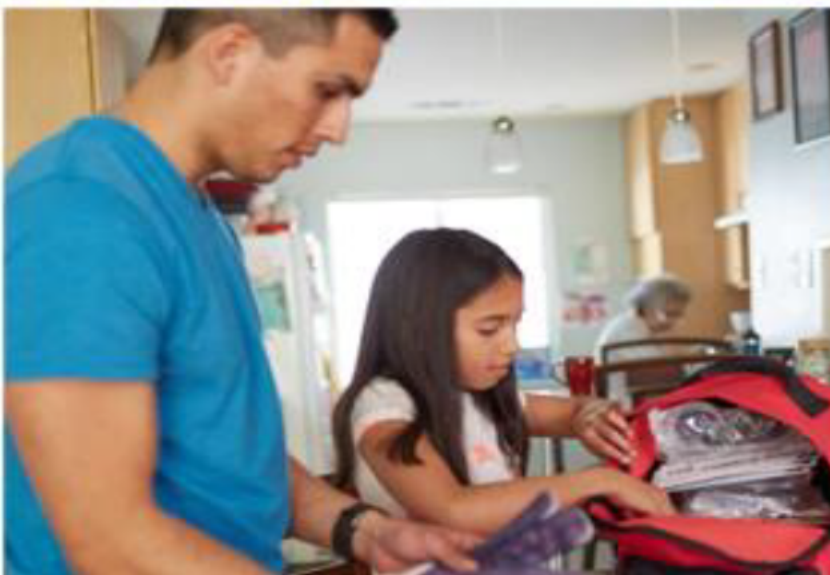




2022 Public Safety Power Shutoff & Wildfire Full-Scale Exercise

June 10 & June 13-17, 2022

Full-Scale Exercise (FSE) After-Action Report (AAR)





HANDLING INSTRUCTIONS

1. The title of this document is the *2022 Public Safety Power Shutoff (PSPS) & Wildfire Full-Scale Exercise (FSE) After-Action Report (AAR)*.
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4. This Report was approved on August 19, 2022 by:

Angie Gibson
Vice President, Emergency Preparedness and Response
Pacific Gas and Electric Company



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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	<p>The overarching exercise objectives align to the following core capabilities:</p> <ol style="list-style-type: none">1. Planning2. Operational Coordination and Communication3. Public Information and Warning4. Situational Awareness5. Critical Resources6. Fire Suppression and Management7. 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>██████████ EP&R Pacific Gas and Electric ██████████</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	FBU	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's	Activation Posture
Materials and Transportation Coordination Center (MTCC)	▪ Logistics	Simulated
All Hazards Incident Management Team	▪ 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)
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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	<p>Exercise objective performed without challenges</p> <ul style="list-style-type: none"> Comprehensively demonstrated compliance with established policies, plans, and procedures
Performed with Challenges	<p>Exercise objective performed adequately, but with challenges</p> <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 A: CORRECTIVE ACTION PLAN

Table A1: Improvement Plan

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
Planning	Lack of clarity in roles/responsibilities between PSPS Plans Deputy Chief and Plans Deputy Chief.	Clarify and define specific roles & responsibilities between PSPS Plans Deputy Chief and Plans Deputy Chief.	PSPS PMO EP&R Response		7/1/22	12/31/22	No; mitigation already in progress



Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of familiarity with changes made to OIC Decision making process from 2021 to 2022.	Provide training to key personnel regarding OIC Decision making changes implemented from 2021 to 2022.	PSPS PMO		7/1/22	10/1/22	No; EOC Commander & OIC Training planned

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of development in microgrid notification files including approval for deployment and vetting process for notifications.	Develop process for microgrid scoping, approval, and deployment.	Temp Gen Customer		7/1/22	10/1/22	No; joint training and process development already in progress between Temp Gen PMO, BUG team, and PSPS PMO
	Inadequate development for Customer Initial and Advanced Priority Notifications, playbooks, approvals, and staging.	Develop or refine standard for Customer Initial and Advanced Priority Notifications, playbooks, approvals, and staging.	PSPS Team Customer		9/1/22	4/30/23	No; suggested development already in progress

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of standard for microgrid substation development, decision-making structure for prioritizing resources, and optimizing public transparency surrounding those decisions.	Develop published utility standard for microgrid substation development, prioritization, and decision-making matrices.	Temp Gen PSPS Tech		7/1/22	10/1/22	No; related utility standard already being drafted
	Lack of adherence to meeting cadence contained in the Planning P; Tactics meeting (when held) did not conform to the expected meeting agenda typical for a tactics meeting	Ensure adherence to standard meeting cadence is trained and reinforced for all personnel, with emphasis on Command & General Staff positions	EP&R Training & Exercises EP&R Response		9/1/22	4/30/23	No; position specific training is in process of being provided to all C&G staff members
Operational Coordination and Communication	Lack of specificity in Liaison job aid regarding Comms Huddle Tasks	Add specificity to Liaison job aid regarding the Comms Huddle process	Liaison PSPS PMO		7/1/22	10/1/22	No; mitigation already in progress

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Comms Huddle, although effective, requires further refinement in areas of sequencing materials, roles, problem solving, and overall clarity	Continue refinement of Comms Huddle protocols and materials	Liaison Customer PIO PSPS Team		7/1/22	9/1/22	No; Already in progress; cross-functional training and drill taking place 8/24/22
	Lack of OEC-specific data in ICS-206 (and likely other forms by correlation)	Ensure OEC-level IAP products are tailored for that division's local infrastructure in drafting the ICS-206 (Medical Plan) and other division-specific IAP forms	Safety		Complete	Complete	No; procedure and collateral already in place

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	<p>Inability to update switching times and ETORs.</p> <p>Lack of adherence to established process regarding playbook development and timeline.</p>	<p>Develop ETOR process at EOC level in coordination with Critical Infrastructure Leads (CIL); place transmission ETOR switching time in TP summary report; provide Foundry training and access to ETEC personnel.</p>	<p>PSPS PMO</p> <p>ETEC</p>		7/1/22	10/1/22	No; mitigants listed in Corrective Action already in progress

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	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.	Evaluate process of restoration playbook development and identify improvements that will lead to enhancements and efficiencies in production of these playbooks. Take PFA into account, with emphasis on AFN Community	PSPS Tech Team Meteorology		7/1/22	9/1/22	No; Evaluation is complete and process improvements have been identified and are in process.



Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of clarity pertaining to the process of taking required mitigation action during a PSPS event for an entity that may or may not be a PG&E customer (with emphasis on what action to take if that entity proves to NOT be a PG&E customer).	Develop process of verifying if a given entity is PG&E customer or another utility's; develop action plan for supporting an entity that is not a PG&E customer, but is affected by the action PG&E takes (including PSPS-related interruptions in service).	Customer PSPS Team		7/1/22	ongoing	No; regular communications with partner IOUs in place and ongoing
	Lack of specific All-Clear scripts and sequencing	Develop All Clear Scripts and sequencing for the Operations Section	PSPS PMO Elec Ops		Complete	Complete	No
Public Information and Warning	Inadequate coordination between Liaison and Agency Reps on live calls or notifications to counties with <50 customer impacts.	Improve or enhance coordination between Liaison and Agency Reps as pertains to live calls or notifications to counties with low customer impacts.	Liaison		7/1/22	10/1/22	No; mitigation in progress

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of formalized Joint Information System.	Evaluate standardizing/formalizing use of JIS across all types of EOC-level events and incidents.	PIO Customer Liaison		9/1/22	4/30/23	Yes
Situational Awareness	Lack of standard for State Executive Briefing (SEB) slide deck and meeting agenda. AHJ changed SEB deck template without notice and the new material is inadequate vs previously established slide deck and agenda.	Align State Executive Briefing slide deck with template provided by Cal OES (requirement to use their template).	Liaison		7/1/22	9/1/22	No; alignment of new material already in progress



Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of inclusion of Logistics Section in Readiness Posture led to delays in initial section activities upon full activation of the EOC.	Review and consider inclusion of at least all Command & General Staff Chiefs and Officers in Readiness Posture activities regardless of incident type or severity.	Logistics PSPS PMO EP&R Planning & Prevention		9/1/22	4/30/23	Yes

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	<p>Inadequate proficiency on the following IAP-related issues:</p> <ul style="list-style-type: none"> - ICS Form 220 – Air Operations Summary - ICS 220 information not sent to the Plans Section Chief - ICS 215A – Aviation Safety not included in the IAP - Pre-filled templates must be reviewed and changed for the current incident/event 	Ensure applicable staff are trained to the full extent on drafting and editing the IAP, including all forms and addendums.	<p>EP&R Training & Exercises</p> <p>EP&R Response</p> <p>Aviation Services</p>		9/1/22	4/30/23	Yes; training and standards not yet developed
Critical Resources	Lack of familiarity with Goods Receipt and Accrual process (F&A).	Provide training on GR and Accruals process to applicable personnel.	Business Finance		Complete	Complete	No; training is readily available for implicated personnel



Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Lack of sufficient staffing to conduct after hour operations in ETEC.	Evaluate possibility of expanding ETEC operations during PSPS Events and/or other critical incidents to cover overnight period with on-call personnel to provide support to critical activities.	ETEC		N/A	N/A	Yes

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	<p>1. Ineffective communications regarding allocation and staging of Mutual Assistance resources; OEC IC was informed he was getting 100 crews when in fact MA was only staging in the area for deployment to other divisions</p> <p>2. Lack of awareness and training regarding parameters and functional process of requesting, procuring, and deploying Mutual Assistance crews</p>	Review and publicize Mutual Assistance procedures to ensure key personnel are aware of how MA crews are obtained, on-boarded, and deployed to field sites. Ensure all external agencies are aware of MA process status when crews are deploying to California from out of state. Standardize government authorization as part of MA activation process	EP&R Response		9/1/22	12/31/22	Yes
	Insufficient user-level training in Foundry.	Improve frequency or content of Foundry training for non-PSPS Plans Section users, and ensure advertisement of training opportunities.	PSPS PMO		Complete	Complete	No; training has been developed and is readily available, training will be advertised

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Inadequate ability to track completion of sign in/sign out, including real-time tracking for emergency accountability.	Evaluate and improve as applicable process sign in/sign out function to enhance personnel safety and accountability.	EP&R Response		7/1/22	12/31/22	No; mitigation in progress
	Inadequate use of the ICS-214 Incident Log form; total number of submissions was far short of the requirement (total number of responders x number of Operational Periods).	Enforce timely submission of the ICS-214 Incident Log form across all positions; standard is one ICS-214 per responder per Operational Period.	EP&R Response		9/1/22	12/31/22	Yes; standard is in place, but adherence is far below 100%

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	<p>1. Lack of alignment between use of ICS-220 and existing web-based helicopter dispatch platform.</p> <p>2. Lack of clarity regarding helicopter availability by season (60+ helicopter fleet is only during peak season, in June it is closer to 30).</p>	<p>1. Align ICS forms with existing web-based aviation dispatch and tracking platform.</p> <p>2. Align expectations regarding aviation asset availability based on time of season.</p>	<p>Aviation Services</p> <p>EP&R Response</p>		9/1/22	4/30/23	Yes
	<p>Lack of alignment regarding full-time Law Officer switch to on-call Legal Advisor.</p> <p>Inadequate availability of Legal Advisor for other EOC sections requiring legal review of documents and actions.</p>	<p>Review situations where Legal Advisor must be present; standardize cadence for meeting attendance and availability to EOC sections other than the EOC Commander; alternatively, restore previous format of full-time Law Officer attending all EOC activations, subject to leadership decision</p>	<p>Law</p> <p>EP&R Response</p> <p>EP&R Planning & Prevention</p>		9/1/22	4/30/23	Yes

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
Fire Suppression and Management	Inadequate or unclear process for status or prioritization of F Tags on EPSS-enabled circuits during a PSPS Event where the circuit is impacted by a wildfire.	Standardize process for prioritization or consideration of F Tags on EPSS enabled circuits in situations that require doing so.	EPSS Electric Distribution		9/1/22	4/30/23	Yes
	Lack of emergency response plan for Temp Gen sites impacted by encroaching wildfire.	Develop wildfire-centric emergency response plan for Temp Gen sites with the following components: <ul style="list-style-type: none"> - Personnel actions and priorities - Procedures for sites requiring personnel that have been evacuated, with emphasis on those requiring power to remain energized even if evacuated - Strategy and policy for management or removal of volatile fuels on site - Establish authority for decision making matrices 	Temp Gen		9/1/22	4/30/23	Yes

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
Exercise Design	Lack of adherence to exercise player roster, phone book and instructions provided during Player and C/E/S training- personnel that were not participating in the FSE were pulled into the exercise space by players, which was outside of design parameters.	None needed this was a participant performance issue. Extensive training, instructions and documentation was provided prior to and during the exercise.	EP&R Training & Exercises		N/A	N/A	No;
	Opportunity to refine Meteorology products/presentation by having Controller only- having a separate Player not required.	Exercise Design: Substitute Meteorology Player for a Controller; Met products and briefings can be published by the Controller.	EP&R Training & Exercises		N/A	N/A	No; include in future exercise design processes

Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	<p>1. Inadequate revision of global ETORs at EOC level after de-energization resulted in customers given inaccurate restoration times.</p> <p>2. Lack of alignment between REC-recommended take out time and take out time listed in Foundry.</p> <p>3. Perceived lack of alignment between Foundry SitReps and OMT.</p>	<p>1. Exercise Artificiality- in a real event this task is performed during the night shift, which was largely simulated for this FSE; For future exercises, consider employing a dedicated simulator to operate OMT in QA mode, and address any reliability issues through IT.</p> <p>2 & 3. Exercise limitation due to use of QA mode in OMT- per ED and PSPS Tech SMEs these would not occur in the live system.</p>	<p>Electric Distribution</p> <p>PSPS Tech</p> <p>EP&R Training & Exercises</p> <p>Electric Distribution</p>		N/A	N/A	No; exercise artificiality/limitation that will be evaluated for simulator resource addition.
	Lack of responses from employees contacted via Everbridge mass notification for wildfire evacuation.	N/A- Exercise limitation- Everbridge does not provide responses to message queries when it is in QA mode; in future exercises, add this parameter to player briefing.	EP&R Response		N/A	N/A	No; system functioned as designed in QA mode



Core Capability	Area for Improvement	Corrective Action	Responsible FBU	FBU Point of Contact	Start Date	End Date	CAP Needed
	Opportunity to enhance external agency integration by providing them scenario injects directly into the Master Scenario Events List (MSEL).	In future Full Scale Exercises, consider integrating external agencies into the PG&E FSE MSEL, if that agency is also conducting an FSE, subject to stakeholder agreement.	EP&R Training & Exercises		N/A	N/A	No; suggested action represents an enhancement and is not tied to any deficiency or compliance requirement
	Lack of collateral development in Exercise products for wildfire scenario.	Update exercise design standard to include ancillary collateral products for all types of scenarios including wildfires.	EP&R Training & Exercises		9/1/22	4/30/22	No; hold for exercise design standard development

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		I
Liberty Utilities		I
Southern California Gas		I
XCEL Energy		I
Community Based Organizations		
CFILC	X	
211 of California	X	
United Way of Northern California		I
Connecting Point		I
Family Resource & Referral Center- San Joaquin		I
DDARC		I
Redwood Coast Regional Center		I
Tribal Partners		
Cloverdale Rancheria		I
Pinoleville Rancheria		I
Hopland Tribe		I
Hoopla Tribe		I