | Yosemite | 50010247 | Lineman - GC | 1 |
| | Yosemite | 50010373 | Gas Service Representative | 20 |
| | Yosemite | 50010432 | Troubleman | 6 |
| | Yosemite | 50253878 | Miscellaneous Equipment Operator-Not Gas | 2 |
| | Yosemite | 50315043 | M&C Coordinator - Electric | 2 |
| | Yosemite | 51654546 | Gas Compliance Representative | 11 |
| | Yosemite | 51664847 | Construction Operator-GC Gas | 32 |
| Stanislaus | | | Sum: | 91 |
| Tehama | North Valley | 50010179 | Subforeman A - Overhead | 3 |
| | North Valley | 50010191 | Electric Crew Foreman | 3 |
| | North Valley | 50010223 | Utility Worker - GC | 2 |
| | North Valley | 50010227 | Compliance Inspector | 4 |
| | North Valley | 50010244 | Lineman | 4 |
| | North Valley | 50010246 | Unassigned Lineman | 1 |
| | North Valley | 50010247 | Lineman - GC | 6 |
| | North Valley | 50010334 | Roving Operator | 2 |
| | North Valley | 50010373 | Gas Service Representative | 1 |
| | North Valley | 50010431 | Transmission Troubleman | 5 |
| | North Valley | 50010432 | Troubleman | 5 |
| | North Valley | 50253878 | Miscellaneous Equipment Operator-Not Gas | 3 |
| | North Valley | 50315043 | M&C Coordinator - Electric | 1 |
| | North Valley | 51574842 | Distribution Line Technician | 1 |
| Tehama | | | Sum: | 41 |
| Tulare | Fresno | 50010191 | Electric Crew Foreman | 3 |
| | Fresno | 50010244 | Lineman | 4 |
| | Fresno | 50010246 | Unassigned Lineman | 1 |
| | Fresno | 50010432 | Troubleman | 3 |

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|----------------------------|--------------|----------|--|-----------|
| | Fresno | 50315043 | M&C Coordinator - Electric | 1 |
| Tulare | | | Sum: | 12 |
| Tuolumne | Yosemite | 50010191 | Electric Crew Foreman | 2 |
| | Yosemite | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | Yosemite | 50010227 | Compliance Inspector | 1 |
| | Yosemite | 50010244 | Lineman | 4 |
| | Yosemite | 50010246 | Unassigned Lineman | 1 |
| | Yosemite | 50010432 | Troubleman | 5 |
| | Yosemite | 50315043 | M&C Coordinator - Electric | 1 |
| | Yosemite | 51654546 | Gas Compliance Representative | 1 |
| Tuolumne | | | Sum: | 16 |
| US/Not assigned/Not | Not assigned | 50010179 | Subforeman A - Overhead | 5 |
| | Not assigned | 50010223 | Utility Worker - GC | 1 |
| | Not assigned | 50010247 | Lineman - GC | 2 |
| | Not assigned | 50253877 | Crane Operator - GC Field-Not Gas | 1 |
| | Not assigned | 50253878 | Miscellaneous Equipment Operator-Not Gas | 7 |
| | Not assigned | 51664847 | Construction Operator-GC Gas | 1 |
| US/Not assigned/Not | | | Sum: | 17 |
| Yolo | Sacramento | 50010173 | PIO Labor Foreman A | 1 |
| | Sacramento | 50010179 | Subforeman A - Overhead | 2 |
| | Sacramento | 50010180 | Subforeman A - Station/Hydro | 3 |
| | Sacramento | 50010181 | Subforeman B | 2 |
| | Sacramento | 50010191 | Electric Crew Foreman | 4 |
| | Sacramento | 50010207 | Working Foreman D | 1 |
| | Sacramento | 50010223 | Utility Worker - GC | 1 |
| | Sacramento | 50010227 | Compliance Inspector | 11 |
| | Sacramento | 50010244 | Lineman | 5 |
| | Sacramento | 50010246 | Unassigned Lineman | 2 |
| | Sacramento | 50010247 | Lineman - GC | 4 |
| | Sacramento | 50010373 | Gas Service Representative | 5 |
| | Sacramento | 50010432 | Troubleman | 9 |
| | Sacramento | 50251367 | Working Foreman B - Non-Climbing | 1 |
| | Sacramento | 50253773 | Technical Crew Leader A-Not Gas | 1 |
| | Sacramento | 50253775 | Working Foreman C-Not Gas | 8 |
| | Sacramento | 50253877 | Crane Operator - GC Field-Not Gas | 2 |
| | Sacramento | 50253878 | Miscellaneous Equipment Operator-Not Gas | 4 |
| | Sacramento | 50315043 | M&C Coordinator - Electric | 2 |
| | Sacramento | 51574842 | Distribution Line Technician | 2 |
| | Sacramento | 51654546 | Gas Compliance Representative | 2 |

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|-------------|--------|----------|--|-------------|
| Yolo | | | Sum: | 72 |
| Yuba | Sierra | 50010151 | Electrician | 2 |
| | Sierra | 50010173 | PIO Labor Foreman A | 1 |
| | Sierra | 50010179 | Subforeman A - Overhead | 2 |
| | Sierra | 50010191 | Electric Crew Foreman | 4 |
| | Sierra | 50010202 | Working Foreman (PIO) | 1 |
| | Sierra | 50010217 | Utility Worker - Gas Transm & Dsbn | 1 |
| | Sierra | 50010223 | Utility Worker - GC | 2 |
| | Sierra | 50010227 | Compliance Inspector | 2 |
| | Sierra | 50010234 | Underground Constr Journeyman - Elec | 1 |
| | Sierra | 50010244 | Lineman | 8 |
| | Sierra | 50010246 | Unassigned Lineman | 2 |
| | Sierra | 50010247 | Lineman - GC | 4 |
| | Sierra | 50010373 | Gas Service Representative | 8 |
| | Sierra | 50010432 | Troubleman | 11 |
| | Sierra | 50253878 | Miscellaneous Equipment Operator-Not Gas | 3 |
| | Sierra | 50315043 | M&C Coordinator - Electric | 2 |
| | Sierra | 51654546 | Gas Compliance Representative | 3 |
| Yuba | | | Sum: | 57 |
| | | | Sum: | 3774 |

Exhibit I
Cal OES and County Emergency Management Contact
Lists

Company Emergency Response Plan (CERP)

Attachment 1, Cal OES Regional Contacts

| Cal OES Region | Cal OES Representative | Phone |
|--------------------------|--|-----------------|
| Southern | Southern Region Administrator | (562) 795-2900 |
| Southern | Deputy Southern Region Administration | (562) 795-2900 |
| Inland Region | Inland Regional Administrator | (916) 657-9210 |
| Inland - North | Deputy Inland Regional Administrator - North | (916) 657-9210 |
| Inland - South | Deputy Inland Region Administrator - South | (916) 657-9210 |
| Coastal | Coastal Regional Administrator | (916) 845-8911* |
| Coastal | Deputy Coastal Regional Administrator | (916) 845-8911* |
| * Cal OES Warning Center | | |

Company Emergency Response Plan (CERP)

Attachment 1, Cal OES Regional Contacts

REVISION NOTES (Move this section to the bottom of the last page of attachment)

| Where? | What Changed? |
|--------|---------------|
| NA | New |

Company Emergency Response Plan (CERP)

Attachment 2, County Government Contacts

| County | Representative | Phone |
|--------------|--|--------------|
| Alameda | Office of Emergency Services Coordinator | 925-803-7800 |
| Alpine | Office of Emergency Services Coordinator | 530-694-2231 |
| Amador | Office of Emergency Services Coordinator | 209-223-6384 |
| Butte | Office of Emergency Services Coordinator | 530-552-3333 |
| Calaveras | Office of Emergency Services Coordinator | 209-754-2890 |
| Colusa | Office of Emergency Services Coordinator | 530-458-0208 |
| Contra Costa | Office of Emergency Services Coordinator | 925-655-0000 |
| El Dorado | Office of Emergency Services Coordinator | 530-621-5655 |
| Fresno | Office of Emergency Services Coordinator | 559-445-3391 |
| Glenn | Office of Emergency Services Coordinator | 530-934-6441 |
| Humboldt | Office of Emergency Services Coordinator | 707-268-2500 |
| Kern | Office of Emergency Services Coordinator | 661-868-3140 |
| Kings | Office of Emergency Services Coordinator | 559-852-2883 |
| Lake | Office of Emergency Services Coordinator | 707-263-2690 |
| Lassen | Office of Emergency Services Coordinator | 530-257-8504 |
| Madera | Office of Emergency Services Coordinator | 559-675-7770 |
| Marin | Office of Emergency Services Coordinator | 415-473-7250 |
| Mariposa | Office of Emergency Services Coordinator | 209-966-3615 |
| Mendocino | Office of Emergency Services Coordinator | 707-467-6497 |
| Merced | Office of Emergency Services Coordinator | 209-385-7548 |

Company Emergency Response Plan (CERP)

Attachment 2, County Government Contacts

| County | Representative | Phone |
|-----------------|--|---------------|
| Monterey | Office of Emergency Services Coordinator | 831-796-1905 |
| Napa | Office of Emergency Services Coordinator | 707-299-1892 |
| Nevada | Office of Emergency Services Coordinator | 530-265-1515 |
| Placer | Office of Emergency Services Coordinator | 530-886-5300 |
| Plumas | Office of Emergency Services Coordinator | 530-283-7438 |
| Sacramento | Office of Emergency Services Coordinator | 916-874-4670 |
| San Benito | Office of Emergency Services Coordinator | 831-636-4000 |
| San Francisco | Office of Emergency Services Coordinator | 415-558-3800 |
| San Joaquin | Office of Emergency Services Coordinator | 209-953-6200 |
| San Luis Obispo | Office of Emergency Services Coordinator | 805-781-5011 |
| San Mateo | Office of Emergency Services Coordinator | 650.363.4911 |
| Santa Barbara | Office of Emergency Services Coordinator | 805-681- 5526 |
| Santa Clara | Office of Emergency Services Coordinator | 408-808-7800 |
| Santa Cruz | Office of Emergency Services Coordinator | 831-454-2714 |
| Shasta | Office of Emergency Services Coordinator | 530-245-6000 |
| Sierra | Office of Emergency Services Coordinator | 530-289-2850 |
| Siskiyou | Office of Emergency Services Coordinator | 530-841-2147 |
| Solano | Office of Emergency Services Coordinator | 707-784-1600 |
| Sonoma | Office of Emergency Services Coordinator | 707-565-1152 |
| Stanislaus | Office of Emergency Services Coordinator | 209-552-3600 |
| Sutter | Office of Emergency Services Coordinator | 530-822-4575 |

Company Emergency Response Plan (CERP)

Attachment 2, County Government Contacts

| County | Representative | Phone |
|----------|---|--------------|
| Tehama | Office of Emergency Services Coordinator | 530-529-7988 |
| Trinity | Office of Emergency Services Coordinator | 530-623-1116 |
| Tulare | Office of Emergency Services Coordinator | 559-624-7495 |
| Tuolumne | Office of Emergency Services Coordinator | 209-533-6395 |
| Yolo | Office of Emergency Services Coordinator | 530-406-4930 |
| Yuba | Office of Emergency Services Coordinator | 530-749-7520 |
| | | |

Company Emergency Response Plan (CERP)

Attachment 2, County Government Contacts

REVISION NOTES (Move this section to the bottom of the last page of attachment)

| Where? | What Changed? |
|--------|---------------|
| NA | New |