

Pacific Gas and Electric Company's Second Progress Report on Phase 2 OIR Implementation of De-Energization Guidelines



December 7, 2020

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2020 PSPS Overview and Performance Summary

Pursuant to Decision (D.) 20-05-051, Ordering Paragraph (OP) 4, Pacific Gas and Electric Company (PG&E) submits this progress report to the Director of the California Public Utilities Commission's (CPUC or Commission) Safety and Enforcement Division (SED) detailing its progress towards implementing the adopted "Phase 2 Guidelines in Addition to Appendix A of Decision 19-05-042 and Resolution ESRB-8."

On August 4, 2020, PG&E submitted its first progress report on Phase 2 OIR Implementation of De-Energization Guidelines (First PSPS Phase 2 Progress Report), which outlined its plans and initiatives regarding the Appendix A compliance requirements for Public Safety Power Shutoff (PSPS) events. This second report supplements PG&E's August 4, 2020 report and provides updates on the implementation, achievements, and lessons learned during the first five PPS Events of the 2020 wildfire season. Additional details regarding PG&E's progress in implementing the Commission's guidelines can be found in numerous reports filed by PG&E this year as outlined in *Appendix A: Relevant WMP and PPS-related Reports and Web Resources* in this report. These reports referenced include, among others, PG&E's ESRB-8 post de-energization event reports, our biweekly reports submitted in compliance with the Assigned Commissioner's Ruling (ACR) issued January 30, 2020, in R.18-12-005, our PPS Access and Functional Needs (AFN) Plan and Quarterly Progress Reports.

Overview of Compliance Requirements

From November 2019 through November 2020, PG&E was deeply focused on preparing for and effectively implementing successful, customer-centric execution of any necessary PPS events during 2020 fire season. The CPUC's requirements to submit PPS progress reports helped PG&E articulate those on-going efforts and priorities.

The CPUC's listed compliance and progress report requirements from Appendix A of Decision 19-05-042 are discussed in later sections of this report. These topics were key elements of PG&E's preparations to execute this year's PPS events that were deemed necessary to protect public safety against the threat of catastrophic wildfires. PG&E's actual performance executing PPS events is the ultimate test of our implementation of the Commission's guidance and priorities with respect to PPS readiness. Therefore, this report opens with summary information on the performance of PG&E's five 2020 PPS events up to December 1 and follows with brief accounts on the specific requirements in the CPUC's reporting directives.

2020 PPS Implementation Performance Summary

The CPUC's guidance has been that PPS events should be executed only when required to protect public safety against the threat of catastrophic wildfires caused by utility equipment; that there must be a balance between the danger posed by potential wildfires and the danger posed by power shutoffs; that the events need to inconvenience as few customers as safety requires; that customer and governmental preparation and notification are essential to reduce the disruptions associated with power shutoffs; and that those shutoffs should be as short as possible subject to safe system operation. PG&E has rolled these goals into the operational shorthand that if we must call a PPS event as a last resort to protect public safety, a PPS event should be smaller, shorter and smarter. This set of goals became even more important once the COVID-19 pandemic spread across the state, increasing the consequences and costs of a power outage to both individuals and to our society as a whole.

During the 2020 Wildfire season, PG&E did make PSPS events smaller, shorter and smarter. For instance, the October 25 event was PG&E's largest PSPS event in 2020, with a weather footprint similar to the large weather footprints experienced in October 2019, which impacted approximately 750,000 customers. But this year, use of improved scoping techniques and mitigation strategies enabled PG&E to de-energize approximately half of the customers than we would have for the same weather event in 2019. PG&E re-energized customers, reducing time out of service in part by using more helicopters for aerial patrol and restoration efforts after the Weather All Clear was declared for affected circuits. On an aggregate basis, average outage duration after weather "All Clear" for the five PSPS events to date, improved by over 40% compared to the corresponding level for PSPS events in 2019.

PG&E has been working to reduce the impacts of severe fire weather upon the breadth of our electric system that must be de-energized, leveraging measures such as improved weather forecasting, greater use of sectionalization and switching, and other factors. We have significantly reduced the size of each PSPS weather scope using improved 2020 scoping methods relative to PSPS event scoping in 2019, resulting in a reduction of approximately 50% of the customer for the first five PSPS events. That has reduced the number of circuit miles and customers that were de-energized this year compared to our capabilities in 2019.

Apart from PG&E's improved execution of PSPS events in September and October 2020, we also delivered on many of the CPUC's and PG&E's goals to make PSPS events less burdensome for our customers. The accomplishments to serve our customers described below benefited from extensive input over the past year from PG&E's advisory councils, regional councils, customer input and state and local officials.

For the first five PSPS events of 2020:

- We reduced the customers impacted by over 50% compared to the 2019 PSPS program through the use of islanding, temporary generation, switching and enhanced meteorological guidance.
- We notified over 99% of the affected customers in final PSPS scope prior to de-energization, despite the fact that in-event weather shifts caused PSPS de-energization footprint changes in every event. These notifications included improved content that was tested for usability and accessibility that has simple and straightforward messaging with relevant event information (e.g., location of impact(s), estimated time of shutoff and restoration).
- We also notified over 99% of impacted Medical Baseline Customers within PSPS scope through automated notifications and in-person door visits, if needed, thanks to extensive efforts to secure customer contact information and provide education about the PSPS event notification process. We also increased Medical Baseline program enrollment by 26% since the start of 2020 – from approximately 193,400 to over 243,400 customers.
- We developed partnerships with 56 Community-Based Organizations (CBOs) to help enable us support customers with access and functional needs (AFN customers) with resources before, during and after PSPS events. These partnerships included 21 food banks, 18 Meals on Wheels organizations, 16 Independent Living Centers, and 1 grocery delivery organization. Together we were able to provide 30,000 food boxes to vulnerable customers, conducted approximately 9,540 customer energy assessments for backup power support, delivered approximately 4,000 batteries to qualifying customers through the Portable Battery Program and Disability Disaster Access

Resources Program, served approximately 4,500 customers with services including food replacement, gas vouchers, hotel stays, grocery delivery and accessible transportation.

- We establish and leveraged new partnerships in 2020 with 36 multi-cultural media organizations and five in-language CBOs, we were able to amplify our translated customers support by sharing PSPS preparedness, awareness and status information broadly across PSPS-affected areas in 20 non-English languages and American Sign Language, using a variety of social media, news, written material, and more.
- We maintained a stable website and responsive call center support throughout events. PG&E's main website (pge.com) is prepared to handle 400 million hits per hour and our emergency website, which maintains the PSPS event update information, can serve 240 million hits per hour. During PG&E's largest event of 2020 (October 25), top traffic to these websites only reached 1.3 million hits per hour and 2 million hits per hour, respectively. PG&E's call center answer PSPS-related calls with an average speed of answer within 5 seconds.
- PG&E provided 106 ADA-compliant, COVID-19-safe Community Resource Centers (CRCs) in the largest PSPS event (October 25, 2020) to support customers in affected local and tribal communities, providing snacks and a variety of resources and information at each CRC. Nearly 50,000 customers visited our CRCs during the five 2020 PSPS events to date; we have 357 indoor and outdoor sites ready to serve customers and another 11 will be ready by the end of the year.

Lessons Learned

As recognized by our community partners and interested stakeholders, PG&E's implementation of 2020 PSPS events is improved compared to our de-energization events in 2019 – smaller in scale, shorter in duration and smarter for our customers. However, we know and recognize that more work lies ahead to reduce the burden of PSPS de-energization upon the customers and communities we are privileged to serve. This section highlights some of the lessons learned and challenges identified for the months ahead.

PSPS Execution Capabilities

- Shifting weather – PG&E's meteorology scoping tools are much improved, but it remains challenging to predict and respond to real-time weather shifts without confusing customers who come into scope or out of scope due to changing weather conditions as the event approaches. Going forward we will continue to improve the scoping process, tools and solutions on both the technical meteorology side and by seeking input from our regulators, local officials, customers, and others.
- Weather All Clear and system restoration – PG&E will continue to improve the processes with which we identify Weather All Clear conditions and manage system restoration, particularly with respect to deploying asset inspection and qualified electrical workers more effectively across a broad geographic PSPS impact span. Because PG&E has a large electric system with a large span of critical fire weather areas, we have consistently had numerous de-energization areas with many different weather timings. This has made it difficult to manage Weather All Clear identification and translate those clearances into effective asset patrol and restoration measures, and those in turn complicate the process of determining Estimated Time of Restoration (ETOR). This will be a major priority for PG&E as we prepare for the 2021 fire season.

- Virtual EOC – To protect our core staff and leadership against exposure to COVID-19 and the risk of losing key personnel and PSPS execution capability, PG&E conducted our summer readiness exercises and the PSPS events in 2020 using virtual EOC operation. We continue to adapt and evolve our use of virtual meeting and file dissemination platforms effectively. Our performance on virtual platforms worked well this year, but it leaves us more vulnerable to potential communications and connectivity losses. We must find ways to remain effective in fully or partially virtual operation, while developing more protections and provisions against a future “tech down” situation.
- SEMS and Incident Command System – This summer, PG&E implemented Standardized Emergency Management System (SEMS)/Incident Command Systems (ICS) training; more than 600 EOC members have received Phase 1 training or beyond. This structure served us well when the PG&E EOC had to handle the overlapping October 21 and October 25 PSPS events using parallel sets of teams under a single incident command structure. We will continue to evolve and enhance our training program so that our teams are even better prepared for the 2021 fire season.
- Scope Mitigation Options – During the 2020 PSPS events to date, PG&E has been able to reduce the number of customers who must be de-energized through the use of islanding, microgrids, switching solutions and temporary generation to keep many customers energized where it is safe to do so. We will be looking for additional opportunities to use these techniques to protect more customers in the future. As PG&E’s ability to narrow the scope of these events improves, we expect to see future PSPS weather scopes affect the customers in highest fire risk areas repeatedly. This will challenge us to identify ways to reduce impacts on those customers and communities, as by using temporary generation with microgrids and asset hardening to keep core communities and services safe to energize.

Customer, Stakeholder, Partner and Public Communications

- Customer Notifications – PG&E will continue to identify opportunities to improve the notifications, such as conducting new message testing with customers and attempting to shorten the automated phone calls (while still complying with the required content), streamlining non-PSPS-related outage notifications that can overlap with PSPS-related notifications (e.g., rotating outages), and improving the process of removing customers impacted by recent wildfires from the PSPS-related notifications. PG&E will also look to make improvements to notifications to public safety partner customers, namely telecommunication providers based on feedback received from during the 2020 PSPS event season.
- PSPS Portal – PG&E’s external PSPS information repository or Portal, offers required and optional information about the PSPS event and affected customers and locations through the planning, de-energization and restoration phases of the PSPS event. It is intended to share needed information effectively with local officials, EOC partners, Public Safety Partners, and others. However, many partners were frustrated by delays in the timeliness and accuracy of the information posted on the Situation Report, and PG&E will be consulting with our partners on how to improve the PSPS Portal for 2021.

- Cal OES Coordination -- With the transition to the updated Cal OES State Notification Form this year, both PG&E and Cal OES experienced problems with how and when to use the Cal OES forms to meet the agency's event-specific information needs in a timely fashion. PG&E's Liaison team will be working with Cal OES to align on data needs and form and submission process improvements.
- Public and Partner Briefings – PG&E routinely held daily, live-streamed public briefings during the 2020 PSPS events to update the public, media, public safety partners and other stakeholders about the PSPS event status.¹ These briefings featured a weather briefing by PG&E's Meteorologist, a PSPS status description by the EOC Incident Commander, and a representative from PG&E's Customer Strategy EOC Section to talk about measures being taken to support PSPS-affected customers. We held similar, but more technical, dedicated briefings and coordination calls with state officials, local officials, tribal representatives, and CBO partners. These briefings were well-received and will be continued in future events.
- CBO and Public Safety Partner Coordination – Through various methods (e.g., survey, listening sessions, after action meetings), PG&E is obtaining feedback from our public safety partners (e.g., county and tribal emergency coordinators, communications and water providers, hospitals, municipal utilities, CBO resource partners) to seek feedback on how we can improve our performance in the future. We look forward to receiving and addressing their input. In the spirit of building stronger relationships to help everyone succeed together, we will be hosting virtual meet-and-greets by region with our CBOs to facilitate better coordination between those entities. We will also benchmark on best practices with our electric IOU partners.

¹ For example, see the September 26, 2020 briefing at <https://www.youtube.com/watch?v=MWeZsubSI0k>.

Progress Update on Meeting CPUC Phase 2 De-Energization Guidelines

The following describes PG&E's progress in meeting CPUC Phase 2 De-Energization Guidelines since last reporting our first progress updated on August 4, 2020.

1. Advisory Boards and Working Groups

PG&E benefits from input and guidance from a number of working groups, committees and advisory boards. PG&E's approach to soliciting advice from key stakeholders on all aspect of PG&E's PSPS program emulates the approach SDG&E has implemented. Due to the difference in the size of PG&E's territory compared to SDG&E's territory, and feedback received from key stakeholders, PG&E has de-centralized the structure of its advisory groups. However, the overall goals and objectives of the stakeholder collaboration process remain largely the same.

1.1 PSPS Regional Working Groups

PG&E's first quarterly regional working group meetings were held in the following five established regions between July 27-29, 2020: North Coast, North East, Bay Area, Central Valley, and Central Coast. The purpose of these meetings was to:

- Review and solicit input on PG&E's regionalization model;
- Inform PG&E's efforts to reduce the impact of PSPS events on our communities and customers;
- Provide feedback on communications and information sharing before, during and after events;
- Gather feedback on PG&E's Community Resource Center plan and COVID-19 contingency response plan; and
- Identify other concerns and gaps.

For more information on the feedback, action items and list of attendees for these meetings, please reference the Community Wildfire Safety Program Regional Working Groups Quarter 3 2020 Summary (filed on September 9, 2020).

PG&E will be hosting its Q4 2020 regional working group sessions starting December 7 and continuing through December 16, 2020 to receive additional feedback on the following topics:

- 2020 PSPS event overview and lessons learned;
- CRC locations and offerings;
- Support for customers with medical and independent living needs;
- Frequency and content of customer and agency notifications;
- PSPS Portal and customer website user experience; and
- Wildfire safety efforts.

PG&E will submit a summary of these working group meetings by early January 2021.

Working Group Feedback

Examples of feedback we received during our 2020 Q3 working group meetings include:

- Provide low-income and aging communities and residents with cooling centers during PSPS events to accommodate medically related cooling needs;

- Ensure CRC personnel are informed on county ILC information/resources to offer additional support to individuals with access and functional needs;
- Provide PSPS Policies & Procedures document to all regional working group participants;
- Implement mobile CRCs for individuals that are not able to travel to one, as experienced last year; and
- Suggestion for PG&E to create a smartphone application for outage information and notification, as web-based portal has been a challenge to navigate in the past.

We are currently incorporating feedback received during these working group meetings into our PPS efforts and have already ensured our CRC staff are fully equipped to support those with medical needs and aware of the additional resources made available to these individuals through our California Foundation for Independent Living Centers (CFILC) grant program. We will continue to incorporate feedback into our plans and conduct additional outreach to these audiences to better collaborate on de-energization protocols. Our 2020 Q4 working group meetings are scheduled to take place the week of December 7 through December 14.

1.2 PPS Advisory Committee Meetings

Since last reporting progress in our August 2020 PPS Phase 2 Progress Report, PG&E hosted three PPS Advisory Committee meetings. Table 1 below includes a summary of the meeting agendas.

Table 1: Overview of PPS Advisory Committee Meetings Held

Date	September 3, 2020	October 8, 2020	November 19, 2020
Agenda	<ul style="list-style-type: none"> • Provide update on PPS Portal improvements • Share PPS Exercise lessons learned and solicit additional feedback • Garner feedback on COVID-19 PPS EOC considerations • Gather input on PPS notifications • Provide update on PPS Policies and Procedures 	<ul style="list-style-type: none"> • Discuss PPS Portal feedback and 2021 improvements planned • Review overview of recent PPS events customer impacts • Listen and gather feedback on recent PPS events • Provide update on CWSP local progress reports 	<ul style="list-style-type: none"> • Provide overview of 2020 PPS events • Review PPS agency survey results • Share updates to PPS Policies and Procedures • Review plan for 2020 PPS Listening Sessions • Gather feedback on preliminary plans for 2021 outreach and key focus areas

1.3 Customer-Focused Working Groups and Advisory Boards

PG&E continued engagement with three customer-focused working groups and advisory boards throughout the Fall of 2020, including the PG&E and Telecommunications Resiliency Collaborative, the People with Disabilities and Aging Advisory Council (PWDAAC), and the Statewide IOU AFN Advisory Board.

1.3.1 PG&E and Telecommunications Resiliency Collaborative

We initiated this coordination group in early 2020 as a forum for communications providers to provide feedback on PG&E’s current PPS implementation protocols and coordinate engagement before and

during PSPS events. Since last reporting on August 4, 2020, PG&E has held two sessions with Communications providers:

- On August 26, 2020, the coordination group met to review PG&E's 2020 CWSP and PSPS-related efforts and preparations, provide an update regarding the Cellular Telecommunications Industry Association (CTIA) and Edison Electric Institute (EEI) collaborative efforts at the federal level, and provide other legislative-related updates. Attendees included representatives from AT&T, Verizon Wireless, Comcast, Charter Communications, Frontier Communications, T-Mobile, Consolidated Communications, US Cellular, Sierra Telephone and CTIA.
- On October 8, 2020, representatives from Verizon, AT&T, Comcast, T-Mobile, US Cellular, Charter Communications and Cox Communications provided feedback to PG&E, CPUC, and CalOES about the September 2020 PSPS events. Feedback was generally positive, with improvements recommended for more accessibility to PSPS event information, including maps in the PSPS portal and the support role provided during PSPS events by the Critical Infrastructure Lead (CIL). Other specific feedback was provided, including several suggestions for the use and content of the PSPS Portal.

1.3.2 People with Disabilities and Aging Advisory Council (PWDAAC)

Launched in April 2020, this Council is comprised of representatives of the Access and Functional Needs (AFN) community and provides insight into the needs of AFN populations related to emergency preparedness and to facilitate co-creation of solutions and resources to serve the customers reliant on power for medical needs before, during and after a PSPS event in PG&E's territory. PG&E invited all PWDAAC members as observers to a full-scale, five-day PSPS exercise held from August 3 – 7, 2020. In addition, PG&E conducted virtual PWDAAC meetings (due to COVID-19 restrictions) and will continue this approach until it is safe to move to in-person meetings. The Council meetings are currently planned to occur quarterly moving forward now that we have completed the series of initial monthly meetings to establish the group and gain momentum. To date in 2020, we have convened eight PWDAAC meetings on a monthly basis on the following dates (three additional meetings included since last reporting on September): April 30, May 29, June 26, July 31, August 28, September 18, October 5, and November 2, 2020. The detail and outcomes of these meetings are described in PG&E's September 2020 Quarterly PSPS AFN Progress Report (at p. 3) filed on September 1, 2020, and December 2020 Quarterly PSPS AFN Progress Report (at pp. 3-4) filed on December 1, 2020.

1.3.3 Statewide IOU AFN Advisory Council

In June, PG&E, Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) established the Statewide IOU AFN Advisory Council (Joint Council). The Joint Council is a diverse group of recognized Community Based Organizations (CBOs), association and foundation leaders supporting the AFN population, and leaders from various state agencies. It provides insight into the unique needs of the IOUs' most vulnerable customers and stakeholders, offers feedback, makes recommendations, and identifies partnership opportunities to serve the broader AFN population before, during, and after a PSPS event. To date in 2020, we have convened six meetings. The detail and outcomes of these meetings are described in PG&E's September 2020 Quarterly PSPS AFN Progress Report (at p. 3) filed on September 1, 2020, and December 2020 Quarterly PSPS AFN Progress Report (at pp. 3-4) filed on December 1, 2020.

Examples of Actions Taken Based on Feedback from Customers, Working Groups and Advisory Councils

As a result of feedback, we received during our outreach and coordination engagements with cities, counties, tribes and other public safety partners, PG&E:

- Improved the Community Resources Center (CRCs) program by coordinating with counties on locations, increasing resources available at CRCs, expanding delivery models and implementing COVID-19 precautions;
- Adjusted the organization of and language on www.pge.com/disabilityandaging (the web page detailing resources for the access and functional needs community);
- Starting on October 12, PG&E implemented daily CBO Resource Partner Coordination Calls at 12:30 p.m. during PSPS events to improve overall coordination of resources during PSPS events, connect various resource partners, and share best practices;
- Added Statewide IOU AFN Council members to the early PSPS notification distribution;
- Improved the PSPS Portal for public safety partners by creating a live, interactive PSPS event map, providing circuit-level map overlays with information about local electric infrastructure and providing access to critical facilities and Medical Baseline customer lists;
- Expanded critical customer support by continuously updating critical customer lists in coordination with counties, supporting COVID-19-essential hospitals in high fire-threat areas, regularly engaging with telecommunications providers (including multiple notifications tests), conducting listening sessions and webinars with large customers and critical service providers and creating resiliency plans for vote tabulation centers; and
- Starting in October 2020, PG&E also began distributing quarterly updates to county offices of emergency services, tribal agencies, local government officials and customers regarding local progress on efforts to reduce wildfire risks and PSPS impacts. These quarterly reports are available online at www.pge.com/cwsp.

PG&E also conducted outreach to customers in impacted communities to gather feedback and improve coordination before, during and after PSPS events. As a result of feedback from customers, PG&E:

- Enhanced customer notifications by providing more detailed information two days in advance of a PSPS event (including restoration times and links to customer resources);
- Upgraded the PSPS website by increasing its capacity for website visitors, making it fully ADA-accessible, improving PSPS event maps to be more granulated and translating it to 16 non-English languages;
- Updated PSPS educational materials to be easier to understand and include information that was more relevant to customers;
- Conducted regional webinars to provide community-specific information about wildfire safety work and PSPS mitigation efforts; and
- Provided county-by-county updates on wildfire safety progress to give an open look into local work.

2. De-energization Exercises

Full-Scale De-energization Event Exercises

PG&E’s August 2020 Phase 2 PSPS Progress Report described the two three-day, full-scale PSPS event exercises completed in June and July 2020. The third and final PSPS event exercise was a complex, five-day exercise held the week of August 3, 2020, which focused on PG&E’s Northern Region. The EOC activated in a virtual posture for this final exercise and activated Regional Emergency Centers and Operations Emergency Centers to test EOC coordination with field patrol activity. The August exercise featured a complex weather event across a large geographic and customer scale, challenging key PSPS processes across our teams.

The three de-energization exercises focused on areas that have a high chance of being impacted by PSPS. In addition to the areas of highest risk for PSPS, PG&E also expanded the scope of the exercises to ensure that every division with assets in Tier 2 and Tier 3 HFTDs participated in one of the three exercises.

Exercise participants and observers included Regional Emergency Center and Operation Emergency Center personnel, representatives from CPUC, CalFire, Cal OES, CCAs, communications providers, representatives of people and communities with AFN, and other public safety partners, including water agencies, transportation providers, and hospital councils. Table 2 below includes detail of the scope of the mock event that was tested during the exercise.

Table 2: Scope of August 3 – 7, 2020 PSPS Full Scale Exercise: North Region

Impacted Area	Northern Sierra foothills, northern Sacramento Valley, and elevated Humboldt and North Bay terrain	
Initial PSPS Scope	Playbook A-01 <i>Counties: 18</i> <i>Customer Count: 272,054</i> <i>Medical Baseline Customers: 16,150</i> <i>Transmission Lines: N/A</i> <i>Distribution Circuits: 229</i>	
Final PSPS Scope	Playbook D-01, Rev1 <i>Counties: 21</i> <i>Customer Count: 358,864</i> <i>Medical Baseline Customers: 21,371</i> <i>Transmission Lines: 37</i> <i>Distribution Circuits: 293</i>	
Event Time Details	<i>De-energization Initiated: 12:15 08/06</i> <i>De-energization Completed: 16:15 08/06</i> <i>Weather All-Clear: 08:52 08/07</i> <i>Expected Restoration: 16:00 08/07</i>	
Full-Scale Patrols	<i>Patrolled Circuits: 12</i>	

PG&E used this exercise to train EOC and remote staff while testing and validating several PSPS tools and processes:

- Implementing a PSPS event in a virtual environment following COVID-19 social distancing and safety orders;
- Automated transmission and distribution playbook development;
- Implementing agency and customer notifications;
- Submission of the updated online PSPS State Notification Form;
- Identifying CRCs based on event scope;
- Assigning temporary generation for backup power support at substations and critical customer facilities;
- Identifying creative switching solutions to reduce customer impacts;
- Holding system-wide cooperators calls and operational area cooperators calls;
- Enabling improved PSPS portal access for public safety partners to share maps, customer lists, and event information with agencies; and
- Developing and executing safety patrol collateral and actual patrols of two circuits per division with aircraft and field employees as part of the system restoration process.

The exercise showed that many of our processes and tools worked as designed, while identifying opportunities for improvement including further PSPS tool refinement, the need for common situational awareness and data, and the need to further strengthen EOC processes, roles and interdependencies with additional ICS training, job aids and updated process documents.

Lessons Learned

Some of the lessons learned from the 2020 PSPS exercises are outlined below:

- **Maintaining an Effective Battle Rhythm Across the Response Structure:** While players adhered to PSPS-specific operational procedures, players did not integrate the PSPS meeting cadence into the all-hazards ICS planning cycle.
- **Establishing a Common Operating Picture:** Although players adapted to and leveraged the capabilities of the virtual environment, the teams across all three exercises did not sufficiently establish a common operating picture throughout the EOC making it difficult to consistently locate accurate and timely data.
- **Building Common Understanding of Roles, Responsibilities, and Interdependencies:** During the exercise series, players across multiple teams did not always understand the dependencies between EOC sections.

These observations were shared with participants of the PSPS Advisory Committee on Sept. 3, 2020 and Regional Working Group participants during the 2020 Q3 meetings. Following the exercises, PG&E sent a survey to participating counties to gather feedback. PG&E plans to adjust the 2021 PSPS exercises based on the feedback received. We did not share lessons learned with all participants of the PSPS exercises but will plan to do so moving forward.

CBO Resource Partner Tabletop Exercises

On July 27 and August 19, 2020, PG&E coordinated two tabletop exercises directly with the California Foundation for Independent Living Centers (CFILC) and local Independent Living Centers (ILC). The purpose of these exercises was to test the in-event communications processes planned with PG&E's newly established point of contact for CBOs. Over 10 individuals from PG&E, CFILC and ILCs tested the Advance and Watch notifications and Medical Baseline customer escalation and response processes. The exercises allowed PG&E and our partners to validate communications plans, test coordinated escalation support responses, and identify further work needed to enhance joint readiness.

3. Who Should Receive Notice, When Should Notice Occur, and How Should Notice Occur?

PG&E addressed the majority of this section's compliance obligations in our first PSPS Phase 2 Progress Report filed on August 4, 2020 (at pp. 6 – 8), and explained implementation in PG&E's ESRB-8 event reports for the five PSPS events held in 2020 as of writing this report. Table 3 below summarizes where the reader can find a description of PG&E compliance in our First PSPS Phase 2 Progress Report, ESRB-8 post de-energization event reports, and/or other compliance filings related to PSPS or the Wildfire Mitigation Plan (WMP) proceedings.

Table 3: Customer Notifications Compliance Summary

D.20-05-041 Compliance Requirement	PG&E's Record of Compliance
The electric investor-owned utilities shall utilize all reasonable channels of communication to all populations potentially affected by a de-energization event.	PG&E explained its channels of communications to all potentially affected by a de-energization event in its August 2020 Phase 2 Progress Report <i>Section 3.1 PSPS Event Communication Channels</i> (at pp. 6-8). Additionally, PG&E explains all of the specific channels of communications used during each of its 2020 PSPS events in each ESRB-8 post de-energization event reports found at www.pge.com/pspsreports (See Section 6 – Customer Notifications).
The electric investor-owned utilities shall develop communication and notification plans jointly with CalOES, county and local governments, independent living centers, and representatives of people/communities with access and functional needs. The plans shall anticipate the disruption of traditional communication channels and provide contingency alternatives.	PG&E explained its communication and notification plans, developed with the various stakeholders as required in its August 2020 Phase 2 Progress Report <i>Section 3.2 PSPS Communication Plan Coordination, Section 3.2.1 Coordination with Local Agencies, and Section 3.2.2 Coordination with Representative of People and Communities with Access and Functional Needs</i> (at pp. 8-10). Additionally, PG&E explains all of the specific communication processes and channels used during each of its 2020 PSPS events in the ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications, Section 7 – Local Community Representatives Contacted, and Section 8 – Local and State Public Safety Partner Engagement).
In situations where internet, cellular, or landline-based communication services are limited, the electric investor-owned utilities shall coordinate with public safety partners to use in-language public alert systems and public radio broadcasts in de-energization impacted areas.	PG&E explained alternate means of communication in <i>Section 3.2.3 Communication during limited internet, cellular, or landline-based service</i> and <i>3.1.3 PG&E Coordination with Third Parties to Share Event Information</i> . Tactics include, but, are not limited to using traditional media like radio broadcasts, social media, Public Safety Partners collaboration leveraging Nixle and Reverse 911, CBO networks including multi-cultural CBOs, 211 and Google SOS alerts. Additionally, PG&E explains all of the specific communication processes and channels used during each of its 2020 PSPS events in

D.20-05-041 Compliance Requirement	PG&E's Record of Compliance
	the ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Each electric investor-owned utility shall ensure there is sufficient bandwidth capacity, either via a cloud service or on-premise, to manage a website that provides public safety partners and the general public with access to information about the geographic areas impacted by potential and active de-energization events and all other critical information to maintain public safety prior to, during, and after a de-energization event.	PG&E explained website bandwidth capacity in its August 2020 Phase 2 Progress Report <i>Section 3.3 Website Bandwidth</i> , and <i>Section 3.3.1 Website Performance Protocol</i> (pp. 10-11). Additionally, PG&E explains specific website performance during each of its five 2020 PSPS events in the ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Each electric investor-owned utility shall create and maintain an actionable plan that ensures necessary bandwidth is immediately available and consistent up to and through a de-energization event. Each electric investor-owned utility shall have bandwidth and technological resources available to serve all peak demand that may occur as a result of a de-energization event.	PG&E explained website bandwidth capacity in its August 2020 Phase 2 Progress Report, <i>Section 3.3 Website Bandwidth</i> , and <i>Section 3.3.1 Website Performance Protocol</i> (pp. 10-11). Additionally, PG&E explains specific website performance during each of its five 2020 PSPS events in the ESRB-8 PSPS Event Reports (See Section 6 – Customer Notifications).
Each electric investor-owned utility shall consult with the California Department of Technology (CDT) to develop a plan (submitted to the CPUC) that outlines steps for meeting future website and server performance requirements necessary for effective and uninterrupted communication to the general public regarding de-energization events.	PG&E explained consultation with CDT in its August 2020 Phase 2 Progress Report, <i>Section 3.3.1 Website Performance Protocol</i> (p. 11). The website and server performance plan referenced in the same report in <i>Sections 3.3 Website Bandwidth and 3.4 Precise and Accurate Communications</i> (pp. 10-12). Additionally, PG&E explains specific website performance during each of its five 2020 PSPS events in our ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Each electric investor-owned utility shall ensure that the public is able to access precise locality information of potential and active de-energization event impacted service points.	PG&E explained its plans to allow public access to precise locality information in our August 2020 Phase 2 Progress Report, <i>Section 3.4 Precise and Accurate Communications</i> pp. 11-12. Additionally, PG&E includes website and map accessibility during each of its five 2020 PSPS events in our ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Each electric investor-owned utility shall make every reasonable effort to avoid false-negative and false-positive communications.	PG&E explained efforts to avoid false-negative and false positive communications in our August 2020 Phase 2 Progress Report <i>Section 3.4. Precise and Accurate Communications</i> (pp. 11-12). Additionally, PG&E enumerates and describes the causes of any false positive and false negative communications for each 2020 PSPS event in our ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Additionally, each electric investor-owned utility shall make every reasonable effort to ensure the public is able to access precise and accurate information regarding the location and duration of potential and active de-energization events and restoration efforts.	PG&E explained its process to make every reasonable effort to ensure the public is able to access precise and accurate information regarding the location and duration of potential and active PPS events in its August 2020 Phase 2 Progress Report, <i>Section 3.4 Precise and Accurate Communications</i> , and <i>Section 3.5 Customer Notification Improvements</i> (pp. 11-14). Additionally, PG&E describes execution of providing location and duration for 2020 PPS events in our ESRB-8 post de-energization event reports (See Section 3 – Time, Place, and Duration).

D.20-05-041 Compliance Requirement	PG&E's Record of Compliance
Each electric investor-owned utility shall enumerate and explain the cause of any false communications in its post event reports by citing the sources of changing data.	PG&E enumerates and describes the causes of any false positive and false negative communications for each 2020 PSPS event in our ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
Lessons learned should be incorporated in ongoing de-energization communications and notifications to increase their accuracy and effectiveness.	PG&E describes lessons learned during each PSPS event in our ESRB-8 post de-energization event reports (See Section 14 – Lessons Learned from this Event). PG&E will use these 2020 lessons learned to inform potential de-energization communication and notification improvements for 2021. Proposed improvements will be included in PG&E's 2021 Wildfire Mitigation Plan, to be filed on February 5, 2021.
All notifications to customers regarding potential or active de-energization events shall be communicated with ease of readability and comprehension as a priority.	PG&E described customer notification improvements and provided communications examples in our August 2020 PSPS Phase 2 Progress Report, <i>Section 3.5 Customer Notification Improvements</i> (p.13 - 14). These notifications, and our website, have been formally tested to verified that they are easy to read and comprehend. As described in this section, we tested the reading levels of the website and PSPS customer notifications, which were at the 7th grade and 8th grade reading levels, respectively. In addition, PG&E includes examples of all customer notification scripts as attachments to our ESRB-8 post de-energization event reports (See Appendix C – Section 6 – Customer Notification Scripts).
Each electric investor-owned utility shall proactively reach out to media and community-based organizations to ensure consistent awareness of and availability to third parties of all messaging and map data, including application programming interfaces, that is used for de-energization events.	PG&E explained media and CBO outreach plans in three reports: <ul style="list-style-type: none"> • August 2020 Phase 2 Progress Report <i>Sections 3.6 CBO and Media Engagement</i> (at pp. 15-17); • PSPS 2020 AFN Plan and Quarterly Progress Reports (see December 2020 Quarterly AFN progress report <i>Sections 4.3 CBO Engagement and Resource Partnerships and 5.3 Media Engagement</i>); and • Each ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).
The electric investor-owned utilities shall retain and utilize the expertise of emergency situation user interface and user experience professionals to ensure planned and executed communication prior to, during, and following a de-energization event minimizes public confusion.	PG&E's August 2020 PSPS Phase 2 Progress Report <i>Section 3.6.2 CBO Engagement</i> (at p.16) explains our use of a vendor experienced in emergency situation user interface and user experience professionals to inform our 2020 PSPS communications. PG&E will continue using this vendor in 2021 to further improve customer communications.
Whenever reasonably possible, communications shall be in the language preferred by the customer.	PSPS customer notifications and “critical” wildfire and PSPS-related pages on our website are now available in 16 languages: English, Spanish, Chinese (Mandarin and Cantonese), Vietnamese, Korean, Tagalog, Russian, Arabic, Farsi, Punjabi, Japanese, Khmer, Hmong, Thai, Hindi, and Portuguese. Customers with their language preference set received in-language (translated) notifications. We also have contracts with five CBOs to provide in-language outreach communications to customers in indigenous languages (e.g., Mixteco, Tlapaneco, Triqui, Zapoteco, Maya, Nahuatl, Chatino, Chinantec. This includes PSPS preparedness outreach and in-event communications using social media, in-person communications, and one-on-one phone calls.

D.20-05-041 Compliance Requirement	PG&E’s Record of Compliance
	<p>PG&E describes its approaches for translating various types of materials in its print media and web content in our 2020 Outreach Workplan (e.g., clarifying instances when full translations are made available vs. tagline translations) (pp. 11-12). PG&E also provides a progress update on the translations support in our PSPS AFN December Quarterly Progress Report (at pp. 20 – 21). In addition, PG&E includes statistics of in-language customer notifications, website hits, and CBO interactions for each 2020 PSPS event in our ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).</p>
<p>Alternative communication formats should be made available for people with disabilities who may not be able to use standard forms of communication.</p>	<p>PG&E’s August 2020 Phase 2 Progress Report <i>Section 3.6.2 CBO Engagement</i> (p.16), explains our use of a vendor experienced in emergency situation user interface and user experience professionals to inform our 2020 PSPS communications.</p> <p>PG&E also includes details on this in our 2020 Q4 AFN Progress Report, <i>Section 4.5 Accessibility of Communications and Section 3.9.1 Identification and Support for Disabled and Vulnerable Customers Not Enrolled in the Medical Baseline Program</i> and Table 8 in that section. PG&E tests online content, videos and PSPS notifications for usability and accessibility to meet Web Content Accessibility Guidelines (WCAG) 2.0 AA accessibility standards. Approximately 900 customers have indicated a preference to receive utility communications in braille or large print. Our CWSP/PSPS customer information and materials are available in alternate formats, including Braille and large print, upon request.</p>
<p>Each electric investor-owned utility shall provide communications carriers with meter and circuit IDs to be de-energized and re-energized in advance of taking action to ensure communication carriers receive actionable notification information that can inform proactive deployment of resources to minimize the impact of the de-energization events on communications infrastructure.</p>	<p>PG&E provides lists of impacted meter ID and Circuit IDs to communications providers during events through the PSPS Portal. PG&E describes its interactions with communications providers during each 2020 PSPS event in our ESRB-8 post de-energization event reports, <i>Section 8 -- Communications and Water Provider Engagement</i>.</p>

4. Community Resource Centers (CRCs)

PG&E opens CRCs during a PSPS event to provide affected customers and residents a space that is safe, energized and air-conditioned or heated (as applicable) with the standard operating hours of 08:00 to 22:00 PDT. PG&E’s August 2020 PSPS Phase 2 Progress Report detailed our CRC strategy and plan. Additionally, PG&E describes all 2020 PSPS event-specific CRC activities in our ESRB-8 post de-energization event reports.²

As noted in previous Bi-weekly Reports Dashboards and ESRB-8 post de-energization event reports, PG&E shifted our approach to include more outdoor CRC sites due to COVID-19.

PG&E had 357 event-ready outdoor and indoor sites as of December 4, 2020. All 128 outdoor sites confirmed by counties are “event ready” as of December 4, 2020, along with 134 additional outdoor sites,

² www.pge.com/pspsreports

for a total of 262 outdoor sites that PG&E can open as needed for a PSPS event. We have also secured 95 indoor sites toward our December 31, 2020 target of 106. COVID-19 created delays in the process of confirming, accessing and hardening some indoor sites. We will continue to actively pursue indoor CRC sites to secure all 106 sites confirmed by local Offices of Emergency Services by end of year.

Beginning this year, PG&E used trained third-party customer representatives to staff all CRCs. All on-site CRC personnel must complete CRC trainings and are informed of CRC protocols as part of required PSPS training. Each type of CRC location is staffed with one Customer Lead Support, two Customer Support Staff, and one security person per shift. Table 4 includes a summary of the CRC activity during the 2020 PSPS events.

Table 4: PSPS CRC Activity Summary During the First Five 2020 PSPS Events

EVENT DETAILS		SEPT 7 – 10			SEPT 27 – 29			OCT 14 – 17			OCT 21 – 23			OCT 25 – 28		
CRCs	CRCs OPEN	50			29			40			19			106		
	CRC TYPES	Mobile	Micro	Indoor	Mobile	Micro	Indoor	Mobile	Micro	Indoor	Mobile	Micro	Indoor	Mobile	Micro	Indoor
		24	21	5	7	12	10	14	13	13	8	10	1	26	47	33
	CRC VISITORS	9,113			4,135			5,541			1,502			29,480		

During the 2020 PSPS events, when PG&E activated the Emergency Operations Center (EOC), we coordinated with county and tribal governments regarding CRC deployment strategies, types and locations. Outdoor Micro CRCs and Mobile CRCs were deployed when an indoor site was unavailable, and to support communities as physical distancing guidelines were in place due to COVID-19. Specific COVID-19 precautions to protect our customers and staff from COVID-19 exposure at CRCs are described in previously submitted reports. Table 5 includes the types of CRCs available for deployment and the resources available at each. These resources have been slightly adjusted since last reporting in our first PSPS Phase 2 Progress report.

Table 5: CRC Types and Resources

 Standard operating hours at all CRCs: 8 a.m. - 10 p.m.				
				
Details/Resources	Indoor	Tent	Micro	Mobile
CRC Overview	Indoor site (i.e., Community Center)	Soft-sided tent at outdoor site	Open air tents at outdoor site	Sprinter van and tents at outdoor site
If Physical Distancing Required	Grab-and-go bags*; metering and physical distancing	N/A; due to size limits of tent, will not use	Grab-and-go bags*; metering and physical distancing	
COVID-19 Health and Safety Measures	×	×	×	×
ADA-Accessible Restroom and Hand-Washing Station	×	×	×	×
Heating and Cooling	×	×		
Device Charging	×	×	×**	×**
Wi-Fi Service	×	×	×	×
Bottled Water	×	×	×	×
Non-Perishable Snacks	×	×	×	×
Tables and Chairs	×	×	×***	×***
Bagged Ice	×	×		
Blankets (quantities limited)	×	×	×	×
Security Personnel	×	×	×	×
Wind/Weather-Resistant	×	Limited		

*Bag contains device charger, water, snacks and info card. **On-site charging for medical devices only. ***Tables and chairs for customers charging medical devices.

COVID-19 Considerations

PG&E pivoted our original CRC plan for 2020 due to COVID-19 realities affecting the progress of site reviews, construction, and completion of indoor sites. PG&E introduced a new three-tier prioritization model for counties, based on the weighted average of PSPS event frequency in the area (30-year weather analysis and count of 2019 events) and impact (number of customers in high fire-threat areas and areas which had the most customers affected in 2019). PG&E classified 16 Group 1 counties (highest PSPS risk), 16 Group 2 counties (mid PSPS-risk) and 15 Group 3 counties (lowest PSPS risk). PG&E has previously provided the results of this prioritization in the Community Resource Centers Plan found in Appendix B of the first progress report on implementing Phase 2 de-energization guidelines filed on August 4, 2020.

We engaged with counties and tribes to share the anticipated timeline changes and worked with them individually on a plan for both indoor locations and outdoor supplemental locations. COVID-19 considerations are consistent across all CRC types and do not vary according to county priority groups.

Stakeholder Input

Prior to COVID-19, counties and tribes submitted their recommendations for CRC locations and resources.

- In subsequent conversations with counties and tribes regarding the impact of COVID-19, many supported supplementing indoor CRCs with outdoor CRC locations if shelter-at-home and physical distancing recommendations prevented the use of indoor CRCs.
- Counties and tribes provided input on the number and locations of indoor and outdoor CRCs provided in the CRC pivot plan.
- Counties and tribes requested and reviewed PG&E's COVID-19 guidelines for CRCs, including requiring facial coverings. We also communicated all resource centers reflect appropriate COVID-19 health considerations and state and county guidelines.
- Additionally, as reported in the Regional Working Group Summary submitted to the CPUC on September 9, 2020, the input from the working groups included ensuring CRC personnel are informed

on county Independent Living Center (ILC) information/resources offering additional support to individuals with access and functional needs.

- The Regional Working Group feedback also included implementing mobile CRCs for individuals that are not able to travel to one, as experienced last year. To meet this recommendation, PG&E is providing support to these customers through our Disability Disaster Access and Recovery Program, which includes providing transportation and other relevant resources, such as hotel vouchers and delivery of batteries.
- All feedback mentioned above was incorporated into our approach to the 2020 CRCs. Following the five 2020 PSPS activations, counties and tribes shared positive feedback on improvements made in 2020, including CRC types, resources, and locations

5. Restoration of power service upon conclusion of public safety need for de-energization

PG&E established a goal of making future PSPS events shorter in length, seeking to restore 98% of customers impacted by a PSPS event within 12 daylight hours. Our cumulative restoration performance was 95.5% relative to this internal goal for the first five PSPS events of 2020. Several constraints prevented us from achieving this ambitious internal target:

1. Significant smoke during the September 7 PSPS event hampered our ability to conduct aerial patrols to assess line damages and safe restoration conditions
2. Outage times extended due to the need to repair damage to our assets found during PSPS patrols
3. Lack of adequate patrol and restoration resources to restore all of the affected circuits for large PSPS events.

D.20-05-051 requires that electric service to impacted service points is restored as soon as possible and within 24 hours from the termination of the de-energization event, unless it is unsafe to do so. Additionally, it requires that for any circuits that require more than 24 hours to restore, the utility shall explain why it was unable to restore within this timeframe in its post event report. PG&E's cumulative restoration performance was 94.5% relative to the CPUC's 24-hour restoration requirement. Specific details regarding circuits that exceeded the 24-hour restoration requirement can be found in PG&E's ESRB-8 post-event de-energization reports.

Before the start of 2020 fire season, we made several changes to expedite restoration time after the weather event has cleared:

- Nearly doubled dedicated helicopters and trained aerial inspection personnel available for aerial patrols. By September 1, 2020, PG&E had procured 65 dedicated helicopters – an increase from 35 dedicated helicopters in 2019.
- Commissioned two fixed-wing aircraft with MX-15 cameras and infrared technology for use during day-and-night-time transmission line patrols.
- Implemented new standards and procedures to improve operational management of PSPS Estimated Time of Restoration (ETOR) and associated customer notifications.

- Conducted helicopter circuit patrols in Tier 2 and Tier 3 and High Fire Risk Areas (HFRA) areas to collect data and identify air and ground patrol methods and requirements before potential 2020 PSPS events, to improve restoration planning, crew allocation and (ETOR) forecasting.

D.20-05-051 requires that, to the extent possible, electric IOUs shall provide a one-hour notice in advance of re-energizing a line, first to public safety partners and operators of critical facilities and critical infrastructure and immediately thereafter to impacted utility customers. This requirement continues to be a challenge to operationalize, as noted in PG&E's August 2020 PSPS Phase 2 Progress report (at pp. 22 – 23). However, for customers affected by PSPS, PG&E has created new processes to provide more accurate, timely and updated restoration times to customers to help them effectively plan for the time their power will be turned on. These new processes were executed during the first five PSPS events in 2020 and described in each ESRB-8 post de-energization event reports (See Section 6 - Customer Notifications).

PG&E has made significant improvements to its customer notification processes in 2020. We provided expected outage start and finish times at the time of first notification to customers and updated relevant impact times throughout the event when appropriate and feasible, including notifications about forecast ETORs, once the Weather All Clear is declared and patrols begin, if damage was found that will delay restoration, and once electric service has been restored. We are looking for ways to improve ETOR communication for 2021 PSPS events.

6. Transportation, Communications, and Water Systems

6.1 Critical Facility Identification

As of December 1, 2020, PG&E has identified approximately 72,000 customer facility service points (meters) designated as critical facility / critical infrastructure,³ including Public Safety Answering Points and the transportation sector.⁴ Approximately 29% of these customers are more likely to experience a PSPS event because they are located in or are served by lines that traverse a Tier 2 or Tier 3 High Fire Threat Districts (HFTD). Approximately 67% (48,000) are also Public Safety Partners (including telecommunications providers, transportation, first responders and 911 answering points, water agencies and hospitals that provide emergency services).

Beginning in May 2020, PG&E contacted all cities, counties, and tribes (a total of 327) in its service area and asked them to confirm and verify the critical facilities within their respective jurisdictions and suggest any additional facilities that PG&E should add to the Critical Facility list. Fifty agencies responded, recommending approximately 200 additional facilities for critical designation that were incorporated into our system of record. We will provide another opportunity for agencies to provide critical facility feedback in 2021.

6.2 Critical Facility Engagement During 2020 PSPS Events

During each of PG&E's five PSPS events in 2020, PG&E sent automated notifications to critical facilities and asked them to confirm receipt of the notifications. If any did not confirm receipt of the automated

³ PSPS Phase 1 D.19-05-042, Appendix A, p. A4

⁴ PSPS Phase 2 D.20-05-051, Appendix A, p.9

notification, PG&E representatives from local Operations Emergency Centers (OEC), Customer Relationship Managers (CRMs) or Critical Infrastructure Lead (CIL) made direct calls to the critical facility contacts to ensure they were aware of the upcoming PSPS event, and provided localized support for other public safety partners such as water agencies and emergency hospitals. This process is described in PG&E’s ESRB-8 post de-energization event reports (See Section 6 – Customer Notifications).

6.3 Backup Power Support Provided During PSPS Events

PG&E used its rented fleet of temporary generators to mitigate the impacts of PSPS for some critical facility customers and areas in scope for PSPS de-energization. Temporary generators were used to energize substations, temporary mid-feeder microgrids, and stand-alone facilities serving COVID-19 pandemic response, vote tabulation centers, and other public safety functions.

Table 6 includes a summary of the service points of transportation, communications, and water systems facilities that were supported by multi-customer microgrids (mid-feeder and substation) across PG&E’s five PSPS events to date in 2020.

Table 6: Communications, Transportation and Water System Facilities Customers Supported by PG&E-provided microgrids during PG&E 2020 PSPS Events

2020 PSPS Event	September 7	September 27	October 14	October 21	October 25
Communications	50	2	19	0	78
Transportation	19	1	2	0	25
Water	46	6	21	0	62
Total	115	9	42	0	165

While as a general policy, PG&E does not offer temporary generation backup power support to individual facilities, we do make exceptions when feasible to respond to circumstances impacting public safety and other important societal impacts. In accordance with this policy, PG&E’s Emergency Operations Center deployed temporary generation and/or engineering support⁵ to multiple transportation and water systems facilities customers that requested backup power support during the 2020 PSPS events. Table 7 includes a summary of the support provided by PG&E to transportation, water and other critical facilities during the 2020 PSPS events to date.

⁵ Engineering support was provided to a subset of customers that leased equipment from temporary generator vendors and needed to island from PG&E’s electric distribution grid. PG&E did not deploy additional generators to those customers but is counting them among those to which it provided backup power support.

Table 7: Transportation and Water System Facilities Customers Supported by PG&E-provided Emergency Backup Power Support during PG&E 2020 PSPS Events

2020 PSPS Event	September 7	September 27	October 14	October 21	October 25
Transportation	0	0	0	0	1
Water	2	1	1	0	9
Other Critical Facilities (e.g. hospitals, fire stations)	10	2	2	0	14
Total	12	3	3	0	24⁶

For more information regarding PG&E’s use of temporary generation to support customers during PSPS events, including details about counties supported and Megawatts (MWs) deployed, see PG&E’s PSPS ESRB-8 post de-energization event reports (Section 13 – Mitigations to Reduce Impact).

6.4 Electric Vehicle (EV) Charging Network Support

6.4.1 EV Charging Network Resiliency Plan

To summarize efforts described in the first progress report on the Phase 1 de-energization guidelines submitted on August 4, 2020, using data compiled from the Alternative Fuels Data Center (AFDC), PG&E conducted internal analysis to identify the number of public Level 2 (L2) and Level 3 (L3) chargers located in Tier 2 and Tier 3 HFTD. We then overlaid with 2019 PSPS event information to identify impacted L2 and L3 charger locations. We found a relatively low percentage of charging stations within our 2019 PSPS footprints and expect that to shrink further with planned scope reductions of PSPS events.

PG&E expects there will be accelerated numbers of public charging locations to meet ambitious state EV goals.⁷ We will maintain awareness of EV charging locations and use our new EV impact assessment methodology⁸ and PSPS mitigation efforts, such as sectionalization and microgrids, to reduce potential de-energization impacts of public charging sites.

PG&E will continue to refine our impact assessment methodology using 2020 PSPS event and weather data. We will continue to explore the potential for tighter integrations with PSPS operations and processes to provide granular assessment and faster communications of impacted charging locations. With two years of PSPS data, we will start to develop the capability to assess year-over-year trends that inform PG&E on the locations which are more frequently impacted by PSPS events that do not have permanently installed grid solutions. We can use this data to explore whether further EV resiliency solutions, like backup generation or mobile fast charging, can minimize PSPS impacts to EV resiliency at these locations in a low-carbon, safe, reliable and affordable way.

6 Includes two customers to which PG&E provided engineering support for islanding but did not deploy additional generators during the PSPS event. Note that in the ESRB-8 PSPS Event Report for the October 25, 2020 event (at pp. 61-62), PG&E reported only the 22 customers to which we deployed backup generators.

7 See California Governor Gavin Newsom’s Executive Order N-79-20, which requires the sales of all new passenger vehicles to be zero-emission by 2035 and includes additional measures to eliminate harmful emissions from the transportation sector. <https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-dramatically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/>

8 See PG&E’s first progress report on Phase 2 de-energization guidelines at p. 25 and Appendix C: EV Charging Network Resiliency Plan.

6.4.2 EV Feasibility Study

PSPS Phase 2 D.20-05-051 requires each IOU to “implement a pilot project to investigate feasibility of mobile and deployable electric vehicle (EV) L3 fast charging for areas affected by de-energization events.” Since the last update, PG&E has continued to explore emerging technologies and possible turn-key solutions. PG&E is also leveraging an existing research-based subscription service to expedite the search for EV charging solutions to inform the forthcoming Request for Information (RFI) by early 2021. PG&E is on track to deploy one or more mobile DC fast-charge solutions by the 2021 fire season.

6.4.3 Customer and Electric Vehicle Service Providers (EVSP) Engagement

PSPS Phase 2 D.20-05-051 also requires IOUs to coordinate with EV network information providers to communicate on IOU public websites and mobile apps, to the extent possible, L3 and public L2 chargers in proximity to areas potentially impacted by PSPS events. PG&E started this coordination with Electric Vehicle Service Providers in July 2020. As a first step to providing robust information to EV customers during PSPS events and leveraging EVSP communications platforms, PG&E emailed PSPS updates to EVSPs with information on counties impacted, number of customers, and expected duration of PSPS events at all stages of a PSPS event. PG&E also gave EVSPs a link to public-facing webpages with PSPS event information, including maps.

During PSPS events, PG&E’s website defaults to a PSPS information site; customers looking for information on EV charging stations are redirected to mapping resources found on PG&E’s Locate an EV Charger Page (ev.pge.com/charging-stations), which allows customers to find charging locations near them or along their route. Customers can confirm the charging station’s status by visiting the network provider’s page, which is linked on PG&E’s EV Savings Calculator. Planned information enhancements for the 2021 wildfire season include EV charging station maps that show which stations may be affected by PSPS de-energization, direct outreach to EV customers about PSPS impacts to EVs, and continued collaboration with EVSPs to support communication efforts with EV owners.

7. Medical Baseline and Access and Functional Needs Populations

On June 1, 2020, PG&E filed our 2020 PSPS AFN Plan, which provided a detailed overview of the approach that PG&E takes to serve customers with access and functional needs. This includes accounting for advisory council feedback and incorporated customer research, providing programs and services, emergency preparedness outreach, and PSPS event communications provided to customers with access and functional needs. On September 1, 2020 and December 1, 2020, PG&E filed two subsequent updates with quarterly progress reported on the plan. These progress reports contain more details on PG&E’s execution of the 2020 AFN Plan, while the five ESRB-8 post de-energization event reports detail how the plan was implemented to support our AFN customers in this year’s PSPS events (See Section 6 – Customer Notifications).

PG&E will file a new 2021 PSPS AFN Plan on February 1, 2020, as required by the CPUC’s Phase 2 PSPS Decision.

8. Transparency

In 2020, PG&E filed over 10 WMP and PSPS-related plans and progress reports and made additional information available to the public and stakeholders on our website related to PSPS preparations,

activities and execution. See Appendix A: Relevant WMP and PSPS-related Reports and Web Resources for a list and reference to these reports and relevant webpages.

PG&E will continue to submit all required regulatory reports to the CPUC to meet the reporting requirements, including ESRB-8, PPS Phase 1 D. 19-05-042, PPS Phase 2 D. 20-05-051, WMP Outreach D.20-03-004, WMP Resolution WSD-003.

On a bi-weekly basis, PG&E will provide updated versions of the attached PG&E CWSP Wildfire Mitigation Plan Progress Update through a link prominently displayed from the main www.pge.com/wildfiresafety landing page.⁹ The 2020 Q2 Update of the PG&E CWSP Wildfire Mitigation Plan was posted on November 21, 2020 and includes PPS related progress and completion dates.

In addition to required regulatory reports, PG&E has also received and responded to over 200 PPS related data requests consisting of over 700 questions to date in 2020.

On February 5, 2021, PG&E will submit our 2021 Wildfire Mitigation Plan. We will include specific short, medium, and long-term actions being taken to reduce the impact of and need for de-energization events to mitigate wildfire risk and make that information available and easily accessible on our public website.

9. Definitions

As previously reported in the first Progress Report on Phase 2 OIR Implementation of De-Energization Guidelines (filed on August 4, 2020), PG&E incorporated public safety answering points that serve 911 emergency call services and the transportation sector in its definition and identification of critical facilities. There are no changes to the last update.

⁹ See sections titled “See Our Progress” and “See Our Progress By County” under the Community Wildfire Safety Program Resources section of the webpage.

Appendix A: Relevant WMP and PSPS-related Reports and Web Resources

Table 8 and Table 9 provide a list of the relevant WMP and PSPS-related plans and progress reports and web resources available to the public, respectively.

Table 8: List of Relevant WMP and PSPS-Related Reports

Description	Proceeding or Decision Requirement	Frequency	Link to Reports	Filing Date / Last Updated
2020 PSPS Event Reports	ESRB-8; D.19-05-042 (OP1)	Within 10 business days after PSPS event restoration	Oct. 25-28, 2020: PSPS Post Event Report	11/12/20
			Oct. 21-23, 2020: PSPS Post Event Report	11/06/20
			Oct. 14-17, 2020: PSPS Post Event Report	10/30/20
			Sept. 27-29, 2020: PSPS Post Event Report	10/13/20
			Sept. 7-10, 2020: PSPS Post Event Report	9/24/20
Status of PSPS Corrective Actions and Improvements	January 30, 2020 ACR in R.18-12-005	Bi-weekly	Nov 17, 2020: Last Filed Bi-Weekly Report	Last Filed 11/17/20
2020 PSPS Access and Functional Needs (AFN) Plan	D.20-05-051 (Conclusion of Law 36)	Annually	2020 PSPS AFN Plan	06/01/20
PSPS AFN Quarterly Progress Report		Quarterly	2020 First Quarterly Progress Report	09/01/20 ¹⁰
			2020 Second Quarterly Progress Report	12/01/20
Wildfire Mitigation Plan Quarterly Report	Resolution WSD-003	Quarterly	WMP Quarterly Report for May – July 2020	09/09/20
Regional Working Groups Feedback Summary	D.20-05-051 (Conclusion of Law 4)	Quarterly	Regional Working Group Feedback Summary	09/09/20
Progress Report on Implementation of Phase 2 OIR De-Energization Guidelines	D. 20-05-051 (OP 4)	Two Reports: 2 months and 6 months after final decision	First PPS Phase 2 Progress Report	08/04/20
Progress Report on Implementation of Phase 1 OIR De-Energization Guidelines	D.19-05-042 (OP3)	Two reports: 3 months and 9 months after final decision	Second PPS Phase 2 Progress Report	03/04/20
			First PPS Phase 2 Progress Report	09/04/19
CWSP Outreach Workplan	D. 20-03-004 (OP 1 and 22)	One time	2020 CWSP Outreach and Translations Workplan and Budget	05/15/20
	D. 20-03-004 (OP 15)	One time	2019 Wildfire Safety Survey Results	06/01/20
	R.18-10-007	One time	CWSP Outreach Workplan Progress Update	10/07/20
PG&E CWSP Wildfire Mitigation Plan Progress Update	D.20-05-051 (Appendix A p. 9)	Bi-weekly	Overall CWSP Progress	11/18/20
			Bi-weekly Progress by County	09/01/20

¹⁰ Amended on October 20, 2020

Table 9: PG&E Online Resources

Name of Web Page	URL Link
PG&E Website	www.pge.com
PG&E Wildfire Safety	www.pge.com/wildfiresafety
PG&E PSPS Overview	www.pge.com/psps
PG&E Emergency Website	pgealerts.alerts.pge.com
PG&E PSPS Portal	www.pge.com/pspsportal
PG&E Weather Forecast	www.pge.com/weather
PG&E Safety Action Center	www.safetyactioncenter.pge.com
PG&E PSPS Reports	www.pge.com/pspsreports
PG&E PSPS Language Support Services	www.pge.com/pspslanguagehelp
PG&E PSPS Resources for Customers with Accessibility, Financial, Language and Aging Needs	www.pge.com/disabilityandaging
PG&E Medical Baseline Program	www.pge.com/medicalbaseline
PG&E Backup Power Resources	www.pge.com/backuppower
PG&E 2020 Wildfire Mitigation Plan	www.pge.com/2020wmp
PG&E CWSP Wildfire Mitigation Plan Progress Update - Systemwide	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/CWSP-SeeOurProgress.pdf
PG&E CWSP Wildfire Mitigation Plan Progress Update – By County	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Local-Progress-Update-by-County.pdf